

**An Evaluation of the Public Participation Practice in
Environmental Development Projects in Thailand:
A Case Study of the Hin Krut Power Plant Project**

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the degree of Doctor of Philosophy to the School of Environmental Sciences
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Abstract

Public participation has become a vital part of environmental decision-making and has grown significantly in Thai society due to rising pressure from the public. However, it often fails to solve environmental problems. In particular, many development projects have faced conflicts and difficulties during the planning and implementation stages due to public opposition. In practice, public participation has faced problems and disruptions resulting in skepticism over its performance. The limited evaluation of public participation to date makes improvement of this practice more difficult. Thus, it is essential to derive a framework for evaluating the public participation process and examining whether it is effective and how to improve future practice.

The research strategy focuses on the single case study of the Hin Krut power plant project which experienced high levels of conflict. The effectiveness of the public participation process was measured through an evaluation framework developed from relevant literature. The evaluation focused on the different perspectives of the participants in the public participation process as well as the roles and influences that they had. Purposive sampling and stratified non-random sampling were applied to select research participants from stakeholders groups. Data collection methods were literature reviews, structured, semi-structured and in-depth interviews.

The study found that in Thailand the public participation process was not completely effective when tested against the evaluation criteria. The conflict was not resolved and hostility towards the project was not eliminated. A low level of public participation, which was restricted to information provision and consultation, caused a major problem in the project's implementation. A number of individual, structural and legislative barriers to effective participation were identified. It was found that the highly institutionalised nature of the Thai government still greatly influences the decisions, meaning that the authorities did not address the public's concerns in a proper manner. Effective public participation requires a carefully designed and planned process suited to the specific context and conditions. The thesis concludes that public participation is still not appropriately established in Thailand; a number of problems concerning the implementation of public participation practice still exist and need to be solved. There is an urgent need to find a working model and conditions of public participation which can assist in resolving environmental problems.

Statement of Originality

This thesis has not previously been submitted for any degree in other universities. There is no material previously published or written by another author excluding where reference is made. Unless otherwise noted or referenced in the text, the content in this thesis is that of the author.

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Abbreviations

ADR	Alternative Dispute Resolution
B.E.	Buddhist Era
DAD	Decide-Announce-Defend
DEIE	Division of Environmental Impact Evaluation
DEQP	Department of Environmental Quality Promotion
DIW	Department of Industrial Works
EIA	Environmental Impact Assessment
EGAT	Electricity Generating Authority
FGD	Flue-Gas Desulphurisation
HIA	Health Impact Assessment
IPP	Independent Power Producers
MOI	Ministry of Industry
MONRE	Ministry of Natural Resources and Environment
MOSTE	Ministry of Science, Technology and Environment
MW	Mega-Watts
NEB	The National Environmental Board
NEQA	Enhancement and Conservation of National Environmental Quality Act
NGOs	Non-Governmental Organisations
NIC	Newly Industrialised Country
NIMBY	Not In My Back Yard
OEPP	Office of Environmental Policy and Planning
OIC	Official Information Commission
ONEB	Office of the National Environment Board
ONEP	Office of Natural Resources and Environmental Policy and Planning
PCD	Pollution Control Department
PEP	Profile-Educate-Participate
PPA	Power Purchase Agreement
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment

TAO

Tambon Administrative Organisation

UPDC

Union Power Development Company Limited

Chapter 1: Introduction to Public Participation and Environmental Problems in Thailand

1.1 Introduction

The main objectives of this thesis are to examine and evaluate the practice of a public participation process in a particular context of a young democratic society in Thailand, as well as to make recommendations to improve this endeavour. Thus, as an introduction to the study, this chapter aims to provide a rationale for a study of public participation focusing on the importance of the process as a means of environmental conflict resolution in development projects. This chapter describes the issues related to the environmental problems associated with development projects in the Thai context and the current Thai legal framework with respect to public participation. The relationships between public participation and the Environmental Impact Assessment process in Thailand are described. This chapter also justifies the objectives of the thesis and research questions. Finally, the outline of the thesis is presented.

1.2 Environmental problems in development projects in Thailand

Over the last four decades, the rapid growth in the economy, in particular within the industrial sector, and the export-oriented government policies in the 1980s, (which lacked careful planning regarding resource use and protection of the environment) (Intaraparvich and Clark, 1994; Bureekul, 2000; Thailand Environmental Institute, 2005), have raised the demand for exploitation of environmental and natural resources in Thailand (Ogunlana *et al.*, 2001). The period from 1987 to 1996 was called the “Golden Era of the Thai economy” (Office of Environmental Policy and Planning, 1998b). To support the export-oriented policies, the government has promoted small-scale labour intensive units and encouraged foreign direct investment and joint ventures, as a result of which, the Thai

economy was able to reach out and share in the global market. Before the 1997 economic crisis, the economic growth rate peaked at around 10% per year based on low costs of production compared with competing countries (Thabchumpon, 2002). With respect to the economic growth experienced over the decade, Thailand underwent considerable industrial development and became a newly industrialised country (NIC). This rapid change has transformed Thailand from being a mainly agriculture-based economy with industrial output used for domestic trade, into an intensively industrial country dominated by manufacturing for international import-export (Reutergardh and Yen, 1997; Office of Environmental Policy and Planning, 1998b).

Regarding the rapid economic growth and industrial development, natural resources were rapidly and dramatically exploited to support these fundamental changes and development (Office of Environmental Policy and Planning, 1998b; Nicro and Apikul, 1999). Alongside this development, serious environmental problems emerged across the country (Thabchumpon, 2002; Violette and Limanon, 2003), especially in terms of a substantial depletion of natural resources and pollution of the environment (Muanpawong, 1999; Bureekul, 2000; Shytov, 2003). As a result, the environment has degraded to the point where it might impede future economic development (King Prajadhipok's Institute, 2007).

Not only did the rapid economic growth and the export-oriented policies increase environmental problems, but also an ineffective management of the environment and natural resources exacerbated these issues (Thabchumpon, 2002; Thailand Environmental Institute, 2005). The management approach of the Thai government, endorsing development strategies based on the growth of economic and industrial sectors, rather than establishing a strategy of integrating social and environmental issues (Shytov, 2003), has caused many conflicts over natural resource usage and allocation (Thabchumpon, 2002). The disputes between water users in agricultural and industrial sectors, such as, rock salt mining in the Northeast, export-oriented prawn farming in the South, and land speculation related to tourism and industrial development throughout the country, are examples (Thailand Environmental Institute, 2005). New settlements in forests, extensive deforestation and commercial eucalyptus plantations have also led to many conflicts between people and government agencies (Bureekul, 2000). Environmental development funding has always been at critical levels, lower than that of economic and social development (Thailand Environmental Institute, 2005).

Accordingly, a number of large-scale development projects such as dams, power plants or waste disposal facilities have been initiated to contribute to the country's development as well as to promote economic growth and industrial investment (Beierle, 2001; King Prajadhipok's Institute, 2007; Trethanya and Perera, 2009). When a large infrastructure project is constructed, many changes occur and this is reflected in massive disturbance to the environment, such as land use changes or pollution. The effects of these large-scale projects affect a large number of lay people, their culture and ways of life (Vatanasapt, 2003). The results from these development projects may satisfy only some groups of people and eventually transform into the public opposition and conflict (King Prajadhipok's Institute, 2007). Besides, environment impacts associated with these projects are often poorly considered or perceived as less important relative to the pursuit of economic growth (Trethanya and Perera, 2009). These impacts have a potential to cause significant controversy and conflict, especially in the local area where development projects are planned to be undertaken (Vatanasapt, 2003; Violette and Limanon, 2003). It could be said that the consequences from these development projects not only affect the quality of the environment adversely but also cause serious conflicts among stakeholders in resource use and allocation (Thailand Environmental Institute, 2005).

In recent years, most of the public and large scale environmental development projects in Thailand have been delayed or postponed because of environmental and social conflicts among stakeholders, in particular between project proponents and local communities (Ogunlana *et al.*, 2001; Jarusombat, 2002; Chaisomphob *et al.*, 2004). Most development projects in Thailand have constituted a top-down approach and have frequently been constructed whilst ignoring the public's opinion and concerns about the projects (Manowong and Ogunlana, 2006). When any large construction project is initiated, people are often frustrated with the partial information they receive about the project. Citizens are usually not consulted in advance, or asked for their views on the decisions influencing them. This leads to frustration which frequently contributes to project opposition (Awakul and Ogunlana, 2002). The consequence of the opposition is reflected in an increase of operating cost and hostility towards the projects (Ogunlana *et al.*, 2001).

For example, in the 1980s, the Thai government proposed the construction project, the Nam Choan Dam, which would massively impact a wildlife sanctuary. This project was

widely opposed. The long period of public participation in opposing the construction, which finally ended with the victory of the project's opponents, became a significant force in Thailand's environmental movement. This event can be argued to be the first event of public participation in environmental management in Thailand. Since then, many environmental movements have used public participation to influence government development projects (Bureekul, 2000). Coal-fired power plants, in particular, have faced public conflict since local communities have worried about the diverse impacts on the environment (Chaisomphob *et al.*, 2004).

Development cannot be denied and is needed but the process through which the government or the project owner explains the project and gains support from local communities has been flawed (Vatanasapt, 2003). Conflicts from implementation of development projects in Thailand are typically associated with the deficiency of public participation (Ogunlana *et al.*, 2001; Thailand Environmental Institute, 2005). To solve this problem, a number of scholars recommend that public participation should be appropriately undertaken in the decision-making process of development projects (Ogunlana *et al.*, 2001; Bond *et al.*, 2003; Chaisomphob *et al.*, 2004). Through public participation, in particular involving impacted communities, and the appropriate handling or management in project planning and implementation by the government or authorised agencies, conflicts can be prevented and lead to more acceptance of the project within the impacted community (Cook and Donnelly-Roark, 1994; McLaren, 1994; Thabchumpon, 2002). It is essential to examine the stakeholder's perspective on the factors contributing to conflicts for the purpose of understanding what project proponents and the interested parties can do to decrease opposition to the projects. The project owners can reduce conflicts by involving different parties in the decision-making process of their project by paying attention to the reasonable voices from stakeholders (Awakul and Ogunlana, 2002).

Indeed, the main causes of the conflicts in development projects are not only the lack of information and participation for impacted people, but also in terms of the lack of legal enforcement (Ogunlana *et al.*, 2001). Historically, the Thai government's handling of the environmental concerns under the existing laws and mechanisms has obviously failed to resolve the conflicts among stakeholders (Muanpawong, 1999; Jarusombat, 2002). More details are discussed in the following section.

1.3 Institutional, legal and regulatory framework for public participation in Thailand

The dramatic changes in the fundamental structures of Thai society have been a cause of environmental and social conflicts (Nicro and Apikul, 1999) and this problem needs an effective approach to dealing with this problem, including legal support. In the Thai political and legal system, the government has absolute power and full authorisation to manage and maintain natural resources and the environment (Muanpawong, 1999; Jarusombat, 2002). In the past, environmental management in Thailand was only the responsibility of the government. All policies, strategies and enforcement activities concerning environment and natural resources were thus, in the hands of government officials. Citizens had to comply with all the related laws and regulations. The Thai government did not take seriously the protection of the environment and natural resources (Bureekul, 2000).

Historically, environmental laws and regulations were all the responsibility of the Royal Forestry Department, Ministry of Agriculture in which the main remit covered protection of the forest and wild animals (Royal Forestry Department, 2000). In 1972, after participating in the Stockholm Conference on the human environment, the government recognised the need for environmental management. Subsequently, the National Environmental Board (NEB) and the Office of the National Environment Board (ONEB) which served as its Secretariat were established as a central authority to coordinate environmental management (Office of Environmental Policy and Planning, 1998b). These were the first government organisations responsible for handling environmental problems in the country (Reutergardh and Yen, 1997). Since then the environmental management process subsequently started and environmental laws and regulations were initiated. The Thai legal system was influenced by the international mainstream which emphasised the right of the public to participate in environmental protection (Shytov, 2003).

In 1975, Thailand's first national environmental quality act, the Enhancement and Conservation of National Environmental Quality (NEQA) Act B.E. 2518 (1975), was enacted and it radically changed the overview on environmental management in Thailand. The Prime Minister was the Chairman of the NEB with nine ministers as members.

Established in 1992, the office of environmental policy and planning, the department of environmental quality promotion and the pollution control department have played important roles in the country's environmental management since then. Under this act, the issue of public participation was first identified. Decentralisation of responsibility for environmental actions to the provincial governors was implemented (Reutergardh and Yen, 1997). However, at this early stage, this legal framework was unable to effectively solve the environmental problems and public participation was not well established (Jarusombat, 2002).

Public participation has been continuously adopted and developed into the Thai regulatory framework since the government recognised its importance and capability for solving environmental conflicts in Thailand (Violette and Limanon, 2003). Accordingly, the concept of public participation was officially introduced into Thai society through different laws and regulations, especially at national level (King Prajadhipok's Institute, 2007). Thailand's core laws and regulations concerning the rights of citizens to participate in environmental management are: the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992); A Prime Minister's Public Hearing Order B.E. 2539 (1996); the Constitution of the Kingdom of Thailand B.E. 2540 (1997); The Official Information Act B.E. 2540 (1997); and the Regulation of the Office of the Prime Minister B.E. 2548 (2005). In addition, most recently, in 2007, the Constitution of the Kingdom of Thailand B.E. 2550 (2007) was declared. This new constitution explicitly responds to weaknesses of the old constitution (Hicken, 2007) and it is valuable to review this in order to determine its political and environmental context to correctly understand the present Thai system. These laws and regulations are examined in more detail, in particular their changes and implications, in the following section.

1.3.1 The Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992)

This Act has been modified from previous versions (the 1st version B.E. 2518 (1975), the 2nd version B.E. 2521 (1978), and the 3rd version B.E. 2522 (1979)). Currently, this 4th version is still in use. The new NEQA act was introduced and came into force in June 1992. Its main purpose is to set and follow the environmental policy, plan, and standards

to protect the environment by providing basic provisions for environmental protection in aspects of natural resources and pollution control (Office of Environmental Policy and Planning, 1998b), as well as aiming to be a comprehensive environmental law incorporating varied aspects of environmental management in Thailand. The NEQA has also incorporated a number of initiatives, in particular a concept of public participation, aiming to implement effective environmental management and regulations (Mallikamarl, 1996). More details of these issues are provided below.

The issue of public participation is prominently highlighted in this act (Shytov, 2003). Sections 6 and 7 state that for the purpose of public participation in issues concerning the enhancement and conservation of national environment quality, people have rights to be informed and to obtain information from the government authorities (Office of the Council of State, 1992). Not only is the right to be informed of environmental information provided, the NEQA assures the people rights and duties to receive compensation from the state in cases where damage is inflicted by the dispersal of pollution or any pollution resulting from the projects or activities of the government (Office of Natural Resources and Environmental Policy and Planning, 2004). Besides, to encourage public participation in the promotion and conservation of environmental quality, non-governmental organisations (NGOs) shall be entitled to register with the Ministry of Science, Technology and Environment (MOSTE) for environmental protection and conservation of natural resources in order to comply with the law. According to this act, NGOs are encouraged in their public participation role of supporting better enhancement and conservation of the country's environmental quality (Office of Environmental Policy and Planning, 2002).

Importantly, in recognition of possible pollution problems, the NEQA 1992 stipulates requirements for the Environmental Impact Assessment (EIA) procedure making the EIA process more clear and reducing the time needed for its completion (Tongcumpou and Harvey, 1994). It specifies that any projects or activities that may cause significant impacts to the environment must have an assessment of their environmental impacts before the projects or activities are implemented (Office of the Council of State, 1992). This statute aims to ensure that projects or activities must be compatible with the environment (Mallikamarl, 1996).

Section 46 of the NEQA 1992 states that for the purpose of promoting environmental quality and conservation, ministers with approval from the NEB, have an authority to specify which types and sizes of projects or activities, of any government agency, state enterprise, or private party, which are likely to cause significant environmental impact, are required to submit reports on environmental assessment for submission for approval, in accordance with sections 47, 48, and 49 of this act. Evidence of the submission of these must be announced by publishing a notice in the Government Gazette. In terms of what has to be notified, procedures, rules, methods, and guidelines are prescribed for the preparation of environmental impact assessment reports for each type and size of project or activity, including related documents that are required to be filed together with the report. This is because the EIA report should include a pollution mitigation plan as well as a pollution monitoring programme which have to be judged by the assessment committee prior to the project approval (Office of the Council of State, 1992). In some important cases, such as a large project that may cause negative effects to the wider public, this kind of project must be approved by the cabinet (Muanpawong, 1999). The issue of the EIA adaptation and practice is explained in detail in section 1.5.

However, there are some weak points in this statute. First, with respect to section 8 of this act, only registered NGOs are granted rights to formally participate in the decision-making process. Citizens are not able to use their rights as private individuals. Their rights must be used via non-governmental organisations. This approach does not work well because the information transmitted to the decision-makers through third parties may be distorted. Additionally, peoples' rights are not defined clearly and do not conform with the current constitution in respect of the right to know, right to access public information, right to monitor and audit the quality of environment, and also the right to ask for public hearings (Muanpawong, 1999; Bureekul, 2000). Second, the general provisions related to public participation are poorly developed in the rest of this significant act (Shytov, 2003). Finally, the NEQA 1992 has not clearly identified how public participation is to be formally addressed in EIA procedures. As a result, the practice of implementing public participation has still to be improved (Nicro and Apikul, 1999). More details are discussed in section 1.5.

1.3.2 A Prime Minister Public Hearing Order B.C. 2539 (1996)

The Prime Minister Public Hearing Order B.C. 2539 (1996) was enacted under the Secretariat Office of the Prime Minister as the guideline for arranging public hearing activities and is applied to any project or activity that might cause negative effects to the environment or, finally, may introduce a disagreement into a society (Muanpawong, 1999). It includes the principles and processes in public hearings for the formal discussion of national problems or controversies. The purpose of this activity is to collect useful information from stakeholders for government decision-making so that a decision can be made on the foundation of objective facts (Office of the Council of State, 1996). Moreover, it is a significant provision prescribing the detailed procedure of how the citizen can be involved in an administrative decision-making process (Muanpawong, 1999). Section 14 provides that citizens have the right to object to a project, and to participate in the hearing to articulate their views and evidence (Office of Prime Minister, 1996). Since 1992, many public hearing activities have been arranged; many of them relating to huge development projects with potential effects on the quality of people's lives and the environment. In practice, however, the procedures have still been obstructed by some difficulties, for example, an unclear authority of the administrators (Muanpawong, 1999; Mantalumpa *et al.*, 2000); limitations on the projects that can have a public hearing (Muanpawong, 1999); and unsystematic procedures (Muanpawong, 1999; Bureekul, 2007).

Firstly, the condition to carry out this process is not a direct duty of any department since they are not obliged by law to do so (Muanpawong, 1999). According to section 7-9, the decision to run the hearing depends on the discretion of the minister or the provincial governor. Section 8 of this directive states that if the minister or the provincial governor considers that the project or activity will not affect the environment, and will not bring great controversy to the public, the hearing will not take place. This decision is final. According to this regulation, members of public hearing committees are selected from different well-known institutions; for instance academics, members of parliament, representatives of the Council of Lawyers, and some technical experts. Their main responsibilities are to monitor the process of listening to the public through these public hearing activities; to set up public hearing processes; and, to prepare public hearing reports

for the Cabinet (Office of Prime Minister, 1996). Regarding this point, there is a view that the requirement to run the public hearing should be stipulated by law and should not depend on the judgment of the authorities (Muanpawong, 1999).

In Thai experience, only a few public hearings were carried out, and most of these hearings were carried out because of strong requests and pressure from the public. They did not take place on the initiative of the government. In addition, they were organised after the decisions about the development project or activities were already made (Muanpawong, 1999). As a result, the public hearing in Thailand is perceived as a process that cannot stop unrest, and was always too late to solve conflicts (Mantalumpa *et al.*, 2000). The important cases of public hearings in Thailand, which were perceived as unsuccessful, include the Yadana gas pipeline project and, particularly, the Hin Krut power plant project.

Secondly, the applicability of this directive is limited to the state's projects only. This means that private projects are excluded, even though these projects could cause significant damage to the environment (Muanpawong, 1999). It could be argued that development projects, either initiated by the government or private sector which may cause significant impacts to the environment, must conduct a public participation process.

Thirdly, the principles and processes for conducting public hearings are still unsystematic (Muanpawong, 1999), and complicated (Bureekul, 2007). There must be publicity processes concerning this activity. All basic information, such as, the appointment of committees, topics for the public hearing, summary of proposals by all related organisations, time of activity and registration period, venues for registration, how to provide information to the committees, and the characteristics of people that can register to join the activity has to be officially announced and widely notified to ensure that all related persons and parties are informed (Office of Prime Minister, 1996). During the hearing process all relevant information, evidence and opinions from stakeholders and interested parties must be heard and be open to the public in order to avoid any influence or bias (Mantalumpa *et al.*, 2000).

Because of these weak points of the directive, some have argued that the public hearing regulation should be reviewed, and reenacted as a parliamentary act (Muanpawong, 1999;

Mantalumpa *et al.*, 2000). These procedures have been amended and reenacted in the new regulation, The Regulation of the Office of the Prime Minister Regarding Listening to Public Opinion B.E. 2548 (2005), as detailed in section 1.3.5.

1.3.3 The Official Information Act B.E. 2540 (1997)

The Official Information Act B.E. 2540 (1997) was adopted with the principle of the recognition and guarantee of the public's right to know, and to have extensive access to official information (Serirak, 2001), as an indicator of public participation linked with other aspects of participation (Thailand Environmental Institute, 2005). As stated in section 9 of the act, the public's right to know is granted to any individual, whether or not they have any involvement or relationship with the cause and effect of the information they request. The people's rights to know government information ranges from the right to inspect, request a copy, get advice, make complaints and appeal, and to ask the state to correct or change personal information (Office of the Council of State, 1997b).

According to this Act, almost all official data and information should be revealed for public perusal. Citizens have the right to access official information concerning any development project that may affect them, their communities, and environment. However, some categories of information can be kept confidential where its release would jeopardize national security, international relations, or national economic or financial security. Nonetheless, if the state agency refuses to disclose some of this exempted data, the people still have the right to appeal to the Official Information Commission (OIC) to reconsider the case (Office of the Council of State, 1997b).

This act has overturned the traditional practice of the Thai government officials whose attitude towards government information was that it should be kept strictly confidential for official uses only. As a matter of responding to public demand to access this information, a disclosure was seen as an exception, as most data were kept in secret (Serirak, 2001). However, when it was first adopted, the Act was new to the public and consequently not many people knew how to access official information and, as previously mentioned, in the Thai bureaucratic context, all official information had not been easily accessible to the

public. This reflected many government officials' perceptions, and is thus quite difficult to change (Bureekul, 2007).

1.3.4 The Constitution of the Kingdom of Thailand B.E. 2540 (1997)

The Constitution of the Kingdom of Thailand B.E. 2540 (1997) was enacted on October 11, 1997 to set out the principles of the democratic regime of government (Office of the Council of State, 1997a). It represents a revolution in the Thai political system (Jarusombat, 2002; Munger, 2007). This constitution is recognised as 'the People's Constitution'. Unlike previous constitutions, its drafting processes included public participation processes and public relations activities to raise public awareness of the importance of the law. Public hearings in all 76 provinces over the country were provided in order to integrate the public's opinions and views into its drafting (Thailand Environmental Institute, 2005).

On the issue of the environment, the 1997 Constitution has prescribed many advantages for environmental management in Thailand. It has distinctive differences from previous constitutions (Bureekul, 2004) by providing many amendments in the environmental management area, in particular the citizen's determinations and basic rights (Muanpawong, 1999; Nicro and Apikul, 1999). It promotes and supports the principle of public participation to have an important role in decision making and project development (Jarusombat, 2002). Regarding the basic rights, the public and the local communities are allowed to be involved in all aspects of the government administration, in particular the management of natural resources and the environment. This right is identified in many clauses (Office of the Council of State, 1997a).

The 1997 constitution was adopted in response to broad demand for political reform and public participation in governance, and for the inspection of the activities of state power (Bureekul, 2000; Munger, 2007). In this constitution, the government has changed the rule from the state having exclusive responsibility over environmental management to encouraging and supporting environmental management through four basic principles. These are: conservation and utilisation of natural resources and biodiversity complying with the principle of sustainable development (Papussaro and Tabungam, 1999;

Jarusombat, 2002); control and abatement of pollution that affects public health and quality of life (Papussaro and Tabungam, 1999; Jarusombat, 2002); public participation (Papussaro and Tabungam, 1999); and a provision of access to information (Jarusombat, 2002). This constitution initially provides the basic rights of the citizens in environmental management and conservation aiming to reduce the government's sole decision-making power which is a significant highlight in the Thai constitutional record (Muanpawong, 1999; Jarusombat, 2002). These four principles are explained in detail below.

Firstly, the right of the public and local community to conserve and use their environment and resources sustainability is embodied in section 79 of the Constitution. This states that the government should support the people and the local community to participate in the preservation and protection of the environment and to use national resources and natural biodiversity conforming to the sustainability principle (Office of the Council of State, 1997a).

Secondly, the right to control and abate pollution that may affect the public health and quality of life is provided in section 56. It stipulates that the public has a right to take part in the decision-making process before the projects or activities that might cause significant effects to the environment are approved and carried out. These projects or activities need to conduct an environment impact assessment (EIA) and issue a report (Office of the Council of State, 1997a). In particular, section 56 endorses transparency in the EIA reviewing process by stating that the independent commission must be comprised of representatives from non-governmental organisations and academics from universities to provide neutral participants that should have no bias (unlike many government officers). The EIA procedure must be followed and an independent commission must give a statement on the case (Muanpawong, 1999). More details of this aspect are revealed in the next section.

Thirdly, regarding public participation, the constitution provides the right of the general public to be involved in all aspects of the state, in particular the management of natural resources and the environment. In this constitution, sections 46 and 56 provide the communities' and individuals' rights to manage and participate in environmental protection and to use the natural resources. The right to take part in the administrative decision procedure before the decision is taken for the projects that may cause effects on

the environment is offered in section 56 (Office of the Council of State, 1997a). The 1997 Constitution not only pays attention to the participation of individuals and local communities, but it also allows many parties to be involved, such as, local administrations, private environmental organisation, or institutes of higher education. It could be said that the 1997 constitution provide the rights and equal opportunity for all members of society to manage natural resources and the environment.

Fourthly, the 1997 constitution guarantees access to information by the public. The right to gain access to information about the environment and other official information is provided in sections 58 and 59. Section 59 gives the public the right to receive information, an explanation and justifications from the State agency, State enterprise, or local government organisation, before permission is given for the operation of any projects or activities which may affect the quality of the environment, health and sanitary conditions, the quality of life, or any other material interest concerning individuals or a local community. The public also has an opportunity to express its opinions on such matters in accordance with the public hearing process as provided by law (Office of the Council of State, 1997a). Additionally, citizens have a right to express their point of view and have an opportunity to participate in the management, maintenance, preservation and exploitation of the environment and natural resources. The public can access information from both state and local government organisations related to the operation of projects or activities that may affect their community (Chaisomphob *et al.*, 2004). For example, information about the construction of electricity infrastructure, which may affect the quality of the environment, health and sanitary conditions, the quality of life, or any other material interest concerning a local community, might be interesting and the public has a right to know about, and ask for, this information.

1.3.5 The Regulation of the Office of the Prime Minister Regarding Listening to Public Opinion B.E. 2548 (2005)

Currently, public hearing procedures are set out under the Regulation of the Office of the Prime Minister Regarding Listening to Public Opinion B.E. 2548 (2005). However, they still do not include adequate details for the implementation of the regulations, or measures concerning procedures for public participation (Health Systems Research Institute *et al.*,

2006). The current regulations allow government authorities involved to select any guidelines they wish to be employed.

1.3.6 The Constitution of the Kingdom of Thailand B.E. 2550 (2007)

The 2007 Constitution retains the original essences of the 1997 Constitution and introduces several new provisions which had a potential to advance the state of Thai democracy (Tanchai, 2007). For example, the constitution provided for transparent institutions and more checks on executive authority via the creation of several superintendent institutions. Although most of these democratising features were not effectively implemented, the new constitution also carries forward the mandate for local elections, greater decentralisation and public participation (Office of the Council of State, 2007). For example, this constitution allows the citizens to place issues directly before the legislature via a petition of at least 50,000 voters. Some changes are created for more effectiveness, such as the number of voters needed for a petition is lowered to 10,000 from the 50,000 stipulated in the previous constitution (Hicken, 2007).

On the issue of environmental management, the 2007 Constitution promotes and supports public participation in environmental management and conservation more than any previous constitution. Building on the 1997 Constitution, whereas the majority of the contents of these aspects in this constitution and the 1997 constitution are similar, some principles are added. It sets five fundamental principles regarding environmental management and public participation. They are: the right of the public and local community to conserve and use their environment and resources sustainability; the right to control and minimise the pollution that impacts their quality of life; the right of the individual and community to reduce the government's sole decision-making power over natural resource management; a provision of a guarantee of access to information by the public; and, public participation. It can be argued that the 2007 Constitution still endorses the principle of public participation, aims at producing more practical consequences, and grants the public more basic rights in environmental protection, than the 1997 constitution (Kokpol, 2007). More details of these concerns are discussed below.

Firstly, the new Constitution of 2007 guarantees the right of a person as a member of a community, a local community or a traditional community to manage and handle natural resources and the environment as a basic right. Section 66 of this constitution provides the communities' rights based on their traditions which have the right to conserve or refurbish their customs, local knowledge, good arts and culture of their community, as well as the country, and to participate in the management, maintenance, preservation and exploitation of natural resources, the environment and the biological diversity in a reasonable and sustainable approach (Office of the Council of State, 2007). This section mirrors section 46 of the previous constitution. Significantly, in this version a variety of institutions, such as a community, a local community or a traditional community is provided with this right instead of only people who represent the local community having this right, as was the case in the 1997 Constitution (Secretariat General of the Administrative Court, 2007).

Secondly, the constitution provides the rights of the public to take part in the conservation, preservation and exploitation of natural resources and biological diversities in section 67. The rights to protect and preserve the environmental quality are also available. This section also indicates that any projects or activities that are likely to affect the quality of the environment are not permitted, unless their impact on the quality of the environment has been examined and evaluated, and its mitigation programme is appropriate (Office of the Council of State, 2007). Opinions and comments of the independent organisations, such as academic institutions, must be obtained before that project or activity is operated. Most importantly, this section requires a public hearing to be conducted for consulting the public as well as interested persons prior to the project implementation (Secretariat General of the Administrative Court, 2007). The public hearing, as a significant method, is required, in particular, to gain opinions from independent organisations, consisting of representatives from private organisations in the field of the environment and health and from higher education institutions which provide studies in the field of the environment, natural resources or health (Office of the Council of State, 2007). This is the most advanced approach to environmental management in Thailand. However, there is still no clear and comprehensive direction on how to conduct the hearing according to the present Constitution. Obviously, in the Thai experience, a great number of previous hearings were unclear and problematic (Bureekul, 2007). A defined procedure or a supporting regulation for this issue is urgently required.

Additionally, communities are also provided the right to bring a lawsuit against a government agency, a local government organisation or other state authority which has inappropriately performed their duties (Office of the Council of State, 2007). The contents are very similar to those in the previous constitution. However, there is a small difference in the text which has changed the right of a person to sue any state authority that does not perform their duties as stated in section 56 of the 1997 constitution, to the right of the community, instead of the individual's right, to a lawsuit against the government agencies for their failure to properly perform these duties.

Thirdly, the new constitution guarantees the right of the individual and community to limit the government's sole decision-making power over natural resource management. Section 58 states that people have the right to participate in the decision-making process of government officers in the performance of administrative functions which affect or may affect their rights and liberties.

Fourthly, similar to the previous constitution, the 2007 Constitution grants the citizens rights in accessing information. People in a community have the right to receive information, explanations and justifications from the government authorities before permission is given for the operation of any development project or activity that may have adverse impacts on the environment, health and sanitary conditions (Office of the Council of State, 2007). The citizens also have the right to express their ideas to relevant agencies to assist further consideration of such matters. However, the methods on how to present their opinions are not indicated and specified, while section 59 of the 1997 Constitution allows the citizens to communicate these aspects through the public hearing.

Additionally, the government have to set up the public hearing before planning any development in social, economic, political or cultural activities as well as zoning that may have impacts on the interests of the public (Office of the Council of State, 2007). However, these core sections of environmental management require detailed regulations in order to implement them. At present, the supporting regulation is yet to be adopted.

Finally, as discussed in the previous paragraphs, several sections of the 2007 constitution provide the rights of the public to be involved in the management of natural resources and the environment, in particular sections 57, 66 and 67. Highlighted in this constitution, the

importance of public participation is emphasised for other areas of management apart from the field of environmental management. In a particular scheme, part 10 of the 2007 constitution sets a principle of state policies in relation to public participation. Section 87 states that the state should promote public participation: in the determination of policies and plans for economic and social development at both national and local levels; in political decision-making, the planning of economic and social development and the provision of public services; in the scrutiny of the exercise of the state powers; and in supporting the function of civic groups to form networks to be able to express their opinions and propose their demands (Secretariat General of the Administrative Court, 2007). Additionally, the government should promote and provide public education on political development and the democratic regime (Office of the Council of State, 2007). Public participation under this section is founded upon the consideration of its importance as an effective approach for the country's development.

Regarding the promotion and preservation of environmental quality at the local level, the 2007 Constitution promotes the decentralisation process by empowering local government and facilitating public participation (Kokpol, 2007). Section 290 stipulates that a local government organisation is authorised and has responsibility for promoting and preserving environmental quality, as provided in relevant legislation, such as the Administrative Procedure Act of 1997. A local government organisation has powers and duties to manage, preserve and exploit the natural resources and environment in the area of its locality, as well as the area outside its authority, in the case where the livelihood of the inhabitants in its area may be affected. Most importantly, local government is authorised to participate in considering the approval of any project or activity outside the area of its own locality which may affect the quality of the environment, health or sanitary conditions of its inhabitants (Office of the Council of State, 2007).

As discussed earlier, there are a number of Thai laws and regulations relating to public participation in environmental management in Thailand. They provide different applications on the issue using different approaches and concepts. Table 1.1 below shows the summarised concepts of these important laws and regulations in chronological order.

Table 1.1 Summary of laws and regulations related to public participation in environmental management in Thailand

Law/Regulation	Chapter/Section	Summarised Concept
The Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992)	Section 6	Rights of the public: to be given information; to receive compensation; to complain; and, assist the government in environmental management.
	Section 7	Public participation by representative (NGOs) is provided. The environmental NGOs should register in accordance with rules, procedures and conditions prescribed in ministerial regulations.
	Section 8	Registered NGOs may request to assist the government in environmental management.
	Chapter 3: Environmental Protection Section 46	Type of project or activity which is required to prepare an environmental impact assessment.
	Chapter 3: Environmental Protection Sections 47, 48, and 49	EIA procedures EIA must be approved by the experts and, in some important cases, must be approved by the cabinet.
A Prime Minister's Public Hearing Order B.E. 2539 (1996)	Section 7, 8 and 9	Public Hearing Process
Constitution of the Kingdom of Thailand B.E. 2540 (1997)	Chapter 3: Rights and Liberties of the Thai People Section 46 and 56	The right of the public, local community and individual to conserve and utilise natural resources and biodiversity complying with the principle of sustainable development.
	Chapter 3: Rights and Liberties of the Thai People Section 58 and 59	The right of the public to receive information from the developer, except confidential information. The right to present opinion in the public hearing process.
	Chapter 5: Directive Principles of Fundamental State Policies Section 79	The government involves the public in environmental management.
The Official Information Act B.E. 2540 (1997)	Section 9	The right of the public to access government information
The Regulation of the Office of the Prime Minister Regarding Listening to Public Opinion B.E. 2548 (2005)	Section 4-15	The public hearing procedures and regulations
Constitution of the Kingdom of Thailand B.E. 2550 (2007)	Chapter 3: Rights and Liberties of the Thai People Section 66 and 67	The right of the public, local community and individual to conserve and utilise natural resources and biodiversity complying with the principle of sustainable development. Any project that may cause adverse impact to the community must be studied and have its impacts assessed.
	Chapter 3: Rights and Liberties of the Thai People Section 57	Public's right to access information, and receive an explanation from the developer before permission of project or activity that may affect their quality of life. The right to present opinions in the public hearing process.
	Chapter 5: Directive Principles of State Policies in relation to Public Participation Section 87	The role of the government in encouraging principles of public participation in the Directive by promoting and supporting public participation in political decision-making, the planning of economic and social development, and the provision of public services.
	Chapter 14: Local Administration Section 290	The role of local organisations in encouraging public participation in environmental management in its authority and area.

With respect to the provisions of the Thai constitutions and relevant laws, it can be seen that Thailand's legislation promotes, confers and formalises the concept of public participation in managing and protecting the natural resource and environment issues (King Prajadhipok's Institute, 2007). However, there are still many barriers to implementing these rights in practice. For example, the scope of the rights of citizens to participate in the environmental protection programme, and to use natural resources must be regulated in more detail by ordinary laws under sections 46 and 56 of the 1997 Constitution. This constitution was superseded in 2007, but there are still no provisions or supporting laws to fulfil these rights.

In addition, although section 6 of the NEQA 1992 and section 59 of the new Constitution state that a person has a right to gain access to information on projects that may have impacts on their individual life, in practice the government officers remain reluctant to provide this information (Jarusombat, 2002). The provision process is sometimes criticised as an ambiguous process (Muanpawong, 1999).

In summary, the Thai government's approaches to handling the environmental problems and conflicts under the Thai laws and mechanisms have obviously failed, environmental problems and conflict have not been improved, as evidenced from the past history (Thailand Environmental Institute, 2005). The number of conflicts between the public and the government or the project proponent has considerably increased during the past few years (Bureekul, 2007). The main reasons for this failure of the legislation may result from the lack of effective enforcement of laws and regulations on public participation (Reutergardh and Yen, 1997).

1.4 Public participation and environmental impact assessment in Thailand

In practice, the public participation process in development projects in Thailand has been established and identified through the EIA process. This section depicts significant issues of the EIA system in Thailand including: its adoption, the current practice, and its relationship with public participation in the Thai context.

1.4.1 Adoption of EIA in Thailand

Thailand was one of the very first countries in Southeast Asia that implemented EIA (Tongcumpou and Harvey, 1994). The first institutionalisation of the EIA process in Thailand began with the proclamation of the NEQA 1975. Section 17 of this act authorised the ministers, with the approval of the NEB, to specify notification for the type and size of projects or activities requiring EIA (Office of the Council of State, 1975). In July 1981, the first notification specifying types and sizes of projects and activities requiring an EIA was announced (Yap, 1994; Reutergardh and Yen, 1997). This notification applied to either public or private projects (Tongcumpou and Harvey, 1994). In the early stages of implementation, the contribution from political and economic institutions to the promotion of environmental impact assessment was low, and environmental institutions usually had less power than economic agencies (Boyle, 1998). The ONEB was perceived as not having sufficient authority. The EIA process was also criticised as being a closed process, it was primarily conducted by the project proponent, and was not available for the public unless the project proponent was willing to involve them (Yap, 1994).

Until the late 1980s, a mass of environmental problems and conflicts has occurred throughout Thailand. These controversies have dramatically increased public awareness of the deteriorating state of the environment and also the lack of an approach to deal with the country's natural resources. It was realised that the NEQA 1975 was not effective enough to solve these problems. Thus, the government formulated a new Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) (Yap, 1994; Reutergardh and Yen, 1997).

The EIA is a systematic process which aims to predict, determine, and evaluate the significant environmental impacts of development projects in advance (Glasson *et al.*, 2005). It is also regarded as a useful analytical mechanism by providing this useful information to the decision maker to manage the decision process more systematically, timely and effectively (Awakul and Ogunlana, 2002; Glasson *et al.*, 2005). Currently, the EIA process is a compulsory system of procedural control mechanisms under the NEQA 1992 (Swangjang *et al.*, 2004). Regarding this act, the EIA procedures are described in

sections 46 to 48 that the projects or activities that might cause significant impacts to the environment must have an assessment of environmental impacts before the projects or activities are implemented. The projects or activities that are obligated by law to obtain permission prior to construction or operation are required to prepare an EIA report and submit it to the permitting authority (Office of Environmental Policy and Planning, 1998a).

In practice, the Thai EIA process is largely controlled by the government. The NEQA 1992 grants authorisation to the NEB to require investigation and documentation of environmental impacts of projects. The Prime Minister is assigned to be a Chair of the NEB, and the minister of the MOSTE as one of the two Vice Chairs. Later, the ONEB became a part of the MOSTE and was divided into three departments: the Office of Environmental Policy and Planning (OEPP), the Pollution Control Department (PCD) and the Department of Environmental Quality Promotion (DEQP), for effectiveness of policies and measures implementation, and decentralisation of management and budgeting to local governments in response to the government policy. Besides, an expert review committee has been established for the EIA system. The expert review committee comprises of expert members who are qualified and specialised in various fields of related disciplines and the legal authority competent to grant permission for the project including: the secretariat of the OEPP as a chair, the head of the licensing agency, the head of involved governmental agencies, a maximum of seven environmental experts who are appointed by the ONEB, and an OEPP officer as a secretary (Office of the Council of State, 1992).

With respect to the government policy on reforming the bureaucratic reform, the OEPP under the MOSTE was transferred on October 3, 2003 to be under the new ministry, the Ministry of Natural Resources and Environment (MONRE), with a new name, the Office of Natural Resources and Environmental Policy and Planning (ONEP). At present, the Division of Environmental Impact Evaluation (DEIE), under the ONEP, is responsible for reviewing and making recommendations on the EIA report of larger scale projects which may cause significant impacts.

1.4.2 The current practice of the EIA process in Thailand

According to the NEQA 1992, in August 1992, the MOSTE specified 11 types and sizes of large-scale development projects that require an EIA approval. Later in September 1992, the MOSTE promulgated the second notification with another eight projects and activities requiring an EIA (Office of the Council of State, 1992). Presently, the latest notification prescribes 22 categories and magnitude of projects or activities of the government agency, state enterprise or private organisation, which are required to submit an EIA report. The projects or activities can be categorised in seven groups: industry, residential building and service community, transportation, energy, water resource, watershed area, and mine (Office of Environmental Policy and Planning, 1998a).

The OEPP has produced EIA guidelines to ensure that the proper procedures to protect potential significant impacts on the environment are implemented by the project proponents (Swangjang *et al.*, 2004). The project proponent can be a government agency, state enterprise or the private sector. If the project proponents plan to undertake larger scale projects that may cause significant impacts and be characterised under the notification for types and sizes of projects required to undertake EIA, they must submit the EIA report and all relevant documents to the DEIE for preliminary review. The EIA report has to be prepared by a consulting agency which is registered with the ONEP. The EIA report with the preliminary comments will then be submitted to the expert review committee for final consideration and decision. The expert review committee may approve or reject the report or may ask for report revision or additional information. The project proponents must get an approval before further proceedings (Office of the Council of State, 1992; Office of Environmental Policy and Planning, 1998a).

1.4.3 Public participation in the EIA system

As mentioned, public participation was first initiated in Thailand through the NEQA 1975; however, the public was not provided the right to participate in the EIA process, and there was no public participation in EIA. Only after the NEQA 1992 was enacted was the first EIA process which included public participation implemented (Chaisomphob *et al.*, 2004). The management of development projects has to take into account the consideration of the

impacts on community and environment (Ogunlana *et al.*, 2001). Basically, public participation in the EIA processes can be undertaken in many ways. However, in Thai practice, public participation in the EIA process is often conducted using preliminary surveys, interviews and questionnaire surveys which are administrated by consulting companies (Institute of Public Policy Studies, 1996; Ogunlana *et al.*, 2001).

Alongside the growth of environmental protection and the EIA process, public participation in Thailand has been adopted during the past few decades (Nicro and Apikul, 1999). However, public participation in the EIA system is not appropriately institutionalised in the legislation. The public still had limited participation since there are no concrete regulations to put it into effective practice (Muanpawong, 1999; Ogunlana *et al.*, 2001). There are no regulations that require, or enforce public participation at any stages of the EIA procedure (Ogunlana *et al.*, 2001). Thus, there is a significant lack of both an opportunity and ability for a local community to participate in a formal and meaningful way in the project implementation and a decision-making process. Either informing the public or incorporating public comments into the decision-making process are difficult in practice to integrate into the system (Ogunlana *et al.*, 2001; Stardahl *et al.*, 2004).

Section 6 of the NEQA 1992 grants rights and duties to individuals for the purposes of public participation in the enhancement and conservation of national environmental quality, in particular, the right of the public, especially the affected people from the project development, to be informed and obtain information and data from the government on any issues concerning the enhancement and conservation of environmental quality (Office of the Council of State, 1992). However, this information is limited to non-confidential information only (Tongcumpou and Harvey, 1994). Besides, a Prime Minister's Public Hearing Order 1996 and The Regulation of the Office of the Prime Minister Regarding Listening to Public opinion B.E. 2548 (2005) state that the public is allowed to advise and consult only on the development project; however, the right to make a final decision is still limited to the decision-maker. The public can only add their comments on some issues such as benefits to the community.

In the NEQA act 1992, public participation is not directly provided in the EIA system. Indirectly, the legislation provides an opportunity for the NGOs to participate in the EIA process (Ogunlana *et al.*, 2001; Stardahl *et al.*, 2004). Section 7 and 8 of the NEQA 1992 allow the public to indirectly participate in the EIA process through a registered organisation. NGOs or judicial persons can register as the NGOs for environmental protection and conservation of natural resources and may propose nomination of candidates as representatives of the private sector to be appointed by the cabinet as qualified members of the NEB (Office of the Council of State, 1992). Members of NGOs may also be invited to sit on the expert review committee (Yap, 1994), in order to review the EIA reports (Stardahl *et al.*, 2004). However, public participation through non-registered organisations is not encouraged.

Currently, in Thailand public participation has become an essential part of the EIA process (Chaisomphob *et al.*, 2004). However, according to the EIA process described above, there is no concrete opportunity for public participation process to incorporate public comment into the decision-making process. This aspect potentially causes a problem. This is because public participation through the potential representatives from NGOs may not represent and portray all the public interests and concerns to the consideration process (Tongcumpou and Harvey, 1994). Responding to this issue, all stakeholders, particularly the affected citizens should have the right to participate throughout the implementation of a project to avoid the impacts (Awakul and Ogunlana, 2002).

On the other hand, the public is calling for greater participation in the decision-making process over highly controversial issues, in particular over implementation of development projects (Vatanasapt *et al.*, 2003). Public awareness has been increasing simultaneously with the increase in public participation associated with environmental problems. Especially, the NIMBY syndrome becomes stronger and expands beyond opposition of development projects which potentially cause severe impacts to the environment (Schneider *et al.*, 1998; Beierle, 2001). The public often rejects the results of the EIA report made by the authorities which lacks true participation from the public (Muanpawong, 1999; Ogunlana *et al.*, 2001). Although public participation is supposed to play an important role in the EIA system, there is no definition of any roles for public participation in the system (Tongcumpou and Harvey, 1994). Therefore, there is an urgent need to improve public participation practice and properly incorporate it with the EIA

system in order to effectively resolve environmental conflicts associated with development projects in Thai society (Shytov, 2003).

1.5 Research rationale

Not only has interest and engagement in public participation increased (Beierle, 1998; Chess, 2000; Chess *et al.*, 2000; Rowe and Frewer, 2000; Raimond, 2001), the mandate for public participation has also been formulated through a number of pieces of legislation (Yao, 2006). This has implications for decision making at both international and national levels. Growing amounts of time and resources are being spent on this endeavour (Manowong and Ogunlana, 2006). This might be because the expected benefits of public participation are extensive, in particular an increase of public acceptance, commitment and support with regard to decisions or project implementation (Creighton, 2005). However, there is an outstanding discrepancy between the amount of time, money and energy that the governments of many countries put into the public participation processes in their public decision-making processes and the amount of their attention focussed on evaluating the effectiveness of their efforts (OECD, 2005). Besides, a number of people feel that public participation processes increase the time and cost of implementing the decision rather than decreasing them: at the same time they also perceive that instead of decreasing conflicts among stakeholders, the public participation process escalates the controversies (Charnley and Engelbert, 2005).

Presently, Thai people demand greater participation in the decision-making process concerning highly controversial issues of development activities, such as the siting of coal-fired power plants (Vatanasapt *et al.*, 2003), and they recognise that public participation should play a substantial role in environmental development projects (Chaisomphob *et al.*, 2004). Indeed, Thai citizens are provided more rights concerning environmental management, including resource management and pollution control because of more laws and regulations than they had recourse to in the past, in particular the NEQA 1992 and the Thai Constitutions (Bureekul, 2004). While people have more opportunity to investigate and participate in the administration and decisions made by the authorities, the final decision of any development project still lies with the government officers (Nicro and Apikul, 1999; Bureekul, 2007).

Regarding the limited range of opportunity for public participation discussed throughout this chapter, unsurprisingly, the degree of public participation in Thailand is still insufficient and conflicts among stakeholders are emerging (King Prajadhipok's Institute, 2007). There are many cases of unsuccessful public participation which has failed to resolve environmental conflict, in particular conflicts in development projects. In many cases the controversy led to the murder of local environmental activists, such as in a proposal for a hazardous waste treatment in Rayong or in the proposed Ban Nok power plant project (Vatanasapt *et al.*, 2003). A number of problems concerning the implementation of public participation practice still exist.

It could be said that presently public participation is still not strongly established either in Thai society, or the Thai legal framework (Shytov, 2003), or the EIA system (Chaisomphob *et al.*, 2004). Thailand is still learning how to implement effective public participation (Bureekul, 2007). The factors influencing the success and failure of public participation should be clearly investigated and identified in order to illustrate the real situation, and most importantly, to move forward to establish effective public participation in resolving environmental conflicts in Thai society. Thus, it is a significant challenge to realise effective public participation activities and to assure that public participation has a contribution both for the public and the competent authorities that plan and carry out public participation processes.

Although participation demands have increased, the knowledge about how to achieve effective participation remains low and insufficient (Rosener, 1978; Charnley and Engelbert, 2005; Cunningham and Tiefenbacher, 2008). Reflecting on this issue, recently, there has been an increasing demand on the decision-makers, the project owners, and the scholars to improve public participation processes (Chess, 2000; Frewer and Rowe, 2005). In order to know whether a programme was effective after it is fully implemented, there is a need to learn and evaluate the extent to which the programme was actually employed. This is because a lack of concern for implementation is a vital impediment to improving complex social programmes (Patton, 2002), in particular participation processes.

Accordingly, evaluating the success of public participation activities becomes a demanding task that needs specific concern. A number of scholars suggested that evaluation is an essential approach for investigating the effectiveness of public

participation efforts, and, significantly for improving the process (Sewell and Phillips, 1979; Syme and Sadler, 1994; Carnes *et al.*, 1998; Chess, 2000; Charnley and Engelbert, 2005). As Charnley and Engelbert (2005; p.166) stressed: “*evaluation is the best way to learn how public participation programmes can become more effective*”.

Although there is an increasing emphasis being placed on the evaluation of public participation in many theoretical and empirical literatures (Beierle, 1999; Chess, 2000; Rowe and Frewer, 2000; Webler and Tuler, 2000; Petts, 2001; Abelson *et al.*, 2002; Rowe and Frewer, 2004), investigations and evaluations of effectiveness of public participation processes concerning environmental issues are small in number and problematic (Moore, 1996; Chess, 2000). Importantly, a systematic evaluation of public participation in environmental programmes is rare (Santos and Chess, 2003). Only a few of these studies were conducted based on predetermined criteria against which the programme should be evaluated (Abelson *et al.*, 2002). In concrete situations, understanding what makes public participation successful is difficult to determine and challenging (McCool and Guthrie, 2001). This limitation makes improving the public participation process more difficult (Chess, 2000).

Finally, it could be said that the question of how to be sure that the participation process is effective and results in any improvement or useful consequences seems to be the most critical (Rowe and Frewer, 2004). Thus, a systematic evaluation of activities and processes of public participation is essential to ensure the continuing quality of the process and the public confidence in the outcomes (Abelson *et al.*, 2002; Frewer and Rowe, 2005), to know how to effectively involve citizens in the decision-making process of development projects (Charnley and Engelbert, 2005), and, importantly, to increase understanding and develop knowledge of how to improve its practice (Carnes *et al.*, 1998; Chess, 2000).

1.6 Significance of the study

This study is essential in order to identify and conceptualise the related factors for effective practice of public participation. An in-depth study of the public participation process in Thailand was conducted. Theoretical and practical aspects of public participation were thoroughly investigated and examined. This thesis established a

framework for evaluating public participation processes by analysing the participants' perspectives and experiences which can contribute to the field of public participation in development projects in Thailand for three main reasons explained below.

First, since the mid-1990s, public opposition to development projects in Thailand has been increasing and becoming stronger. There were a number of development projects, which led to considerable environmental and social conflicts, in particular a coal-fired power plant at Ban Krut which faced community protests. Although, in many cases, the project owners conducted public participation by using a technical hearing and questionnaire surveys as part of an EIA study, confrontation among stakeholders still occurred. The main reason for this was because the project owner did not respond appropriately to public opinion. Many projects have been re-sited or cancelled because of such controversy. Consequently, the results of this thesis will be important for an implementation of future development projects in Thailand.

Second, a great number of international studies show that public participation is an effective approach to create consensus amongst stakeholders in the implementation of development projects (Beierle, 1998; Chess, 2000; Chess *et al.*, 2000; Rowe and Frewer, 2000; Raimond, 2001). Responding to industrial growth and investment, the need for power plants to provide the energy source has increased greatly. Thailand plans to build more power plants; however, they always face public objections. There are very few studies of public participation processes related to the implementation of a coal-fired power plant in-depth, and this is the first in-depth investigation of public participation practice associated with a coal-fired plant proposal. Thus, this study is worth conducting since it constitutes a significant step towards understanding an implementation of public participation in the Thai context.

Third, although there has been a wealth of research on public participation in Thailand, how to achieve effective public participation is an issue that is under researched. Besides, a systematic evaluation of this process is virtually absent. Thus, it is essential to evaluate the public participation process to provide evidence on how to constitute effective public participation. Therefore, this study is important to Thailand because the research findings of a systematic evaluation of a public participation process and its barriers contribute sound recommendations to improve the future practice.

1.7 Research objectives

The effectiveness of public participation processes depends on a number of factors and also varies in different contexts. Differences in cultural, legal, and political institutions in different countries make it difficult to generalise.

This study aims to identify and summarise the major factors affecting the success or failure of public participation in a development project in Thailand. How to implement effective participation in order to prevent or eliminate environmental conflict and how to improve this process in the Thai context are essential components of the investigation. Finally, recommendations on how to improve the effectiveness of public participation in the Thai context will be made. The research objectives are presented in Table 1.2.

Table 1.2 Research objectives

Research aims
<ol style="list-style-type: none"> 1. To examine the current practice of public participation in environmental conflict management in Thailand and interpret the findings to identify the problems and, 2. To provide recommendations on how to contribute to effective public participation in development projects in Thailand.
Research objectives
<ol style="list-style-type: none"> 1. To examine the concept of public participation and environmental conflict management; 2. To systematically examine and analyse the implementation of public participation in environmental development projects using the case study of Hin Krut Power Plant Project, by; <ul style="list-style-type: none"> 2.1. examining how it has been implemented; 2.2. assessing and investigating the problems and root causes; 2.3. examining the legal framework for the Thai context; 2.4. determining what barriers exist to public participation; 3. To develop recommendations on how to improve the effectiveness of public participation in development projects in Thailand.

1.8 Research questions

It is believed that public participation is an effective approach to obtain public consent, for collecting useful information from stakeholders, and for reducing undesired conflicts during the implementation of development projects (Beierle, 2001). Nonetheless, it has been seen that the public participation executed in Thailand has been unsuccessful. In many cases, it appears that public participation creates conflicts and dissatisfaction. Frequently, these conflicts have been obstacles to expediency in the construction of development projects (Ogunlana *et al.*, 2001). These issues make it particularly important to study the public participation process.

This thesis evaluates the public participation process, based on evaluation criteria developed for this study, and its barriers before making recommendations to improve the public participation process in Thailand. The root causes of the conflicts of the case study, the Hin Krut power plant project, are investigated in order to understand the relevant issues. The research questions of this study are:

1. What were the root causes of the conflict in the Hin Krut power plant project, Prachuab Kiri Khan Province, Thailand?
2. What was the level of public participation in the Hin Krut power plant project, Prachuab Kiri Khan Province, Thailand?
3. How effective is public participation for managing environmental conflict management in development projects in the Thai contexts?
4. What are the barriers to achieving effective public participation for environmental conflict management in development projects in Thailand?
5. How can public participation for environmental conflict management in development projects in Thailand be made more effective?

1.9 Outline of the thesis

The core of the thesis is to examine a public participation process in a specific context of Thailand and evaluate its effectiveness. The study uses derived information on which to base an analysis and provide a recommendation to make the public participation process more effective. This thesis is organised into eight chapters. The following are brief chapter descriptions providing an overview of the thesis structure.

Chapter 1 provides an overview of the rationale of this thesis. The background information for the Thai context is illustrated. The first section examines the historical and present situation of environmental problems and the implementation of public participation as environmental conflict management in Thailand. The second section analyses the legal framework for public participation. Then, the practice of public participation in development projects is described. Finally, the significance of the thesis, the objectives and research questions are explained.

In order to set the conceptual and theoretical framework for an analysis of the public participation practice in the case study of the Hin Krut power plant project in Thailand, a review of the relevant literature is presented in Chapter 2. The review introduces the concept of an environmental conflict, environmental conflict management approaches, a background on the rationale for public participation, the benefits and barriers to effective public participation, and what constitutes effective public participation by reviewing the main relevant literature. The chapter aims to formulate a conceptual framework for interpreting and analysing public participation in order to integrate the analysis concepts of participation with environmental conflict management.

Chapter 3 establishes the conceptual framework for an evaluation of a public participation process. The details of theoretical and pragmatic aspects of an evaluation of public participation process, including different approaches for evaluation, are discussed. Finally, evaluation criteria and an evaluation framework for this study are developed.

In chapter 4, the methodology adopted in the thesis is presented. This chapter includes the research paradigm, research design, the data collection and analysis methods. A qualitative

approach is chosen because of its flexibility and its ability to provide rich and detailed data. Mixed methods of data collection are employed including literature reviews, structured interviews, semi-structured interviews, and in-depth interviews. At the end, the validity and reliability, the ethical issues and the limitations of the research methodology are explained.

The research findings and results of this study are presented in three chapters. Chapter 5 begins with the background information about the case study, the Hin Krut power plant project. The project descriptions of the proposed location, production processes and technology are illustrated. Then, the chapter presents the research findings and results about the analysis of related issues about the root causes of conflicts in the case study. The level of public participation is also investigated based on the public participation framework developed in Chapter 2. Chapter 6 presents an evaluation of the effectiveness of the public participation process based on the pre-set criteria. The evaluation focuses on how the participation process was applied and how effective it was from the research participants' views and experience. The research findings and its discussions of the results are also displayed. Chapter 7 presents the research findings and discussion of the barriers to effective public participation. Throughout the evaluation, the study illustrates how public participation can be effective in environmental conflict management in the particular context of Thailand.

The final chapter details the conclusions and recommendations relative to the objectives of the research based on the results and discussion from Chapter 5, 6 and 7. The discussion of the major attributes of the case study, the limitations of the thesis, and recommendations on improving the public participation as a tool in environmental conflict management in the particular context of Thailand are introduced.

1.10 Conclusion

Thailand has long been faced with numerous serious environmental problems (Jarusombat, 2002), especially in terms of natural resources degradation and pollution (Bureekul, 2000). An endorsement of development strategies based on growth through economic and industry without balancing social and environment factors is an important

cause of environmental problems in Thailand (Thabchumpon, 2002; Thailand Environmental Institute, 2005). Many development projects stemming from the country's development caused an adverse effect on the quality of the environment and introduced serious conflicts of resource allocation.

Accordingly, public participation in planning and decisions about development projects that might severely affect the people's way of life and environment is widespread and growing (Beierle, 2001). The importance of public participation and the rights of Thai citizens in sustainably preserving and utilising their environment and resources are recognised and emphasised in a number of Thai laws and regulations. Although the rights of Thai citizens to participate in environmental protection seem to be promised and manifested strongly in Thai constitution, there are still many barriers to implementing these rights in practice (Bureekul, 2000).

Accordingly, an improvement of the public participation processes is an important challenge. Not only should public participation processes be constantly conducted in development projects, evaluation of these processes should be carried out so that continual improvement is achieved (Charnley and Engelbert, 2005). Thus, this thesis aims to investigate how to evaluate the effectiveness of public participation efforts extant in the Thai complex. The research findings will be used as a guideline to improve public participation processes to make them more effective in the future.

Chapter 2: Literature Review: A Conceptual Framework for Conflict Management and Public Participation

2.1 Introduction

This chapter aims to examine the concepts of public participation underpinning the literature on environmental conflict management and, then, to establish a conceptual framework for this study. This review is confined to an overview of the theoretical and practical literature underlying the approach of involving and representing the public in environmental conflict management.

This chapter includes two major issues: conflict management and public participation. In the first part, the focus is on ideas of conflict, environmental conflict and conflict management. General definitions of conflict and environmental conflict are discussed, and, the definitions used in this study are developed. Then, conflict management approaches are presented and discussed. The second part focuses on the public participation concept. Unquestionably, public participation is a complex issue with different interpretations generating a large body of literature. The literature on what participation means, the characteristics of participatory techniques, benefits and contributions of public participation, and barriers to effective public participation will be considered in order to identify appropriate approaches for involving the public in environmental decision-making. Particularly, this chapter explores the nature of public participation as a means of managing conflict management.

2.2 Building up a conceptual framework for conflict management

2.2.1 Conflict and environmental conflict

2.2.1.1 What is conflict?

Conflict has a long history as a natural part of human life (DeChurch and Marks, 2001; Putnam, 2006) as it seems to exist in all human relationships, issues and in all sections of societies (Moore, 2003; Putnam, 2006). Basically, conflict involves many stakeholders from different social systems and institutions; cultures, contexts, religions, organisations and inter personal relationships (Ross, 1993). When two or more social parties such as individuals, organisations or nations have an interaction in order to attain their needs, interests, or goals, these relationships can become incompatible or inconsistent and lead to disputes (Rahim, 2001; Waithalla *et al.*, 2006). Thus, conflict between persons, groups of people, organisations, communities, national governments, or international entities seems to be inevitable (Pneuman and Bruel, 1982; Rahim, 2001). Conflict can be seen as functional or dysfunctional depending on how people perceive, handle and resolve it (Vivar, 2006).

Before proceeding, it is necessary to clarify the meaning of conflict. There is no single comprehensive definition of conflict (Vivar, 2006; Waithalla *et al.*, 2006) as it can be interpreted in many different ways, depending on the contexts and conceptions of people (Pneuman and Bruel, 1982; Borisoff and Victor, 1989; Othman, 2002). Basically, different people in different circumstances may define conflict differently based on a variety of disciplines (Uptreti, 2002).

Deutsch (1973) stated that conflicts occur whenever incompatible activities exist. These actions may originate in individuals, groups or nations and can be classified into five types of conflicts which are intrapersonal, interpersonal, intra-group, inter-group, and international conflicts. The action incompatible with another action obstructs, opposes, interferes with, or in some way may result in the latter being less effective. Mitchell (1997, p.20) interpreted conflicts as “*a normal situation in a society where there are individuals or groups with ‘different characteristics’ of values, interests, hopes, expectations and priorities*”. Similarly, Borisoff and Victor (1989, p.21) proposed the core elements among these varied definitions as “*an expressed struggle between individuals over perceived incompatible goals, resources, or rewards*”. Additionally, Cole (1999) suggested that conflict is a substantial action of contending rationalities aiming to achieve different ends, reflecting differential expertise that produces contradictory interests, which cannot be reasonably resolved.

Rahim (2001, p. 18) defined the classic definition of conflict as “*an interaction process manifested in incompatibility, disagreement, or dissonance within or between social entities (i.e., individuals, groups, organisations, etc.)*”. Conflict occurs when one or two parties engage in an activity that is inappropriate with their interests. Similarly, Pruitt *et al.* (2004, p. 8) considered conflict to be a “*perceived divergence of interest, a belief that the parties’ current aspirations are incompatible*”. In other words, conflicts occur when parties think that their aspirations cannot be satisfied at the same time. The aspirations can be represented as goals or minimum acceptable standards. In this study, conflict is defined as: *a state of opposing interests which occurs with the differences in opinions, concepts, values and belief systems, access and distribution of power*.

Actually, conflicts can have both positive and negative results or consequences which may cause physical, emotional, and resource impacts (Borisoff and Victor, 1989; Pruitt *et al.*, 2004; Vivar, 2006). However, when the term ‘conflict’ is mentioned, the first perception is that it is a negative and destructive element to be avoided, which usually leads to undesirable and negative effects (Thomas, 1992; Persson, 2006).

Conversely, conflict can be viewed not only as a damaging or harmful source, but also as a catalyst for creativity, innovation, motivation, positive change and growth (Deutsch, 1973; Rahim, 2001). If there is no conflict, societies, organisations and states would become stagnant. In some circumstances, conflict offers people an opportunity to develop better relationships and also appraises the situation (Vivar, 2006). Conflict can promote interest about the issues, can prove to be a learning process about problems and provide a creative impetus to improve decisions and their implementation. Encouraging the open expression of the differences not only allows social structures to eliminate disassociations, but also gives support for adjusting and developing its structures to meet social norms (World Commission on Dams, 2000).

Whether wanted or unwanted, conflict is a function of social development and change. Changes may take place in resource management, public policy processes, personal relations, power structures, and individual and collective behaviour (Borisoff and Victor, 1989; Uptreti, 2002). Glasbergen (1995, p.7) identifies a conflict as “a vehicle for social progress” due to its potential to encourage a society to search for alternatives and develop

new institutions. However, he emphasises that the beneficial function of conflict needs decision-making to be progressed to contend with the conflict.

Additionally, Rahim (1985) and DeChurch and Marks (2001), found that there seems to be a relationship between conflict and organisational performance and effectiveness and it could be argued that conflict can improve group or organisational outcomes. When the conflict was properly managed, the group performance was positive. In contrast, when the conflict was passively managed, the outcome was negative. However, too much conflict can become destructive, because of the ineffective and inefficient approaches made to handle it. The best approach to manage and resolve conflicts is to apply a variety of strategies and processes (World Commission on Dams, 2000).

2.2.1.2 Environmental conflict

Environmental problems have been increasing dramatically with growing recognition of their importance at an international level since the 1970s, and becoming one of the biggest issues in the modern world (Canter, 1996; Stewart, 1998; Cole, 1999; Bredariol and Magrini, 2003). These problems usually involve interconnections among various parties including indigenous communities, grassroots organisations, project developers, NGOs, and government, who normally have diverse interests (Daniels and Walker, 1995; Bredariol and Magrini, 2003; Emerson *et al.*, 2003; Regan *et al.*, 2006; Welp *et al.*, 2008). Importantly, these problems often adversely affect the quality of life resulting in heightened competition between these concerned groups of people and a high level of interactions (Emerson *et al.*, 2003; Sidaway, 2005). This often culminates in intense environmental conflicts (Gleick, 2002).

Environmental conflicts can be classified as a significant subset of public or social conflict involving many typically different types of parties, issues, interests and resources (Dukes, 2004). They can arise over environmental management strategies, environmental impacts from new development projects or operation of existing projects, environmental restorations, or even economic development plans. These issues are particularly scientifically complex, technically complicated, and highly uncertain (Daniels and Walker, 1995; Canter, 1996). Due to the complexity of these factors, environmental conflicts are becoming more complex and more difficult to solve (Ross, 2003; Welp *et al.*, 2008).

Due to their complexity (Shepherd and Bowler, 1997), and different and complicated forms (Campbell, 2003), it is often difficult to specify the boundaries of environmental conflicts (Lyster, 1998; Emerson *et al.*, 2003). Sometimes, they transcend national boundaries (Fiorino, 1996b). For example the interconnection of eco-systems makes the physical boundaries hard to determine. Generally, there are numerous interconnected issues for resolution and also many parties and interests concerned with the dispute (Lyster, 1998). Environmental conflict is not only involved in changes in the physical environmental aspects but also in cultural, economic and social issues. Additionally, the consequences of environmental conflict can not only result in physical damage to property, but also results in an aggrieved party, distrust and, most importantly, time and cost investment (Persson, 2006).

According to Kakonge (1998), environmental conflict is a modern phenomenon which immediately results from the dramatic increase in population and the corresponding increase in use of natural resources. Crowfoot and Wondolleck (1991) and Bredariol and Magrini (2003) indicated that conflict between different groups over the use of the environmental and natural resources are now commonplace and are growing in number. When considered in terms of environmental planning and management, environmental conflicts can be viewed as contradictory stakeholder perceptions in terms of environmental values and interests, and sometimes in term of stakeholders' purposes. Whatever the different viewpoints or interests are, the main debate in environmental conflict is fundamentally grounded in exploitation and conservation (Kakonge, 1998).

As people become more aware of the need to protect the environment for the next generation, a conflict in values between environmental activists and government representatives arises. The first group tries to protect the world from environmental degradation and also to promote animal rights by using both violent and nonviolent methods. By contrast, governments have a responsibility to prevent any illegal activities (Crowfoot and Wondolleck, 1991). As a result these differences in perceptions and actions between stakeholders lead to the occurrence of many inevitable conflicts (Persson, 2006).

Conflicts of interest in environmental management are inevitable (Shepherd and Bowler, 1997). Smith and McDonough (2001) stated that natural resource issues usually involve the limitation of resources and many stakeholders are concerned with their use. One

interest demands access to natural resources for economic development, or profits, or leisure, while others intend to protect the environment from damage and improper usage. Importantly, the development interests often have more money and power while the impacted group has less (Stewart, 1998). As a result, this matter leads to a situation where it is not possible for every party to gain what they want (Smith and McDonough, 2001; Pol *et al.*, 2006). Generally, natural resource conflicts are mainly concerned with access, control and profit from their usage (Uptreti, 2002). It could be said that environmental conflict is a result of scarcity and social struggles against unequal usage, distribution and allocation of environmental resources (Glasbergen, 1995; Payne, 1998; Maxwell and Reuveny, 2000; Jackson, 2001; Reuveny and Maxwell, 2001; Ross, 2003; Jackson and Pradubraj, 2004).

In developing countries, environmental conflicts have increased considerably in numbers, especially those linked to aspects of the implementation of development projects. In rural communities, the conflicts are mainly focussed on the distribution or protection of the natural resources of indigenous people. In contrast, in urban areas, the problems are concerned with the benefits or impacts of government investments or development projects (Bredariol and Magrini, 2003). According to Schmidtz (2000), environmental conflict always occurs when at least one party is impacted upon by the other party's development projects.

Jackson and Pradubraj (2004) stated that environmental conflict is an inevitable result of development and can be both constructive and destructive. More often, many stakeholders engage in environmental disputes with their mindset opposed to negotiation (Peterson and Franks, 2006). The decision related to these kinds of problems cannot satisfy every person affected and cause conflict (Pol *et al.*, 2006). The goals of stakeholders are normally diverse, in particular between the authorised-decision makers and the public. For the administrators, public participation goals are basically viewed as reducing conflict, increasing legitimacy, and educating the public while the public perceives a desire to control the decisions that impact their rights (Massey, 1990). As Seneca (2004) stated, environmental conflicts are inevitably multidimensional with numerous interactions among multiple parties and across multiple jurisdictions.

From studying a range of literature on environmental conflict aspects, in this study, environmental conflict can be defined as: *a result of unbalanced resource allocations, inefficient decision-making processes, and unequal balance of power in society*. Although environmental conflict is an inevitable consequence of the development process, if the social constitution is sufficiently flexible to allow for compromise and change, conflict can be constructive (Jackson and Pradubraj, 2004).

2.2.1.3 Causes of environmental conflict

There are numerous possible causes of environmental conflicts which can arise from particular situations and contexts involving complex social issues and interrelationships (Canter, 1996; Uptreti, 2002; Sidaway, 2005). There are a number of practitioners and researchers investigating the possible causes of environmental conflicts (Dietz *et al.*, 1989; Crowfoot and Wondolleck, 1991; Mayer, 2000; Schmidt and Tannenbaum, 2000; Emerson *et al.*, 2003; Moore, 2003; Creighton, 2005). Based on the literature, three common causes of environment conflicts can be identified: values and opinions differences, conflicting interests, and conflicting cognitive information. These dimensional views help in determining the complexities of conflict and explain why sometimes conflict proceeds in unexpected directions.

Differences among people are inevitable and always cause conflicts and problems (Shepherd and Bowler, 1997; Elliott, 1999; Schmidt and Tannenbaum, 2000). Basically, numerous environmental conflicts are rooted in the differences of human perceptions on natural resources and environmental values (Crowfoot and Wondolleck, 1991; Emerson *et al.*, 2003). As stated by Moore (2003), different viewpoints, in terms of ideas, beliefs, religions and ways of living normally bring people into environmental conflict.

Since the costs and benefits from resources are difficult to distribute equally, some people could have a greater interest than others (Canter, 1996). This might be because of a scarcity of resources. Actually, the natural resources are limited and people, basically, do not have equal power to gain what they want (Pruitt and Kim, 2004). When people conceive that their needs are not met whilst others benefit, then a struggle between two groups may occur (Stewart, 1998). This unequal resource distribution often creates

conflict based on interests (Canter, 1996; Stewart, 1998). As a result, this inequality possibly leads to conflict based on interests (Canter, 1996).

Basically, conflicts of interests are substantive, procedural or psychological (Moore, 2003). They could be simple issues such as a dispute over land ownerships, or complex issues and interrelationships related to social, economic and political concerns (Canter, 1996). However, the causes of environmental damage are always related to the consequence of social and economic activities, in particular from development projects (Jackson and Pradubraj, 2004). Lee (1993) described the economic cause of environmental conflict as an assumption that resources are common property, and the difficulties of calculating the value and cost of these resources. Moreover, available assessment methods such as cost-benefit analysis do not have clear criteria to correctly evaluate the comprehensive value of environmental resources (Cole, 1999). Importantly, although people can have agreement on facts and values, conflicts based on interests are still possible to generate (Moore, 2003).

The last common cause of environmental conflict is cognitive information. Cognitive conflict occurs when people have different understandings about the facts of the case, while value conflict is a dispute over the goals (Creighton, 2005). With cognitive conflict, there is a belief or understanding that one's own needs, wants, goals or interests are incompatible with others (Mayer, 2000). Moore (2003) stated that conflict over data is typically criticised as the basic problem of conflicts. Conflicts in data are also linked to lack of information, misinformation, and differences in points of view, perception or interpretation of data.

Actually, there are other aspects that are often suggested as root causes of environmental conflicts. For example, Mayer (2000) identified that behaviour or action could cause conflict because conflict consists of the actions that people undertake to express the feeling, express the perceptions, and try to achieve their needs in the way that may have a potential to interact with the other's ability to meet their own needs. Moore (2003) explained that structural conflicts occur when parties want to perform their roles without respect to others and are always concerned with unequal power, time constraints and environmental factors. Furthermore, Mayer (2000) and Creighton (2005) delineated relationships as a cause of conflict from feelings, misperception and miscommunication.

Conflict also involves an emotional reaction to a situation. When people participate, they communicate both about content, such as fact, and relationships, such as how much someone is accepted. In this process, there could be a number of emotional motivations that lead to conflicts. These emotions can be fear, sadness, anger, hopelessness, or others. Sometimes conflict occurs because people 'feel' in conflict with others, even though these feelings are not recognised or even known by the others.

In summary, there are two common assumptions underlying the approach to the environmental problems (Schmidt and Tannenbaum, 2000). First, differences, in particular in terms of views, values and interests, between people should not be considered inherently good or bad. Sometimes differences can benefit or disrupt individuals or organisations. Stakeholders and authorised decision makers need to clearly understand the nature of these differences in order to deal with problems effectively (Pruitt *et al.*, 2004). Second there is no right way to deal with differences. Depending on the condition, it may be most beneficial to avoid differences and use a variety of approaches to cope with conflicts. Thus, effective conflict management is crucial and needs to minimise any destructive impacts that environmental conflicts cause both to individuals and communities (Peterson and Franks, 2006).

2.2.2 Conflict management

Conflict is inevitable between people, however, with proper management, conflicts can be associated with a wide range of positive results (Mitchell and Mitchell, 1984). When conflicts occur, people will spend a large amount of time and energy to resolve them (Tjosvold and Sun, 2002; Vivar, 2006). However, most disagreements are usually informally managed (Moore, 2003). The best way to approach successful conflict management is to analyse what the causes of the conflicts are (Vivar, 2006), to learn which strategies of conflict management are available, and to understand the conditions of each strategy (Bercovitch, 1984). To resolve conflicts, practitioners have tried to develop effective procedures to protect their interests, to maintain relationships, to minimise suffering, and to control the expansion of unnecessary resource usage (Moore, 2003).

Basically, conflict management is identified as a process for handling conflict in a reasonable, fair and efficient manner (Uptreti, 2002). It will be successful when the sources of conflict are addressed appropriately. There are many factors causing conflict which are always varied and complicated (Tjosvold and Sun, 2002). Each stakeholder should be able to carefully analyse the importance of the issues, the interests of all concerned parties, and the alternatives that should be negotiated. Different conflict resolution processes have different strategies to address interests. It is crucial to adjust the conflict resolution strategies to suit existing social, and cultural contexts (World Commission on Dams, 2000; Wittmer *et al.*, 2006).

Typically, conflict management strategies are mainly seen as, and a response to, particular situations and have been studied in the context of negotiation or dispute resolution (Friedman *et al.*, 2000). Ross (1993) pointed out that conflict management involves a sense of actions and reactions between disputing and interested parties which may or may not find the solution to end the conflict, and, may or may not be peaceful, positive and unaggressive.

A number of frameworks have been developed to handle conflict. Actually, there are various conflict management strategies to handle conflicts (Rahim, 2002). As conflict management strategies are generally seen as a response to particular situations (Friedman *et al.*, 2000), reviewing the relevant literature on conflict management strategies will enhance knowledge to indicate how to manage conflict effectively or how conflict can be reduced (Rahim, 2001).

A widespread and accepted application model for conflict management was first developed by Blake and Mouton (1964), which provided a framework for studying various styles of conflict management. This scheme was modified subsequently by Thomas (1976) and, further by Rahim (1985). According to Thomas (1976), the party's behaviour is based on the party's intention in dealing with conflict in different situations. These behaviours are assertiveness and cooperativeness. Assertiveness represents the intention that each party wants to achieve its own objectives, while cooperativeness indicates the intention that each party wants to maintain their relationship. Rahim (1985) identified that interpersonal styles of conflict management can be illustrated in five strategies on the basis of two dimensions: concern for self and concern for others. The former dimension

explains the degree to which people are concerned for themselves, while the latter dimension explains the degree to which people are concerned to satisfy others.

Based on these studies, five common strategies of conflict management can be identified: competition, avoidance, accommodation, compromise, and collaboration (Blake and Mouton, 1964; Thomas, 1976; Rahim, 1985). First, competition leads to winners and losers. It involves a high level of concern for self and a low level of concern for others, along with high assertiveness and low cooperation. This approach is judged as the most confrontational style. It is suitable where there is no time for discussion and quick decisions are vital. However, it is not encouraged in an open and participative climate. Second, when people want to remove themselves from the conflict and refuse to confront with others, an avoidance strategy is preferred. Since avoidance aims to ignore the existing problems, there is no active resolution of conflict. It reflects a low concern for self and for others. Third, accommodation is an antithesis of competition where cooperation is high but assertiveness is low. It refers to conciliation when one person or party is willing to yield to others. This strategy involves a combination of low concern of self and high concern of others. Its result leads to an agreement between parties. However, this approach may not be appropriate for dealing with complex issues. The fourth strategy is compromising. It involves an attempt to negotiate and swap in order to reach an acceptable agreement over the conflicting issues. Each side gets and gives something in the process. Both concern for self and for others are moderate. However, this strategy is not recommended when their goals are opposite and their powers are equal. The last strategy is collaboration where interested parties confront the issue equally, cooperatively identify the problems, generate and consider the alternative, and then select the solution. It involves high concern for self and others. This strategy is viewed as the most cooperative and assertive approach involving seeking, sharing, integrating information from stakeholders, and finally leads to a win-win situation.

These basic schemes have dominated the field of conflict management for several decades, and have been extensively studied in different areas (Kozan, 1989). However, these strategies have both advantages and disadvantages. Each of the strategies can be right or wrong in different conditions and one strategy may be more appropriate than another depending on particular contexts and situations (Pneuman and Bruel, 1982; Rahim, 2002; Vivar, 2006). For functional and effective conflict management, combining

these strategies seems to be the most appropriate strategy (Rahim, 1985; 2002). For example, normally, people may avoid confrontation because they do not consider the problem to be important, or they may have limited power to negotiate, or they may not think that the situation could be improved (Moore, 2003). In this situation, avoidance is an effective approach to confront a controversial situation in the short-term, until more relevant information is collected and analysed and then people will try to search for other strategies to manage the dispute (Rahim, 2001).

A conflict management model in Figure 2.1 presents the concepts and relevance of these five strategies of conflict management discussed earlier. Their classifications are based on the different combinations of assertiveness and cooperativeness.

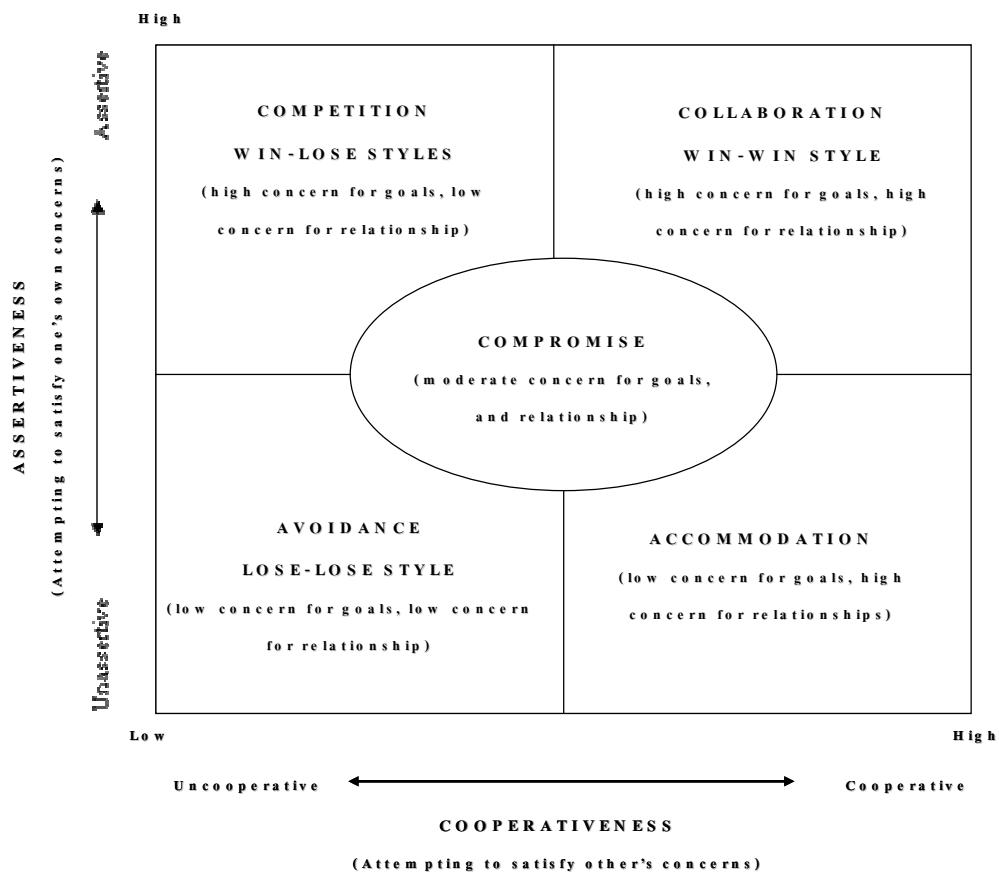


Figure 2.1 Conflict Management Strategies Adapted from: Thomas (1976), Pneuman and Bruel (1982), Bercovitch (1984), Rahim (1985), Thomas (1992) and Pruitt and Kim (2004)

One of the major difficulties in conflict management is the broad variety of approaches to deal with conflict in different cultures (Kozan, 1997), since some strategies can be

negative in different cultures. In some collective cultures, such as Thailand (Boonsathorn, 2007), and China (Tjosvold and Sun, 2002), avoidance may be perceived as an appropriate approach since people are typically employed to maintain their relationships and struggle to save face (Worchel, 2005; Boonsathorn, 2007). The study by Kozan (1989) demonstrated that culturally different countries prefer different styles in handling conflicts. An application of conflict management approaches seems to be influenced by the unique cultural context, especially national culture. Definitely, both context and culture influences the way people deal with conflicts (Rahim, 1985).

Importantly, effective conflict management requires a positive attitude in communication rather than considering all conflict as a negative condition. Individuals or parties need to regard differences as a potential source for creativity and improvement. It is essential to understand that an accurate assessment of the conflict situation enables concerned parties to select the most appropriate interventions or strategies for dealing with the problems (Borisoff and Victor, 1989).

2.2.3 Alternative dispute resolution and public participation

Environmental conflicts were identified as an important problem at least thirty-years ago (Jackson and Pradubraj, 2004). The complexity of the problems makes necessary the development and application of new management approaches to cope with them (Pol *et al.*, 2006), since traditional mechanisms for conflict resolution such as a judicial system are considered as an ineffective approach (Wittmer *et al.*, 2006). Since the 1970s, a number of researchers and practitioners have developed international theories and practices to settle them (Crowfoot and Wondolleck, 1991; Montgomery and Kidd, 2004; Tillett and French, 2006). The disputes about how to manage environmental conflicts appropriately appear to be increasing in frequency, and are too complicated to resolve or find a consensus (Uptreti, 2002).

In response to these notions, a field of alternative dispute resolution (ADR) developed in the late 1980s. ADR is based on the public participation concept and experiences which emerged from multi-party and multi-issue disputes and were usually instigated by environmental value challenges (Priscoli, 2004). Basically, ADR has two main sets of

strategies; negotiation, and mediation. Negotiation tries to build consensus between stakeholders, while mediation brings conflicting parties together and uses a neutral third party to seek agreement (Shepherd and Bowler, 1997). Mediation is essentially an art of persuasion which aims to persuade disputing parties to resolve their conflicts by encouraging them to work out their differences (Sorensen *et al.*, 1984; Borisoff and Victor, 1989). Bargaining and face-to-face communication among stakeholders to lead to consensus building are significant features of ADR; importantly, it encourages stakeholders to accept the solutions (Smith, 1993).

As mentioned earlier, environmental conflicts and its outcomes are often more complex than rational problems that can be solved by using technical methods only, or a single party such as a consultant (Cole, 1999). Montgomery and Kidd (2004) added that due to the difficulty in assessing the causes and context of conflicts, the decision on the appropriate methodology may be harder. However, no solution approach can guarantee desirable outcomes. Thus, a selection of conflict resolution approaches, could be varied and should be carefully considered in order to avoid, handle and reduce conflicts (Kozan, 1997; Tjosvold and Sun, 2002). It is crucial to emphasise that conflict should be resolved using a non-violent and non-confrontational strategy because violent actions always lead to violent reactions and reproduce the cycle of conflict (Stewart, 1998).

In order to be effective in resolving environmental conflicts, a number of practitioners suggest public participation as a conflict management strategy by involving stakeholders as decision-making participants and encouraging them to shift from being just a member of the public trying to influence the decisions, to become active participants in the process (Smith, 1993; Kakonge, 1998; Priscoli, 2004; Persson, 2006). At both international and national levels, legal requirements to engage the public in environmental decision-making render environmental conflicts increasingly difficult to disregard (Peterson and Franks, 2006). As a result, many participation processes are conducted as a means to handle environmental conflict; however, the processes usually face a key problem that public participation brings people to talk and listen to their needs but this does not come closer to reaching the agreement (Priscoli, 2004).

Numerous environmental problems are interrelated, and lack public participation in the environmental decision-making process. Some conflicts that are limited in terms of the

public concerned can affect individuals (Sorensen *et al.*, 1984). Due to a limitation of public participation within environmental conflict management, most developing countries need effective solutions to deal with environmental disputes and to create a strong participatory society (Carvalho and Magrini, 2006). Although it cannot be implied that an immediate input of public comments into the decision-making process can resolve conflicts, most conflicts will at least be investigated if there is effective involvement (Wood, 1976).

Actually, there are some important differences between participation and ADR that should be realised. Public participation primarily focuses on values of empowerment and creativity of citizens as well as transparency of the government. The concept of ADR is similar whilst aiming at values of efficiency, timeliness and cost effectiveness of the decision-making process. In opposition, these values such as empowerment, transparency or timeliness could cause conflicts. Finally, although people may agree or disagree with the final decision, they have to learn to live with disagreement. In this notion, public participation is far more than conflict resolution since it aims to encourage people to discern public interests and then articulate their preferred alternatives (Priscoli, 2004).

Importantly, increasing public participation has many expectations and aspirations. For instance, in Sweden, politicians have integrated the concept of public participation with their planning acts because they considered this to be the most effective way to achieve a consensus, and moreover, to improve the planning process and to avoid conflicts (Persson, 2006). Malczewski and his colleagues (1997) pointed out in their study that Mexican environmental legislation mandates public involvement and participation in regional land use planning in order to reduce environmental conflicts through a participatory process by different stakeholders.

Finally, it could be concluded that public participation is viewed as an effective strategy to reduce tensions and resolve environmental conflicts (Wengert, 1976; Gunes and Coskun, 2005), whilst conflict resolution has become a particular goal of public participation (Raimond, 2001; Beierle and Cayford, 2002). This is because sharing points of view enhances understanding and tolerance (Wengert, 1976; Beierle and Cayford, 2001). However, it is important to understand that there are no perfect solutions for environmental conflict management (Pol *et al.*, 2006). When conflict already exists or is

likely to arise, other conflict management methodologies such as negotiation, facilitation, partnering, consensus building and mediation could be adapted as a part of a public participation programme in order to effectively handle them (Crowfoot and Wondolleck, 1991).

2.3 Building up a conceptual framework for public participation

2.3.1 Rationale for public participation

Since the 1960s, increased pressure from the public has altered traditional decision-making or top-down approaches. Between the 1960s and 1970s, the public began to be consulted (Jackson, 2001). The concept of public participation has been integrated as a core element in many national and international policies (Coleby *et al.*, 2009) in particular the Earth Summit in 1992, Principle 10 and Agenda 21 (WCED 1987), and the Aarhus Convention (UNECE 1998). Since then, the practice and role of public participation, particularly in environmental decision-making, has grown and changed exponentially over the past twenty to thirty years, with increasing usage at the local, state, national, and international level. The purpose of public participation has also shifted over time, and includes keeping governments accountable for their actions, identifying and understanding the public interest, and developing the substance of policy. Requirements for public notices and comment, or public hearings, have expanded to include consensus building, policy dialogues, stakeholder advisory committees, citizen juries, and multi-stakeholder regulatory negotiations (Beierle and Cayford, 2002). As a result, a variety of forms of public participation have begun to play an important role in the decision-making process as well as policy-making process (Horlick-Jones *et al.*, 2007).

Importantly, public participation is a fundamental component of democratic governance (McGurk, 2003). It supports democratic principles and contributes to the strengthening of democracy in society that citizens can participate more than by just casting a vote (Sinclair and Diduck, 1995). This concept is supported by the study by Fiorino (1990) based on the belief that in a democratic context, people have a right to be informed and participate in public decision-making. Particularly, people whose lives are impacted by the decisions must be able to take part in making those decisions (McGurk, 2003).

Public participation also provides a direct link between the public and the decision-makers in the bureaucracy. Basically, public participation is an approach to ensure that the authorities who make decisions that affect citizens' lives have a dialogue with the public before making those decisions (Creighton, 2005). Although the ideal concept of democracy is the rule of the citizens through maximum participation, the dramatic growth and complexity of bureaucracies had made it unfeasible (McGurk, 2003).

A number of researchers emphasise that public participation has become a central concept in environmental decision-making, in particular when these environmental projects or policies are faced with a Not in My Back Yard syndrome (NIMBY) (Ogunlana *et al.*, 2001; Beierle and Cayford, 2002; Vari, 2004; Marttunen and Suomalainen, 2005). Presently, this concept has become a serious problem for large-scale development and is manifest through public protests. This is because people believe that these projects could cause severe impacts to their health and environment (Pol *et al.*, 2006; Alberts, 2007). While the NIMBY syndrome has frustrated many developers, there is an argument that sometimes this opposition was only a response from local communities who were excluded from the decision-making process (Beierle 2001). However, this opposition not only causes financial and time losses in the participation process to the project developer, but it also raises hostility towards the projects (Ogunlana *et al.*, 2001; Alberts, 2007). More often, this leads to a cancellation or delay in construction of projects (Chaisomphob *et al.*, 2004).

This NIMBY situation leads to the emergence of public participation approaches as an alternative to resolve these conflicts (Smith, 1997). Based on the premise of public participation, the NIMBY position can be avoided by introducing alternatives and seeking agreement rather than simply reinforcing entrenched positions against the development projects (Richardson *et al.*, 1998). To lessen opposition, the proponents try to bargain more directly with stakeholders to reduce uncertainty and cost. Governments also attempt to avoid conflicts by dealing with stakeholders, searching for consensus, and making decision-making legitimate (Smith, 1997). As a result, power of the local citizens will be increased through the development of public participation (Thomas, 1995).

Nowadays, public participation has become a central theme for dealing with environmental problems for example how to protect, manage or distribute environmental resources (Beierle and Cayford, 2003; Gunes and Coskun, 2005). Additionally, public participation has shifted to be particularly significant in a variety of environmental management procedures such as environmental assessment (Shepherd and Bowler, 1997; Diduck and Mitchell, 2003), the planning process (Richardson *et al.*, 1998), health and environmental risk management (Rowe and Frewer, 2000; Rowe *et al.*, 2005), public health (Abelson *et al.*, 2003; Abelson and Gauvin, 2006), risk decision-making (Webler, 1999; Petts, 2004), national resource management (Lawrence and Deagen, 2001), environmental policy and decision-making processes (Smith and McDonough, 2001; Webler *et al.*, 2001; Renn, 2006), and environmental conflict management (Daniels *et al.*, 1996; Daniels and Walker, 1996).

There is a great variety of reasons for public participation, ranging from simply obeying legal regulations concerning the input of knowledge into the process, to considering participation a human right. Nowadays, the public is incredibly skeptical about the credibility of government institutions (Rauschmayer and Risse, 2005). The traditional structures and strategies of government decision-making that often exclude the public from the decision-making process are no longer acceptable since it is now recognised that making a decision without public support will potentially lead to confrontation, dispute, disruption, boycott, distrust, public dissatisfaction, and public controversy which can result in greater costs and be more time-consuming than an initial investment of time and costs to include the public (Frewer *et al.*, 2001). Overlooking information from the public potentially leads to legitimacy questions and conflicts (Coenen, 2008a). Accordingly, governments have begun to progress beyond their traditional decision-making processes and try to incorporate the public into the process. For example, a great number of non-governmental organisations have been used to provide information to governments (McGurk, 2003). It can be said that public participation provides decision-makers with relevant and important information that underlines a particular decision (Creighton, 2005).

One important reason why public participation has grown tremendously among society is due to a rising pressure from the public to be involved in open and transparent processes and also seeking legitimacy and credibility from the government or agencies (Webler and Tuler, 2006). Despite many institutions trying to apply public participation to deal with

environmental issues, their efforts often fail to solve environmental problems and conflicts (King *et al.*, 1998; Smith and McDonough, 2001). Indeed, public participation still needs to be improved (Webler *et al.*, 1995) and has a long way to go (Smith and McDonough, 2001).

2.3.2 Definition of public participation

The term public participation has numerous different meanings and definitions (Rifkin *et al.*, 1988; Creighton, 2005). Different authors have different meanings when using the term ‘public participation’ depending on who the people are and what the setting is (World Bank, 1996). It is always viewed differently depending on its contexts and purposes (Kelly and Vlaenderen, 1995; Strobl and Bruce, 2000). In the past, public participation was considered as being an opportunity to give comments in a public hearing, to vote in referendums, or just being a member of a social movement society (Webler and Tuler, 2006). Frequently, public participation related to participation at public hearings only, but, at present, this term refers to a diversity of procedures for facilitating members of the public to be effective participants in deliberations in decision-making processes (Webler and Tuler, 2001).

In relation to environmental decision-making issues, there is some confusion in the usage of the terms ‘public participation’ and ‘public involvement’ and, frequently, they are used interchangeably (Creighton *et al.*, 1981; Marshall and Roberts, 1997; Hostovsky *et al.*, 2010). In fact, each term has its particular meaning: sometimes, they are used to differentiate the public’s degree of involvement and empowerment (Marshall and Roberts, 1997). Principally, public involvement has a broader meaning and approach while public participation is more narrow (Roberts 1995). Public involvement refers to a wide range of approaches in which the public can be engaged in the decision-making process (Roberts 1995). However, public involvement focuses on exchanging information between the agency and the public, by providing a context in which information can be interpreted and used in the decision-making process (Creighton *et al.*, 1981). Basically, public participation is defined as a process in which the public’s values and concerns are integrated in the decision-making process (Creighton, 2005). More specifically, public participation engages the public directly in the decision-making process (Roberts, 1995).

and allows the public to play direct, outstanding and acknowledged roles in the process (Bisset, 2000). The public is empowered to control some or all aspects over the decision (Roberts 1995). It could be said that public participation consents to actual participation of the public in the decision-making process (Bisset, 2000).

Basically, definitions of participation are mainly related to the principle of democracy that citizens have a right to be informed, consulted, and to participate or express their opinions on matters that impact their lives (Petts, 1999). Indeed, public participation is acknowledged as a core concept of a people-centred approach to any development fields (Kelly and Vlaenderen, 1995).

The concept of public participation needs to be clearly identified (Kelly and Vlaenderen, 1995), in particular in the context of environmental use. Therefore, a variety of meanings of public participation from different researchers in different fields were determined in order to develop the ideas and integrate concepts to define the most appropriate meaning of public participation in the specific context of this research. These are presented in Table 2.1.

Based on investigating these various definitions, it could be said that a definition of participation could not be universal (Strobl and Bruce, 2000), and there is no set formula for public participation (UNECE 2000). The various applications of public participation in different contexts and conditions makes it complicated to create a rigid classification of public participation to be applied in every case (Garande and Dagg, 2005). This is consistent with an argument that definitions of participation are still confused (Creighton, 2005). It should depend on the specific setting, its purpose, and the participants involved and their objectives (Strobl and Bruce, 2000). However, at least we can say it requires effective notice, adequate information, proper procedures, and appropriate taking into account of the outcome of public participation (UNECE 2000).

Table 2.1 A comparison of definitions of public participation

Author (s)/Source (s)	Definitions
Arnstein (1969, p.216)	A categorical term for citizen power. It is the redistribution of power that enables the have-not citizens, presently excluded from political and economic processes, to be deliberately included in the future. It is the strategy by which the have-nots join in determining how information is shared, goals and policies are set, tax resources are allocated, programs are parceled out.
Renn <i>et al.</i> (1995, p.2)	Forums for exchange that are organised for the purpose of facilitating communication between government, citizens, stakeholders and interest groups, and business regarding a specific decision or problem
Canter (1996, p.587)	A continuous, two-way communication process which involves promoting full public understanding of the process and mechanisms through which environmental problems and needs are investigated and solved by the responsible agency; keeping the public fully informed about the status and progress of studies and implications of project, plan, programme, or policy formulation and evaluation activities; and actively soliciting from all concerned citizens their opinions and perceptions of objectives and needs and their preferences regarding resource use and alternative development or management strategies and any other information and assistance relative to the decisions.
World Bank (1996, p.4)	A process through which the stakeholders influence and share control over development initiatives, decisions and resources which affect them.
Petts (1999, p.147)	A process of engagement, where people are enlisted into the decision process to contribute to it. Participation methods provide for exchange of information, predictions, opinions, interests and values. Participation requires that those initiating the process are open to the potential need for change and are prepared to work with different interests to develop plans or amend or even drop existing proposals
Webler and Tuler (2001; p. 29)	A variety of processes for enabling diverse members of the public to be active participants in deliberations about preferred policy options, and in some cases decision-making.
Beierle and Cayford (2002, p.6)	Any of several “mechanisms” intentionally instituted to involve the lay public or their representatives in administrative decision making.
Creighton (2005, p.7)	The process by which public concerns, needs, and values are incorporated into governmental and corporate decision making. The process is based on interaction and two-way communication. The overall goal is to make better decisions by the support from the public”

Based on these various definitions of public participation, there are some common features that can be identified and summarised as follows. Public participation is usually a process, or processes conducted for all stakeholders, especially affected or interested parties, by agencies or private organisations based on a broad range of interactions between the authorised decision makers and people who want to participate (Creighton, 2005; Coenen, 2008a). It can be applied to administrative decisions or implementing of project developments (World Bank, 1996). Public participation is also viewed as processes of empowering citizens which allow the suggestions or comments from participants to have some level of influence on the decisions, that affect their lives and try to reach a consensus (Rifkin *et al.*, 1988; Merkhofer *et al.*, 1997; Soneryd, 2004). Importantly, a participatory approach focuses on facilitating communication, sharing information, closing information gaps; and dealing with conflicts and cultural issues (Gotze, 1997; Walker, 2004). As is apparent from all mentioned definitions, in this study, public participation can be defined as:

a range of activities, or processes, by which all affected and interested parties are engaged in the decision-making process to prevent or resolve a conflict, and to achieve consensus and its objective through a mutual two-way communication before decisions are made.

Although the concept of public participation in all fields might be common in some points, when environmental issues are included then participation might be more complicated and have different definitions (Chaisomphob *et al.*, 2004; Gunes and Coskun, 2005). Indeed, there is not an exact term that can be a discreet approach applicable in every context. Thus, it would be better to define public participation as a broad spectrum of methodologies and tools that vary depending on the nature of the resources, the needs, capacities and expectations of stakeholders (Ackerman and Halpaap, 2002; Gunes and Coskun, 2005). For instance, the nature and objectives of participation might differ significantly between communities where people are facing different environmental problems and communities where the environment is much better (Gunes and Coskun, 2005).

In this study, when an issue of an implementation of a development project is considered, public participation is seen as:

the active involvement of citizens in making and implementing decisions at all levels and for all forms of political and social-economic activities, in particular in any development projects, to protect their environment and natural resources.

2.3.3 Levels of public participation

Public participation in the environmental decision-making process has a wide range of different levels (Vasseur *et al.*, 1997; Agarwal, 2001; Konisky and Beierle, 2001; Tress *et al.*, 2005), with different goals and outcomes (Barnes, 1999; Mostashari, 2005). It is also likely to be the most intense and takes the widest variety of forms (Roy, 1998). There is a body of research that emphasises the need to engage the public in all levels of decision-making (Halvorsen, 2006). One of the first researchers to work on different public participation levels and their implications was Sherry Arnstein (1969). She classified citizen participation in the ‘ladder of citizen participation’, in which the levels of citizen involvement can be differentiated by the degree of citizen control which affects the outcome of the process. In other words, the levels of citizen empowerment sharing in government or agency decision-making processes can range from none to a high degree of participation or influence as show in Figure 2.2. She emphasised that “*there is a critical difference between going through the empty ritual of participation and having the real power to affect the outcome of the process*” (Arnstein, 1969; 217). The higher on the ladder of citizen participation, the greater the extent of citizen’s influence in the outcome of the process. In addition, as illustrated by Van Ast and Boot (2003), the ladder can also be used as a government attitude indicator of participation; what they term as the government and participation “style”. The higher levels of the steps, equate to a higher degree of participation.

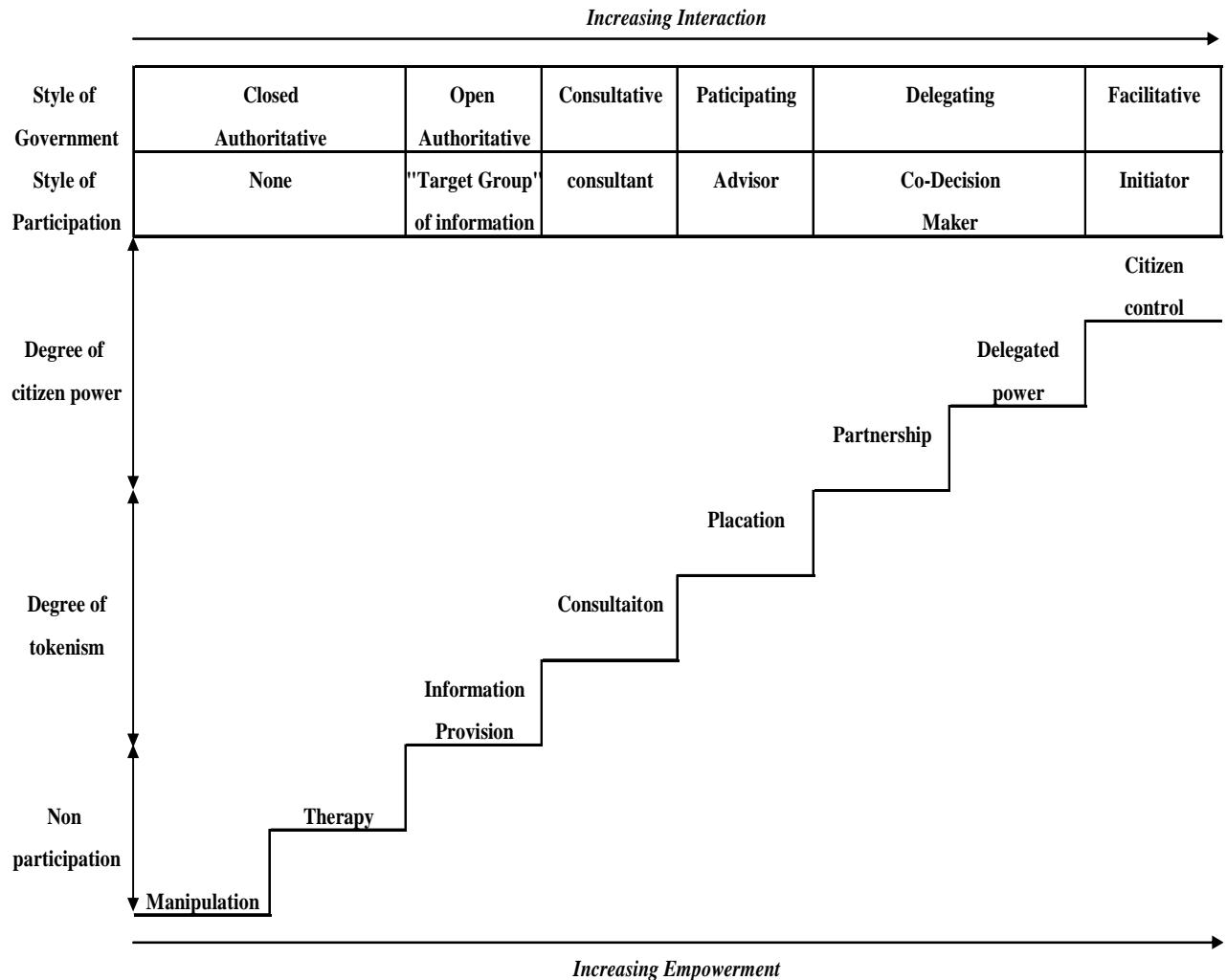


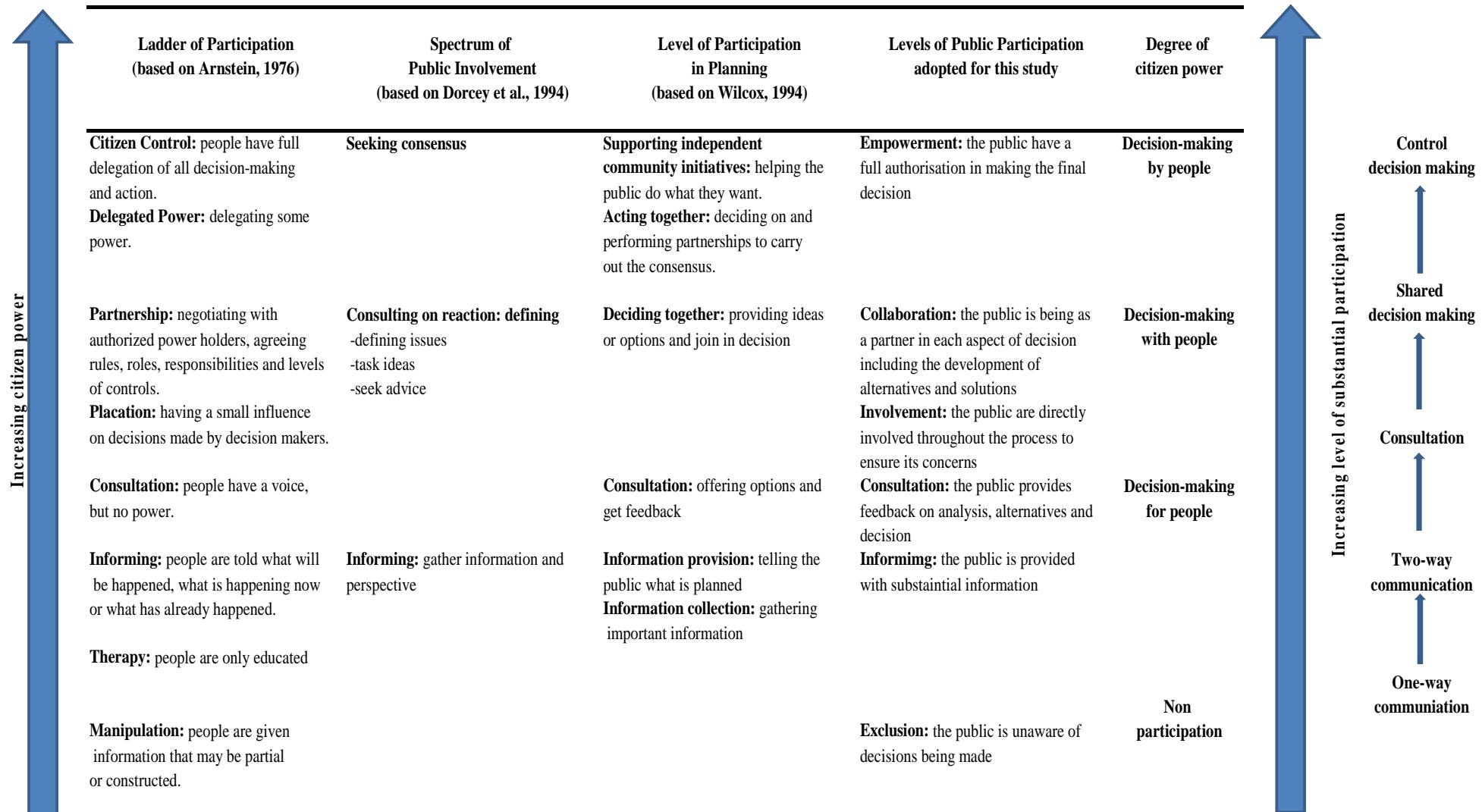
Figure 2.2 Levels of citizen participation Adapted from Arnstein (1969); Sinclair and Diduck (1995), Petts (1999); Cooper and Elliott (2000); and, Van Ast and Boot (2003)

On the first two steps of the ladder, there is the lowest level of participation or non participation, where people are only being manipulated. The middle steps of the ladder are characterised by a degree of tokenism, which includes information provision, consultation, and placation. At these stages, the government characteristic is open authoritative or consultative government, people are being informed with information about the project passing from the government to the public, but the public do not know whether their views have any influence on the decision or not. Step five of the ladder is the placation stage where the public may express their opinion on the decision, but their opinions have a small influence on the decisions. The government style is participative governance. At the higher steps, participants have various degrees of citizen power. In the partnership stages, the public have the opportunity to engage and negotiate with authorised agencies. At the top two rungs of the ladder (delegated power and citizen control), citizens steer the

process and outcomes of decision-making with minimal interference. In the delegated power stage, some power is delegated, while in the final category, the citizens have full power over all decision-making and actions. The public comments or advice have full influence on the decision-making procedure (Arnstein, 1969; Petts, 1999; Van Ast and Boot, 2003). In summary, effective participation occurs only at the last three steps of the ladder, where power is delegated to citizens and people can achieve a powerful decision-making authority. In some cases, they may have full control of all policy and managerial aspects (Lyster, 1998).

A number of researchers have explored variations of Arnstein's Ladder (Dorcey *et al.*, 1994; Wilcox, 1994). Figure 2.3 sets out four versions of the participation ladder: Arnstein's original and three simplifications designed to make it more operational. These different levels of public participation are based on different roles in a decision-making process.

Wilcox (1994) adapted Arnstein's ladder in order to make it more operational and presented it as five stances or levels of public participation. They are information, consultation, deciding together, acting together and supporting independent community interests. At level one, the public is passive and just receiving information. Level two mainly involves information, sharing and consultation on all relevant aspects. Feedback from the public is requested and considered as a part of the decision-making process before the authority makes a final decision. These low levels of public participation are particularly controlled by the initiator. At level three, a group of individuals or the public can delegate power to the authority to make a decision. At the fourth level, the authority and the public are working together as a partnership to carry out what is the best solution. At the final level, the authority helps and supports the public to do what they want.



The diagram illustrates the increasing level of substantial participation, represented by two vertical blue arrows on the left and right sides. The left arrow is labeled 'Increasing citizen power' and the right arrow is labeled 'Increasing level of substantial participation'. Between these arrows is a vertical stack of six horizontal lines, each representing a different level of participation, from bottom to top: One-way communication, Two-way communication, Consultation, Involvement, Decision-making with people, and Control decision making.

Ladder of Participation (based on Arnstein, 1976)	Spectrum of Public Involvement (based on Dorcey <i>et al.</i> , 1994)	Level of Participation in Planning (based on Wilcox, 1994)	Levels of Public Participation adopted for this study	Degree of citizen power
Citizen Control: people have full delegation of all decision-making and action. Delegated Power: delegating some power.	Seeking consensus	Supporting independent community initiatives: helping the public do what they want. Acting together: deciding on and performing partnerships to carry out the consensus.	Empowerment: the public have a full authorisation in making the final decision	Decision-making by people
Partnership: negotiating with authorized power holders, agreeing rules, roles, responsibilities and levels of controls. Placation: having a small influence on decisions made by decision makers.	Consulting on reaction: defining -defining issues -task ideas -seek advice	Deciding together: providing ideas or options and join in decision	Collaboration: the public is being as a partner in each aspect of decision including the development of alternatives and solutions Involvement: the public are directly involved throughout the process to ensure its concerns	Decision-making with people
Consultation: people have a voice, but no power.		Consultation: offering options and get feedback	Consultation: the public provides feedback on analysis, alternatives and decision Informing: the public is provided with substantial information	Decision-making for people
Informing: people are told what will be happened, what is happening now or what has already happened. Therapy: people are only educated	Informing: gather information and perspective	Information provision: telling the public what is planned Information collection: gathering important information		
Manipulation: people are given information that may be partial or constructed.			Exclusion: the public is unaware of decisions being made	Non participation

Figure 2.3 Levels of Public Participation Adapted from Arnstein (1969), Dorcey *et al.* (1994), and Wilcox (1994)

Using Arnstein's ladder as a template, Dorcey *et al.* (1994) presented a spectrum of participatory processes with increasing levels of interaction, intensity, commitment, and influence moving up the continuum. The lower levels of the continuum are informing and educating the public, while the highest levels of participation are seeking consensus and ongoing participation. In this concept, each level in the continuum can be an appropriate level of participation depending on the purposes and contexts of the participation exercise. This concept states that the nature of public participation can change throughout a decision-making process. Public participation may be required at the beginning of the process, while other techniques may be more suitable in the other stages.

There are some distinctions between these three concepts. Arnstein's ladder suggests that there are different levels where the public have autonomy, influence, or no power, which are planning by people, planning with or for the people, and planning of people, respectively (Sidaway, 2005). The concept of participation levels by Wilcox does not discuss the non participation stage where the public is excluded and unaware of decisions that could affect them. The first level is passive information, from the authority to the public (Wilcox 1994). Dorcey's approach does not perceive public participation as a distinct and separate stage. Instead, the point is that each level in the spectrum may be appropriate, depending on the decision to be made. In other words, as higher levels of participation are employed, each of the lower forms needed to be carried out simultaneously, in order to keep all parties engaged and informed (Dorcey *et al.*, 1994).

Drawing from these typologies of levels of public participation, a participation framework for this study is developed. The levels of public participation are categorised into six levels ranging from low to high as; exclusion, informing, consultation, involvement, collaboration, and empowerment, according to the amount of power transferred from the responsible authority to the public. At the lowest level, there is no participation. The public is excluded from and uninformed about decisions that are being made. At the second level, the public are only informed about the project to assist them to understand the problems, alternatives and solution. At the third level, the public are consulted and can provide input to the process. At the involvement level, the public are working directly with the authorities throughout the process to ensure the issues of concern are considered. At the upper level, the public have more power in the decisions as a partner in every

aspect of the decision including the development of alternatives and the solutions. Finally, at the highest level, the final decisions are placed in the hands of the public. The public have full influence to steer and control the decision-making process. Importantly, in this concept, lower levels of participation are considered as important stepping stones to the higher levels of public participation to be substantial participation.

Drawing from this review, it could be said that public participation has a broad scope of procedures and practices (Soneryd, 2004; Tress *et al.*, 2005). All levels may be appropriate under certain circumstances and for special stakeholders. Thus, it is important to identify and analyse stakeholders in the issue. Then determine the objective of participation, which stakeholders are to be included, and what level of participation and techniques that will be used to engage them. Using these typologies certainly helps to clarify who may want to be informed at each stage and the basis of their involvement (Sidaway, 2005). Importantly, the aim of a participatory democracy is to generate the highest possible level of citizen participation and the critical decisions also need a high level of public participation (Van Ast and Boot, 2003). To achieve effective participation, public participation needs to be shifted from the lower to the higher levels of participation (Agarwal, 2001).

This study will adopt the literature and the typologies presented in Figure 2.3 as a conceptual framework to examine the level of, and evaluate the effectiveness of, public participation of the Hin Krut power plant case. The research results will be presented in Chapter 6 and 7.

2.3.4 Benefits of public participation

The benefits of engaging the public in genuine participation are extensive (Garande and Dagg, 2005). Public participation is viewed as having significant potential for major benefits for individuals, communities and society as a whole; as it can enable decisions to be able to fit the needs of stakeholders and gain support from the authorities (Churchman and Sadan, 2004). Finding and implementing sound solutions for environmental problems typically requires a broadened participation from the public.

The benefits of public participation can be discussed in both theoretical and practical terms (Stewart, 2005). Numerous public participation practitioners and researchers have written extensively on the benefits of public participation in the literature in different contexts (McGurk, 2003; Stewart and Sinclair, 2007), such as the policy making process (Rowe *et al.*, 2004; Checkoway *et al.*, 2005; Quantz and Thurston, 2006), decision-making contexts (Renn *et al.*, 1993; Beierle and Konisky, 2000; Webler *et al.*, 2001; Petkova *et al.*, 2002; Stave, 2002; McGurk, 2003; Petts, 2004; Rowe *et al.*, 2004; Doelle and Sinclair, 2006), environmental planning (Webler and Tuler, 2001), environmental assessment (EA) (Shepherd and Bowler, 1997; Palerm, 2000; Doelle and Sinclair, 2006), and strategic environmental assessment (SEA) (Xiuzhen *et al.*, 2002; Alshuwaikhat, 2005). The following are some distinct examples of its advantages.

Effective decision-making

Public participation can contribute to and enhance the high quality of decision-making (Fiorino, 1990; Carnes *et al.*, 1998; Forrester, 1999; Beierle and Cayford, 2003; Stewart, 2005) because it provides the decision-maker the necessary information and contributes to the logical identification of problems and their causes (Marshall and Roberts, 1997; Coenen, 2008a). It can also advance the quality and depth of knowledge of stakeholders (Forrester, 1999) by providing an opportunity for all parties to collaborate and develop creative solutions (McGurk, 2003). Through public participation, the public and the stakeholders have an opportunity to expand their knowledge and expertise, informing debates, and deliberating the alternatives, and finally, this dialogue may result in inventive solutions of disputes (Praxis, 1988; Mitchell, 1997). Additionally, public participation usually generates new alternatives as well as a consideration and an assessment of these alternative strategic options (Coenen, 2008a). This is because the public are accepted as an important source of knowledge and ideas for decision-making (Fiorino, 1990), and can point out the hidden assumptions that may be the effective solutions, discover mistakes, offer valuable local specific knowledge and experience, including critical information about existing circumstances; or, suggest how the decision should be implemented (Beierle and Cayford, 2002; Creighton, 2005) in both the planning and management stages of the project or program (Roberts, 1995).

The public participation processes usually help to clarify the aims and requirements of a project or policy (Creighton, 2005). As stated by Petkova *et al.* (2002), public

participation helps to ensure that all relevant aspects ranging from identifying the scope of a problem to initiating solutions are accomplished. It can be applied as a tool to integrate environmental and social concerns into decision-making processes and thereby develop decisions that support sustainable development.

Fiorino (1990) and Shepherd and Bowler (1997) argued that participation can provide better information for both decision makers and participants by exchanging relevant information and their points of view. Furthermore, Petts (1999) suggested that participation could improve professional decision-making by facilitating experts to do their job more easily by structuring problems and finding alternatives.

Increasing credibility and legitimacy

An approach to achieve and increase legitimacy in decisions, especially when they are controversial, is to make a decision-making process clear, open and credible by engaging the public in the process and empowering them to influence the decision-making process (Shepherd and Bowler, 1997; Creighton, 2005). Involving the public usually results in the participants perceiving decision making-processes and outcomes as credible and legitimate processes (Smith, 1973; Roberts, 1995). The public will be informed with more information and given reasons for the decisions (Renn *et al.*, 1993). Harding (1998), Bureekul (2000), and Coenen (2008a) recommended that public participation would increase credibility, accountability and transparency in decision making-processes, especially in terms of public confidence, and this will result in enhancing support for the implementation of the plan, project or policy and also develop valuable relationships between stakeholders (Praxis, 1988; Roberts, 1995). It can be said that public participation can help to ensure that final decisions have legitimacy and validity among stakeholders (Harding, 1998).

Reduce conflict

A great deal of research argues that public participation has an ability to prevent and reduce conflict and confrontation (Hollick, 1986; Renn *et al.*, 1993; Roberts, 1995; Shepherd and Bowler, 1997; World Commission on Dams, 2000; Beierle and Cayford, 2002, , 2003; Coenen, 2008a) by providing a means to identify and resolve the conflict

before the decisions are finalised (Harding, 1998). In particular, it provides an open two-way communication that is suitable for resolving conflicts (Roberts, 1995; Beierle and Cayford, 2002). Public participation in decision-making processes can build commitment, trust and understanding between adversarial parties and reduce controversy (Fiorino, 1990; Shepherd and Bowler, 1997; Creighton, 2005) because the process can contribute to the verification and resolution of relevant issues before they have an opportunity to escalate into extensive problems (Roberts, 1995). Additionally, public participation is used to identify long-term effects from the decisions to proceed with projects which may be overlooked by the proponent (Harding, 1998).

Petkova *et al.* (2002) suggested that public participation could be implemented as a mechanism to manage social conflicts by monitoring different stakeholders and interest groups to discuss or negotiate to find a consensus. It allows the public to express their needs and concerns. However, it is difficult to promise that all conflicts could be reduced or eliminated through public participation (Creighton, 2005).

Acquisition of public concerns and attitudes

Working with the public participation process, the authorities' staff can increase their awareness about public concerns and their views on the proponent's operations. Through these opinions, the authorities can justify what should be considered in the decisions (Creighton, 2005). The integration of the public's values, goals, and preferences is judged as an important part of the planning process (Beierle and Cayford, 2002). The public is a crucial source of valid information and public participation is a critical approach for capturing and incorporating this information into planning and decision-making processes (Renn *et al.*, 1993; Stewart, 2005).

Minimising time and cost

Frequently public participation is seen as a time-consuming and laborious activity (McGurk, 2003). Nonetheless, many practitioners argue that public participation can decrease costs and delays concerned with public disputes that result when public participation is not implemented (Roberts, 1995). The effectiveness of decision-making should not be assessed only in terms of time and costs, but should consider any delays and

costs from the decisions. If the decision is made prematurely without public participation, it may result in a very expensive project in the long term (Creighton, 2005).

Developing civil society

One distinctive benefit of public participation is better educated citizens. Participants are not only informed and learn about the project or plan, but they also learn why and how the decisions are made (Creighton, 2005). Through participation, people can learn about the environmental problems that the society deals with and in turn can change their behaviour (Coenen, 2008a). Besides, direct participation also fosters the development of the public (McGurk, 2003). When involving citizens in the public participation process, they can learn how to influence others and how to develop coalitions. Moreover, public participation helps participants to work effectively with others (Shepherd and Bowler, 1997; Creighton, 2005).

As discussed above, a carefully designed and appropriately established public participation program has abundant benefits (Stewart and Sinclair, 2007). Public participation is more than a requirement to be implemented. Proactive participation is beneficial to both project proponents and the public. Implementing public participation in sufficient time can develop a desirable and acceptable project, resolve conflicts, establish cooperation and collaboration, and improve the process and outcome of the environmental decision-making (Shepherd and Bowler, 1997). Appropriately implemented, public participation can help integrate environmental and social concerns and support sustainable development aims. To achieve this purpose, it should be encouraged in all sectors and at all levels and at all stages of the decision-making process (Petkova *et al.*, 2002).

2.3.5 Barriers to public participation

An attempt to increase public participation in public decisions is currently widespread (Barnes *et al.*, 2007); however, more often, there is considerable evidence that this effort is not successful (Thomas 1995; King *et al.* 1998). When effective, public participation leads to substantial advantages such as more effective decisions, and a satisfied and supportive public; however, when it fails, public participation can result in a dissatisfied or even a

restive public or ineffective decisions (Thomas, 1995). Some participation processes are ineffective because of poor planning or execution, while other practices may not work because administrative systems are based on expert involvement only in the participatory process (King *et al.*, 1998). Frequently, public participation is considered as a forum for the identification of latent conflicts, but it does not offer an effective means to resolve these conflicts (Smith, 1997). It can be argued that the issues and problems of public participation depend on different environmental issues and also vary across different stages of the environmental assessment procedure. These problems are also relevant to scientific disciplines and practices (Forrester, 1999). The risks of failure have frequently persuaded the decision-maker to avoid or minimise public participation (Thomas, 1995).

Despite wide acceptance of the importance and benefits of public participation, it has still been subject to considerable controversy (Petts, 2003). Whilst a number of authorities and developers are seeking to legitimise their actions by more direct involvement with the public and establish more direct and accountable public participation (Barnes, 1999), some do not fully perceive the benefit of participation and view it as a hindrance that threatens their power (Churchman and Sadan, 2004; Tang *et al.*, 2008). This is because public participation aims at distributing power among stakeholders which makes it difficult to be dispassionate. They argue that lay people are not competent to take part in the decision-making process due to the complexity of the problems. They also add that they make a subjective decision by seeing a large picture; while ordinary people may make an objective decision concerning only their own interest (Churchman and Sadan, 2004).

Public participation processes are often criticised as being complicated and creating difficulty when trying to reach decisions on complex and disputed issues (English *et al.*, 1993; Barnes, 1999). Frequently, public participation mechanisms bringing the public directly into the decision-making process are seen as being time-consuming and costly; potentially enhancing conflict (English *et al.*, 1993); and being counter-democratic, by increasing the influence of people who are not essentially representative of the public interest as a whole (Creighton, 2005).

There are numerous factors identified as barriers to effective participation. These factors concern different aspects such as legislative requirements, institutional and professional support, costs, lack of skills and knowledge, and lack of experience in valuing and

identifying the benefits of public participation (Petts, 2003). Based on guidelines by Petts (1999; 2003; 2004), Diduck and Sinclair (2002), Creighton (2005), and Doelle and Sinclair (2006), these barriers can be classified into three main groups: individual, legislative and structural barriers. Individual barriers are restraints related to a personal perception regarding the issue or the purposed project. Legislative barriers include constraints related to legislative framework whilst structural barriers are constraints associated with institutional settings and societal structures. The details of each barrier are described below.

2.3.5.1 Individual barriers

Time and money

Time and money factors are frequently cited together since the process usually involves many parties and stakeholders and needs a lot of money and sufficient time. Thus, spending the time on public participation is costly. This is a significant factor in a case where the organisers, either the government or the project proponent, have insufficient funding to support their activities. For the process's participants, in particular the local people, lack of time and financial support in term of transportation costs or the cost when leaving their usual job are crucial barriers (Hughes, 1998; Woljer, 2008).

In many cases, public participation is provided after a decision has been made; the stakeholders might perceive that they have only an opportunity to receive information about the decision rather than an opportunity to provide constructive dialogue or to influence the decision (Creighton, 2005). This may make people unwilling to participate since they think that it is useless when the decision has already been made (Ashford and Rest, 1999).

Education

Generally, well-educated people are more likely to take part in public participation processes than poorly educated people (Nisker *et al.*, 2003). In particular, when the participation process is relevant to technical and specific issues, well-educated people usually take more responsibility to became involved and make more contributions to the process (Beierle and Konisky, 1999).

Mistrust

Mistrust often pervades a relationship among stakeholders. A number of researchers suggest that mistrust, in particular among the government, the developer and the affected people, was a serious barrier to effective public participation (MacNaghten and Jacobs, 1997; White, 2001; Vari, 2004).

2.3.5.2 *Legislative barriers*

Ambiguity in legislation and guidelines

Unclear wordings and procedures in the relevant legislation and guidelines of how to manage and encourage public participation are criticised as a barrier to the authorities and the project proponents in providing participation to the public in many countries (Blahna and Yonts-Shepard, 1989; Vari, 2004). Okello *et al.* (2009) expressed similar views that legal frameworks which are inconsistent and overlap often confuse the audience and lead to difficulties with interpretation and practice.

2.3.5.3 *Structured barriers*

Political and instructional culture of decision-making

Different countries have various systems of providing participation to the public, and countries delineate the public participation process differently. For example, Australia provides opportunities to the public to oppose decisions that have adverse impacts on the environment (Wood, 1993; Gross, 2007). In contrast, in Turkey, the government has a strong centralist institution and its administration does not promote responsive and autonomous institutions to local governments. This is a key obstacle to developed mechanisms for participation at the local level (Tosun, 2006).

Finally, to involve all of the affected stakeholders in a project development or policy, it is crucial to be aware of all these potential barriers to participation. Correctly identifying and addressing the barriers of public participation process are an important approach to: motivate stakeholders to participate, eliminate the significance of such barriers, and improve the public participation process itself (Stewart and Sinclair, 2007).

2.3.6 The public and stakeholders

In project implementation where the public have been convened to deliberate with the authorities, there are often questions as to whether the participants are truly representative of the impacted community (Raimond, 2001). Identifying and engaging the affected and interested parties is essential to the design of public participation programmes, but frequently the public and stakeholders are difficult to identify (Stewart and Sinclair, 2007). Too often, involving the public can be more complicated than identifying a single stakeholder or a set of stakeholders, due to the fact that the composition of the relevant public or stakeholders can change and be different over time (Schlossberg and Shuford, 2005). There is no single group or interest which could be exactly defined as the public since different parties and interests appear, subside, and reappear at different times and in different forms. As a result, the public and stakeholders are different for each particular issue (Petts and Leach, 2000). Thus, the terms of public and stakeholders should be carefully defined by considering the potential risk to excluding people who should be permitted to participate (Doelle and Sinclair, 2006). It is essential to ensure that every group of persons is included in the participatory processes (Canter, 1996; Yosie and Herbst, 1998). Importantly, since some participation techniques are more effective with certain groups of people than others, identifying the right representatives in the process leads to an appropriate selection of participation techniques to be used (Canter, 1996).

In general, the ‘public’ refers to the citizens at large (Mostashari, 2005). This means everyone who may possibly have something to contribute to the process should be allowed to participate (Doelle and Sinclair, 2006). Petts (1999) highlighted that the public are frequently seen and approached as a large homogenous entity which focuses on special interests. Similarly, Warner (2001) found that the public covers a wide range of potential actors, ranging from individuals, families, communities, and local and minority groups. The public can be both intentionally and unintentionally affected by a proposed development project.

In contrast, in the literature the public is often not viewed as a single entity but as various affiliations formed in response to the issues of interest (Stewart, 2005). The public can be classified by geographic, economic, social, or political interests (Creighton, 2005). The

conceptions of the relevant public can be varied with regard to goals and interests of the other parties (Smith, 1997). There is an argument that successful public participation requires public involvement, not only as an individual but also collectively such as a community (Agarwal, 2001).

In the public at large, there are many people who have positive or negative views about the issues, which may depend on their ethical and moral views or interests. Members of the public can be described as stakeholders alongside the proponent or NGOs. Stakeholders are often a subset of the public (Creighton, 2005). Stakeholders can be variously defined based on their different contexts (Smith, 1997).

Basically, the term “stakeholders” is defined as any group or individual who can affect or is affected by the decisions, projects or any activities to achieve the organisation’s objectives (Smith, 1997). Similarly, English *et al.* (1993) identified that a stakeholder can be defined as a person, group, or business unit that has a share or an interest in a particular activity or set of activities. As stated by Petts and Leach (2000) and Creighton (2005), the term stakeholders refer to those who have a stake or interests in an particular issue, which may include government agencies, industry, non-governmental organisations (NGOs) and individuals. Stakeholders can be both individual and collective actors such as social movements or local networks. They can incorporate actors such as unions, chambers of commerce or organisations that are composite groups of people who have a high degree of autonomy in identifying their purposes. More often, collective actors are represented by individuals linked to the collective actors (Coenen, 2008a).

Typically, not all stakeholders can be actively involved in a public participation process since not everyone can participate at the same time, even if they are the most potentially affected by the decision (English *et al.*, 1993). Too often, many stakeholders prefer not to participate because of lack of time, poor self-esteem, lack of inclination or a sense of inability to contribute, and so on. Most important, many of them are still unaware of their opportunity to participate (Yosie and Herbst, 1998). Furthermore, many participation techniques can be too difficult to manage if all stakeholders take part (Mostashari, 2005). These issues raise the question as to how to select the community representatives? Renn *et al.* (1995) identify three strategies for selecting participants in a public participation process. The first is to select representatives of groups or organisations that are interested

in the issues. Asking for the volunteers from the affected community is the second approach. The final strategy is random selection or equivalent methods to achieve statistical representation of the population.

Whatever kind of process is employed, identifying the stakeholders in the public participation process is essential and links to the goals and outcomes that the process aims to achieve (Smith, 1997; Yosie and Herbst, 1998; Soh and Yuen, 2006). This important issue leads to two fundamental questions. These are: who should be selected to be participants and, which participants can best represent all stakeholders? (English *et al.*, 1993) The approaches to identify who should participate in the participatory process can be grouped into at least four as follows.

First, the persons who are affected by the decision should have greater priority to engage in the participatory process. Due to the fact that the general public should be informed about the project and have an opportunity to participate, the people who are seriously impacted by the decision should have a greater level of involvement (Canter, 1996; Smith, 1997; Yosie and Herbst, 1998; Priscoli, 2004), especially the citizens who live near where the project is implemented (Creighton, 2005). Additionally, the persons who gain or lose financially, whose usages of a resource or facility are limited by the decision, should also be involved (Roberts, 1995; Creighton, 2005).

Second, the persons who have a power or an authority to influence the implementation of the decision or project (Smith, 1997), in particular business and commercial developers (Canter, 1996). The members of the public who can affect the ability to implement the decisions should be involved (Thomas, 1995), including those who have potential to help or hinder the goals of the process (Smith, 1997).

Third, the persons who can provide important information or knowledge to the decision or programme (Yosie and Herbst, 1998). Typically, public participation processes should engage participants who have useful information and skills to solve the problems (Thomas, 1995; Coenen, 2008b). For example, technical experts, preservationists, or academics are usually viewed as key informants in a public participation process (Canter, 1996; Smith, 1997).

Fourth, the part of the general public comprising people who prefer a high standard of living and who do not want to sacrifice this standard in order to preserve national resources and environment or to prevent any damage from pollutions (Canter, 1996).

The basic rationale for stakeholder involvement is that there is a complexity in decision-making systems that cannot be dealt with solely by any set of experts. An agreement is only possible through stakeholder dialogue and negotiation. Therefore stakeholder participation is crucial, although communicating information to a broad stakeholder audience can be difficult due to the dynamics of the system, differences in technical expertise of the audience, and potentially conflicting perspectives among stakeholders. Furthermore, many social and economic systems decisions typically involve complex scientific and technical issues and a wide range of stakeholders, scientific uncertainty, value conflicts, ecosystem dynamics, and social dynamics, so that environmental decisions are essentially prone to challenge (Mostashari, 2005).

The challenge is to balance the need to consider the many views of all stakeholders in the deliberations, with conveying the interests of a group of individuals who have a role in decision-making processes (Yosie and Herbst, 1998). It can be summarised that public participation should not only encourage the number of participants but should also emphasise balancing the interests involved (Smith, 1997). Although some people choose not to declare their interests, they still have a right to know or participate if their interests may be affected (Petts and Leach, 2000).

2.3.7 Public participation techniques

A critical issue in planning a public participation programme is associated with the selection of public participation techniques to meet the objectives and the needs of the identified public and stakeholders (Canter, 1996). There are numerous different participatory methodologies and tools that can be used to facilitate public participation (Webler, 1999; Petts and Leach, 2000; Glasson *et al.*, 2005) and engage the public (Stewart, 2005), depending on the particular context such as the needs, abilities and objectives of the stakeholders (Gunes and Coskun, 2005). Different techniques have different relative effectiveness in terms of the degree of contact achieved (Petts, 1999;

Charnley and Engelbert, 2005). Some methods are traditional while others are more innovative; some methods are used to generate alternatives while others are used to find out specific decisions; and, some methods need participants to give an immediate point of view while others allow for more deliberation (Petts and Leach, 2000). Appropriate public participation is specific to social contexts, making it difficult to select the appropriate participation techniques to be applied to every decision made on project development (Garande and Dagg, 2005).

Frequently, traditional methods, such as a public hearing, are used in environmental management fields (Konisky and Beierle, 2001). A common practice of traditional techniques is involving the stakeholders in meetings that quite often take place in an atmosphere of confrontation which could lead to protests or fully fledged social movements formed to challenge those in power (Innes and Booher, 2000). This can discourage the process through some, often a minority, dominating a meeting with their extreme views which do not represent the wider opinions of the public. Frequently, the meetings take place in day time or at specific times which limits the numbers of stakeholders who want to attend. The restricted time and locations of public meetings also decrease the possibility of widespread attendance. Thus, only a small number of participants are engaged (Kingston *et al.*, 2000). Moreover, traditional techniques are too often reactive in nature, providing insufficient deliberation (Konisky and Beierle, 2001), employing one-way flows of communication, and less interaction among stakeholders, in particular between the decision-maker and the affected people (Wondolleck and Yaffee, 2000).

Therefore, more and more attention is directed at the search for new approaches to deal with the limitations of the traditional methods. More innovative and deliberative participation approaches are being developed to achieve both greater responsiveness and better outcomes (Barnes, 1999; Barnes *et al.*, 2003). Deliberative innovations, such as, citizen juries, or round tables, are new techniques which encourage citizens to reflect problems affecting them and their communities through any forms of deliberative process (Lowndes *et al.*, 2001). Importantly, innovative approaches foster open and constructive communications, interactive flow of information and collaboration (Wondolleck and Yaffee, 2000; Konisky and Beierle, 2001).

Since the number of public participation techniques is considerable, and each method also has its own substantial features, advantages and limitations (Ashford and Rest, 1999), grouping this wide range of participatory techniques by using common features or relevant concepts will help to understand their particular concepts. Actually, there are many ways to categorise them (English *et al.*, 1993), for instance, by their goals or purposes (Vantanen and Marttunen, 2005), by degree of participation (Praxis, 1988), or by forms of participation (Lowndes *et al.*, 2001). In this study, the public participation techniques will be classified into five categories based on their general purposes, levels of public participation, and degree of innovation adapted from Praxis (1988), Sinclair and Diduck (1995), Leach and Wingfield (1999), and Petts and Leach (2000). These categories are public education and information, information and feedback, involvement and consultation, extended involvement and joint planning.

First, public education and information is a traditional method and involves the provision of information to the public about the activity and related issues. Second, information and feedback on the public concerns and perspectives about the activity are requested. Third, public involvement and consultation involves the use of two-way communication between the decision maker and the public based on originally accepted objectives. Fourth, in extended involvement, the public gives their point of view to the decision maker and has an influence on the decision. Finally, in joint planning, the authority and the public share the decision-making responsibilities. These latter two categories have a high degree of deliberative innovation.

Although there are a variety of techniques that are available to conduct public participation, only one or two techniques are used in public participation processes (Stewart and Sinclair, 2007). Many researchers have highlighted the benefits of employing multiple techniques when seeking to involve the public (Praxis, 1988; Stewart and Sinclair, 2007). It is because there is no most effective or best method of public participation because each participation method has its own advantages and disadvantages (Vantanen and Marttunen, 2005). Importantly, there is no single approach to conducting public participation. Some participation techniques work best in some contexts but they may not fit other conditions (Sidaway, 2005). Therefore, employing a variety of methods helps to capture the broad range of affected and interested publics (Simonsen and Robbins, 2000) since they can participate in the most convenient forum for them (Smith, 1993). To

achieve consensus between affected citizens and project proponents, the collaborative activities among all stakeholders should be initiated at the project planning and design stage. In these phases, the public should be allowed to participate to ensure that the selected methods are appropriate to the way they want to participate (Doelle and Sinclair, 2006). Thus, using a combination of techniques is beneficial and highly recommended (Smith, 1997; Stewart and Sinclair, 2007), and seems to be the best approach for conducting participation processes (English *et al.*, 1993).

2.3.8 Effective public participation

When a government or a private agency employs public participation in their activities, there is a substantial interest in determining whether or not their endeavours have been successful (Ashford and Rest, 1999). To begin with, it is important to clearly verify and define what successful or effective public participation means (Chess and Purcell, 1999; Frewer and Rowe, 2005). Generally, effectiveness can be defined as: “*whether something works as intended and meets the purpose(s) for which it is designed*” (Sadler, 1996; p.37). However, the definition of effectiveness is typically complicated because of a diversity of objectives and expectations for public participation processes and mechanisms (Ashford and Rest, 1999; Barnes, 1999; Chess and Purcell, 1999). Moreover, the definition and interpretation can vary depending on participants’ and stakeholders’ perspectives (English *et al.*, 1993; Hartley and Wood, 2005; Stringer *et al.*, 2006), contexts and situations (Yao, 2006). Specific political, social and economic contexts in each country typically have an influence on the effectiveness of public participation. For these reasons, developing a single universal definition of effective public participation is difficult (Chess and Purcell, 1999). This notion is emphasised by Hartley and Wood (2005; p.338) who write that: “*Throughout the Aarhus Convention considerable emphasis is placed upon achieving ‘effective’ participation yet this term remains undefined*”.

A number of researchers and scholars have tried to structure the definition of effective public participation and establish criteria to evaluate it. Many researchers propose that interpretations of effective public participation are defined by two categories: the success of the participatory process, and the success of the outcomes of the process (Ashford and Rest, 1999; Chess and Purcell, 1999; Webler *et al.*, 2001).

In terms of process effectiveness, many scholars, such as English *et al.* (1993), Laird (1993), Syme and Sadler (1994), Yosie and Herbst (1998), Webler and Tuler (2001; 2006) *etc.*, indicate that process effectiveness focuses primarily on means rather than ends. It is therefore, to examine a variety of procedural aspects of the participatory programs that add value to a decision making process. These factors include; procedural justice, accessibility to the decision making process, inclusiveness, diversity of views represented, opportunities for participation, information exchange, identification and integration of concerns, early involvement of stakeholders, number of options identified, number/types of participants, and availability and clarity of materials, *etc.*.

For some practitioners, the success of a public participation endeavour can be judged in terms of results, outcomes or specific goals. They proposed important outcomes in term of; project/decision acceptability, mutual learning and improved understanding (Laird, 1993; Beierle and Cayford, 2002; Jabbour and Balsillie, 2003); conflict resolution (Shepherd and Bowler, 1997; Shepherd and Ortolano, 1997; Yosie and Herbst, 1998; Beierle and Cayford, 2002); consensus (Fiorino, 1990; English *et al.*, 1993; Beierle and Cayford, 2002); influence on and participation in decision making (Fiorino, 1990; Lynn and Busenberg, 1995; Beierle and Cayford, 2002; O'Faircheallaigh, 2009), cost efficiency (Rowe and Frewer, 2000), and participant satisfaction with the outcome (Schweitzer *et al.*, 1996; Beierle and Cayford, 2002). However, in practice, it is difficult to facilitate public participation processes to achieve all desired elements.

Due to the fact that there are many parties involved in a public participation process, with different knowledge, perspectives, and expectations, the first concern is who should define effectiveness. What may be effective to some parties may not be for others (Frewer and Rowe, 2005). For example, the proponent may measure success in terms of the support of the public for the decisions, the resolution of conflicts, or the implementation of the decisions. Participants are increasingly interested in whether their inputs make any difference. On the other hand, for the community, the success of outcomes may mean their altering or blocking the project proposals (Ashford and Rest, 1999; Abelson and Gauvin, 2006). Thus, it is important to integrate and balance these different views of every involved party as a goal for public participation (Frewer and Rowe, 2005).

The complexity of environmental management, the vast diversity of stakeholders and interested parties, and the tremendous differences of interests between these groups, are valid reasons for using a variety of definitions of success in assessing the effectiveness of public participation. For example, a successful public participation effort can be identified as a decision-making process being accepted as legitimate by key stakeholders (Ashford and Rest, 1999). Petts (1995) defined effective public involvement as a means to enhance effective decision making through an opening-up of the decision process to public views and connects to empowerment, such as helping people to achieve their goals by increasing their confidence and capacity. According to Vanderhaegen and Muro (2005), public participation could constitute accountability and transparency to the decision-making process. Thus, for public participation to be effective in any context, it requires the public to be well informed and kept aware of the possibility of participation.

It could be seen that the definitions of effectiveness are influenced by individual expectations and interpretations (Cashmore *et al.*, 2004). Thus, there is no single definition of effective participation processes (Webler *et al.*, 2001). In this study, effective public participation is defined as:

A process that has clear objective(s); initiates early enough to allow participants to influence the decision; is inclusive; increases transparency; empowers people; fosters two-way communication and learning processes; seeks for a consensus and resolves conflicts among stakeholders.

2.4 Conclusion

This chapter has reviewed the literature, in order to establish the conceptual frameworks to develop knowledge to guide and answer the research questions of this thesis, covering three major issues: environmental conflict, conflict resolution, and public participation. All relevant definitions and concepts are clarified, in particular environmental conflict, public participation, and effective public participation. Importantly, two conceptual frameworks for interpreting and analysing public participation; the conflict management model, and the public participation model, are established. These issues are all relevant

and will be helpful in analysing, supporting, and making discussions thought out the study.

Nowadays, environmental conflicts are woven in to human society and become more complicated and difficult to handle from the complex interactions among stakeholders and ecosystem (Walker and Daniels, 2001). Importantly, there is no single approach capable of adequately addressing these complex problems. Traditional command-and-control is viewed as an unsuccessful strategy in environmental conflicts. These disputes have high potential to divide communities (Peterson and Franks, 2006). Accordingly, an effective approach to resolve environmental conflicts is needed and essential.

From a widespread recognition that the decision cannot be legitimate without broad public participation, public participation is acknowledged as a proper strategy to deal with these problems (Peterson and Franks, 2006). There is an increased demand for public participation in environmental decision-making process and it has increasingly been recognised as a key element of environmental management (Palerm, 1999b; Beierle and Cayford, 2003; Gunes and Coskun, 2005). The rationale behind this is to decentralise decision making to the public in a democracy. Citizens who are affected by the decision have the right to be informed, consulted and to express their views (Creighton, 2005). In an implementation of development projects, public participation is depicted as a significant means of reducing conflict because it provides all stakeholders, in particular affected people, as well as people who did not agree with the project to express their ideas, opinions and alternatives.

The literature offered in this chapter is not only useful in developing an understanding about public participation and related issues before conducting the study, the conceptual frameworks developed from this chapter are also essential and helpful in interpreting, analysing, and integrating the analytical concepts of public participation with environmental conflict management concerns. Besides, the conceptual framework is useful for supporting and making a discussion of the research findings in Chapter 5, 6, and 7. In the next chapter, a review of evaluations of effectiveness of public participation will be presented from which relevant evaluation criteria will be developed for this research.

Chapter 3: A Conceptual Framework for an Evaluation of Public Participation

3.1 Introduction

Whereas public participation is commonly viewed as a valuable practice, there is a recurring issue of how it is implemented and used and how effective it is (Forss, 2005). Thus, there is a need for a systematic evaluation of the public participation process because this can inform whether the participation process is effective, what works or does not work in this respect, and what modifications should be made to improve future practice (Creighton, 2005; Forss, 2005). Indeed, the purpose of evaluation is to help the authorities strengthen their endeavours to effectively inform and engage the public in the decision-making process.

This chapter aims at discussing the challenging matters relevant to the evaluation of public participation processes. The chapter comprises four main sections. The first section presents the evaluation concepts. The second section is a review of theoretical and conceptual frameworks of public participation evaluation, and then the conceptual framework in this study is initiated. The third section presents the evaluation criteria adopted for this study. Finally, a conceptual framework for evaluating the effectiveness of public participation processes will be developed.

3.2 An evaluation of public participation

3.2.1 Defining evaluation

Evaluation is a basic part of human living which assists people to evolve, develop, and improve things. People make evaluations in the form of judgments about whether an entity is valid, desirable or even successful (Mark *et al.*, 2006). Besides, evaluation is an essential part of every decision-making process, in particular when the decision is related

to environmental issues which have wider impacts, since the decision makers have to weigh the significance of the comments from stakeholders who are directly and significantly affected by the decisions (Creighton, 2005). As stated by Syme and Sadler (1994; p.525), the decision-making process related to environmental concerns can be improved through a: “*process that leads to informational exchange and joint evaluation of alternatives*”.

Evaluation is a young discipline in social science research (Rowe, 2003; Forss, 2005), and there is currently no universal concept and definition of this term (Forss, 2005). There is a need to increase knowledge and develop practice for high levels of performance in this field (Rowe, 2003). Thus, before proceeding, it is important to understand what the evaluation term really means. A number of authors have defined what evaluation is and some of the acknowledged definitions are as presented in Table 3.1.

Table 3.1 A comparison of definitions of evaluation

Author (s)/Source (s)	Definitions
Rosener (1978; p.459)	A judgment about the value of some activity or programme, it necessarily involves the values of biases of those doing the judging, as well as the values of those being judged.
Patton (1986; p.14)	The systematic collection of information about the activities, characteristic, and outcomes of programme for use by specific people to reduce uncertainties, improve effectiveness and make decisions with regard to what those programme are doing and affecting.
Patton (1997; p.23)	The systematic collection of information about the activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness, and/or inform decisions about future programming.
Bellamy <i>et al.</i> (2001; p.408)	Evaluation is fundamental to identifying change, supporting an adaptive approach that is flexible enough to meet the challenge of change, and enabling progressive learning at individual, community, institutional and policy levels.
Fournier (2005; p.139)	An applied inquiry process for collecting and synthesising evidence that culminate in conclusions about the state of affairs, value, merit, worth, significance, or quality of a programme, product, person, policy, proposal, or plan.
Forss (2005; p.43)	A systematic process of inquiry. It has to build on the methods of social science research, on a systematic collection and analysis of data.
Martineau <i>et al.</i> (2006; p.6)	A process of inquiry for collecting and synthesising information or evidence. There is considerable variation in how information or evidence is gathered, analyzed, synthesised and disseminated; and there are different purpose for which these things are drawn.

In this study, evaluation is defined as:

A systematic process of determining the value or effectiveness of a programme, based on systematic processes of data collection and analysis, and rating it based on its important characteristics against a set of criteria.

3.2.2 Rationale for evaluating public participation

Reflecting the fact that the public participation process is important to all parties involved (Frewer and Rowe, 2005), and becoming more open to the public (Forss, 2005), the evaluation of the overall success and effectiveness of the public participation process becomes more important (Chess, 2000; Manowong and Ogunlana, 2006). This is because a systematic evaluation provides valuable inputs, increases the processes' accountability, and increases knowledge of how to improve understanding and the performance of current public participation processes (Sewell and Phillips, 1979; Carnes *et al.*, 1998; Chess, 2000; Rowe, 2003; Forss, 2005; Laurian, 2009). Indeed, evaluation is a valuable means of acquiring substantive information about the performance of programmes and activities (Rowe, 2003). To evaluate a public participation programme means determining its merits, worth, value, or significance; in particular involving the judgments of: how effective the programme is; to what extent has the programme been implemented as expected; what the programme's outcomes or results are; and how it can be improved (Patton, 2008). Consequently, the systematic evaluation of a public participation programme is required to ensure and judge the success of the process as well as the public confidence in the outcomes (Sewell and Phillips, 1979; OECD, 2005).

Unfortunately, evaluations of the effectiveness of public participation exercises are rare in practice (Petts and Leach, 2000; Rowe *et al.*, 2005; Laurian, 2009), and do not appear to be grounded in the empirical evidence (Scottish Executive Social Research, 2005), due to its difficulties and problems in practice (Frewer and Rowe, 2005). As noted by Rowe and Frewer (2004; p.512): “*the merits of participation are difficult to ascertain as there are relatively few cases in which the effectiveness of participation exercises have been studied in a structured (as opposed to highly subjective) manner*”. A number of practical problems inherent in conducting evaluations were pointed out by many scholars for

example Rosener (1981), Beierle (1998), Bellamy *et al.* (2001), and Petts (2006) *etc.*, which are discussed in the following text.

First, the concept of public participation is complex and value-laden (Frewer and Rowe, 2005). There is still a lack of consensus on what public participation means and what it aims to achieve (Beierle, 1998). Besides, public participation varies from low levels (referred to as tokenism) to high levels (including collaborative partnerships) (Chess, 2000). There are also variations in interpretation of what constitutes effective participation (Abelson *et al.*, 2003), and what is an effective participation process (Webler and Tuler, 2001). The participation techniques are numerous and there are still many unanswered questions about the most effective methodologies for public participation (Beierle and Konisky, 1999). There are also different perspectives on what form participation should take.

Second, there is no consistent and common approach available for assessing public participation (Beierle and Konisky, 1999). Particularly, there is still an absence of widely accepted criteria for judging the effectiveness and failure of public participation processes (Rosener, 1981). In practice, the examples and existence of good practice guidelines, evaluation criteria and consistent methods for evaluating the success of public participation are not enough (Beierle, 1998; Petts, 2006) and are still in many cases, underdeveloped (Raimond, 2001).

Importantly, unsuccessful public participation appears to occur more often than successful public participation, typically when the proponents try to introduce public participation in the implementation of their project (Peelle *et al.*, 1996). In public participation research, there is a great deal of information about different approaches that are assumed to contribute to successful public participation. Unfortunately, there still remains a lack of understanding and insufficient data of what has been accomplished and what contributes to success (Beierle and Konisky 1999) and favourable outcomes (Peelle *et al.*, 1996). There seems to be an essential need for more systematic knowledge about significant factors that contribute to effective public participation (Rowe and Frewer, 2000; Raimond, 2001).

Finally, although the main constraint to evaluate public participation is the limited definitions of clear objectives and criteria of effectiveness, limitations of time and cost to convey the evaluation may cause difficulties in practice (Petts and Leach, 2000; Rowe *et al.*, 2005).

Due to these difficulties in rigorous evaluation, the evaluation of public participation is rarely undertaken (Rowe *et al.*, 2005); consequently, improving public participation is difficult and complicated (Chess, 2000). Besides, different perspectives on the nature of democracy and the purpose of participation have led to different approaches to evaluating public participation (Raimond, 2001). As a result, the evaluation of the effectiveness of public participation programmes is still in its initial stages (Chess, 2000; Rowe and Frewer, 2000; Oels, 2008) and needs improvement (Goldenberg and Frideres, 1986). It can be said that without effective evaluation, it will be difficult for the participatory process to make progress towards greater effectiveness (Petts and Leach, 2000).

3.3 A development of evaluation frameworks for public participation

As previously mentioned, not only is the amount of time and resources invested in eliciting and responding to public participation activities growing, but a need to evaluate the success and effectiveness of these endeavours is also increasing. Accordingly, a number of scholars have conducted research in this particular field and there is a considerable volume of research evaluating public participation using different approaches (Oels, 2008).

Obviously, the existing evaluation approaches vary widely with regards to differences in concept, purpose, focus, scope, methodology and disciplinary perspective (Oels, 2008). Besides, different stakeholders may have different objectives and measurements (Rosener, 1981). As a result, the evaluations in the participation field have been applied from a variety of theories such as public participation theory (Rowe and Frewer, 2000), communication theory (Webler *et al.*, 1995), and democratic theory (Fiorino, 1990). Indeed, the approaches to public participation evaluations are primarily developed from the traditional evaluation that focused on whether public participation achieves either process or outcome goals (Chess and Purcell, 1999).

It can be summarised that most acknowledged evaluation approaches of public participation are related to the effectiveness of the construction and implementation of the participation procedure (Webler, 1995; Petts, 2001; Webler and Tuler, 2001), and the success of the outcome (Chess and Purcell, 1999). The participatory process-based evaluation typically measures fairness and competence matters (Webler, 1995), interchanged information, inclusiveness and procedures (Chess and Purcell, 1999). This includes the evaluation for how effective public participation is in democratic decision-making (Chess, 2000). The outcome-based evaluation uses indicators of how stakeholders influence decisions, their satisfaction with the final decisions, or an ability to reach a consensus (Yao, 2006). This approach is not only based on stakeholders' or users' goals, but it also includes social goals (Beierle, 1999; Beierle and Cayford, 2002).

The following section presents these different approaches to the evaluation of public participation programmes as discussed above. Some instances of the findings of these different approaches are also presented. In addition, research that may furnish particular aspects of successful public participation will be discussed. Analysing these various studies can increase knowledge to develop a proper set of evaluation criteria and a framework for both conceptualisation and evaluation of public participation effectiveness for this study which will be presented in the next sections.

3.3.1 Evaluation based on process

In concept, evaluation can explore how the public participation process is conducted rather than its outcomes (Patton, 1997). Many attempts which have been made so far in evaluating the overall success and effectiveness of the public participation process mainly fall in to the frameworks of process evaluations (Chess, 2000; Scottish Executive Social Research, 2005; Manowong and Ogunlana, 2006). Process-based evaluations focus on the study of what goes on while a programme is in progress and relate to the phase of the programme being studied (Abelson and Gauvin, 2006). In the public participation context, process refers further to the total network of operations involved in implementation including social interactions and participant perception of the issues (Bellamy and McDonald, 1999). The studies of these evaluation frameworks developed by a number of scholars are presented below.

At the beginning, this approach was initiated by Quinn and Rohrbaugh (1983). They focused on two foundation dimensions. The first dimension was related to structure of the process underlining a flexibility and control of the process. The second dimension is related to the process focus emphasising the needs of those directly affected and the needs of the wider public. Both dimensions are combined to define the distinct rational, empirical, consensual, and political perspectives on effective participation processes.

Fiorino (1990) developed criteria for process evaluation. His study was based on a concept of participatory democracy, by using political theories to evaluate many citizen participation methods. He emphasised that an important issue that citizen participation should increase is learning, and also suggested that potential citizen participation may arise from a range of different mechanisms.

English *et al.* (1993) endorsed an ideal outcome of dialogue with stakeholders as a normative consensus. They also suggested two sets of criteria be applied in designing and monitoring processes of stakeholder involvement which are practical and ethical criteria. The practical criteria include time involvement, duration, cost setting, complexity, prerequisite knowledge, selection method by participant, inclusiveness, amenability, adaptability, resiliency, durability, and generalisability. The ethical criteria are representativeness, impartiality, accountability, confidentiality, transparency, replicability, and recognition of promise.

One of the most notable evaluation frameworks based on process was introduced by Renn *et al.* (1995) and Webler (1995). Their studies presented an evaluation approach concentrating more on the process than the outcome of public participation by developing normative criteria to evaluate the participation process. The studies focused on fairness and competency of processes. Their study builds on the work of Jurgen Habermas and his theory of communicative action (Habermas, 1984, , 1987). Webler developed the criteria of fair and competent participation processes by applying the concepts of validity claims and their corresponding discourse with communicative competence. He expanded the term of competence in Habermas' theory from individual capacities to a procedural meaning (Webler and Tuler, 2001).

Fairness is relevant for access to the participative process, and the provision of opportunities for participants to adjust the plan and rules of participation, and the provision of a fair opportunity to every participant to invoke their prospects. To be fair, all parties affected by the decisions should have an equal opportunity to participate, present truths and values, and to challenge other participants' statements to influence the decisions. Competence relates to the ability of the process to provide participants with access to knowledge, explanation of terms and access to interpretations of understanding, and the best procedures for resolving disputes about knowledge and interpretations. Finally, they implied that successful public participation should achieve not only a fair and competent decision-making process, but also meet common needs and strengthen democracy (Webler *et al.*, 1995).

The US Environmental Protection Agency (EPA 1998) developed a framework for evaluating the effectiveness of the participation process on four significant aspects: process structure; participation in the process; process management; and substantial resources associated with the process. This evaluation of the success of public participation processes was conducted through surveying the stakeholders' perspectives. This evaluation aimed to investigate: whether the process was well structured, whether the participants could participate effectively, whether the participants perceived any barriers to participation; whether the participants were satisfied with the process outcomes, and whether the participants were equally distributed the process' benefits. The EPA study defined a well structured participation process as one that provided adequate time and technical information to the participants: the process' goals were clearly articulated: the relevant issues are addressed: and, the process was conducted in the proper period. Participants' attitudes played an important role when they evaluated participation processes which would indicate how well the process was carried out. The process' participants viewed barriers to participation as the problems limiting their participation. Additionally, inadequate and unequal distribution of resources, in particular information, can reduce credibility and create distrust among stakeholders.

Poisner (1996) evaluated participatory processes and suggested seven criteria for the effectiveness of community involvement processes. These criteria can be set in question format to check appropriateness of participation as follows: do the participants represent all significant sectors of the community?; does the process focus on the common good?;

does the process effect critical reflection of the values underlying the discussion?; is the communication approach of the face to face type?; does the process engage citizens as opposed to individuals hired to represent citizens?; does the participation process provoke a dialogue?; and , finally, does the process infuse a civic virtue?

Indeed, the Renn and Webler framework, has been a major influence through the widespread use and adaptation of the fairness and competence principles in numerous evaluation studies, in particular the public participation field (Beierle, 1999; Petts, 1999; Pratchett, 1999; Beierle and Cayford, 2002). For example, Petts (1999) suggested the evaluation framework and criteria were relevant to the EIA process. The study suggested participation in both consensual and non-hierarchical approach, and encouraged two-way communication where participants are both speakers and listeners. Opportunities for critical self-reflection and challenging the speakers must be provided.

Webler and Tuler (2001) assessed public participation in watershed management planning in Massachusetts by using Q methodology. They pointed out four perspectives that best engage the public in participatory processes. The first perspective focuses on credibility and legitimacy which enhances popular agreement for consensus. The second perceives a good process as one that generates competent outcomes. The third emphasises the fairness of the process. The final stresses educating the public and heightening constructive discourse.

Abelson *et al.* (2003) developed evaluation criteria based on Webler's criteria; fairness and competence of the process. They identified 4 key components of any evaluation of public participation process as; representation, structure of the processes, information used in the processes, and outcomes and decisions arising from the processes.

In summary, the evaluation frameworks based on process are structured based on two criteria; the fairness, and competency theme in the evaluation of both environmental and non-environmental participative processes. Various authors have considered criteria based around the fairness and competency theme in the evaluation of both environmental and non-environmental participative processes (Petts and Leach, 2000). These frameworks focus on issues of: inclusiveness; timeliness; focus; openness; resourcing; responsiveness; and appropriateness. However, the utility of this approach for practical evaluation might

be limited due to their abstractness. For instance, while comprehensively exploring the theoretical underpinnings of fair and competent concepts, these frameworks inadequately address the practical but crucial issue of operationalising and measuring the achievement of the process goals (Abelson and Gauvin, 2006).

3.3.2 Evaluation based on outcome

Frequently, the effectiveness of public participation has been judged and defined in terms of the outcomes achieved or results of the processes, particularly the legitimacy of the decision (Ashford and Rest, 1999; Petts and Leach, 2000; Abelson *et al.*, 2003). Thus, outcome evaluation is a desirable form of evaluation for decision-makers to answer the question of whether public participation has produced its intended programme effects such as an influence on the decision (Abelson and Gauvin, 2006). A number of scholars pointed out that evaluating the outcomes of a participation programme can provide evidence that the initiative works, and, importantly, to improve it (Beierle, 1998; Smith and McDonough, 2001). However, in practice the evaluation of outcomes of public participation is less developed (Chess and Purcell, 1999), and is problematic due to the argument that the assessed outcome is influenced by the public's diligence in their participation, or other variables such as social contexts, or the particular nature of environmental problems (Gariepy, 1991).

Indeed, the participation outcomes, are typically too complicated to be clear, specific, and measurably defined (Raimond, 2001; Creighton, 2005). Although many researchers have tried a diversity of evaluation approaches to deal with the complication of goal definitions (Raimond, 2001), there are no clearly defined terms for consensus, in both practice and theory. This leads to one of the most contentious arguments over which goals should be evaluated (Chess, 2000). For example, although resolving the conflict is not always the main objective of public participation, it is crucial to acknowledge it (Renn *et al.*, 1995). Besides, whilst the authority may measure public participation achievement in terms of public support on plans, projects or decisions, legitimacy, or conflict resolution (Ashford and Rest, 1999; Abelson *et al.*, 2003), for the public, on the other hand, the successful outcome may be the extension of their influence on, and their participation in, decision making (Fiorino, 1990).

The following section presents these approaches including user-based evaluation, goal-free based evaluation and social-goal based evaluation.

3.3.2.1 Evaluation based on interest (user-based)

The stakeholder or user-based evaluation is based on the premise that different participants may have different goals. There is often confusion about the goals of public participation in practice (Renn *et al.*, 1995), with no common agreement on what the goals should be (Raimond, 2001).

A study, in relation to the outcomes of a programme of public involvement, representing this approach was outlined by Rosener (1981). The study developed a user-based evaluation to assess task-oriented workshops that were employed by the U.S. Army Corps of Engineers at two different sites. There were two assumptions underlying this approach. The first was that public participation goals and objectives need to be spelled out at the beginning of the process. The second premise indicated that different stakeholders have different objectives and measures.

The study began with a preprocess interview with representatives of key stakeholders. This interview was aimed at identifying goals, objectives, and measurement criteria for goal achievement. The second stage was to get participants to fill in questionnaires following each workshop or major activity. Some criteria were measured by evaluator observation during the participation process. When the process was concluded, there was still one more round of post-process interviews to find out how well the program satisfied each party's criteria. The final evaluation report presented the satisfaction levels of each stakeholder. The researcher claimed that this approach was not only suitable for conducting an evaluation but also added value by letting stakeholders verify their goals, objectives and measurement criteria at the beginning of the process.

Aronoff and Gunter (1994) reviewed the literature from seven case studies, and summarised the factors that they interpreted as influencing the effectiveness of public participation performance. The case studies focus on locally based hazards to public health and the environment where conflicts existed. The authors highlighted three factors that they expected to affect the outcome of participatory efforts. The first factor was the

relationship between the government agency and the public, which was reflected in the agency's willingness to negotiate with the public or community representatives. The second factor was defined as community characteristics. These referred to the background experience in problem solving and negotiation and the level of representation of the public by local governments and institutions. The final factor was broader political and economic characteristics of the particular controversy. This factor involved the inclusion of other stakeholders outside the local community that may have an influence on the outcome of the negotiation process.

3.3.2.2 Evaluation based on social goals

A more recent evaluation framework has developed from the fields of science, technology, and environmental policy, which all have long histories of public participation (Abelson and Gauvin, 2006). The framework assesses the outcomes of participatory processes, but taking a broader perspective of outcomes than is usual. Typically, the outcome of a decision-making process refers to its substantive decisions, conclusions, or recommendations such as which environmental problems should have priority attention, or whether a development project should be built. These substantive outcomes can be evaluated and even compared with comparable non-participatory decision processes using a variety of criteria, including stakeholder satisfaction with the result, cost-effectiveness, or risk minimisation. A more expansive interpretation of outcomes includes the extent to which a participatory process has achieved goals in social terms (Beierle, 1998).

This evaluation framework was initiated by Beierle (1998) and is designed with two objectives: to identify the advantages and disadvantages of several different participatory methods, and to measure the tangible outcomes of the participation process. He developed an evaluation approach focusing on the desired outcomes and defined them as social goals of public participation. From his perspectives, the social goals are what public participation is expected to achieve. The six social goals are related to public education; incorporation of public values into the decision-making process; improvement of quality decisions; trust building; conflict resolution; and achievement of cost-effectiveness.

The next research was conducted by researchers from Resources for the Future, Beierle and Cayford (2002). They developed five social goals as evaluation criteria: to incorporate

public values into decision-making; to improve the substantive quality of decisions; to resolve conflict; to increasing trust institutions; and to educate and inform the public.

The goal of incorporating public participation values and knowledge into the decision-making process is grounded on the finding from the risk perception and communication literature that point out significant differences of perception and interpretation between communities and experts (Beierle, 1999; Beierle and Cayford, 2001). These assumptions support the argument that in the decision-making processes the differences in values, premises, and preferences should be deliberated.

A particular goal, such as increasing the substantive quality of decisions, acknowledges the public as a legitimate source of knowledge for contributing towards the decision and enhancing political support.

The goal of building trust is derived from the dramatic decline of trust in government and institutions over the past thirty years. In addition to fostering trust, public participation should reduce conflict among competing parties. This goal is based on the rationale that collaborative decision-making is more likely to result in decisions that increase entire benefits for all relevant parties.

The final goal, educating and informing the public, is based on the basic argument that in a democratic arena, citizens have a right to be involved in the decisions that may impact on them. To participate effectively, the public should have enough knowledge about all relevant issues in order to formulate and discuss the outcomes with other parties.

3.3.3 Evaluation based on mixed process and outcome

One of the most controversial debates on evaluation is which should be evaluated, the process or outcome. Indeed, evaluating the effectiveness of public participation processes should focus on whether the process is reaching both process and outcome goals (Chess, 2000). Lynn and Busenberg (1995) examined 14 empirical case studies of the Citizens Advisory Committee involving environmental policy decisions from 1976 to 1994 in the United States of America by conducting comparative evaluation research. They defined

the definitions of success used in the study, and the suggested factors contributing to the success and failure of the public participation by developing mixed process and outcome criteria. Afterward, Chess and Purcell (1999) also investigated the process and outcome goals from 22 empirical case studies using three public participation techniques: public meetings; workshops; and citizen advisory committees. From their study, 16 cases used both process and outcome criteria, five cases used process criteria, and only one case used outcome criteria to assess the success. These results show strong evidence for assessing both process and outcome aspects when evaluating the effectiveness of different public participation approaches. In fact, the researchers presented the mixed approach to overcome the limitation of using only one approach. Additionally, Yosie and Herbs (1998) interviewed 37 people with intensive experience in stakeholder involvement processes and suggested that there was a need to evaluate both process and outcome when measuring effectiveness.

Looking at the evaluation of participatory processes of the UK Environment Agency in England, Petts (2001) employed evaluation questions, with different criteria, to evaluate the use of innovative participatory techniques in waste strategy development. These criteria were used to assess the effectiveness of the process and the details are as follows: clarification of objectives and legal process; consensus building; input of the assessment process; representativeness; inclusivity; deliberation; capability; sound learning; actual decision representativeness; and trust enhancement. Effective participation should have good connections between the purpose of the process and the outcome, particularly if outcomes are likely to be limited. All the barriers to the public participation process should be identified and minimised. The non-participating stakeholders should be informed of all important information. The dialogue should be open, inclusive, detailed and constructive. All substantial resources such as time, money and staff must be available. The participatory process should provide enough information and should encourage satisfaction with process which leads to consensus. Finally, the process should increase trust between proponents and stakeholders.

More recent and productive contributions to the public participation field, in particular the development of evaluation frameworks have been conducted by Rowe and Frewer (2000; 2004). They highlighted nine understandable criteria that public participation should comply with in order to be effective for both public acceptance and a good process of

participation. They formulated these criteria from a literature review and classified them into two groups of assessment criteria. The first group was ‘acceptance criteria’ that concern aspects of a method that effectively involve the wider public accepting the project. The second group was ‘process criteria’ that is a necessary part of the process, and is guaranteed to make sure that the participation was taking place in an effective way. The acceptance criteria are composed of representativeness, independence, early involvement, influence, and transparency. The public participation process should be administrated in an independent and transparent way so that the concerned parties can see what is going on and how decisions are made. The participants should be engaged early in the process and be representatives of broadly affected citizens. Moreover, the outcome of the process should have an influence on the decision. The process criteria are comprised of resource accessibility, task definition, structured decision-making process, and cost effectiveness. The participants should have easy access to substantial resources to enable them to effectively fulfill their briefs. The participation task should be distinctly identified in terms of nature and scope. The participation process should be organised with an effective budget, and should employ suitable mechanisms to clearly structure and display the decision-making process.

From the evaluation of selected public participation cases examined by using these criteria, it was very difficult to justify which technique is the best, but possibly the most suitable methods for public participation are likely to be hybrid approaches (Rowe and Frewer, 2000). Whilst their framework contains criteria emphasising the procedural features of public participation, the authors make a valuable contribution in articulating outcome criteria. Their studies made a further development and application of public participation typologies and evaluation frameworks which were used as a key preference throughout this thesis.

3.3.4 Evaluation approach of this thesis: an evaluation based on mixed process and outcome

There are numerous different interpretations on the rationales of how to judge the effectiveness of public participation (Rowe and Frewer, 2000). Although there has been

much research to define evaluation criteria for the effectiveness of public participation, these still have limitations in practice (Creighton, 2005). There is no accepted evaluative framework for every practical case. Which approach is the best depends on the specific situation and contexts and uses different standards to assess the success of public participation (Beierle, 1998). As a result, there is still a need for a more comprehensive evaluation framework and a set of criteria for evaluating the success of public participation mechanisms (Rowe and Frewer, 2000).

Different evaluation approaches discussed earlier have their own advantages and disadvantages. The selection of approaches should be appropriate to the kind of problems that the evaluator is interested in and the questions he or she is trying to answer (Beierle, 1998). For instance, if the assessment is related to the reaction of key stakeholders, then interest-based evaluation seems to be appropriate (Creighton, 2005). Moreover, it is reasonable to assume that some of the social goals, particularly building trust and reducing conflict, will not be achieved without paying attention to the democratic values and specific interests of the various participants which form the basis of the alternative evaluative frameworks (Beierle, 1998).

From the theoretical and empirical research mentioned above, it can be argued that both procedural and outcome goals are significant in public participation (Ashford and Rest, 1999). Consequently the evaluation of the success of public participation should assess both aspects (Smith, 1984; Rowe and Frewer, 2000; Todd, 2001; Laurian, 2009). However, these aspects are not the only two vital issues. Context is particularly crucial when participation occurs which normally affects the provision of public participation and its effectiveness (Smith, 1984). Accordingly, an evaluation framework of public participation process of this study has three phases: the ‘context’ within which participation occurs; the ‘process’ by which the participation takes place; and the ‘outcome’ of the participation process, as shown in Figure 3.1.

Assumptions integrated from studying relevant literature, research, and others working in the field allow the construction of a more composite set of criteria for evaluating the success of the public participation activities in the study in terms of both process and outcome. These criteria include procedural fairness, procedural competence, and the variety of outcomes as presented in the evaluation part.

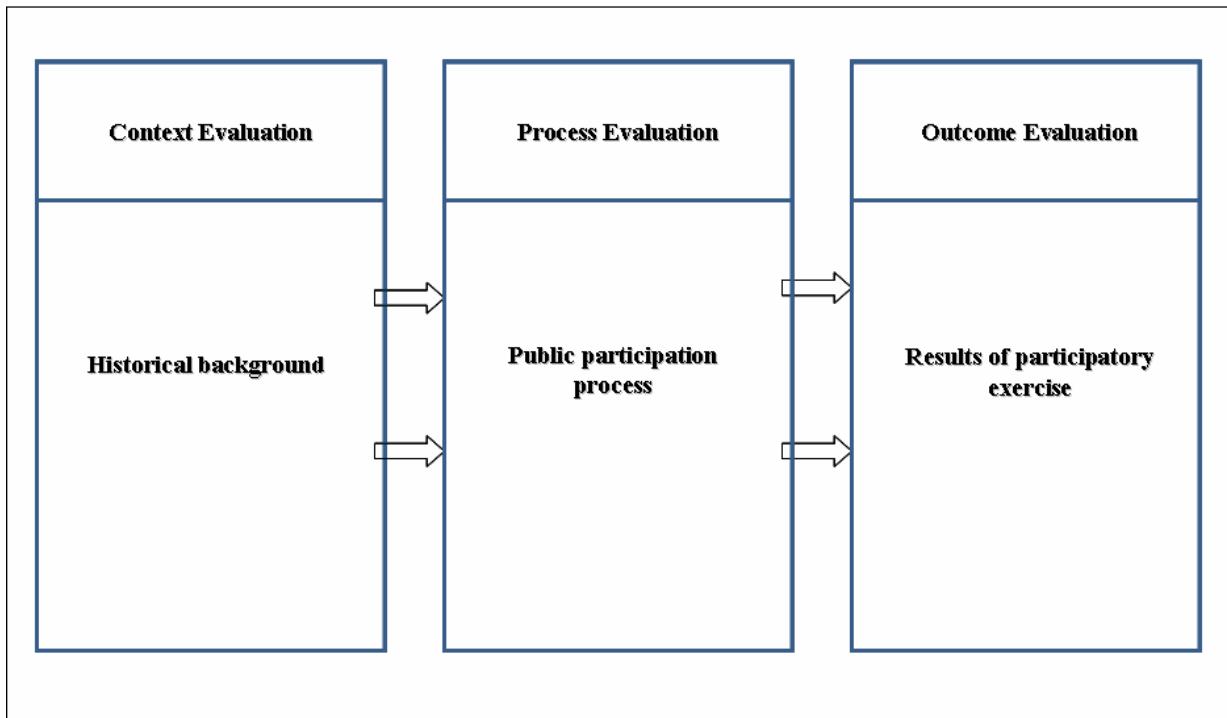


Figure 3.1 A Conceptual Framework for Public Participation Evaluation

3.4 From evaluation framework to evaluation criteria

Typically, the fundamental basis for evaluation is the establishment of a set of evaluation criteria to assess how well the initiative being evaluated is conducted and achieving its expected objectives since criteria provide the basis to test assumptions underlying the implementation of the initiative (Bellamy *et al.*, 2001). Evaluation criteria as defined by Rosener (1978; p.461) are: “*standards used in the programme evaluation in which a judgment of effectiveness can be made*”. While interest in public participation evaluation efforts has increased (Conley and Moote, 2003), and the methodologies and theoretical issues associated with evaluating public participation process have been long studied, no set of commonly used criteria for the evaluation has yet developed (Oels, 2008). Besides, a failure to develop evaluation criteria obstructs a development of knowledge of what constitutes meaningful and effective public participation (Chess, 2000; Abelson *et al.*, 2003). Indeed, every evaluation must articulate its evaluation criteria (d'Estrée and Colby, 2004). Thus, a set of practical criteria to evaluate the processes and outcomes of the public participation process is an essential part of the study.

Much evaluation research centres on which factors are assumed to be important to meaningful public participation (Halvorsen, 2006). A number of researchers have developed specific recommendation criteria, such as inclusiveness or transparency, to evaluate the success of environmental public participation programmes (Rowe and Frewer, 2000; Raimond, 2001; Conley and Moote, 2003). However, the appropriate set of evaluation criteria, which are clearly defined and acceptable, is still highly prized (Abelson *et al.*, 2003). However, most of these criteria focus on the factors that contribute to an effective process, rather than concentrate on an effective outcome or results such as the quality of decisions (Chess, 2000; Rowe and Frewer, 2000). There is still a high demand for a broader set of effectiveness criteria related to the both process and outcome of the process (Petts and Leach, 2000).

While efforts to outline criteria for evaluating effective public participation have been relatively rare and the agreement on a consistent set of effectiveness criteria has been problematic, there seem to be common themes across the published research (d'Estrée and Colby, 2004). Many researchers conducting evaluation research have tried to adopt a universal approach and presented their evaluation criteria as being appropriate for most participation programmes (Rowe and Frewer, 2004). Thus, there are universal and consistent criteria presented in both early and more recent theoretical evaluation frameworks (Abelson and Gauvin, 2006), as reviewed in the previous section. For example, many scholars agreed that the process should be perceived as transparent, inclusive and relationship-building (d'Estrée and Colby, 2004).

One of the main objectives in this research is to develop an understanding of public participation practices and levels, and how effective it is in the Thai context. To achieve these aims, evaluation criteria were developed based on an integration of all the evaluation approaches discussed previously. This is because evaluation criteria that focus only on outcomes or process will miss the points of the other (Simonsen and Robbins, 2000), for example, the outcome criteria could miss some aspects of the process of information provision or access. Therefore, the evaluation criteria of this study were developed based on a combination of all the evaluation approaches discussed previously; process and outcome. The main reason for choosing social goals as the evaluation criteria is because the benefits of achieving these goals cover not only the stakeholders but also the society as a whole (Beierle, 1998). For process and outcome aspects of public participation, the

criteria were mainly built up based on studies by Chess (2000), Rowe and Frewer (2000) and the IAIA Best Practice Guidelines (André *et al.*, 2006) whilst specific social goals for public participation were defined by adopting from Beierle and Cayford (2002).

As previously mentioned, most interpretations of effective public participation are defined by two categories: the success of the participatory process, and the success of the outcomes of the process (Chess and Purcell, 1999). There is both an essential practical need and an academic interest in identifying the relevant factors that influence the success and failure of public participation (Ashford and Rest, 1999). Many practitioners and researchers endeavour to define which elements make public participation processes effective (Praxis, 1988; Webler *et al.*, 1995; Peelle *et al.*, 1996; Schweitzer *et al.*, 1996; Chess and Purcell, 1999; Chess, 2000; Rowe and Frewer, 2000; Sinclair and Diduck, 2001; Bond *et al.*, 2004; Sidaway, 2005; Stewart, 2005; André *et al.*, 2006). The list of common factors usually identified in the literature as being relevant to the success of public participation are summarised in Table 3.2.

Table 3.2 The evaluation criteria adopted for this study

Evaluation Criteria		Definition	Requirement to be Effective
Process-based criteria	<i>Clarification of goals and stakeholder roles</i>	The nature and scope of the participation goals and tasks are clearly identified.	The scope, content, and the overall aims of the process should be clearly identified and appropriate to prevent confusion and dispute while the participation process is conducted (Fiorino 1990; Webler <i>et al.</i> 1995; Schweitzer <i>et al.</i> 1996; Beierle and Konisky 1999; André <i>et al.</i> 2006).
	<i>Educating and informing the public</i>	The participants have enough information and are sufficiently educated to effectively debate the issues and participate in the participation process.	The process should encourage new understanding and improve relations and allows all stakeholders to discuss and debate significant issues in order to develop creative solutions for the problems (Petts and Leach 2000; Rowe and Frewer 2000; André <i>et al.</i> 2006; Webler and Tuler 2006).

Table 3.2 The evaluation criteria adopted for this study (Cont.)

Evaluation Criteria	Definition	Requirement to be Effective
Process-based criteria		<p>The participants should have an opportunity to develop a high level of understanding of the issue, situation, alternative and the different views (Peelle <i>et al.</i>, 1996; Rowe and Frewer, 2000; Rowe, 2003; Bond <i>et al.</i>, 2004; Sidaway, 2005; Stewart, 2005).</p>
<i>Inclusiveness and adequate representativeness</i>	<p>The public participation programmes are inclusive and included all stakeholders who are affected by the decisions and the wider public who are interested.</p>	<p>The participants in the process should be composed of a broad cross section of representatives from the affected citizens (Peelle <i>et al.</i>, 1996; Petts and Leach, 2000; Petts, 2001; Bond <i>et al.</i>, 2004; Abelson and Gauvin, 2006; André <i>et al.</i>, 2006). A full range of potentially affected individuals should be clearly identified (Praxis, 1988; Stewart, 2005).</p>
<i>Multiple and appropriate participation methods</i>	<p>The participation methods used for conducting and displaying the decision-making process should be varied and appropriate to the situations and involved parties.</p>	<p>The participation techniques used should be appropriate for engaging, communicating and participating with the public and allow the participants to contribute effectively (Peelle <i>et al.</i>, 1996; Bond <i>et al.</i>, 2004). Public participation should apply a variety of activities and techniques to involve the public (Petts and Leach, 2000; Creighton, 2005). The methods used are appropriate to the situations and involved parties achieve its initial aim (Creighton, 2005).</p>
<i>Early involvement</i>	<p>The participation process begins early enough to ensure that all participants can have their input into the process.</p>	<p>The public participation must be conducted early in the process and the stakeholders should be engaged as early as possible (Praxis, 1988; Petts and Leach, 2000; Rowe and Frewer, 2000; Sinclair and Diduck, 2001; Webler <i>et al.</i>, 2001; Bond <i>et al.</i>, 2004; André <i>et al.</i>, 2006).</p>

Table 3.2 The evaluation criteria adopted for this study (Cont.)

Evaluation Criteria		Definition	Requirement to be Effective
Process-based criteria	<i>Transparency</i>	The participation process is transparent in order to let the public see what is going on and how the decisions are made.	A public participation process must be open, transparent and implemented with integrity (Petts and Leach, 2000; Rowe and Frewer, 2000; Petts, 2001; Sidaway, 2005; André <i>et al.</i> , 2006). The public should be able to see and trace how their input was incorporated and used in the decision-making process and how the decisions are being made (Peelle <i>et al.</i> , 1996; Schweitzer <i>et al.</i> , 1996; Rowe and Frewer, 2000; Bond <i>et al.</i> , 2004; André <i>et al.</i> , 2006).
	<i>Two-way communication</i>	The dialogue between stakeholders is a two-way communication involving information coming in and going out.	The participatory process should foster a two-way communication and create fair and open dialogue for discussion of the project issue (Peelle <i>et al.</i> , 1996; Schweitzer <i>et al.</i> , 1996; Bond <i>et al.</i> , 2004; Abelson and Gauvin, 2006).
	<i>Resources and information availability and accessibility</i>	The participants have an ability to access all the appropriate resources relevant to the decision-making process to fulfill their knowledge.	The public are provided with and informed how to access to all relevant documents to the decision-making process (Peelle <i>et al.</i> , 1996; Schweitzer <i>et al.</i> , 1996; Petts, 2001; Bond <i>et al.</i> , 2004; Sidaway, 2005) Resources, particularly information, are available for participants and the wider public to obtain and increase the information and expertise they need (Petts and Leach, 2000; Rowe and Frewer, 2000; Bond <i>et al.</i> , 2004; André <i>et al.</i> , 2006). Information is appropriate and understandable for participants (Praxis, 1988; André <i>et al.</i> , 2006).

Table 3.2 The evaluation criteria adopted for this study (Cont.)

Evaluation Criteria	Definition	Requirement to be Effective	
Outcome-based criteria	<i>Impact and influence of participation</i>	<p>The participants have a genuine opportunity to be heard and the outcome of the participation process has a bearing on the decisions.</p>	<p>Participants can participate in agenda setting; deciding how to run the mechanism; discussion and debate; development of decision making rules (Peelle <i>et al.</i>, 1996; Schweitzer <i>et al.</i>, 1996; Bond <i>et al.</i>, 2004; Sidaway, 2005).</p> <p>The process should focus on sharing the decision making and balancing the power between stakeholders. The output(s) of the process influences the decision-making process (Rowe and Frewer, 2000; Bond <i>et al.</i>, 2004).</p>
	<i>Incorporation of public values and concerns</i>	<p>The public's values, concerns, and perspectives are incorporated into the decision-making process and reflected in the final decision.</p>	<p>The stakeholders', and particularly the public's, differences over values, assumptions, and preferences should be deliberated in a public participation process (Beierle, 1999; Beierle and Konisky, 2000; Beierle and Cayford, 2002; Bond <i>et al.</i>, 2004).</p>
	<i>Values and Trust</i>	<p>The process fosters the development of value of the process and trust among all stakeholders involved.</p>	<p>The process should aim to rebuild trust among stakeholders (Beierle and Konisky, 2000; Beierle and Cayford, 2001; 2002).</p> <p>Different viewpoints and different forms of expression, expertise, interests, values, feelings and needs should be represented, respected and considered (Abelson and Gauvin, 2006).</p>
	<i>Resolving conflict</i>	<p>The participation process can effectively resolve the conflicts and allows a consensus to be achieved.</p>	<p>The process should enable the resolution of conflict and allow a consensus to be achieved and foster development of mutual understanding among stakeholders (Tuler and Webler, 1999; Beierle and Konisky, 2000; Beierle and Cayford, 2001; 2002; Abelson and Gauvin, 2006; André <i>et al.</i>, 2006).</p>

3.5 A conceptual framework for an evaluation of public participation of this study

From the previous section of this chapter, it is clear that there has been some progress in improving the evaluation of public participation, and it is clear that the evaluation framework should include both process and outcome properties (Abelson and Gauvin, 2006). However, there is no recognition of best evaluation practice; balancing all relevant information is required when designing an evaluation framework (Bellamy *et al.*, 2001). There is also no universally applicable or commonly accepted framework to evaluate the effectiveness of a public participation programme (Sewell and Phillips, 1979; Abelson and Gauvin, 2006). Perhaps the most significant obstacle in creating a rigorous evaluation framework is because systematic evaluation which could draw generalizable conclusions has been rare in participation programmes (Thurston *et al.*, 2005). Usually, the evaluation was conducted by the agency that sponsored the programme. Inevitably, the biases in assessment resulted from narrowly defined objectives which were generated. In addition, different participants in the participatory process had different perceptions of the objectives as well as the evaluation criteria. As a result, the conclusions were drawn in a different way (Sewell and Phillips, 1979).

In order to make a rigorous evaluation of public participation processes and build generalisable conclusions, some consistency in theoretical frameworks is essential and needed (Abelson *et al.*, 2003; Thurston *et al.*, 2005). The framework should contain a clear articulation of an initiative to correctly describe the specific aspects of the process such as the resources used, the objectives, and the desirable outcomes. A study based on the clear framework will make the findings more trustworthy and consistent (Thurston *et al.*, 2005). Thus, a comprehensive evaluation framework is needed to guide improvements in a way which actually contributes towards effective public participation (Bellamy *et al.*, 2001).

It could be said that a development of an evaluation framework is a crucial part of this study. This is because this research intends to investigate whether the public participation programme conducted in this case study was effective, in particular how to improve public participation to make it more effective. The evaluation framework could help to verify what is to be evaluated, what the evaluation criteria are, and what kind of data are needed

for an evaluation (Yosie and Herbst, 1998). Importantly, a well performed and organised public participation programme is crucial for development project management as it can encourage and facilitate cooperation that contributes to achieve effective decision-making and this can be done through a systematic evaluation.

In this section, an evaluation framework for the evaluation of the public participation process of this study is developed and presented in Figure 3.2. Moving from left to right in the figure, the framework depicts the three main phases of evaluation; the context in which the participation takes place; the process of the participation conducted; and, the outcome of that participation programme. The model focuses on the different perspectives of the participants in the public participation process as well as the roles and influences that they had. The measurements of these phases are analysed to represent the effectiveness of the public participation. Effectiveness is portrayed in terms of relevant indices based on stakeholders' responses which revealed their perceptions, attitudes, and satisfactions.

The first phase is related to an evaluation of the public participation context. As discussed earlier, every public participation process is based upon a particular social context and should be made explicit (Clarke 2008). However, existing evaluation frameworks for public participation programmes rarely integrate social and political contexts (Syme and Sadler, 1994). The context evaluation is mentioned as an important part of the study because there are diverse contexts within which public participation may be conducted and these contexts can exert considerable shaping effects on the outcomes of the process on its participants.

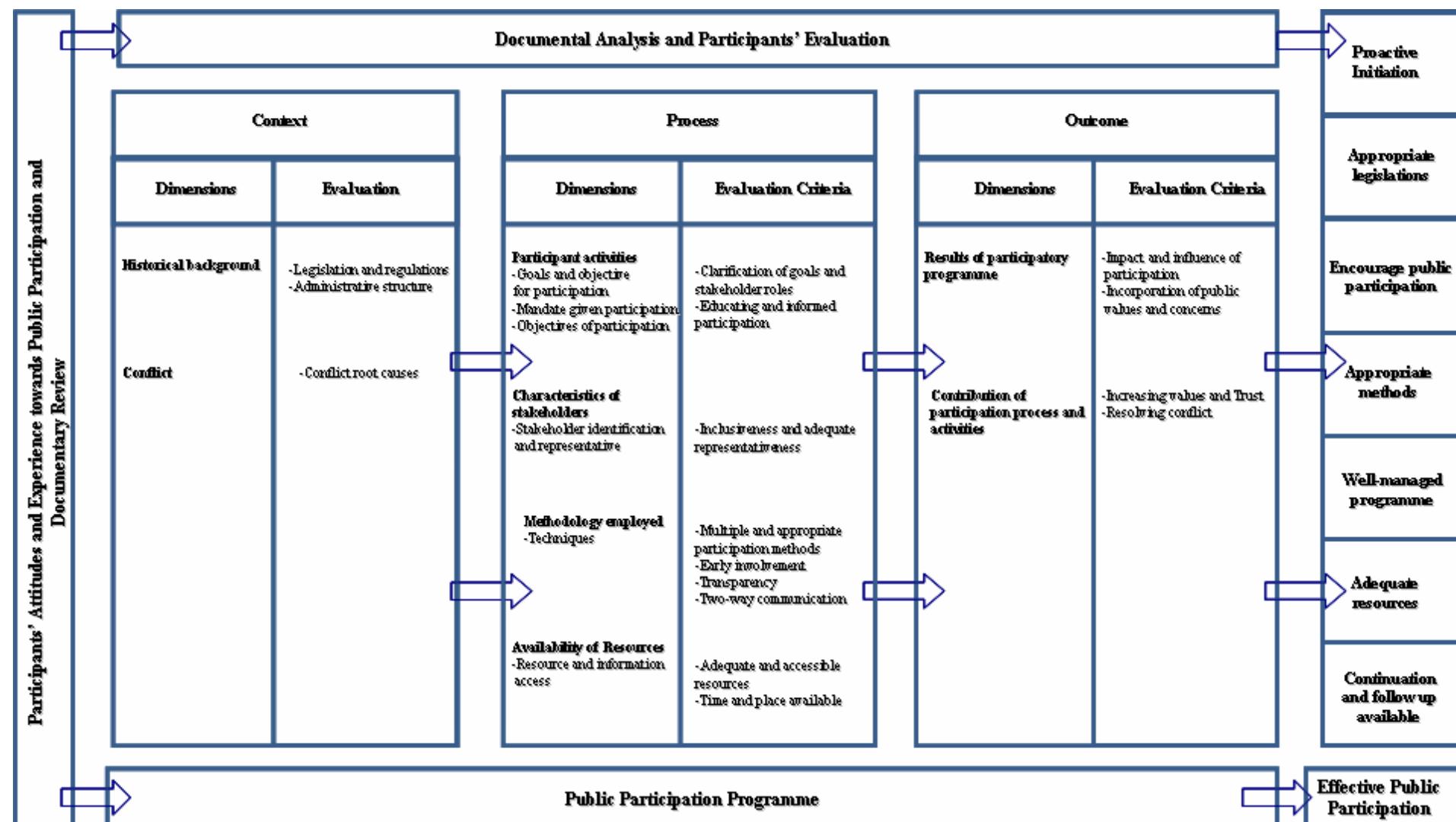


Figure 3.2: An Evaluation Framework of Public Participation Programme for this Study

Source: Adapted from Sewell and Phillips (1979), Smith (1984), Yosie and Herbst (1998), and Abelson and Gauvin (2006)

In this study, in order to understand thoroughly the mechanisms of public participation of the case study; it is essential to assess the social context within which the participation processes takes place (Thurston *et al.*, 2005). However, there are other significant aspects that should be considered. Political contexts and Institutional arrangements such as the legislative provisions and administrative structures usually affect the provision and conduct of the public participation (Adomokai and Sheate, 2004). These issues should not be disregarded and must be considered and understood (Simmons, 1994; Thabchumpon, 2002; Elias *et al.*, 2004). An evaluation of these aspects can provide a comprehensive picture of the participation process (Nadeem and Hameed, 2008). Besides, environmental conflicts are complex and require a cautious analysis of the causes and the conditions under which conflicts are generated (Uptreti, 2002; Emerson *et al.*, 2003; Vivar, 2006). Thus, the root causes of the conflict in this project are crucial to investigate in order to truly understand which aspects underlie the problem and to correctly introduce the appropriate solution approaches (Emerson *et al.*, 2003; Tillett and French, 2006).

Moving to the middle of the figure, a large body of evaluation focuses exclusively on the study of the effectiveness of the public participation process. This framework defines a need to evaluate the participation of various participants against their own perspectives that may influence their involvement with the process. A set of the evaluation criteria and their details are illustrated in Table 3.2. The evaluation consists of four main sub categories: participant activities, characteristics of stakeholders, methodology employed and availability of resources.

First, an evaluation of participant activities aims at assessing how well the goals and stakeholder roles were clarified to the public and how well the public were educated and informed by the authorities. Second, evaluating the characteristics of stakeholders focuses on an identification of stakeholders and the inclusiveness and adequate representativeness of the participants. The evaluation focuses on how well these aspects were implemented. Third, an evaluation of methodology employed stresses how the participation methods were employed including how appropriate the techniques were, when they were employed, how transparent they were, and how they were employed. The interactions among stakeholders are also the focus of the analysis. Finally, an evaluation of an availability of resources emphasises how adequate and accessible the participation

resources were, in particular the information, and how they were provided. The evaluation also investigates the time and place of the participation process.

To the right of the figure is the evaluation of the outcomes of the participation process, which are measured concerning the stakeholders' level of viewpoints and experience. This evaluation depicts two sets of outcome evaluation, which are routinely considered core outcomes of the process: firstly, the results of the participation programme; and secondly, contributions of the participation process and activities. The former focuses on an evaluation of impacts and influence of the participation process, and an integration of public values and concerns to the decision-making process. For example, the participants need to be informed of the decision and how their input was considered (Abelson and Gauvin, 2006). The latter emphasises an increasing of public values and trust among stakeholders, and, importantly, a resolution of conflict among them.

It can be seen that this evaluation framework attempts to make more explicit the factors that should be considered when evaluating both the processes and outcomes of a public participation process. The framework facilitates a balanced evaluation that indicates not only effectiveness but also the factors instrumental to that effectiveness (Smith, 1984). The evaluation criteria also encompass substantial consideration of the participation processes and outcomes.

Finally, this evaluation framework will be applied throughout this study as a conceptual framework for evaluating the effectiveness of the public participation process of the case study. The results of the evaluations and discussion are presented in Chapter 6, 7, 8 respectively.

3.6 Conclusion

Not only should the authorities continue to carry out public participation processes to solve conflicts from any environmental decision-making process, an evaluation of the effectiveness of those processes should be conducted so that these practices could be continually improved (Sewell and Phillips, 1979; Carnes *et al.*, 1998; Charnley and Engelbert, 2005; Frewer and Rowe, 2005). However, the practice of public participation is

still in the early stages and more work is needed (Abelson and Gauvin, 2006). Besides, definitions of effectiveness and the criteria to assess it are varied (Wolfe *et al.*, 2001). Thus, the evaluation framework and criteria need to be flexible and adaptable to any particular issue and context because no framework or criteria can fit all cases.

The evaluation not only focuses on judgment, but it also emphasises a development of a learning process (Barnes 1999). An improvement of public participation practice in project implementation and decision-making processes can be achieved through a systematic evaluation of the initiative (Sewell and Phillips, 1979; Carnes *et al.*, 1998), since evaluation can increase knowledge of how to improve the participation process (Carnes *et al.*, 1998), and increase accountability at the same time (Rowe, 2003). Doing so should lead to better public participation in environmental development projects, and greater success in achieving environmental management objectives (Charnley and Engelbert, 2005).

In this study, the evaluation's purpose is to describe and assess what and how the participation processes were actually implemented, what outcomes or results were achieved, and how the processes could be improved. Accordingly, in this chapter, the criteria to evaluate the effectiveness of public participation and the evaluation framework are developed and they will be applied throughout the case study. Discussion and implications of the research findings are presented in Chapter 5, 6, and 7 respectively.

Chapter 4: Research Methodology

4.1 Introduction

This chapter presents the research methodology applied in this thesis covering five major sections: research paradigms, research design, case study design, data collection methods, and data analysis. The first section provides a discussion of the different paradigms in social science research and the rationales for choosing the pragmatism paradigm as the philosophy underpinning this study are explained. The next section provides a description of the research design. The rationale for choosing the case study design as a research strategy to examine the research questions of this study is provided along with a critical assessment of some aspects of the case study approach. The research methods for collection and analysis of empirical data are described, explained, and evaluated to clarify their limitations. This chapter also proceeds with a description of the target groups, the population, and the data collection procedure. Later, the issues of validity and reliability of the evidence and the findings are addressed. The final section of this chapter deals with the limitations of the research methodology.

4.2 Paradigms in social science research

Based on Guba and Lincoln (1994; p.105), a paradigm is: “*a basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways*”. Kuhn (1996) characterised a paradigm as a package of substantive concepts, variables and inquiries linking with methodological approaches and tools. Principally, a paradigm consists of three basic systems which are: how the researchers define truth and reality, (ontology); how the investigators come to know that truth or reality, (epistemology); and, what approaches or manners the researcher should perform to gain knowledge, (methodology) (Guba and Lincoln, 1994).

A research paradigm not only helps to determine criteria used to select and define a research inquiry in which an investigation is performed and what method should be employed, but it also enlightens the types of research questions that will be posed, and criteria for appraising the reliability of the inquiry (Plack, 2005). However, since one of the most important parts of doing research is selecting the methodological approach to the inquiry, this issue must be carefully considered.

The selection of research methodology is concerned not only with the decision of how to gain information and knowledge of the research questions posed but also the adaptation of the theoretical model or paradigm, which embraces the assumptions about the world and how it works (Lamolla, 2002). To achieve creditable research, it is important to understand the differences between existing paradigms because different approaches have different strategies to observe, measure, and understand the reality of the world (Cresswell, 2003). Importantly, these differences influence how research should be conducted and reported (Cresswell and Plano Clark, 2007). Clearly understanding these approaches will help to select appropriate methods for each study correctly (Neuman, 2000). The next section will determine the different paradigms in social science research and justify an adaptation of the pragmatism paradigm to guide this study.

4.2.1 Existing paradigms in social science research

During the past century, a number of paradigms have emerged and replaced the old paradigms (Guba, 1990; Dash, 1993). In natural science research, a succession introduces the progression of conditional “fact” statements to a true fact such as Darwinian evaluation or Newtonian mechanics; while in social science research, the succession of new paradigms presents different approaches for viewing social life. In a social science paradigm, there is no true or false perspective. There are only more or less useful opinions (Babbie, 2001). The major paradigms in social science research are positivism, post-positivism, constructivism, critical theory (Denzin and Lincoln, 2005), and pragmatism (Tashakkori and Teddlie, 1998; Cresswell and Plano Clark, 2007). Different paradigms present different ontological, epistemological and methodological assumptions (Denzin and Lincoln, 2005). Hence, it is important to carefully examine the characteristics and differences of research paradigms especially in terms of these aspects in order to provide

sufficient knowledge to adopt the most suitable paradigm to guide this research. However, the main point of this section is particularly concerned with methodology which is involved in deciding how the researcher approaches the research.

Positivism has a long influence on the development of social research (Dash, 1993), which aims to: solve practice problems; discover precise causal relations by using statistical analysis and quantitative observations to test and discover the truth (Kim, 2003); and, acquire an explanation that would be predicted and controlled (Guba and Lincoln, 1994). Ontologically, positivism assumes that reality is comprehensible: logical deduction, science enquiry, and replicable findings will be congregated upon comprehensible objective truths (Denzin and Lincoln, 1994; Guba and Lincoln, 2005). It conceives that reality exists independently from its contexts and can be discovered via objective design (Kim, 2003). The knowledge of the way things are can be summarised in terms of time and context-free generalisations (Guba and Lincoln, 1994). Epistemologically, objectiveness and neutrality of the inquirer are important matters. Through the use of statistical analyses, theories are tested and truths are discovered (Kim, 2003). The investigators should be distanced observers. Methodologically, positivism is generally suitable for cause and effect experiments where relevant factors can be controlled. In social research, positivism applies valid and reliable methods to describe and predict human behaviors. Quantitative methods are primarily employed to verify facts (Guba and Lincoln, 1994). It could be summarised that positivism approaches are objective, controlled, rigid, and rigorous in reaching the truth (Plack, 2005). Although positivism has continued to influence social research for a long time, it was criticised because of its lack of subjectivity. Positivists perceive that human behaviour can be controlled (Dash, 1993), and the fact that human nature is very complex (Plack, 2005). Accordingly, new paradigms have been invented.

Post-positivism is a softer concept of positivism (Dash, 1993). It aims to discover cause and effect relations and to predict and control future behaviours based on the present. Ontologically, post-positivism assumes that the reality exists but it cannot be perfectly comprehended and can only be explained in probability terms because of human error and the intractable nature of phenomena. Post-positivism perceives that with statistical analysis the inquirer can state that there is a high probability the truth can be obtained. Rather than verification, post-positivism ascribes to the principle of falsification (Guba

and Lincoln, 1994). This paradigm is appropriate for experiments of cause and effect in the real world (Muneenam, 2006). Epistemologically, post-positivists aim to investigate the presence of human interactivities and control it as much as possible (Plack, 2005). They prefer rigour and control in design that deals with human nature; however, total objectivity is unattainable (Guba and Lincoln, 1994). Unlike the positivists, post-positivism employs multiple methods as a way to falsify hypotheses. The methodology can consist of both qualitative and quantitative techniques. However, positivism and post-positivism are based on assumptions the world exists independently from the investigators' knowledge of it (Guba and Lincoln, 1994).

Although post-positivism is the compromise approach for research inquiry, some social researchers believe that human behaviours should be perceived and interpreted based on the individual's motives, intentions or purpose of actions as well as the social rules (Plack 2005). This enquiry of human behaviours leads to the emergence of a new paradigm. Constructivism is suitable for an investigation of cause and effect in a natural world in which cause and effect cannot be separated. The investigator's goals are to interpret and construct knowledge from the individual as well as social constructions which relate to the inquiry (Schwandt, 1994). Ontologically, constructivism believes that the personal meaning arises from investigators and inquiry and there is a unique real world that pre-exists, and exists independently of human mental activity and human symbolic language. The reality of the world is thought to be constructed by social factors at a particular place and time through the complexity of social interactions (Guba and Lincoln, 1994). Knowledge and truth is not discovered but rather constructed and created. They must be interpreted to understand the world (Schwandt, 1994). Epistemologically, construction is created not only by individuals, but by the context as well. This paradigm views the investigator as intimately participating in the problem (Kim, 2003). The inquirer is considered as an important research tool which is different from positivism which confines the researcher as being a distanced observer (Schwandt, 1994). Methodologically, constructivism supposes a multifaceted reality which could not be fragmented or studied in any laboratory. Conversely, reality can be studied as a unified whole within its natural context (Cresswell, 2003). Constructivists use an open, exploratory stance with the goal of understanding the complexity of the phenomenon as a whole (Guba and Lincoln, 1994). A qualitative approach is primarily adopted in a hermeneutical and dialectical manner (Tashakkori and Teddlie, 1998; Mertens, 2003).

Critical theory is suitable when the study aims to transform the respondents' mental, emotional and social structures (Guba and Lincoln, 1994). For ontology, critical theory believes that knowledge is interpreted to understand the relationship between the particular and the whole or between the subject and the object of analysis (Kinscheloe and McLaren, 2000). It believes that knowledge has been shaped over the time by social, political, cultural, economic, ethnic, racial, and gender factors (Lincoln and Guba, 2000). Not only should the perceptions of the individual be considered, but also the factors that lead to the improvement of these perceptions both of individuals and society (Kinscheloe and McLaren, 2000; 2005). With regard to epistemology, the critical theorist cannot be excluded from the subjects of the study because the values are not only the values of the investigator, but also the values of those involved in the investigation (Guba and Lincoln, 1994). The investigator is expected to participate in the research and be an instrument to facilitate the investigation within the social context (Guba and Lincoln, 1994; Kinscheloe and McLaren, 2005). The investigator examines critically and transforms social, political, economic, ethnic, and gender values. The data are analysed and interpreted within the conditions of the theoretical framework and the researcher's ideological assumptions (Avramoski, 2002). The methodology is primary dialectic dialogue (Kinscheloe and McLaren, 2000).

A number of researchers saw the difference between the two traditional paradigms of post-positivism and constructivism as irreconcilable; thus they suggest research designs using a mix of quantitative or qualitative approaches during the data collection phase of a study, or through the use of methods drawn from both approaches within one study (Creswell 2003). This lead to an emergence of new research paradigm: pragmatism. Pragmatism restrains a practical and applied research philosophy (Tashakkori and Teddlie, 1998). For ontology, pragmatism perceives the world as various absolute unities not an absolute unity (Cresswell, 2007). It accepts knowledge as being both constructed and based on the reality of the real world (Greene, 2007). Epistemologically, interaction between the researcher and the participants is essential and this interaction should be understood and trusted (Mertens, 2003). For methodology, since pragmatists consider the research question to be more important than either the method employed or the paradigm that underlines the method, pragmatism can have either qualitative or quantitative approaches (Tashakkori and Teddlie, 1998).

4.2.2 Research paradigm of this thesis: An emergence of methodology

As discussed earlier, each research paradigm has different ontological, epistemological and methodological assumptions. The question of how to select the research paradigm and research methodology to guide the research is important and should be carefully examined. The following is a discussion of a selection of research paradigms for this study.

This study aims to investigate the public participation process and to evaluate its effectiveness in terms of process and outcome. The conceptual frameworks established in Chapters 2 and 3 provide knowledge to interpret and understand the concept of environmental conflict management and public participation, in particular how to evaluate its effectiveness. It was found in the literature that there are a number of factors and crucial relationships within this social phenomenon such that there are different barriers to an effective participation process in different contexts. Thus, the evaluation criteria to evaluate the participation process could be varied. These factors or relationships may be imperfectly known and understood.

These assumptions conform to pragmatism in ontological terms because it is believed that there is an external reality that should be explored, in particular crucial relationships and the results or data sets from any research study can be explained by multiple theories (Tashakkori and Teddlie, 1998). Whilst pragmatism-based research can provide a description of the causal relationship of a complex phenomenon, it can also provide explanations and perspectives for those relationships through a consideration of the experience of the participants (Teddlie and Tashakkori, 2003; Greene, 2007). Importantly, pragmatism chooses the explanations that create the best desired results. It involves whatever methodological and philosophical approaches produce the best outcomes to answer research questions. Pragmatism is also flexible in its system which has both objective and subjective views (Tashakkori and Teddlie, 1998).

To understand the relationship between the public participation process and its outcomes in Thai practice and to understand how to make this practice more effective, it is important to realise that this may be affected by multiple causes and this relationship needs to be

investigated and reality is more complicated than causal relationships (Tashakkori and Teddlie, 1998). The epistemological concern in this study is that values are independent of the relationship between the investigator and the research participants. This coincides with the pragmatism paradigm which views that reality, meaning, and knowledge exists, however its content and context are changing over time and the knowledge construction of that reality is mediated by experience, training and culture (Maxcy, 2003; Greene, 2007). Greene (2007; p.83) explained this as: “*what we obtain on a daily basis in research should be viewed as provisional truths*”. Pragmatism is also similar to post-positivism in that it tests the theory or the relationship between cause and effect quantitatively.

For methodology concerns, pragmatism supports an employment of both quantitative and qualitative research methods in the same research study and offers a choice of a combination or mixture of methods and procedures that work best for answering the research questions (Teddlie and Tashakkori, 2003; Greene, 2007). The different inferences from mixed methods often reflect different perspectives and information (Teddlie and Tashakkori, 2003). This diversity of information is beneficial by providing wider information for making a discussion and conclusion in this study.

The pragmatic paradigm is a consent to study areas that are of interest, embracing methods that are appropriate and using findings in a positive manner (Cresswell, 2003; Teddlie and Tashakkori, 2003). It links the choice of approach directly to the purpose of and the nature of the research questions posed (Cresswell *et al.*, 2003) and can provide different explanations from the other approach (Tashakkori and Teddlie, 1998). Based on the earlier discussion, it can be argued that the pragmatic paradigm is suitable and can be adopted for the purpose of social and management research. Accordingly, the pragmatism paradigm is adopted to guide this research for the key reasons that it is flexible and can enable the researcher to answer the research questions more effectively by overcoming the conceptual limitations (Tashakkori and Teddlie, 1998).

4.2.3 Research methodology associated with research paradigm

In social research, the selection of research methodology is important because it will be used as a tool to understand the phenomenon of human behaviour, which is concerned

with various factors depending on different cultures and contexts that are sometimes simple and sometimes complex (Neuman, 2000; Muneenam, 2006). The main methodological approaches are either quantitative or qualitative (Sarantakos, 1998). These approaches view the world differently and have different approaches to observe, measure, and understand social reality (Neuman, 2000). However, it is crucial to realise that there is no exact theory and paradigm that can completely explain the complexity of the world (Maxwell, 2005). Understanding these issues would be helpful in designing research.

A decision regarding the particular approach depends on the aim of the study and its research questions (Tashakkori and Teddlie, 1998). Since the research aim is to investigate a social phenomenon (public participation practice) and improve it, a qualitative approach is seen to be the most appropriate approach. This is because a qualitative approach is suitable to understand complex issues and provide an in-depth and interpreted understanding of the social world by studying human behaviour, experiences, points of view, circumstances, and histories (Ritchie, 2003). Quantitative research designs are based on the assumption that human behaviour can be explained in terms of social facts, which can be investigated with the aim of distinguishing characteristics and measuring how much or how often they occur (Nau, 1995). Qualitative research is flexible and facilitates an iterative inductive-deductive procedure enabling a comparison between existing theoretical concepts and empirical realities (Bucheker *et al.*, 2003).

Importantly, one of the key advantages of the qualitative approach that make this approach best fit in this thesis is that it allows the study of problems, cases or events in depth and detail, and usually produces much more rich, detailed, and in-depth explorations and descriptions (Patton, 1987; Todd, 2001). In order to investigate and understand the participation participants' perspectives and the interactions among them, it is necessary to interact with them to gain in-depth information. This is because qualitative data can provide rich insight into participants' subjective experiences with the public participation process (Craig and Hannum, 2006). This also increases understanding of the cases and situations studied (Patton, 2002). Importantly, qualitative research is accepted as an appropriate method in the study of people's interests and views to be involved in the participation process (Jabbour and Balsillie, 2003). In this case, a qualitative approach allows for in-depth assessment of how to make a public participation process more effective for stakeholders (King *et al.*, 1998).

The key reason why quantitative methods are not the main approach applied in this study is because, basically, quantitative research searches for explanations of social phenomena presupposing a theoretic-analytic conceptual framework that holds independent of interacting individuals and generalised explanations and assumes that social processes are objectively measurable through the collection of quantitative data drawn from the context under study (Vallaster and Koll, 2002). It facilitates comparison and statistical aggregation of the data and gives a broad generalisable set of concise findings (Patton, 2002). However, it stresses the measurement and analysis of causal relationships between variables, not processes (Denzin and Lincoln, 2005). Thus, quantitative methods are not appropriate for this research because this thesis aims to study a public participation process, evaluate it, and find out how to make it more effective.

Although, qualitative research has many distinctive advantages, there are still some limitations. By its nature, qualitative methods are concerned with people and their complexities, and aim to discover and describe the meaning of, and understand the world of, human experience rather than to verify truth or predict outcomes (Myers, 2000). Qualitative methods emphasise processes and meanings that are not strictly determined or measured in terms of quantity, intensity, or prevalence (Denzin and Lincoln, 2005). This affects validity, as it can be difficult to determine the reliability of findings. For example, a small number of samples may lead to claims that the findings are not representative of the population (Johns, 1997). Moreover, qualitative research designs are particularly associated with interpretative approaches rather than measuring observable behaviour (Sarantakos, 1998). This results in a failure to discover deeper underlying meanings and in-depth explanations of measured factors. Sometimes information may be too abstract and vague for applying to specific contexts (Johns, 1997). However, the issues of validity and reliability will be discussed later in section 4.7.

4.3 Research Design

The research design is a systematic plan of research, usually involving the formulation of a strategy to resolve problems; the data collection methodology; the analysis of data and their interpretation; and the publication of results (Robson, 2002; Maxwell, 2005). A good

research design should be clearly defined with coherence between research questions and methods which could lead to generate valid and reliable data (Lewis, 2003). This section focuses on the methodological approach based on the pragmatism paradigm applied for this study. A case study was selected as a research strategy. Mixed methods of data collection were applied to accommodate the disadvantages of each other. The research design model developed as guidance for this thesis is presented in Figure 4.1.

4.3.1 Case study design

A methodology is more than a description of a strategy or plan of action. It provides the rationales behind the strategy, how the inquiry proceeds, and guides how research should proceed (Neuman, 2000). When engaging qualitative methods to learn perspective and gain knowledge from personal experience, a case study methodology is a common approach which has been frequently used and is highly appropriate (Stake, 2005). This is because a case study has the advantage of effectively observing and analyzing the phenomena that usually are not accessible by scientific investigation (Abelson, 2001). As defined by Yin (2003b; p.13) a case study is: “*an empirical enquiry that investigates a phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident*”. A case study also provides a contextually rich understanding and helps to investigate context that would be difficult to gain from surveys that normally limit the number of variables, questions and respondents (Yin, 2003b).

In this study, the case study approach is chosen as the main research strategy to explain and conduct an in-depth study of a public participation process and to evaluate its process and outcomes from its distinctive benefits for many reasons. First, as a research strategy, the case study research method is a technique for answering who, why and how questions (Yin, 2003b). Case study research is most valuable when the question being posed requires an investigation of a real life intervention in detail, where the focus is on how and why the intervention succeeds or fails, where the general context will influence the outcome and where researchers asking the questions will not have control over the events.

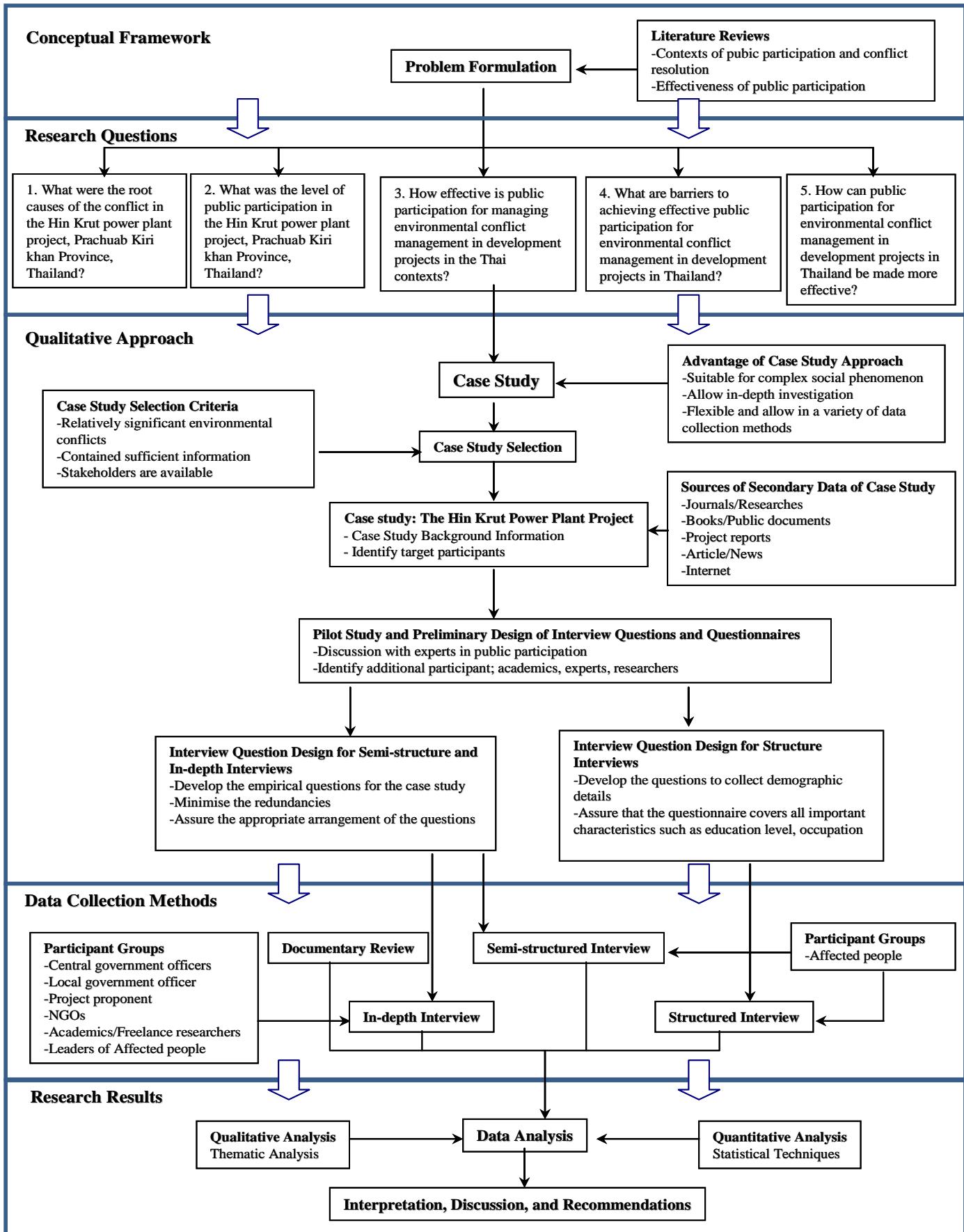


Figure 4.1 A model of research design of this study

It is also valuable where broad, complex questions have to be addressed in complex contexts (Keen and Packwood, 1995). In these circumstances, a case study seems to be the best fit in this project because research questions 3, 4 and 5 aim to study how to evaluate the effectiveness of public participation, what are the barriers to participation and how to improve its practice in the Thai context. A case study is well suited for the study to understand complex, contemporary phenomena in real-world situations where many factors seem potentially significant (Stake, 1995; Avramoski, 2002; Yin, 2003b).

Second, typically, a case study allows the use of a combination of data collection methods such as archives, interviews, questionnaires and observations to gather information in one study (Eisenhardt, 2002; Cunningham and Tiefenbacher, 2008). This is because no one method is sufficient to capture all salient aspects of an intervention (Keen and Packwood, 1995). The evidence gathered can either be qualitative or quantitative or both (Eisenhardt, 2002). This characteristic of case studies offers an opportunity to gain a rich picture, and in-depth and powerful data (Pegram, 2000), which would be a benefit in this study.

Third, typically, a case study is often selected as the research methodology because its successful application has been widely reported and acknowledged in the field of public participation and environmental management (Beierle and Konisky, 1999; Beierle, 2000; Loring, 2007), especially in environmental assessment literature (Furia and Wallace-Jones, 2000; Avramoski, 2002; Diduck and Mitchell, 2003; Laituri, 2003; Robinson and Bond, 2003; Yang, 2003; Almer and Koontz, 2004; Jha-Thakur *et al.*, 2009; Theophilou *et al.*, 2010), waste management (Petts 2001; Hartley and Wood 2005; Muneenam 2006), water management (Vantanen and Marttunen, 2005; Hartley, 2006), and power plant literature (Bond *et al.*, 2004). Particularly, in the Thai context, many researchers have employed a case study approach to study the public participation issues in solving environmental problems and their results are highly accepted (Ogunlana *et al.*, 2001; Awakul and Ogunlana, 2002; Chaisomphob *et al.*, 2004; Charuvichaipong and Sajor, 2006; Manowong and Ogunlana, 2006; Muneenam, 2006).

Fourth, a case study not only is an approach for theory-seeking and theory-testing, but it is also appropriate for evaluation research due to its flexibility in design and execution (Bassey, 1999; Robson, 2002), in particular an evaluation study of public participation processes (Syme and Sadler, 1994; Mercier, 1997; Rowe and Frewer, 2004; Hinte *et al.*,

2007). In an evaluation context, the case studies have been used widely to document and analyse implementation processes and the outcomes of the initiatives, such as the initiatives supported by either federal agencies or private organisations. Case studies are flexible and could comprise any programmes, projects, situations, initiatives or sites (Bassey, 1999; Yin, 2003a). An exploration and description from a case study can provide a valuable function in identifying variables of contexts and mechanisms (Yin, 2003b) that might influence the effectiveness of a public participation process. The flexibility of case study research is beneficial to an evaluation study, in particular of a public participation process.

It could be said that the case study approach corresponds to be the best method for evaluating the effectiveness of public participation. However, there are some basic questions that need to be considered about a case study research design: how many case studies are needed?; which cases should be studied?; and, what are the basic criteria?

4.3.1.1 Number of case studies

There is no exact number of case studies to be undertaken in case study design (Tellis, 1997; De Vaus, 2002). A case study design can be either single or multiple cases. The single case study design is when a single research event is employed. It requires careful investigation to avoid misrepresentation and to utilise the research's access to the evidence. A multiple case study is used when several cases are compiled with the purpose of logical replication of the observations. Multiple case studies focus on a replication rather than sampling logic and enhance the results by replicating the pattern-matching and increasing confidence of the theory (Yin, 2003b).

How many case studies should be in the design depends on the nature and the aims of the study including; the degree of the expected details, and a difficulty of which research propositions will be tested (De Vaus, 2002; Yin, 2003b). Given the lack of systematic evaluation of public participation in Thailand highlighted in the previous chapter, it seems most appropriate to apply the rationale of the exploratory case study method in great depth (Stake, 1995; Yin, 2003a). Basically, a large number of case studies do not provide in-depth information, whereas, a small number of case studies can generate a great level of detail (Lamolla, 2002; Yin, 2003b). If the study seeks theoretical replications, there will be

a need to conduct additional case studies (Yin, 2003b). However, when the other cases are not available for replication, the research is limited to a single-case design (Tellis, 1997).

This thesis aimed to thoroughly examine the public participation practice and evaluate its effectiveness where in-depth investigation and data were required. Thus, a single study was appropriate since it could provide broad and in-depth details and exploratory knowledge which could be used to confirm, test, or challenge theories relevant to the processes (Yin, 2003b; Stake, 2005). Indeed, a single case study allows in-depth and extensive investigation of any number of context and process characteristics (Conley and Moote, 2003). What is known from a particular case may very well be true to other similar cases (Stake, 2005). Hence, a replication of the case study is not necessary in this context. Importantly, the crucial concept is to select the most strategic case relevant to the aim of the study rather than focusing on the number of case studies (De Vaus, 2002).

Other important reasons for applying one case study in this study were the practical constraints of time, money and access to relevant cases. Multiple case studies can be very time and cost consuming (Conley and Moote, 2003), consequently, fewer are more appropriate. The short time available for conducting this research makes a single case study the most suitable option. Drawn up from these aspects, a single case study seems to be most appropriate in this context.

Additionally, an influential factor on the number of case studies is the conceptual framework for the study. A single case study is suitable when it meets all requirements of the relevant theory and propositions (De Vaus, 2002). More details are explained in the following section.

4.3.1.2 Case study selection

Perhaps the most difficult and significant issue associated with case studies in social science research is the selection of cases to study (Yin, 2003a; Stake, 2005). This thesis aims to study the problems of current practice of public participation processes in detail to find out the factors which contribute to achieving effective public participation in conflict management for environmental project development in Thailand. An appropriate selected

case study will enable the study to be more detailed and investigated in greater depth (Awakul and Ogunlana, 2002).

There are a number of different types of development projects with different characteristics in Thailand which could be selected to be a case study for this thesis. Thus, a set of selection criteria to screen the candidate cases were established based on the screening criteria outlined by Furia and Wallace-Jones (2000), Beierle (2002), Beierle and Cayford (2002), Lamolla (2002) and Webler and Tuler (2006) to ensure that the case is suitable for the objective of this study; in this case the evaluation of public participation. The selection criteria to screen the candidate cases were adopted. Thus, the case study should demonstrate:

- significant environmental problem and conflict;
- public participation in environmental decision making, in particular at the project level;
- a participation method or set of participation methods such as public hearing, advisory committees, or environmental mediation to engage the public in the administration of the decision-making process of the environmental development project;
- sufficient and accessible information on the contexts, processes, and results of the participation efforts and process;
- a varied range of interests and involving various stakeholders including government, private sector, academics and experts, non-government organisations and affected citizens in the participation process;
- a need for a public participatory approach to solve the problem;
- relevant issues of development of participatory process and aspects of social and environmental interaction;
- a sufficient number of participants or informants who are available and willing to provide information and be studied.

A number of development projects in Thailand were investigated carefully through different sources, such as newspapers, research and books. On the basis of the aforementioned criteria, the Hin Krut Power plant project in Prachuab Kiri Khan province

had the characteristics that fulfilled the research objectives and is a worthy case study for many reasons. First, and most importantly, the Hin Krut power plant project was selected based on its reputation as having significant environmental problems and conflicts with a high level of controversy among stakeholders. Second, this project was acknowledged as a development project that concerned many issues of social and environmental interactions. Third, a great number of different parties in the entire society were involved in the project and the wider public was interested in its process. Fourth, the Hin Krut power plant was a typical case of how environmental public policies and decision-making have been made without giving an opportunity to the public and affected community to participate in the project (Sukin, 1999). Public participation at the right stage of project implementation was lacking. Fifth, the Hin Krut power plant project also failed to achieve the ideal purposes of public participation by means of public hearing. Instead of reducing conflict between project owners and the affected citizens, it increased it. Sixth, it also has distinguishing characteristics: it was a large-scale project proposal with high capital costs of investment. Seventh, this project also potentially reflected the NIMBY syndrome in that the local community shared the responsibility for coping with environmental problems in spite of the fact that such shared responsibility was never thought fruitful for the local community. Eighth, relevant information about the participation efforts and process was still available. Finally, there were a sufficient number of stakeholders who were accessible and agreeable to be research participants and provide information.

It could be said, based on the characteristics of the Hin Krut power plant project which met all selection criteria, that the project is the most appropriate case study of how, in Thai experience, a public participation programme in managing environmental conflict did not succeed in satisfying the stakeholders, and indeed, the conflicts were increased. A careful investigation of this project will help illustrate the real situation and increase ability to achieve effective public participation to resolve conflict in an implementation of a development project in Thailand.

4.3.2 Population, Respondents, Sample Size and Sampling

The primary question to start the research is which group of people would be selected to be the target groups and samples of this case study? This is very crucial because good

representation from this population will improve the relevance of the research finding to the population (Thochim and Donnelly, 2006). Typically, population can be interpreted in many different ways depending on different contexts. It does not mean only the population in a conventional sense (such as the population of Thailand) but also includes a discrete group of unit of study such as the population of a city, community, firm or particular groups (Bryman and Cramer, 1999). Based on this definition, the population of the Hin Krut case study is its stakeholders or the participants who were involved in the public participation process. This is because stakeholders in each specific problem are the most appropriate groups to provide extensive and explicit information (Coleby *et al.*, 2009).

In this thesis, to avoid confusion, the terms ‘participant’, ‘respondent’ and ‘interviewee’ and ‘attendee’ are defined as follows. An ‘interviewee’ refers to a person who was interviewed in person during this study. A ‘respondent’ is defined as a person who refuted or responded to a thesis or any argument in a question posed by the researcher. Indeed, the terms ‘interviewee’ and research ‘respondent’ are similar and are often used interchangeably. A ‘participant’ is defined either as someone who involved in the original EIA process, or someone who took part in any public participation activity associated with the Hin Krut development. Finally, an ‘attendee’ refers to a person who attended and participated at a convention of the public hearings of the Hin Kurt power plant project.

4.3.2.1 Research respondents: stakeholders of the public participation process

A review of the relevant literature in previous evaluations of the effectiveness of public participation programmes was conducted in order to help identify key stakeholder groups to be studied. In order to answer the research questions about which factors contribute to effective public participation and how to improve current practice in Thailand, there is a need to truly understand interaction between stakeholders and their level of influence. To reach this point, the interaction and participation with whoever had participated in, and been affected by, the project was necessary. As a result, the stakeholders or target groups in this study were stratified into five discrete groups of unit analysis: government agencies and local government officers; the project proponents; the affected people and local communities; the non-governmental organisations (NGOs); and, academics, experts and freelance researchers. These groups of stakeholders were identified and selected because it has been acknowledged that they have particular characteristics that enable detailed

exploration and understanding of public participation issues based on guidance by Carnes *et al.* (1998), Bryman and Cramer (1999), Ogunlana *et al.* (2001), Avramoski (2002), Awakul and Ogunlana (2002), Vari (2002), Environmental Impact Evaluation Bureau (2006), Manowong and Ogunlana (2006) and Muneenam (2006).

The main reason for this categorisation is that, principally, different parties play important and different roles in project implementation. Investigating this subject from various stakeholders can lead to a wide range of useful views and experience that would be beneficial to the research (Schweitzer *et al.*, 1996). A recognition of the differences in behaviour and attitudes among different parties in society is a rational concept of public participation process (Churchman and Sadan, 2004). It could be said that stakeholders who had been involved in the participatory and decision-making process, both formally and informally, including public hearing fora, of Hin Krut Power Plant Project were the best population in this study. A description of these target groups follows.

The government officers: central government officers and local government officers

Although there were many related government organisations involved in the project, only a few representatives from this group could be contacted and participated in this study. At the national level, representatives from the Ministry of Resources and Environment were interviewed, while at local level, local leaders and officers working in the project areas from Tambon Administrative Organisation were involved. Local government officers were crucial in this case because local governments are often a keystone to successfully implementing and enforcing public participation (Tuler *et al.*, 2002).

The project proponents

In this development project, the project was originally planned by business sectors. The officers of the UPDC were viewed as key informants. Project staff who were most accessible and had an important role in the participation process were selected. One of the project proponents was a public relations director of the project who worked closely with the affected villagers. His roles and responsibilities were mainly to gain understanding and support from the local villagers through public relations programmes. He tried to foster community relations through community initiatives, in particular a public participation process. Another officer was a public relations officer who organised participation events

such as conferences, exhibitions, and open days to the public, in particular the local communities.

The affected people and local communities

In this group the population was divided into sub two groups: local residents; and, their community leaders. They were all directly impacted by the development project since they all live, work or have worked within or near the project area. They were either protestors or supporters of the project. They were expected to provide in-depth and useful information for the study.

The academics, experts and freelance researchers

The researchers in this study are from the national academic organisations who are interested in this project. Some played an important role in participating such as participating in the public hearing, seminars, or giving comments to the public in this case study. In particular, one academic was selected to sit on the committee of the public hearing conducted in the project.

NGOs

Basically, NGOs are playing an important role in environmental protection and could provide important information (Nadeem and Hameed, 2008). This group comprised of the special interest groups such as conservationists, environmentalists, or voluntary organisations. The representatives were selected from the NGOs who had contributed to the project or building awareness amongst the local communities.

Since the 1980's, the numbers of NGOs in Thailand have been increasing dramatically (Sangchai 2000). NGOs are not only important in terms of influencing the setting and changing of domestic and international political and social structures, but also in terms of environmental management and activities (Clarke 1998). Many environmental NGOs in Thailand have supported community rights on environmental and natural resource issues over state rights. They have played important roles in voicing the views of rural people over their livelihood problems and they have helped encourage and organise people to fight for their causes (Awakul and Ogunlana 2002). Although NGOs have participated in government activities, their roles are not universally accepted by government officers and

politicians and there have been examples where the activities of the government and those of NGOs have gone in opposite directions (Vatanasapt 2003).

Presently, there are approximately 80 NGOs registered with the MOSTE as environmental NGOs while many more have not yet registered (King Prajadhipok's Institute 2007). The reason for non-registration is assumed to be because they do not want to be legally accountable under the law, and being registered environmental NGOs would increase paperwork since they have to submit reports about their activities to the government (Sangchai 2000).

Both registered and non-registered NGOs were studied. The registered NGO was the Thailand Environment Institute (TEI). The TEI is a large private institution (purely academic in nature) that has influenced developments and environmental policy agenda formulations. It has close relations with the government because most of its board members are academics and former senior government officers. Their papers and information are often cited in government documents. One of the interviewees is the TEI staff member who experienced the Hin Krut power plant project. The non-registered NGOs were the Association for Alternative Energy and the Ban Krut Conservation Junior Club. The interviewee from the former association worked closely with the villagers at the time of the project controversy by providing them with important information about the power plant, government documents and environmental laws and regulations. The representative from the latter group was the leader of the young people in the impacted communities. She set up many meetings and activities for teenagers in the communities to provide them information about the project, and explain what was going on in their communities.

4.3.2.2 Sample size and sampling procedure

In practice, it is necessary to select an appropriate sample from the target groups because the size of the population is often massive and unmanageable (Tosun, 2006). How to find the most appropriate samples in doing research is also crucial and complicated so that the sampling procedure is an important step (Flick, 2006), which needs to be carefully considered and implemented (Thochim and Donnelly, 2006). Generally, there are two main types of sampling: random or probability sampling; and non probability sampling

(Huberman and Miles, 1998; Sarantakos, 1998; Bryman and Cramer, 1999; Bamberger *et al.*, 2002; Thochim and Donnelly, 2006; Saunders *et al.*, 2007). Frequently, quantitative research employs random and statistical sampling, while qualitative research uses purposive and conceptual sampling (Huberman and Miles, 1998; Bamberger *et al.*, 2002). However, which approach should be selected should depend on the decision of the researcher on considering all research contexts, in particular the purpose of the sampling, the type of sampling, and the research method (Bryman and Cramer, 1999; Gliner and Morgan, 2000). Actually, there is no right number for how large the sample should be. From the literature, sample size design has a relation with data analysis, which can be classified into two main groups of sample size for: statistical generalisation; and, theoretical generalisation (Flick, 2006; Muneenam, 2006). Importantly, the sampling procedure needs to be carefully determined to ensure that the final samples meet the requirements of diversity and symbolic representation (Ritchie *et al.*, 2003).

Generally, probability sampling is often employed in quantitative research as a way to analyse probability statistics or test the significance (Huberman and Miles, 1998) because this sampling is appropriate when the research aim is to test hypothesis empirically (Ritchie *et al.*, 2003). This approach is suitable for generalisation to a whole population because the sample is from the population and has an equal opportunity to be selected (Thochim and Donnelly, 2006), and employs strict probability rules in the selection process (Ritchie *et al.*, 2003). An equal proportion or number of each target group is selected for the sample. In addition, this approach is complicated, expensive, and time consuming because it requires a large sample size. In practical terms, the desired sample size may not be achieved during the data collection process. If the actual number of the sample size is too small, the results of the study may be affected and distorted (De Vaus, 2002). Non-response rate is the main problem in this issue (Bryman, 2004). Thus, to increase the number of the sample size it is necessary to solve this problem. For example, if the sample size is 100 respondents and the rate of non-response is expected to be 20%, it may be suggested to select 125 respondents because approximately 25 units will be non-respondents. However, it is crucial to realise that increasing the number of the sample size does not always result in correct generalisation of the results to the whole population. If the sample is not truly representation of the population, the generalisation may not be correct (Bryman and Cramer, 1999; Gliner and Morgan, 2000).

In practice, probability sampling cannot be conducted in some contexts due to the limitations of cost, time and accessibility (De Vaus, 2002; Thochim and Donnelly, 2006). Importantly, in some situations, researchers might have purposive participants who have experience with or knowledge of the phenomenon being explored (Cresswell and Plano Clark, 2007). In these cases, non-probability sampling is applied.

Typically, non-probability sampling is frequently used and more appropriate as a sampling approach to select the groups to be studied in qualitative research (Ritchie *et al.*, 2003). Although the main difference between probability and non-probability sampling is that probability approach is concerned with random selection, while non-probability is not (Bryman and Cramer, 1999; Thochim and Donnelly, 2006; Saunders *et al.*, 2007), it can not imply that the samples from non-probability sampling are not representative of the population because this sampling does not depend on the rationale of probability theory (Thochim and Donnelly, 2006). In non-probability sampling, units are deliberately selected to reflect particular characteristics of a group within the sampled population. The sample is not statistically representative. The opportunity of selection for each sample is unpredictable so that some unit of analysis might have a greater opportunity to be chosen than others (De Vaus, 2002). However, the important characteristics of the population are considered as the selection basis (Ritchie *et al.*, 2003). Accordingly, in social research, theoretical generalisation can be achieved when non-probability sampling is applied (Pellow, 1999; Gliner and Morgan, 2000; De Vaus, 2002; Thochim and Donnelly, 2006).

Non-probability sampling can be characterised into two main groups: accidental or convenience sampling; and purposive sampling. As defined by Tashakkori and Teddlie (1998; p.76), a purposive sampling is: “*selection of individuals/groups based on specific questions/purposes of the research in lieu of random sampling and on the basis of information available about these individuals/groups*”; while convenience sampling is: “*done on the basis of availability and ease of data collection rather than in terms of suitable based on research objectives/questions*”. In practice, purposive sampling is mostly applied because the researchers are willing to approach the sampling problems with a particular plan in their mind. The samples are chosen with a purpose to represent the key constituencies relevant to the subject issue (Ritchie *et al.*, 2003). Basically, purposive sampling has a small number of cases or individuals. This sampling is very useful in the circumstances that the researchers need to reach the target sample rapidly and

where the proportionality is not extremely important. With this approach, it is easy to get the opinions from the target population (Thochim and Donnelly, 2006).

Basically, the sample size of non-probability sampling can be varied and there are no guidelines about what is the most appropriate number of samples in qualitative research (Bryman and Cramer, 1999; Gliner and Morgan, 2000). However, the sample size in qualitative research should not be too large or too small. Normally qualitative samples are small in size (Bamberger *et al.*, 2002; Ritchie *et al.*, 2003). There are some rationales to support this statement. First, there is a point of diminishing return where an increase of sample size does not provide any contribution or new evidence. Second, opposite to quantitative research, the sample does not need to be large enough to support statements of prevalence. There is no requirement to determine statistically significant variables. Third, data in qualitative research is rich in detail so it is difficult to do justice to the richness of the information if the sample is too large (Ritchie *et al.*, 2003). Finally, focusing on a small number of samples can generate deep and detailed information (Yin, 2003b).

Presently, much social research becomes more complex and requires a combination of sampling techniques to effectively explore the social phenomena. This is because mixed methods of sampling procedures can increase internal validity, trustworthiness, and generalisability. This often consists of two types of sample: a probability sample and a purposive sample (Kemper *et al.*, 2003). Accordingly, in this thesis, both of these strategies are mixed and applied in order to achieve both statistical and theoretical generalisation. Stratified non-random sampling is used to achieve good representativeness of the participants from a large population. It is suitable for conducting data collection in large communities (Sarantakos, 1998; Saunders *et al.*, 2007). Thus, this approach is applied with the affected people and local communities, which have a great population. Purposive sampling is applied with key stakeholders for in-depth study and to obtain insight and understanding from well-situated participants. Snowball sampling is used with key informants for inaccessible and small populations, such as the leaders and key persons of local affected communities.

Sampling Procedure for local affected villagers: Stratified non-random sampling

In this study, the population of affected people and local communities can be identified both as individuals or householders. However, based on the EIA study of this project, the

unit of analysis was householders which represented each single house (Saangsan Consultants Company Limited, 1999). Thus, a study with the local affected villagers applied this concept. Based on the official document from the Thong Chai Municipality, the number of householders in this district is more than 500 which requires significant investment of time and money. Thus, it was difficult to achieve a great number of samples. The field work conducting data collection within this research lasted six months. These limitations mean that not every householder affected by the power plant has participated in this study. However, it could be argued that the sample sizes of relatively large populations, such as in social surveys, of around 30 or 40 cases are still adequate for statistical analysis (Bryman and Cramer, 1999). In the event, the sample size of the affected villagers for this research is 34 interviewees and this was implied to provide enough accurate data to achieve the research's purposes.

Stratified non-random sampling was applied to select samples from local affected householders, classified by gender, and physical distance of households from the project site. Remoteness was categorised by radius around the site. The householders within this physical distance were stratified into two strata: stratum 1 area within the radius of five kilometres; and, stratum 2 area between five to 15 kilometres. The classification of these strata were based on guidance by the OEPPI which states the area within a radius of five kilometres from the project site is defined as the directly affected area whilst outer areas are experiencing indirect effects due to the project.

Table 4.1 presents the sample of research respondents from the local householders in the study areas. The total interviewed with the affected people in the local communities in this study were 34 samples: 22 sample households from stratum 1, within a radius not over five kilometres; and 12 interviewees from stratum 2, surrounding areas within a radius five to 15 kilometres. The representatives from these groups had equal opportunity to be represented from households from every villager within these distances from the project site.

Thus, the samples were mainly selected from villagers in target communities located within five kilometres from the project areas since they were considered to have direct impacts due to the project. Within this radius, the interviews were conducted along the seashore of Ban Krut Road, Ban Krut-Kok Ta Hom Road and at Ban Krut Market which

were: Ban Tum Khi Ri Wong, Ban Pak Klong (Fishermen village), Ban Krut, Ban Nong Wa Yang, and Ban Tang Sai. These villages located in Tambon Thong Chai, Bang Saphan District. Villagers whose households were located in the areas within a radius of five to 15 kilometres from the project site were also studied in order to complete all background information on the surrounding communities, gain wider perspectives and more information, and, finally, make sure that all important data were gathered. The interviews were conducted in Ban Ta Kien Shong Pee Nong, Ban Don Leam Yai, Ban Nong Ta Muang, Ban Nong Mong Kol, Ban Chai Mong Kon, and Ban Don Song in Tambon Thong Chai, Bang Saphan District. Figure 4.2 shows the location of these 11 villages affected from the power plant project. These respondents were selected from a sub-group of the population who were at home and willing to participate (Tashakkori and Teddlie, 1998).

Table 4.1 The number of local householders (and numbers of those sampled for interviews) within five kilometres and within a radius of five to 15 kilometres from the site of Hin Krut Power Plant Project, Thong Chai Sub-District, Bang Saphan District, Prachuab Khiri Khan Province, Thailand

No (Moo)	Village	Households	Samples	Radius from the site (km)
1	Ban Tum Khi Ri Wong	177	3	< 5
2	Ban Pak Klong	207	8	< 5
3	Ban Krut	229	6	< 5
4	Ban Nong Wa Yang	154	2	< 5
5	Ban Don Leam Yai	190	2	5 to 15
6	Ban Nong Ta Muang	215	2	5 to 15
7	Ban Nong Mong Kol	265	2	5 to 15
8	Ban Ta Kien Shong Pee Nong	225	2	5 to 15
9	Ban Tang Sai	135	3	< 5
10	Ban Chai Mong Kon	221	2	5 to 15
11	Ban Don Song	75	2	5 to 15
Total		2,093	34	

Source: Primary demographic data from Department of Community Development (2007)

Sampling procedure for key informants: purposive sampling

As mentioned earlier, in this research, the sampling process is faced with time, money and accessibility constraints. Non-probability sampling is more appropriate in this context and this approach can help to achieve theoretical generalization (De Vaus, 2002) of what is

effective public participation and how to achieve it in Thai contexts, which are the purposes of this study.

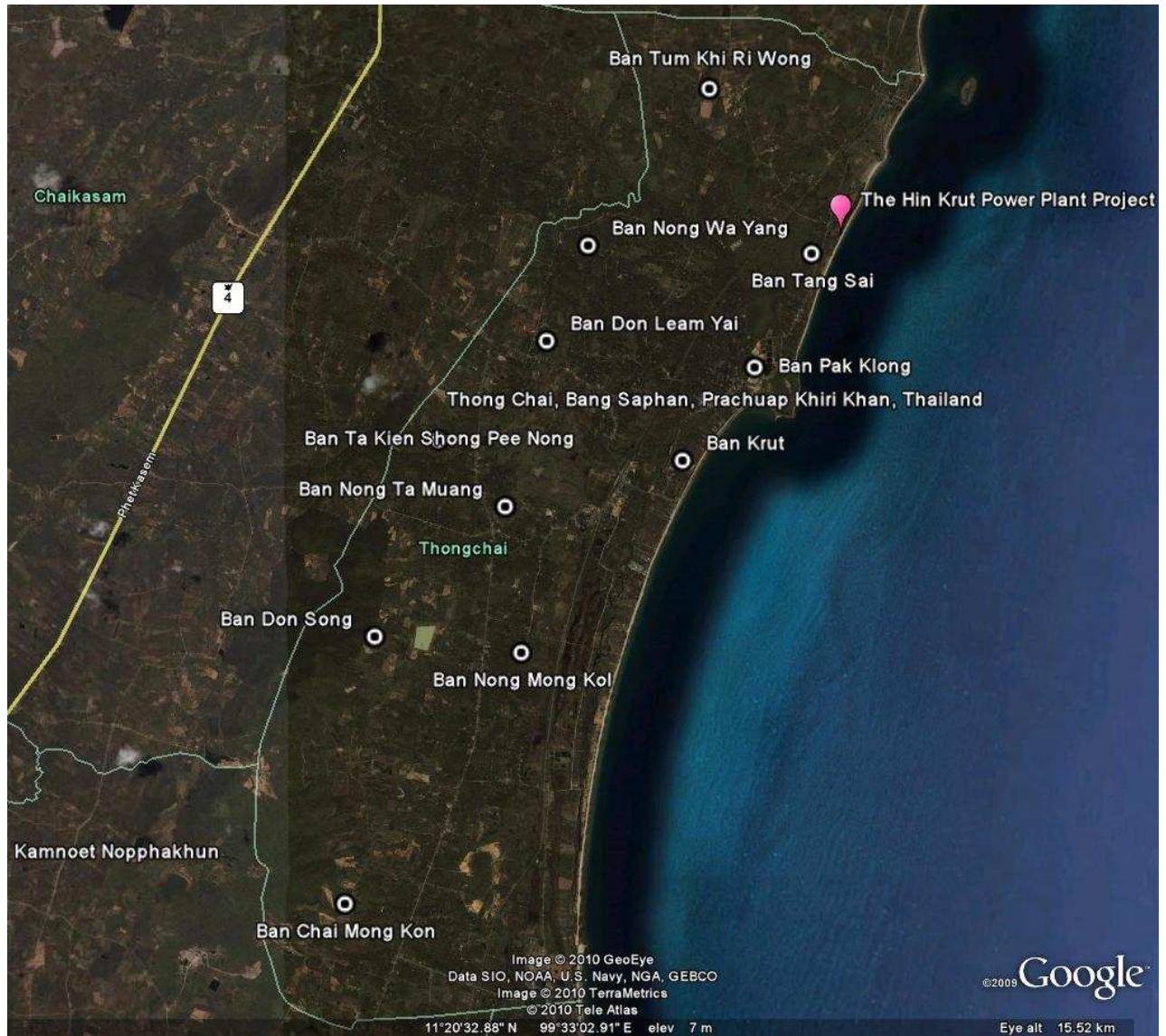


Figure 4.2 Local villages within a 5-kilometre and 5-15 kilometre radius of the project's site

Purposive sampling was applied in this thesis because it is more flexible and makes no claim for representativeness (Sarantakos, 1998). Purposive sampling allows access to the target groups easily and gains perspectives from key informants and people who are more readily accessible (Thochim and Donnelly, 2006). Key informants are people whose insights are particularly useful in helping to clearly understand the studied issues (Patton, 1987). In this study, key informants were people who have specific knowledge and

experience about the studied issue, a public participation process. Indeed, there was no clear sampling frame or list of the members of these stakeholders groups, government organisations, project proponents, NGOs, and academics and experts. The samples of target groups in this study are summarised in Table 4.2.

Table 4.2 A summary of samples of target group in this study

Target groups		Number of Sample size
Government officers	Ministry of Resource and environment Ministry of Industry Local officer leaders and officers - Thong Chai Municipality - Ban Krut Municipality - Thong Chai school	1 1 3 3 2
Project proponents		2
NGOs		3
Academics and experts		3
Local people affected by the project	Leaders Villagers	5 29
Total		52

Additionally, snowball sampling was used throughout the data collection process to make interviews with key affected citizens and stakeholders combined with other approaches as a way to contribute a potential network of interviewees. Initially identified participants were asked to recommend other people who also played an important role in the participation process of the project and met the selection criteria (King *et al.*, 1998; Ritchie *et al.*, 2003).

4.3.3 Data collection methods: combining research methods

Qualitative methods have been applied extensively in the environmental management research because they facilitate the capture of meanings, interpretation and analysis more easily (Jabbour and Balsillie, 2003). Mostly they comprise documentary reviews, interviews, focus groups, or observations (Rosener, 1981; Beierle, 2002; Garin *et al.*, 2002; Stewart and Sinclair, 2007). Sometimes, quantitative approaches, such as surveys or questionnaires, are employed (Vari, 2002). In recent years, an increasing number of scholars have employed a mixture of methods or processes which support the triangulation

concept (Ritchie, 2003). They postulate that using mixed methods will expand and deepen the scope of their study (Marshall and Rossman, 1999; Sandelowski, 2000), in particular to understand and improve human practice in the real world (Greene, 2007). This is because mixed methods allow the weaknesses of one method to be offset by the strengths of the others and to study the phenomenon from a diversity of possibly complementary angles (Tashakkori and Teddlie, 1998; Bamberger *et al.*, 2002; Patton, 2002; Vallaster and Koll, 2002; Cresswell and Plano Clark, 2007).

Denzin (1978) illustrates that triangulation involves combining diverse data, different methods, theories, and perspectives to contribute conclusions which can increase credibility. Triangulation is based on the assumption that by using various data sources, methods and researchers, researchers can overcome the disadvantages of qualitative and quantitative methods (Denzin, 1978; Johns, 1997; Sarantakos, 1998). Denzin (1978) clearly defined four common types of triangulation. First, data triangulation or intra-method triangulation relates to the use of different data sources and data sets in research. Data can be both qualitative and quantitative. Second, investigator triangulation refers to the use of different researchers. Partnership and teamwork are important as a way of contributing various perspectives. Third, theory triangulation involves the use of different theories to determine hypotheses and to interpret data. Finally, methodological triangulation or inter-method triangulation implies using multiple methods to study a problem. It may involve the use of the same method to study different situations. Methodological triangulation can be either a combination of qualitative and quantitative approaches or purely qualitative or quantitative. The data collection methods can be different or the same (Teddlie and Tashakkori, 2003). An adaptation of the triangulation concept in this thesis to increase validity of the research findings is explained in section 4.7.

Basically, there are six common methods of data collection; questionnaires, interviews, focus groups, tests and scales, observations, and documentary analysis (Denscombe, 2002; Robson, 2002; Johnson and Turner, 2003; Teddlie and Tashakkori, 2003; Bryman, 2004). Different methods have different advantages and disadvantages and fit best in different circumstances (Denscombe, 2002). A number of previous studies about public participation have alternatively attempted to measure its effectiveness by ascertaining the perspectives of the participants though mixed data collection methods (Strobl and Bruce,

2000; Jabbour and Balsillie, 2003; Thurston *et al.*, 2005; Vantanen and Marttunen, 2005; Charuvichaipong and Sajor, 2006; Badr, 2009; Jha-Thakur *et al.*, 2009; Okello *et al.*, 2009; Theophilou *et al.*, 2010).

Importantly, the data collection methods should be practical, efficient and feasible (Marshall and Rossman, 1999). Although participant observation has been often used in many evaluation studies of public participation and environmental management (Avramoski, 2002; Lamolla, 2002; Charuvichaipong and Sajor, 2006), it was not adopted in this research. This is because the public participation processes of the Hin Krut power plant project were already completed. An observation of the public hearing and other activities was not possible. However, the photographs of the facility sites, the environment and the related environmental problems of the local community, were taken in order to provide strong arguments and supporting evidence for the study. Field notes were taken for important issues during the interview processes.

In this study questionnaires were not selected for several reasons. First, this thesis aims to investigate in-depth the public participation practice in Thailand while questionnaires cannot produce a variety of in-depth information from the research repondents. This is because questionnaires are inflexible in the way in which questions are asked in the structured setting. Second, the research findings could be biased since the pre-coded questions and answers are designed based on the researcher's perspective. The respondents' perceptions of matters are potentially fitted within a line of thinking established by the researcher (Denscombe, 2002). Finally, questionnaires provide less opportunity for interaction between the researcher and the respondents. When any inquiries occur, the researcher has no opportunity to clarify them.

Therefore, the most suitable and practical data collection methods in this study were; literature reviews, structured interviews, semi-structured interviews, and in-depth interviews. This is because a variety of qualitative methods will help to explore the details of the public participation context in-depth. The summary of data collection methods is presented in Table 4.3.

Table 4.3 A summary of data collection methods for this thesis

Research Questions	Issues investigated	Methods	Instrument	Subject (s)/ Participant (s)
Demographic	Background information of the research participants	Structured interviews	Interview guide	Research participants
1	Causes of conflict	Literature reviews Semi-structure interview In-depth interviews	Search engine Interview guide and tape recording Interview guide and tape recording	Books, journals <i>etc.</i> Members of local communities affected Representatives from government, developer academic institutions, NGOs, Freelance researchers, and Local leaders of local communities affected
2	Level of public participation processes of the case study	Literature reviews Semi-structure interview In-depth interviews	Search engine Interview guide and tape recording Interview guide and tape recording	Books, journals <i>etc.</i> Members of local communities affected Representatives from government, developer academic institutions, NGOs, Freelance researchers, and Local leaders of local communities affected
3	An evaluation of the effectiveness of the public participation processes	Literature reviews Semi-structure interview In-depth interviews	Search engine Interview guide and tape recording Interview guide and tape recording	Books, journals <i>etc.</i> Members of local communities affected Representatives from government, developer academic institutions, NGOs, Freelance researchers, and Local leaders of local communities affected
4	The barriers to effectiveness of the public participation processes	Literature reviews Semi-structure interview In-depth interviews	Search engine Interview guide and tape recording Interview guide and tape recording	Books, journals <i>etc.</i> Members of local communities affected Representatives from government, developer academic institutions, NGOs, Freelance researchers, and Local leaders of local communities affected
5	How to improve the effectiveness of the public participation processes	Literature reviews Semi-structure interview In-depth interviews	Search engine Interview guide and tape recording Interview guide and tape recording	Books, journals <i>etc.</i> Members of local communities affected Representatives from government, developer academic institutions, NGOs, Freelance researchers, and Local leaders of local communities affected

4.3.3.1 Literature reviews

Literature review is a very functional method in social research, in particular in the public participation field, for many reasons. It is economical, easy to obtain and access, and does not require collection or processing (Denscombe, 2002; Ritchie, 2003). It offers a supplementary explanation and interpretation of aspects, in particular a historical insight which is not provided by other research methods (Sarantakos, 1998; Denscombe, 2002). Vast amounts of information are contained in documents (Denscombe, 2002), and more often documents are the only source of information when studying past events (Sarantakos, 1998), which is very useful in this thesis. Besides, a number of studies of a public participation process apply literature reviews as the main method of data collection such as Beierle and Cayford (2002), Hartley (2006), and Henle *et al.* (2008), or as a combination with other methods (Thurston *et al.*, 2005; Badr, 2009). Based on these rationales, literature reviews were conducted in this thesis.

In this thesis, literature reviews were used throughout the study in three stages; before, during, and after conducting research. First, before conducting research, the reviews of relevant data were conducted to build up backgrounds, frameworks and methodologies used in the thesis, in particular information about a public participation process and its evaluation frameworks. These reviews aimed to provide background on the rationale for public participation and conflict management; investigate the benefits and barriers of public participation, evaluate the public participation, provide an overview of public participation in the meaning of environmental conflict management approaches, and to outline the theoretical underpinnings that the thesis is based on. Importantly, literature and documentary reviews not only help to construct a conceptual framework (Muneenam, 2006), but also help to inform survey development and the analysis of the results (McGurk, 2003). Second, during the research, useful publications and documents were used to support the study, in particular publications and documents obtained from despondents during fieldwork. Newspapers, minutes of meetings, lists of participants, committees and organisers of public participation activities and government reports were used as references to identify informants for this research. Finally, after conducting the research, documentary analysis was also applied in the data analysis processes. Substantive data from research and publications were used as important evidence for arguing, debating, and supporting the results of this thesis. The reviews and analysis of

relevant documents were used in combination with the results of the interview to make a recommendation to improve the public participation practice.

In this study, these secondary data were collected from the literature, publications and substantive document on public participation including government publications, conference proceedings, relevant research, books, journals and practitioner guidebooks. Publications were relatively easy to access, whilst unpublished reports, studies, and internal documents were more difficult to obtain such as documents from the government bodies, business and non-government organisations. The information about the Hin Krut power plant project and the public hearing was very difficult to obtain because of a lack of documentary evidence. Some minutes of meetings were not available since they were old and lost. However, related documents of the same issues were provided by local environmental groups, freelance researchers and academic institutions.

4.3.3.2 Interviews

Interviews are one of the most common and important methods of data collection in social science research (Sarantakos, 1998; Denscombe, 2002; Johnson and Turner, 2003), in particular in case study research (Tellis, 1997; Yin, 2003b). Interviews are not only applied as an unaccompanied method of data collection, but frequently interviews are also used in combination with other methods (Kvale, 2007) because of their extensive advantages. The interviews provide a wealth of detail, in-depth, and nuanced information that other methods may not capture because interviewees are more likely providing idiosyncratic and complex information (Innes, 1999).

To answer research questions nos. 1, 2, 3, 4 and 5, an in-depth knowledge of the points of view of stakeholders affected by the project is essential ⁽¹⁾. Based on the extensive benefits of interviews as discussed earlier, in this study, qualitative interviews were the most appropriate method to elicit information from stakeholders' experience, perceptions, and meanings to investigate public participation practice (Bamberger *et al.*, 2002) since interviews focus on studying participants' viewpoints (Bryman, 2004). The justification for this selection was also based on the broad application of qualitative interviews in a

⁽¹⁾ particularly, the local people, government representatives, developers, researcher and NGOs as identified in page 126

number of public participation studies since interviews offer an opportunity to examine and adjust existing theories on public participation processes and to develop new ideas at the same time (Bucheker *et al.*, 2003; Adomokai and Sheate, 2004). Importantly, interviews can be conducted during the participation process, just after its conclusion, or even several years later (Innes, 1999).

There are many types of interview such as: structured interviews; semi-structured interviews; unstructured interviews; standardised interviews; intensive interviews; qualitative interviews; focus-interviews; Delphi interviews; group interviews; oral interviews; elite interviews; and life history interviews (Sarantakos, 1998; Denscombe, 2002; Bryman, 2004). Apart from structured and standardised interviews, the other types of interview are mostly associated with qualitative research. Commonly, the structured, unstructured and semi-structured interviews are the main types of qualitative interviews based on the degree of structure imposed on their formats (Robson, 2002). Each type of interview has its own features and is suitable in different contexts.

Structured interviews are based on a formatted set of questions which are mainly closed. This interview is frequently associated with social surveys where a large volume of data from a wide range of respondents is required (Denscombe, 2002; Robson, 2002). The questions are detailed and developed in advance, as in a survey (Yin, 2003b). Semi-structured interviews allow flexibility in the interviewers' approach to collect data and allow the interviewees to develop their ideas to speak more independently on the issues (Denscombe, 2002). Unstructured or in-depth interviews are often depicted as a form of conversation mainly based on open-ended questions (Legard *et al.*, 2003). This type of interview aims at exploring a certain topic and focuses on the interviewees' perspectives (Denscombe, 2002). In-depth interviews are also more flexible than the semi-structured interviews; however, in-depth interviews are more interactive and have an ability to generate in-depth information (Legard *et al.*, 2003; Fontana and Frey, 2005). Semi-structured and in-depth interviews are widely used as methods of data collection in qualitative research (Robson, 2002; Legard *et al.*, 2003).

In this study, structured interviews were used to collect data on the research participants' demographics on their gender, age, occupations and other related information. This

information had been identified as providing relevant descriptions of interviewees and being essential in many literature studies (Manowong and Ogunlana, 2006; Coleby *et al.*, 2009). The interview questions were asked in a standardised and straightforward manner in the structured setting to get data. This type of information was used to support the discussion of the research findings.

In-depth interviews and semi-structured interviews were selected as the main methods of data collection to examine and investigate the public participation practice of the Hin Krut power plant project, to evaluate the effectiveness of its practices, and to investigate the barriers to effective public participation from the perspective of the participants. In-depth interviews were used to collect significant information from the key informants and stakeholders while semi-structured interviews were used to gain more general information from the local affected villagers.

However, interviews also have some disadvantages. First, interviews are inevitably subject to an individual interviewer's skill which requires some basic skills and experience (Innes, 1999; Kvale, 2007). Second, an interpretive analysis of the interview data is difficult to do well because of the complexity of the findings (Innes, 1999). In particular, the interview data from semi-structured and in-depth interviews are not pre-coded and have a relatively open format (Denscombe, 2002). The interviews are purposely loosely structured; the interviewees may be asked the same basic question in slightly different ways. This could potentially alter the answer which makes it difficult to interpret, analyse and compare them. In addition, in answering a question such as "was this process effective?" respondents will rarely use a simple "yes" or "no." It is much more likely that each respondent may use different wordings and explanations to answer the question. This detail is essential in providing the context that is significant in qualitative research (Todd, 2001).

To overcome these constraints in this study, the questions were presented in exactly the same words to each interviewee in the same order to make interview data easier to interpret and analyse, both within each interview and across a wide diversity of interviews (Fontana and Frey, 2005). This also aimed to prevent possible misinterpretation. To gain truthful and in-depth information from the interviewees, combining both open-ended interview questions and more structured, closed questions, on the same topics was useful

and crucial since it was a useful approach to corroborate the data and interpret the oral responses. In this study, broad questions such as: “was this process effective and if so, in what ways?” were often used early in the interview to allow the interviewee to develop their idea and feel comfortable with the interview. Then, the open-ended questions which were more specific were asked late in an interview. The open questions were supplemented with closed questions that allowed a limited number of choices. At the same time, this made it possible to make a statement such as: “eight villagers thought the process was fair while three did not”. Such discreet data were also important in the research which would be constructive to test the accuracy of the developing conclusions. Besides, the researcher had working experience which was useful in conducting interviews. In this case, the researcher maintained the neutral role by not interjecting any opinion to the interviewees’ answers.

Conducting interviews

When conducting interviews, there are three important aspects that needed to be taken into account: interview guide, interview process, and tape recording and note-taking. The following are descriptions of how these issues were approached.

Interview guide

To ensure that interviewees’ experiences and viewpoints were collected appropriately and comparative within an interview situation, an interview guide, containing a list of issues and questions that were to be explored in the interviews, was developed. This interview guide was prepared in order to organise the background information of the research on topics and ensure that all questions covered all aspects of public participation issues in a more structured way (Patton, 2002; Vallaster and Koll, 2002). The interview guide facilitated interviewing with different stakeholders to be more systematic and comprehensive by delimiting the issues to be discussed (Patton, 1987; 2002). In this study, the interviews aimed to understand and explore the participants’ perspectives concerning key dimensions and issues of public participation activities. Thus, the main topic covered in the interviews included important issues such as the ways and means by which each interviewee participated in the participation programme, how they were facilitated, and the adequacy of the resources. In addition, this interview guide was also used to dictate the interview activity including a clear schedule of data collection activities, and a plan for unanticipated events in this study (Stake, 1995; Patton, 2002).

In this thesis, the interview questions were designed to search for explanations rather than simple answers and be clear and focused on the information needs (Bamberger *et al.*, 2002). Research respondents were asked a mixture of closed and open questions about their views regarding their participation and the effectiveness of the process. Importantly, the question design was based on four basic types of questions illustrated by Forss (2005), which are knowledge questions; feeling questions; opinion questions; and behaviour questions. First, knowledge questions aim to find out factual information from the respondents such as do they know about participation processes or did they receive any information from the campaign. Second, feeling questions ask about the respondents' emotions; for example, how they feel about the participation process or does the process inspire confidence or generate mistrust? Opinion questions are used to find out what the participants think about the public participation process such as was it convenient to access to the information, was the information clear and easy to understand, or was the process credible? This type of question informs us about people's goals, intentions, desires and values. Finally, behaviour questions aims to describe people's actual experiences, activities and actions by asking people about what they do or do not do. All types of questions were applied throughout the study. The interview questions began with easy questions and progressed to more difficult questions, and moved from concrete to abstract answers. Similar and relevant questions were grouped in the same section to make it more convenient in both the interview processes and data analysis (De Vaus, 2002). Questions were designed to be clear, short, and unambiguous.

The structure interview's questions consist of a combination of closed and open-ended questions to collect the interviewee's demographic information. Where the answers were closed, the interviewer only checks the chosen responses. On the other hand, open-ended answers are given to the interviewees to provide alternative answers. A different version of research questions was developed and administered to different stakeholders. Semi-structured interviews were based on a standard interview pattern with key questions to be discussed during conducting interviews. The in-depth interview questions and patterns were more detailed and varied depending on who were the interviewees. The general questions were applied to all stakeholders, whilst specific questions relevant to each group were asked where appropriate. For example, the representatives from central government were asked more about their roles, the constraints of their duties and the

enforcement of the legal procedures about public participation. The project proponents were asked more about their roles and responsibilities to handle the conflicts at that time.

However, these different versions of the interview questions were common in pattern which consisted of three sections: Part A-Background questions; Part B-An evaluation of the effectiveness of public participation and the barriers to effective public participation; and Part C-Wrap up questions. The actual questions are presented in Appendix B.

Interview Process

A pilot study was carried out among the identified stakeholders in order to ensure that respondents from target groups were happy with the questionnaires. The method for the pilot study was in-depth interviews using the original questions developed for the interviewing process to make sure that all aspects of the interview questions were tested for validity and reliability in their content and construction. The interviewees were allowed to add or comment on any aspects of the interview in terms of the matters they wanted to change or the aspects they wanted to include. The interview questions were revised after the pilot study following the feedback from respondents.

The interviews were conducted based on the interview guideline which included a set of predetermined and key questions that indicated the significant points to be revealed. From most of the in-depth interviews, the interviewees wanted to see the interview schedule and questions in advance before the interviews were conducted so that they would be able to effectively answer and discuss the issues. Thus, these particulars were sent on request on a case-by-case basis. This aimed to ensure that all questions were clear and concise and to allow other significant matters to arise during the processes.

In this study, the interviews were conducted in a setting of the interviewees' preference. Most of the interviews were conducted during the interviewees' free time at their preferred locations to minimise disruption to their daily work. For the semi-structured interviews with affected citizens, the locations of the interviews were selected by the interviewees; however, most of them were conducted at the interviewees' house. The selection of the interviewees was decided during the fieldwork and depended on who was at home and available at the visiting time. The interviews were mostly conducted during the working time involving a day time visit. However, some interviews started early at seven o'clock in

the morning or in the late evening. These practices were flexible depending on the situation. The semi-structured interviews lasted between 20 minutes to 40 minutes. For in-depth interviews, all of the interviewees were contacted and made an appointment before the interviews were conducted. The in-depth interviews with key stakeholders were mostly held at their working places during their working times. Typically, the duration of these interviews were from 50 minutes to 75 minutes; however, some interviews lasted around 90 minutes. Importantly, the interviews were conducted by the researcher to minimise any language and translation problems.

A unique identification number of the interviewee and page number was written at the top right and left respectively of every page to prevent confusion if the questionnaires were lost or tearing. Date, place, beginning and ending time of the interviews were also recorded on the top right of the first page.

Tape recording and note taking

Tape recording allows the researcher to pay more attention to the interviewee and focus on the conversation rather than concentrate on writing down what is being said during the interview (Patton, 2002). However, tape recording requires permission from the interviewee before recording and sometimes it may not be authorised. In this study, before the beginning of the interviewing, the interviewees were asked for their permission on recording the contents of the interviews. With the permission of the interviewees, all of the interviews were recorded on auto recorder, and, then transcribed verbally. These transcribed interviews were used in the analysis process using content analysis. In this study, note taking, observations and photographs were also conducted to generate supplementary data.

Fieldwork description

Field procedures mostly involve data collection issues and must be properly designed since the circumstances cannot be completely controlled (Yin, 2003b). In this study, the fieldwork was undertaken from the middle of November 2007 to April 2008. The main purpose of this activity was to gather all relevant information about public participation and conflict management in Thailand and particularly the information about the case study, the Hin Krut coal-fired power plant project. The selection of research respondents

and more than 90% of interviews were conducted in the first four months. In the last two months, additional interviews were conducted to obtain complementary data and more specific information. The aim of these activities was to validate the findings of the research and to gather the missing information for the project. During the fieldwork, 52 participants were actually interviewed.

4.3.4 Data Analysis

Unquestionably, data analysis is the most complex challenge of qualitative research (Thorne, 2000; Spencer *et al.*, 2003). In general, data analysis refers to any practices done in the management and reporting of data but, more narrowly, it can be defined as “*systemic procedures in order to identify essential features and relationships*” (Wolcott, 1995, p. 24). Typically, raw data in qualitative research are voluminous, messy, unwieldy, and available in non-standard format (Miles and Huberman, 1994; Denscombe, 2002). Although there are a number of different approaches to analyse qualitative data which vary with epistemological assumptions about the nature of the research enquiry and the aims of the analytic process, there are still no clear sets of formulae, or calculations to analyse qualitative data. Accordingly, qualitative data analysis requires a careful, creative and systematic approach (Spencer *et al.*, 2003).

Typically, in qualitative research, raw data are collected in relatively unstructured forms such as tape recordings or transcripts of conversations (Mays and Pope, 1995). First of all, these raw data must be prepared by converting into a suitable format for analysis (Cresswell and Plano Clark, 2007). Since the raw data of the interviews are quotations, the most suitable format would be full transcriptions of interviews (Patton, 1987). Accordingly, in this study, interview data, including observation data, were verbatim transcribed and encoded to maintain the anonymity of the interviewees. During the transcription processes, the transcripts were carefully checked for accuracy before and during transforming into a word-processing file for analysis. This is because maintaining meticulous records of the interviews and observations and documenting the process of analysis are approaches to ensure the reliability of the research findings (Mays and Pope, 1995).

To deal with these massive amounts of data, including transcribed interview texts running in the hundreds of pages, the effective approach was to draw up common themes. This qualitative approach is acknowledged as the most suitable approach for this kind of data (Tuler and Webler, 1999). Indeed, qualitative data analysis is about relationships and identifications of key themes that emerge from the study (Wolcott, 1995). Accordingly, content analysis was employed in this study since it focused on the way themes were identified and presented, as well as the frequency of their occurrence (Cresswell and Plano Clark, 2007). Besides, a number of researchers have successfully applied this approach in their study of the effectiveness of public participation (Moore, 1996; Tuler and Webler, 1999).

It is possible to analyse qualitative data, in particular interview transcripts, by hand or using computer analysis programmes, which perhaps are increasingly used nowadays (Cresswell and Plano Clark, 2007). In this study, NVivo, a popular software package for qualitative data analysis, was used to manage and analyse the research data and code data, create memos, and form families of codes based on themes found from the interview data. The transcribed data were imported into the NVivo programme, then the interview data were compiled and analysed. The common themes of the data set were identified. Using computer analysis seemed to be more convenient and had many advantages over hand coding (Bazeley, 2007). The NVivo programme provides an organised storage file system that enables the management of interview data more quickly and easily by locating material and storing it in one place. This makes it more convenient to retrieve data associated with codes, themes, or documents (Bazeley, 2007; Cresswell, 2007).

However, computer use in qualitative analysis still has some constraints. For example, NVivo requires the users to clearly understand how to use the programme as its instructions could be varied. To run the programme to process data effectively, competence and knowledge are essential (Cresswell, 2007). However, in this study, the researcher has attended a number of training courses for the NVivo programme in order to increase levels of skill and competence to effectively facilitate the software in order to analyse the research data.

In this study, data were characterised regarding similar attributes in the coding process (Tuler and Webler, 1999; Sinclair *et al.*, 2009). Analysing data was conducted by

examining the transcribed data and coding them to address the research questions. A coding scheme guide was formed as the basis of the analysis such as: why the conflict occurred?; what methods were used in these processes?; and what were barriers and constraints to implementing public participation?. A great number of characteristics were, then, formulated. Consequently, with respect to reiteration, these characterised attributes were classified again into more conceptual categories of theoretical analysis. Data and categories were grouped in accordance with their relations with each other. Importantly, the analysis of these common themes was conducted on transcripts and relevant data. Although frequency tables for the number of the times participants raised discrete issues were not generated, the quotations represented the majority of interviewees' viewpoints.

In the presentation of findings and results of this thesis, direct quotations from the transcribed interviews based on interview questions and the interviewee answers were used. These direct quotations were coded accurately and presented in italics. However, some grammatical inconsistencies and speaking hesitations such as "*um*" and "*oh*" were removed, in addition, some additions, words in brackets, were added to clarify speech. Exact quotations were essential here because they constituted the empirical data, and, were evidence, dealing with the effectiveness of public participation of this study. Since data in this thesis were mainly qualitative, these quotations represented the points of participants' perspectives found in their interviews.

4.4 Generalisation, validity and reliability

4.4.1 Generalisation

In case study research, a major concern is how to generalise. Although it is understandable that the more cases that are studied, the more reliable are the generalisations gained, the investigators sometimes prefer to trade off generalisability with other aspects such as level of detail (Stake, 1995).

Generally, case studies are used for theoretical testing or building rather than generalisation (De Vaus, 2002; Yin, 2003b). It is not essential to the validity of the case study research method that a case study should be able to be generalised. The relevance of

a case study is more important than its ability to be generalised. When a case study is carried out both systematically and critically and aimed at the improvement of understanding then it is relevant, and if any publication of its findings extends or expands the boundaries of existing knowledge of the subject area, then it is a valid form of research (Yin, 2003b).

In this study, developing and testing a theory are the main approaches for generalisation in this study. The thesis aims to investigate all aspects of the public participation practice based on theories in Chapter 2 and 3, such as the level of public participation, and its effectiveness. A case study could help to refine theories, discovering complexities that can be used in further investigation which helps to deal with the limitations of generalisability (Stake, 1995). Although generalisation is not a central issue in this thesis, it could be said that the research results of this study could be generalised since generalisation of results from case study research is made in relation to theory and not to populations (Yin, 2003b).

4.4.2 Validity and reliability

In conducting social science research, it is crucial to ensure the accuracy of the data and the truthfulness of the analytic claims and the final results being made (Lewis and Ritchie, 2003). This is because, when carrying out the research, many practices can create invalidity and unreliability (De Vaus, 2002). Thus, when conducting research, validity and reliability need to be achieved if the research is to be sound (Neuman, 2000; Rowe and Frewer, 2004).

Validity is the truth or correctness of inferences based on the research findings (Lewis and Ritchie, 2003; Craig and Hannum, 2006) and is typically relevant to the extent to which an instrument or process effectively and properly measures the research purpose; in here, public participation effectiveness (Bryman, 2004). To construct validity in case study research is often particularly problematic (Yin, 2003b). Yin (2003b) pointed out three strategies to deal with this aspect by using multiple sources of evidence, establishing a chain of evidence, and having a draft case study report reviewed by key informants. In case studies, inference is usually problematic in internal validity while external validity deals with whether the results can be generalised beyond the case. Especially, in a single case study, these are some of the critical comments against case studies in this aspect.

Nonetheless, this criticism is directed at the statistical and not the analytical generalisation, which is the basic concept of case studies.

In this thesis, increasing and ensuring the validity premise was approached using the triangulation concept following the suggestion by Denzin (1978) and Yin (2003b). Data triangulation and method triangulation were adopted. First, the concept of data triangulation was adopted by using multiple sources of data, in this case different stakeholders. This is because the use of multiple sources of evidence provide stronger and wider evidence for reaching conclusions through convergence and corroboration of findings (Tashakkori and Teddlie, 1998) and allows the researcher to provide a convincing argument as an answer to the research questions. Second, methodological triangulation was adopted through the use of different methods of data collection: literature reviews, semi-structured interviews and in-depth interviews. With this approach, the researcher can generate more complete knowledge (Tashakkori and Teddlie, 1998; Bamberger *et al.*, 2002). The use of multiple modes of data collection is an acknowledged approach to achieve a higher degree of validity and reliability when studying complex issues in qualitative research (Johns, 1997; Vallaster and Koll, 2002; Buchecker *et al.*, 2003).

However, a mixed methods approach is not an absolute guarantee of the validity of the findings if different results are produced. There is often a dilemma over which of the research findings should be given more weight (Burton, 2000). This can cause a chance of error. In this thesis, the most important information was drawn from in-depth interviews with key informants since they hold detailed and specific knowledge and experience about the public participation process and they had an important role as key stakeholders in the Hin Krut power plant project. Their perspectives were very valuable in this study.

Reliability refers to the degree to which the results produced by a measurement or procedure can be replicated (Bryman, 2004) as an ability to yield consistent results (Rowe and Frewer, 2004). It is concerned with how consistent a study or measuring instrument is. A measurement is accepted to be reliable or consistent when it can produce similar results if it is applied again in similar circumstances (Robson, 2002). It can be said that if the research is not reliable, it is hardly to be considered valid; on the other hand, if the study is reliable, it may or may not be valid. Basically, there are two main aspects for reliability

that social science researchers aim to achieve: internal and external reliability (Sarantakos, 1998; Bryman, 2004).

Internal reliability refers to the extent to which a measurement is consistent within itself. The important issue of internal reliability is inter-rater or intra-rater reliability. Inter-rater means the degree of stability exhibited when a measurement is repeated under identical conditions by different raters (Sarantakos, 1998). Lack of inter-rater reliability may arise from divergences between observers or instability of the aspect being measured. On the other hand, intra-rater refers to the degree of stability presented when a measurement is repeated under identical circumstances by the same rater. Lack of intra-rater reliability may arise from divergences between instruments of measurement or instability of the attribute being measured. To deal with this issue, intra-rater was managed. More exact definitions of every important characteristic and term were set. This can make the research more reliable by creating similar results of rating by just one rater or different raters (Sarantakos, 1998; Bryman, 2004).

The reliability of secondary data from literature reviews was also measured. In practice, literature reviews may encounter a number of disadvantages such as authenticity, credibility, and meaning. Some documents lack credibility because of the source, while some documents are biased from the interpretations and views of the authors (Sarantakos, 1998; Denscombe, 2002). Thus, it is important to evaluate the authority of the sources and the procedures used to produce the original data to gauge the credibility and accuracy of the documents before using them (Denscombe, 2002; Yin, 2003b). In this study, most documents were research publications, government and academic documents which were reliable and credible since they were proved by the authorised organisations and their original data and production process were recorded and could be traced. The references and the sources of these documents were also checked for their accuracy. Only accredited and reliable documents were used as references in this study.

External reliability means the degree of consistency or the degree to which a study can be replicated over time (Bryman, 2004): in the other words the consistency and replicability of data across the sites (Sarantakos, 1998). This reliability type is essential for a test of reproducibility of results when the study is administered on different occasions (Rowe and Frewer, 2004). This criterion is difficult to achieve in practice according to the fact that it

is impossible to set the social setting and circumstances of an initial study to make it replicable in the exact conditions (Bryman, 2004). However, the concept of test-retest reliability can be applied (Rowe and Frewer, 2004). This result could vary by the way the interview was conducted; or, how the question was asked. Additionally, the interviewees may gain more knowledge during the time or just want to change their mind. In this study, a common way of assessing the external reliability of observations is conducted by applying the inter-rater reliability concept. This involves comparing the ratings of two or more observers and checking for agreement in their measurements. In this case, academic researchers who are experts in the public participation field were invited to review the research findings to ensure the reliability of the results.

Finally, the quality of qualitative data in term of validity and reliability depends on many factors, such as methodological skill, perceptivity, and expertise of the researchers. Validity in quantitative research depends on careful instrument construction to be sure that the instrument measures what it is supposed to measure. The instrument must then be administered in an appropriate, standardised manner according to prescribed procedures (Patton, 2002). Actually, validity and reliability of measurement are interrelated. If a research instrument is valid, the result is expected to be reliable too. However, if reliability is present, it is not necessarily valid (Sarantakos, 1998). Based on these critical points, in this study, to generate valuable and trustworthy data from interviewing, and content analysis, discipline, knowledge, and hard work by the researcher were put in the research (Patton, 2002).

4.5 Ethical issues

When conducting a research, there are some common ethical issues which need to be carefully considered. The ethical issues concerned in this thesis are informed consent and anonymity and confidentiality. These ethical concerns were addressed throughout the research processes, in particularly during the interview and data presentation phases. Details of each issue are described below.

4.5.1 Anonymity and confidentiality

In any research study, anonymity and confidentiality are crucial and must be made clear and guaranteed to the interviewees. Anonymity means the identification of a person who takes part in the research must not be known, while confidentiality refers to an avoidance of the attribution of information in any reports or presentation of the research to identify the participants (Lewis, 2003). Thus, it is necessary to protect the interviewees from harm if their information were to be revealed. In this study, the interviewees were guaranteed anonymity and all data were guaranteed for confidential protection. The information was securely kept and inaccessible. A code number was used to prevent the participants' information from being identified. All means of identification were removed when presented in this thesis.

Besides, anonymity and confidentiality also have implications for data storage (Lewis, 2003). In this study, the tape and the interview transcripts were not labelled in ways which could identify the interviewees. As tape records were used in case of permission from the interviewees only, the interviewees were informed that tapes and field notes would be securely stored for a number of years before being destroyed.

4.5.2 Informed consent

In any research study, an informed consent to the research participants must be provided (Lewis, 2003). In this study, a consent form was provided to the interviewees before the interviews were commenced in order to comply with ethical codes of practice, see Appendix B. The contents of the consent form used for this study included: a general topic of the inquiry, the purpose of the study and its basic procedures, an identification of the researcher, the contact name and address of the researcher, a guarantee that all responses will be kept confidential and anonymous. The interviewees were allowed to ask any questions about the interview processes that were not included in the consent form such as how the data and conclusion might be used. The interviewees could keep the informed consent letter as a guarantee of the study and provide a basis for complaint if necessary. Importantly, the interviewees were informed that they could withdraw at any time during the interviewing or in the research processes.

4.6 Limitations of research methodology

There are some limitations of the research methodology in this study that need to be acknowledged. First, as mentioned earlier, although the case study approach may provide rich insights into a specific situation, it is difficult to make generalisations about the studies as a whole (Yin and Heald, 1975; Yin, 2003b). However, in this thesis a development of the theory was more important than generalisation since research question no.5 focused on how to improve public participation practice in Thailand. It could be argued that the development of theory could fulfill the generalisation requirement. In order to be able to generalise the research finding, a systematic study of a number of case studied should be conducted (Yin, 2003b). However, in practical terms, this was difficult to conduct and achieve. Second, quite often in practice, the validity and reliability were difficult to assess. However, some practices as a means to establish validity and address reliability were discussed and recommended in the previous section.

4.7 Conclusion

This chapter presents a justification of the pragmatism paradigm that guided the research methodology of this thesis. A single case study was adopted as an inquiry strategy for this thesis in order to conduct an in-depth study of the public participation practices in the Thai context. To achieve broader and better data and results, mixed methods of data collection were carried out. The first method was a review of documents concerning the operations, activities and concepts of public participation process. A need for in-depth information of public participation processes and their outcomes also led to the decision to carry out interviews with a wide range of stakeholders of the study project. Thus, interviews were selected, including structured, semi-structured and in-depth interviews with stakeholders. Stakeholders who held key positions or played important roles in the public participation process were identified for interviews. An interview guide including evaluation questions was developed. This chapter also explains how to attain valid and reliable data that supports the research's results and conclusions and how to conduct this study to comply with ethical issues. Data analysis and discussion are conducted through a qualitative approach and are presented in Chapters 5, 6 and 7.

Chapter 5: Environmental Conflict Analysis and Levels of Public Participation

5.1 Introduction

A clear understanding of the public participation process associated with the proposal of the Hin Krut power plant project is an important part of this thesis. This chapter aims to identify and document common themes by demonstrating the perspectives and premises from the research findings about the causes of the conflicts of the case study and the level of public participation in siting the Hin Krut power plant project which aims to answer research questions no. 1 and 2 and respectively.

The chapter consists of four main sections. It begins with an overview of the background information of the case study. The second part presents the interviewees' roles and experiences in the public participation process. The results of the demographic characteristics and the interviewees' backgrounds are presented as essential context to their participation. The third part presents an analysis of the root causes of the conflicts of the Hin Krut power plant project. The final section presents an investigation of the level of public participation achieved in the case study. The research findings are analysed, interpreted, discussed and applied in relation to the theoretical framework of public participation concept mentioned earlier in Chapter 2.

5.2 Background information about case study: the Hin Krut Coal-Fired Power Plant Project

This section presents general information about the Hin Krut power plant project to increase an understanding about the case study. A description of the project and associated controversy are illustrated below.

5.2.1 Project description

In 1992, the Thai government adopted a policy to encourage the private sector to invest in the power supply industry. The main reason for doing this was an attempt to lower its investment as well as to increase the competitiveness and efficiency in the electricity business. In response to this strategy, the Electricity Generating Authority Thailand (EGAT) launched an Independent Power Producer (IPP) programme to allow the private sector to construct and operate large-scale power projects and sell electricity to EGAT and the programme was approved on May 31, 1994 (Sombutsiri, 2000). The IPP in Thailand officially began at that time, offering up to 5,934 Mega-Watts (MW) of generating capacity for competitive bidding from private companies. Thai government called for an IPP tender and invited bids that were arranged by substation. Consequently, fifty private developers bid for contracts to EGAT (Woo, 2005). In the first round bids in December 1994, from 50 proposals submitted by 32 investors, seven large-scale IPP projects were awarded. They were the Bo Win project, Eastern power project, Ratchaburi power project, Keng Khoy power project, Hin Krut project, Bor Nok project, and PBLC project. The first four projects were gas-fired power plants while the others were coal-fired stations. Their capacities ranged from 350 to 1,400 MW (Sombutsiri, 2000; Woo, 2005). All coal fired power plant projects were opposed by local villagers while the gas-fired power plants were constructed and are generating electricity. However, the Hin Krut project had a violent protest involving a blockade of the Southern Highway and gained the interest of the wider public. The Hin Krut power plant and the Bor Nok project were cancelled. The PBLC project was constructed in the east of Thailand.

Among these IPP projects, Hin Krut power plant project was a 1,400 MW coal-fired thermal power plant proposed by the Union Power Development Company Limited (UPDC), a company with major shareholders from Japan, Finland, Hong Kong and Thailand. EGAT selected and signed the Power Purchase Agreement (PPA) for this project with the project owner in 1997. The power plant was planned to be located along the coastline of the Gulf of Thailand at Ban Krut in Thongchai Sub-district, Bang Saphan District, Prachuab Khiri Khan Province in the upper south of Thailand, as shown in Figure 5.1. Prachuab Khiri Khan province was chosen to be the base on recommendations from the government that; 1) the IPP power plant should be located in Industrial Zone 3 areas, which qualifies for tax break in the first 5 years of investment, in the south of Thailand; 2)

Prachuab Khiri khan is in a promotion area for Zone 3 as well as suitable to supply electricity to the western and southern part of Thailand; and 3) the coastline is appropriate for building a jetty for importing high quality coal from abroad. Additionally, the site also met many criteria compared with the other candidate sites, such as deeper seawater depth available for coal delivery; no reserved area for natural resources and tourism; no national forest reserve near the site; and low population density (Saangsan Consultants Company Limited, 1999).

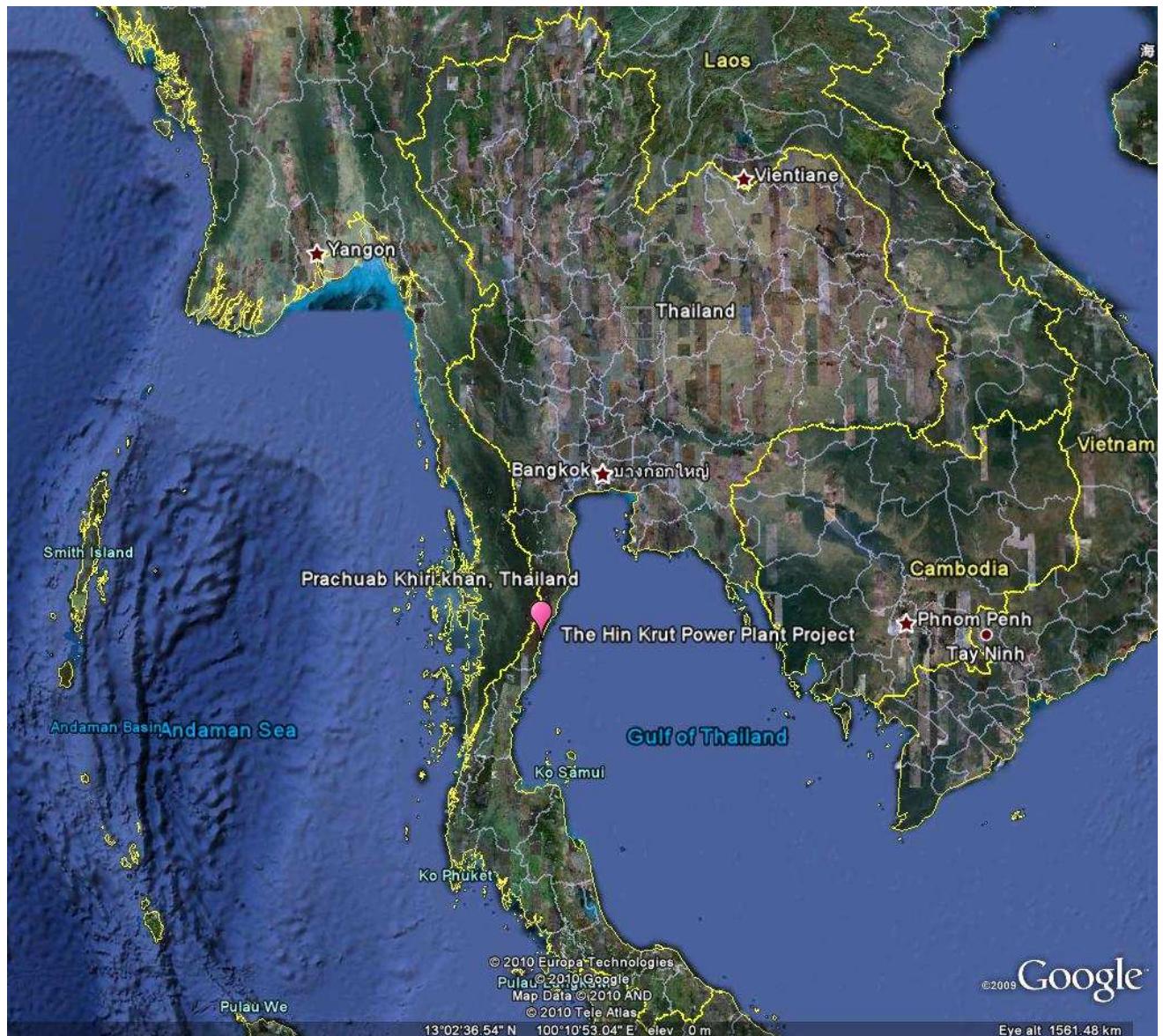


Figure 5.1 The location of the Hin Krut power plant project in Thailand

The construction was planned to start in the second quarter 1999 and proposed to finish within 45 months. The project was planned to operate for 25 years (Union Power Development Company Limited, 1999). The power plant construction included conventional coal-fired steam generators, turbine generators plus auxiliaries and plant systems. The main components of the power plant were two coal-fired boilers, producing steam to drive the two turbine generators of 700 MW net power output, exhausting to 200 metres stack height, and feeding 500 kilovolts to the EGAT distribution grid. The EGAT 500 kilovolts power transmission line would connect to the power station at the switchyard that would be an outdoor-conventional type design and suitable for the operation (Saangsan Consultants Company Limited, 1998).

Bituminous (low sulphur) coal, was planned to be used to fuel the power plant, both because natural gas is limited in Thailand and because of its low cost, and would be imported from Australia, Indonesia, and South Africa during the project's 25-year period (Union Power Development Company Limited, 1999; Public Hearing Committee, 2000). The transportation of coal would be via a deep-sea port with a covered conveyor system from ships to the coal storage area in the power plant buildings. Approximately 50 shiploads of Bituminous coal were estimated (or about 3,750,000 tonnes of coal) to be required annually. The port's jetty was designed to be built at 3.5 kilometres from the shore, into the Gulf of Thailand. The designed quay's duct was 3 metres wide, 5.16 metres high with 15 metres spacing of supporting columns (Saangsan Consultants Company Limited, 1998; Union Power Development Company Limited, 1999). A 25-metres spacing would be provided every kilometre for small fishing boats to pass though (Saangsan Consultants Company Limited, 1998; Public Hearing Committee, 2000).

For the pollution control system, a low- NO_x burner design would be used to minimise emissions, wet limestone based flue-gas desulphurisation (FGD) for SO_2 removal, electrostatic precipitators for particulate matter removal. The cooling system would use seawater drawn from the Gulf of Thailand. The cooling towers would reduce the temperature of the heated cooling tower to 34°C, on average, at the discharge point, 160 metres offshore, to minimise the impact on the marine ecology (Saangsan Consultants Company Limited, 1998; Union Power Development Company Limited, 1999).

5.2.2 Controversial aspects of the case study

The Hin Krut power plant project became controversial when UPDC acquired large tracts of land from local people between 1995 and 1996. In fact, at the beginning of the purchase, there was no opposition from local villagers because they thought that the purchased area was for a golf course. Then in June 1997, some villagers found out that the purchased land would be used to construct the coal-fired power plant. A previous coal-fired power plant, Mae Moa, in the North of Thailand has a bad reputation for its environmental impacts (Bureekul 2000). This led a Local Conservation Group to organise a number of people against the project (Mantalumpa *et al.*, 2000). The protestors believed that the power plant would cause massive environmental and social impacts such as air pollution, and impact on the marine ecology, fishermen's livelihoods, and the tourism industry (Office of Environmental Policy and Planning, 2000). Although, there were many local villagers from some parts of the purposed areas who supported the project, it was inevitably faced with strong opposition from the large number of project opponents who were adversely affected by the plant. Moreover, the protestors requested a public hearing but the government and project proponent did not respond to this demand. They argued that the project was already approved so a public hearing was not necessary (Mantalumpa *et al.*, 2000). This disagreement increased opposition within the community and led to conflict.

Both the EIA for the deep-sea port for shipping coal and the construction of the power plant were approved by the OEPP in April and May 1998 respectively (Public Hearing Committee, 2000). However, in April 1999, some leaders of the Local Conservation Group and academics argued that the EIA of the power plant was not correct since it did not include an assessment of the impact on marine ecology. Particularly, the report failed to identify the fertile coral reefs offshore near the project site (Center for Asian Area Studies, 2003). This was an important issue because the power plant would be constructed close to this coral reef. Then, future working on the EIA report was requested. To settle this mistake, the OEPP withdrew the EIA license from Saangsan Consultants Company Limited, who conducted the original report, and ordered UPDC to revise the EIA (Bureekul, 2000; Manowong, 2006). An additional EIA study on marine ecology, including information about the coral reef, was conducted by a different consultant (Tesco Company Limited, 1998) and resubmitted to the OEPP in August 1999. Finally, on

October 9, 2000, the second EIA report, which integrated the additional study with the first version, was approved by the OEPP. The consolidated EIA together with a Thai version were available to the public in mid 2001 (Center for Asian Area Studies, 2003).

In July 1999, the impacted villagers issued an open letter to the relevant government authorities, aiming at the rescission of the approval for the three certifications. Those were the EIA report approved by the OEPP; the plant operation approved by the Department of Industrial Works (DIW); and the PPA between EGAT and the project opponents (Center for Asian Area Studies, 2003).

The number of protestors grew continuously and they joined with the protestors of Bo Nok power plant project, another coal-fired power plant of the IPP project. This project was also located in Prachuab Kiri Khan province. The disputes became more violent when the protestors from these controversial projects blockaded the Southern Highway, Phetkasem road, on 8-10 December 1998, leading to confrontation between the project opponents and the police (Sukin, 1999).

Responding to conflicts between the supporters and the protestors, the incomplete EIA, neutral sectors in the public and widespread concern about the potential impact of the power plant, on December 15, 1999 the government decided to conduct a public hearing to reduce public tension. Some members of the public also demanded public hearings in order to comply with the new constitution's provisions on public participation, and as a way to express their opinions. Finally, the hearing was arranged on February 24 - 25, 2000 in accordance with the Public Hearing Regulation B.E. 2539 (1996). The public hearing committee was composed of 11 members from different parties; a senator, lawyers and academics. The Chairman was Professor Dr. Sippanond Katudhat, a well-known academic and former minister (Public Hearing Committee, 2000; The Manager, 2000).

Before the day of the public hearing, some stakeholders used mass media, particularly national television, for expressing their ideas. The UDPC representative expressed his opinion to the media that this project would certainly be continued. At the same time the representatives from affected communities and non-government organisations submitted information about the adverse impacts of the power plant on communities to the Ministry of Industry (MOI) and the MOSTE. One day before the hearing occurred, more than one

hundred policemen with police dogs searched for bombs in the conference room and surrounding areas (Sukin, 2000).

A large number of people demanded to participate in the hearing. There were 9,252 people registered to attend the forum. The limited space of the conference room caused a problem for the organisers because the room was not suitable and large enough. It can accommodate only 200 attendees (Sukin, 2000). Due to the fact that the project had many approved certificates before the public hearing occurred, the project opponents requested that these licenses be rescinded. Besides, they also asked for the replacement of the public hearing committees. Nonetheless, their demands were denied. Hence, these people refused to participate in the event since they argued that this public hearing should have been organised before the government signed the agreement with the UPDC so they could not accept it (Mantalumpa *et al.*, 2000).

A large number of people from many parties gathered around the public hearing area and followed proceedings on radio or television either outside the conference room or at home. Approximately 1,000 people wearing green T-shirts, symbols of the environmental conservation group, came to the public hearing area with hundreds of green flags and national flags. These people did not participate in this forum and were not allowed to enter the public hearing area. Besides, hundreds of fishermen sailed their boats to the meeting place, Provincial Hall which was close to the sea, to protest. More than 200 fishing boats, decorated with green and national flags, lined up in front of the hearing location. The protestors conducted their own activities outside the conference room by using loudspeakers to voice their ideas about the impacts of the project that might affect them and the environment. They also gave their speeches making accusations against the government and the public hearing committee. They argued that the public hearing was not organised at a suitable stage of the project because the decision was already made, the contract to purchase power was already signed, and the local communities did not have an opportunity to be involved in the decision-making process. Hundreds of policemen were assigned to guard the conference room and prevent non-registered people from entering into the conference room (Sukin 2000).

Despite this controversy and tension between these stakeholders, the public hearing still went ahead. The attendees in the conference room were public hearing committee

members, technical consultants, observers from related government organisations, local government officials, contractors and technical advisors (mainly university lecturers who worked as private consultants), members of the mass media, and people who either agreed or disagreed with the project (Sukin 2000). The event was separated into two parts. The first section was for committee members and their technical consultants. This group of around 30 persons occupied almost half of the room. The rest of the space was for the team of contractors, their technical consultants and interested people (Public Hearing Committee, 2000).

In the hearing, the chairman allowed the people both supporting and objecting to the projects to express their ideas and ask questions of the project owners and government agency representatives. However, some technical consultants and the committee used some technical words that were too difficult to understand. On the second day of the hearing, few people expressed their ideas or asked questions. The chairman ended the meeting two hours before the scheduled time. No one demanded to discuss anymore because the protestors felt that the committee were not neutral and could not be trusted. Some of the people felt that the chairman already had a proposal in mind and was simply using the hearing to convince people to accept his alternative. The hearings were televised in the South for the full two days of activity but only the first four hours of the first day's activities were televised in other parts of Thailand (Sukin 2000).

As a result of the public hearing, the attendees accepted the chairman's comments and proposed the donation of 30 million baht per year to the village fund for occupational support, such as training. A tripartite committee which included villagers, contractors, and government, was established to deal with any problems and to monitor pollution from the project, as well as administer the village fund (Public Hearing Committee, 2000; Center for Asian Area Studies, 2003). However, some groups of people still objected to the project because they did not want the power plant in this area. These people felt that money could not compensate all the damage caused by the project. Moreover, some locals believed it was just a token set up and funded by the project owners to silence their opposition (Ban Krut Environmental Conservation Club, 2000).

Finally, the PHC made and submitted the public hearing report to the government in April 2000. Their conclusions related to three aspects. First, the committee stated that the OEPP

had not yet approved the revised EIA and the national environmental board should carefully consider: the coral reefs which could be seriously impacted upon by the construction of the quay; the cooling tower of the power plant; and the contaminated sewage water from the operation of the plant. Second, the PHC suggested that the government had to respond on the means of preventing air pollution. In particular, the government must consider seriously how best to prevent coal ash dispersion and Sulphur Dioxide emissions from the power plant and its live stack. Third, the PHC pointed out that some procedures of the public hearing regulation were complicated and difficult to implement in Thai society. They also commented that the government and the project proponent should study in-depth the environmental impacts, and how to reduce them in the short and long term, as well as the process of increasing understanding and confidence in the project via mediation and compromise in the early stages of the project (Public Hearing Committee, 2000). It can be seen that the PHC did not make a clear decision whether or not the power plant should be constructed at Ban Krut.

Although the public hearing aiming to obtain information to report to the Cabinet was finished, surprisingly, no member of the Cabinet has expressed any opinion about this project. The opponents had to wait for the government's decision after the hearing. The conflict in the communities still existed, and the government still did not make any decision (Mantalumpa *et al.*, 2000). This unclear situation made the affected people continue their opposition activities by protesting at many organisations such as the office of the project proponent, bankers, temples and Senator's offices. Moreover, they also engaged in informal public participation activities arranged by local groups, the media, contractors and NGOs. These informal activities included community meetings, television broadcasts and seminars. In January 2002, more than 500 academics signed a petition requesting that the government review the contract of this controversial project and then the Prime Minister visited the proposed location of Hin Krut power plant. On May 10, 2002, the Thai government officially announced that the cabinet decided to postpone the project (Office of Prime Minister, 2002). Regarding the violent protest activities by anti-coal NGOs and local communities, the project failed in the face of the public environmental oppositions. Finally, the power plant has subsequently been substantially relocated to Radchaburi province, together with a change from a coal-fired power plant to a gas combined cycle generating plant (Woo, 2005).

The background information of the case study and a chronology of participatory events are summarised and presented in Table 5.1 below.

5.3 Interviewee demographic characteristics

This section presents an introduction to each group of interviewees and their roles. The participants' roles and responsibilities in this study refer to both the individual roles and as the representative of their organisations. Some interviewees have experienced many positions and roles with this project: for example, a positively-affected villager role and the local officer role; or a negatively-affected villager role and a local leader role. However, this multiple role of these interviewees provided the research with more useful and detailed information.

5.3.1 Respondents: In-depth interviews

This section portrays the background information of the interviewees from the in-depth interview process in particular their roles and their experiences in the public participation programme. In this study, these interviewees were from key stakeholders; the government officers, the project proponents, academic and freelance researchers, NGOs, and leaders of local affected communities. 23 target interviewees were formally contacted and interviewed. All of them had extensive experience with public participation or had been involved in public participation activities. The entire sample responded in this study.

Table 5.1 Summary of Case Study Characteristics

Characteristics	Description
<i>Project description</i>	
Type of Project	Coal fired power plant
Location	Thongchai Subdistrict, Prachuab Kiriri Khan Province
Activities	Construction of 1,400 MW: two coal fired power plants (2 x 700 MW), using Bituminous coal A port's jetty to receive coal, extending 3.5 km. into the Gulf of Thailand, was planned.
Time Frame	December 27, 1996 Agreement on contract for trading electricity Scheduled for commercial operation date: Unit 1: Oct 05, Unit 2: Jan 06
Project Proponents	Union Power Development Company Limited (UPDC) supported by government policy
Opponents	Local environmental conservation group, citizens from affected communities
<i>Chronology of events</i>	
December 1994	EGAT announced a solicitation programme for IPP
27 December 1996	Agreement on contract for trading electricity
26 March 1997	The first EIA report submitted to the OEPP
May – March 1998	A series of meetings and seminars to inform the project's information to the public, such as the Thongchai school teachers, the local villagers, was conducted by the UPDC
9 December 1998	The protestors blocked the Phetkasem highway
17 August 1999	An Additional EIA study on marine ecology was submitted
13 January 2000	The OEPP rejected the additional EIA study
24-25 February 2000	Public hearing was organised
April 2000	The public hearing report was submitted to the government
9 October 2000	The Second EIA was approved
11 December 2001	The government organised a public meeting on the forecast of power demand and energy reserves
10 May 2002	The government postponed the project
<i>Type of public participation</i>	
at the beginning of project	Surveys and Questionnaires – conducted by EIA consultant Informal small group meetings – Conducted by affected citizens
after conflict occurred	Printed Material – Newsletter, Brochures, Fact sheet, Leaflets, Posters – Conducted by project proponent Exhibitions and Displays – Conducted by project proponent Open houses – Conducted by project proponent Informal small group meetings – Conducted by affected citizens, NGOs and freelance researchers Public hearing – Organised by the government authorities
<i>Objective of public participation</i>	
at the beginning of project	informing the public, informing the public and get feedback
after conflict occurred	informing the public, informing the public and getting feedback, public consultation

Central government officer

One of the representatives from central government was a member of the environmental impact assessment staff of the OEPP under the MOSTE at that time. In both the government officer and personal role, her responsibility was to collaborate with other government departments to determine all environmental issues of the EIA report submitted by the project owner, and to consider any inquiries concerned with project implementation and activities generated from the affected citizens and parties including the public. The interviewee was personally responsible for reviewing the EIA report from the developer. She gave the recommendation on the improvements that were needed in order to get an approval of the EIA report to the project owner and passed this information to the expert review committee, who had authority to decide whether the development project should pass or fail. Moreover, the interviewee also had to join in the public hearing forum of the Hin Krut power plant project as a representative of central government. She explained more about her role and responsibility as follows.

“Our department’s main responsibility was to consider the EIA report submitted by the developers. We considered the report step by step. We then gave recommendations on every aspect. There were many experts in our department who had to work together to make those comments. Our responsibility was just to make recommendations about environmental issues of the project in the EIA report. We were not authorised to decide to pass or fail the project or move the project site, we could only comment on report. For instance, we may give a recommendation that we agreed with the project subject to the project owner compiling with all regulations and accepted environmental conditions. Nonetheless, the industrial department, the industrial ministry could do differently, it might determine to continue or cancel the project. Depending on the various information, such as, economic, social, and technological data, the authority could use this useful information, in particular our information, to support their consideration and decision” (Central government officer 1).

The other interviewee was the officer of the Industrial Ministry. His responsibility relates to the permission for plant construction. At the time of the conflict period, he was one of the government officers who reviewed all relevant information of the project and made recommendations for the authorities to make a decision.

Local government officer

The interviewee was one of the government official local leaders who supervised in the selected area. His department had authority to approve construction in their area. He described this role at that time as:

“I became a local governor in 1999, two years after the project was approved. However, I had a chance to work closely with the project. I had to coordinate with all stakeholders; particularly, the villagers, the project proponent and the central government. If any party needed more information about the power plant, in particular technical issue which my organisation could not support, I would ask for their support. I had to support the villagers as well. More often, my organisation, Thong Chai Municipality, was used as a third party to set up some participation activities for the villagers and the developers. I tried to support every party” (Local government officer 1).

Project proponents

In this study, there were two representatives from the project proponents. The first interviewee's significant role and responsibility, in the position of public relations director, was to communicate and form relationships with the affected citizens and communities at the project site. In his company role as the project developer, he had set up many useful public participation programmes in order to give information and make the local citizens understand more clearly about the project. He invited the local leaders, the local villagers, and the public to participate in an exhibition, a local meeting, a seminar with experts, and even go on an overseas field trip. Nonetheless, these participation programmes were conducted after the government had already signed the contract with the developers and: the project site was selected; most importantly, the conflict between the local villagers and the owner had already occurred. He also described about these points as following.

“In fact, we had set up the criteria for project site selection, such as, the depth of water for coal delivery, national forest reserve, population around that area, and accessibility to highway. There were many proposed locations to be selected for the power plant site, but Ban Krut seemed to be the most appropriate one. This place had many advantages: the sea water was deep enough for coal shipping.

There was no national forest reserve existing around that site. The communication was also convenient with three available access roads” (Project proponent 1).

The other interviewee was the public relations staff member of the UPDC, and her major role was to survey the local points of view about the project from the local affected villagers and the wider public around that area.

“In the beginning, I was not a staff member of the UPDC, but after the dispute in the community occurred I was hired as a member of public relations staff. One of my duties was to survey the public opinions, provide the relevant information about the power plant to the public and set up activities with local communities” (Project proponent 2).

Academic and freelance researcher

This interviewee, an academic lecturer, as he was trusted by the government was invited to participate in this project as a member of the public hearing committee. He sometimes helped and advised the local communities on some issues relevant to Thai environmental laws and regulations, and some administration management. Moreover, he was also an adviser to some government officers about public participation.

“I’m an associate professor in the school of social development and environment at the university under the government. Environmental management and public policy are my subjects. I was invited to be on the public hearing committee of the Hin Krut power plant project. I had to go to the proposed project site, thus I knew the conflict situation, as well as the connection with the local community very well” (Academic 1).

As a freelance researcher, the interviewee sometimes managed the local meetings in the communities to inform local citizens about the power plant, and discuss the problems about its environmental aspects.

NGOs

The interviewees were members of NGO groups and had been working with the protestors since the beginning. One of the NGOs had knowledge about energy planning and

alternatives. Being trusted by the local villagers, he usually worked closely with the locals: he helped and advised the local community on technical issues in particular searching and giving essential information. Besides his work, he was usually visiting, observing and even arranging a meeting in the local community with the villagers. Furthermore, on some occasions, he helped the villagers to make a decision on their opposition activities.

“Often, the local people asked me for information when we conducted a meeting. We studied documents, research, and other references, in particular the EIA report to find whether there was any useful information to support the protestors’ claims. Actually, at the time I acted as their consultant. I worked as a coordinator, searching for information and even requested relevant information from different sources; the central government, the local government, the academic institutions, NGOs, and the project owner” (NGO 1).

The leaders of local villagers and conservation groups

The respondents from this stakeholder group were from both sides, representing both positive and negative perspectives about the project. One of the interviewees from this group was a key person in the opposition group, the major opposition leaders, who closely worked together with freelance researchers, academics, and NGOs. She and the villagers organised the local meetings in their community. These meetings gave information about the project in particular the negative impacts from a previous similar project in Thailand; Mae Moa coal-fired power plant in the north of Thailand; and others around the world. They also set up a local environmental conservation, the Ban Krut Environmental Conservation Club, as their own protest group. She and the opposition group claimed their right to make decisions for their own needs. They tried to oppose the potential impacts from the project construction and operation on their local community. They tried to organise their activity through: sending letters to both central and local authorities, staging demonstrations, and attracting widespread media attention.

“Many villagers thought that I worked for the NGOs, not a local villager, and received money from them for being a leader of the protestors. But actually, I was a local villager who was affected by the project. The most important thing was that the coal-fired power plant would generate more pollution that negatively impacted

our health and environment. The local villagers should be affected much more than anyone else. I thus had to fight" (Local leader 2).

5.3.2 Respondents: Semi-structured interviews

The following section presents the demographic characteristics of all affected people interviewed that may be relevant to the research. This is crucial to cross check whether the right questions were asked to the right person. For instance, the duration of the respondent residence in the project area was asked to ensure that people who lived there during the conflict period were included.

An examination of the demographic characteristics of the semi-structured interviewees provided useful information on two counts. First, it showed that there was a variety of interviewees providing different perspectives. Second, it was useful in revealing whether gender, length of residence, education, and occupation affected the public participation activities. Thus, this study tried to balance the interviewees' characteristics in these factors to gain the greatest benefit from the interviewees. In this study, female interviewees (59%) outnumbered male interviewees (41%) which, in terms of gender balance, is not representative of Thailand as a whole (51.67% female; 48.33% male) (Department of Community Development 2007). However, this research did not aim to generalise data to the whole population and the sample size is too small to permit such an extrapolation.

Gender

The gender of the interviewees introduced in semi-structured interviews was one of the characteristics of quota proportional non-random sampling used in this research. Table 5.2 shows that there were interviews with more females than males. The results of the semi-structured interviews show that the number of females was slightly higher than males which were 59% and 41% respectively. However, since this study does not aim to generalise data to the whole population in terms of quantitative meaning, this will not affect the research interpretation.

In this study the interviews were conducted during the working day when, in retrospect, it might be expected that proportionately more men would be absent because they were at work. In the event, the samples did have more women than men, suggesting that the timing of the interviews might have caused some bias in study.

Table 5.2 Summary of Respondent Demographic Characteristics from Semi-structured Interview: Gender

Age	Frequency	Percentage
Female	20	59
Male	14	41
Total	34	100

Age

In practice, the semi-structured interviews were conducted only with the interviewees whose ages were more than 20. This was because the time that the conflict occurred was more than 7 years ago: if the interviewees are under 20, it means that at that time they were still a child and they may not remember what had happened. Table 5.3 shows that the age of the respondents in this study varied from 22 to over 60 years old and are ranged into five groups: 20-30; 31-40; 41-50; 51-60; and 61 and over. In this study, the largest group was the age of 41-50, while the smallest was 50-60.

Table 5.3 Summary of Respondent Demographic Characteristics from Semi-structured Interview: Age

Age (years old)	Frequency	Percentage
20-30	3	8.8
31-40	11	32.3
41-50	13	38.2
51-60	3	8.8
61 and over	4	11.8
Total	34	100

Length of Residence

The Hin Krut power plant project was first introduced to the local community in 1997, ten years before the interviews were conducted in 2007. This question was included to check whether the interviewees were suitable samples with sufficient experience of the project. The interviews were conducted with the citizens who had stayed in that area only. All respondents had lived in the communities for more than 10 years. The largest numbers of the respondents, (47%), had settled in this place more than 35 years. More details are presented in table 5.4 below.

Table 5.4 Summary of Respondent Demographic Characteristics from Semi-structured Interview: Length of Residence

Length of Residence (Years)	Frequency	Percentage
5-15	1	2.9
16-25	2	5.9
26-35	14	41.2
More than 35	16	47.0
Total	34	100

Education

The level of the interviewees' education is explored in order to investigate the relationship between education and the public participation processes. Presented in Table 5.5, the largest group of the respondents' higher level of education was in high school which was nearly 60%. Only a few citizens were educated to graduate level, and the smallest group has obtained a masters degree.

Table 5.5 Summary of Respondent Demographic Characteristics from Semi-structured Interview: Education

Age	Frequency	Percentage
Primary School	5	14.7
Secondary School	20	58.8
Technical	6	17.7
Bachelor	2	5.9
Master	1	2.9
Total	34	100

Occupation

In terms of occupation, most respondents were fishermen (41.2%), farmers (23.5%), other (resort and restaurant owners) (11.8%), merchants (11.8%), and employees (8.8%), as presented in Table 5.6 respectively. In addition, some respondents had more than one job, such as, a respondent who had a resort business and also was a fisherman at the same time. However, only the main occupation was selected.

Table 5.6 Summary of Respondent Demographic Characteristics from Semi-structured Interview: Occupation

Age	Frequency	Percentage
Agriculture	8	23.5
Fishery	14	41.2
Merchant	4	11.8
Employee	3	8.8
Government Officer	1	2.9
Other	4	11.8
Total	34	100

5.4 Contextual Circumstance of Conflict and Key Issues of Conflict

5.4.1 Conflict analysis: root causes of the conflicts

Environmental conflicts are always complex in their causes and component parts, which are frequently obscured and difficult to reveal through study of the dynamics of the stakeholders' interactions (Moore, 2003; Sidaway, 2005). An investigation to gain a deeper understanding of the inherent aspects of conflict and its relationships is complicated; however, it has great value (Moore, 2003; Tillett and French, 2006).

To effectively deal with conflict, it is essential to analyse, verify and assess the true root causes of conflicts and the conditions under which conflicts are generated (Uptreti, 2002; Emerson *et al.*, 2003; Tippett *et al.*, 2005; Vivar, 2006). This is because an actual

understanding of what caused the conflict can lead to the initiation of an intervention process to manage or resolve the conflict effectively (Emerson *et al.*, 2003; Tillett and French, 2006). Accordingly, an in-depth investigation of the root causes of the conflicts of this case study is valid to understand the nature of these causes in order to find out solutions to prevent a reoccurrence.

5.4.2 Conflict analysis of the Hin Krut power plant project

The Hin Krut power plant was widely known for its high controversy in environmental and social issues among key stakeholders; local authorities, the government, the project proponents and the local communities who would be affected by the project. There was considerable opposition to the proposed project and a complicated series of conflicts of interest.

In this section, the conflicts among stakeholders were carefully analysed based on the conceptual framework developed in Chapter 2. Not only is conflict analysis important, it is also crucial to thoroughly examine its context in order to ensure that all important aspects will not be overlooked (Emerson *et al.*, 2003; Tillett and French, 2006). Thus, the analysis of legal and social contexts is also outlined.

In this case study, the root causes of the conflicts can be categorised into five major groups: structural constraints, value differences, competing interests, data insufficiency and misunderstandings, relationship problems. These root causes are summarised in Table 5.7. From this table, the total population of respondents from the semi-structured interviews is 29, and of in-depth interviewees is 23. For example, 20 out of 29 semi-structured interviewees thought a DAD approach was the cause of conflict. More details of each cause are explained in the subsequent sections.

Table 5.7 Summary of interviewees' opinions of the root causes of conflict of the Hin Krut power plant

No	Root causes of conflict	Number of interviewees from semi-structured interview	Number of interviewees from in-depth interview	Total number
5.4.2.1	<i>Structural constraints</i>			
5.4.2.1.1	A centralised decision-making approach	19	20	39
5.4.2.1.2	A DAD approach	20	19	39
5.4.2.1.3	Representative democracy	15	17	32
5.4.2.1.4	Lack of public participation	25	20	45
5.4.2.1.5	Unclear legislative framework	17	19	36
5.4.2.2	<i>Value differences</i>	22	21	43
5.4.2.3	<i>Competing interests</i>	25	20	45
5.4.2.4	<i>Data insufficiency and misunderstandings</i>	25	19	44
5.4.2.5	<i>Relationship problems</i>	26	19	45

5.4.2.1 Structural constraints

In this case, many restrictive aspects of the system were highlighted by the research interviewees including: a centralised decision-making approach, a DAD approach, representative democracy, a lack of public participation and unclear legislative framework.

A centralised decision-making approach

In Thai practice, most project planning and implementation is based on a top-down approach or centralised decision-making (Sathirathai, 2003). With this traditional decision-making method of the Thai government, it could be argued that the government has rarely tried to engage the public in the development process and, frequently, the affected citizens have always been excluded from decision-making processes (Bureekul, 2006; 2007), as occurred in this case study. One interviewee stressed that:

“In traditional practice, the decision-making processes for energy policy and development projects, such as, the power plant, in Thailand was carried out by the responsible government organisation, such as, the MOI who had the authority to approve the factory, the MONRE who had to approve the EIA report, and other

related departments. There was no chance for other parties or organisations to be involved in any stage of the government's decision-making process" (NGO 1).

Consistent with this supposition, the empirical evidence obtained by Glasbergen (1995) and Lyster (1998) showed that an imbalance of power among parties in society could produce an undesirable outcome, including conflict in particular.

An implementation of development projects chiefly depends on central government power and on obtaining support from the local leaders of communities rather than achieving acceptance from the affected people in the affected areas (Sathirathai, 2003). One villager explained that:

"No one came to explain the project to us. Each party communicated within their own group. The project owners talk only with the supporters. We did not have a chance to participate. At the beginning, we did not know what they were going to do. We were not allowed to be involved" (Villager 3).

Undoubtedly, the decision making process is a very crucial subject and needs to be carefully considered when any development project needs to be implemented (Sukkumnoed and Nanthawarakran, 2001). While the government or the project owner do not recognise the importance of public participation, on the other hand, the public have an intense desire to be involved, and pay more attention to the process of decision-making, problem solving, and monitoring the activities of the projects either by the government or private sector that may impact on their quality and way of lives, cultures, and environment (Bureekul, 2007). It could be said that the practice of centralised decision-making without consultation or participation of the local affected people in the Hin Krut case caused considerable conflicts among the stakeholders.

This issue was also a critical problem in practice in other countries, such as, the United States (Shepherd and Bowler, 1997), European countries (Tippett *et al.*, 2005) and India (Diduck *et al.*, 2007). These studies showed that a top-down approach of decision-making process presented few opportunities for public participation and this caused conflict in the society by impeding interaction and communication among stakeholders. The public felt

that the developer was not receptive to their concerns and the decision was unilateral and unfair.

A DAD approach

Importantly, in Thailand, the traditional practice of project implementation begins with the “DAD approach” (Decide, Announce, and Defend). Whenever the government thinks that a development project is needed, it usually plans and makes a decision before announcing the issue to the public without informing the communities (Vatanasapt *et al.*, 2003). There were a number of development projects, such as, dam projects, expressway projects, gas pipeline projects, waste disposal projects, and power plant projects using this approach. In these cases, the government decided to sign the contract, purchase the land, and construct the project long before it announced any details to the public (Vatanasapt, 2001; 2003). When the conflicts occur, the government, then, tries to defend its decision (Vatanasapt, 2003).

Similar to other development projects in Thailand, in the Hin Krut power plant case, Thai government and project proponents, including foreign developers, had conspired over its development plan. They selected the site for their plant’s construction, decided on project design, and most importantly, commenced the approval process (Center for Asian Area Studies, 2003). The project owner has already signed the contract with the government since 1997, the land had already been purchased, and the technology had already been chosen and committed. As a result the UPDC had to do its business by pushing project implementation to be continued on time and in accordance with the agreement of the contract. The representative of the project proponent gave his comment on this aspect as follows.

“It was our responsibility to carry on the project. This power plant was launched by the government policy allowing private sectors to operate large-scale power projects and then sell electricity to EGAT. As electricity was the basic utility of the country: we had to respond for the country’s development and benefit. We had a contract with EGAT: we had an agreement, and we had to obey this obligation. To respond to this contract, we had to invest in the project and produce electricity for

EGAT on time as designated in the contract. These were our responsibilities to keep our commitment with the government" (Project proponent 1).

Clearly, the decision has already been made before the government or the project owner made available any information about the project to the local communities. Thus, many of the affected villagers claimed that they were never given any information about this controversial project at the beginning. One of the local villagers argued that he was informed as well as consulted about the project; however, all activities were being carried out after the project was approved and the site was selected. He claimed that:

"At the beginning, we did not receive any information about the project. We knew just from the local leaders that a golf club would be constructed here. Later, when the member of our community knew that it was not true; in fact, the power plant would be built. The group of protestors was then formed. ... When the disputes became more serious, the project owners then were more open and tried to make contact with the communities. Consequently, they gave us information through brochures or other printed materials and also set up the exhibition at their site" (Villager 20).

Surprisingly, the information from the management level staff of the UPDC supported the fact that the public was not informed about the power plant at the early state and this caused the conflict between the developers and the communities. He explained that:

"When we submit our proposal of our power plant project in the bidding process, we need to identify the project site, technology and the selling price of the electricity, and then, they (EGAT) would consider our project. As a result, the bidders needed to search for the land to be the project site themselves. In this case we had made a land purchase contract with the landlords for about 1,200 rai (1 rai = 400 m²) with numerous landlords. The contract showed all important information. We gave them the deposits and after our project was approved, we would pay the rest. This was a weak point because we did not know whether our project would be selected, or our project could be won in the bidding process, so the procurement process was a deal with only the landlords in a quiet way. If more people knew about this issue, the land price might be increased. This was a very

significant practice that, finally, was the core cause of the conflict” (Project proponent 1).

Indeed, at the beginning only the owners of the land might know that a power plant was planned. One of the landlords gave information about this concern as.

“At the beginning, the project owner came into the community and made contact with me for land procurement. I was informed that the power plant would be built here. In the contract, it also revealed all details of the agreement. I as a landlord knew from the time when I signed the contract that the land was purchased to build the power plant” (Villager 15).

Comparable findings are evident in many studies. Shepherd and Bowler (1997) and Tippett *et al.* (2005) found that traditional institutional structures could be hostile to participation processes and made it difficult for stakeholders to gain sufficient resources and support from the authorities. The studies hinted that the affected citizens wanted to be informed and involved in the decision-making process of any development project that posed eminent hazards to their lives. In this regard, Daniels and Walker (2001) suggested that a decision-making process should be more consultative and participatory in order to solve the conflicts from a lack of participation process. Mitchell (2005) proposed that a style of decision making, the DAD approach, was inappropriate and should be replaced by a PEP model, Profile-Educate-Participate (Vatanasapt *et al.*, 2003). According to Vatanasapt *et al.* (2003), ‘profile’ referred to an understanding. ‘Educate’ means educating the local communities about the proposed development projects, discussing issues and the alternatives. Finally, ‘participation’ referred to an involvement of community in studying all aspects of the development project and seeking consensus for the problems.

Representative democracy

Moreover, the conflict in this case was generated from the Thai democratic system. Thailand transformed its ruling system from absolute monarchy to democracy more than 70 years ago. Nonetheless, the revolution of Thai democracy has not been smooth for many reasons (Nicro and Apikul, 1999). One of the main reasons is the political power and the fact that the high-levels of government authorities had more power than other

sectors (Bureekul, 2006). Thus, Thai citizens were often excluded from political participation. This position was clearly explained by one of the interviews.

“In our country, people were familiar with representative democracy more than others. In people’s views their right is limited to when they select their representatives. The representatives think that they have full rights and authority to do, issue and decide on every policy and project as they are the representative of the whole citizens” (Project proponent 1).

This finding supports Petts’ (1995) study that encouraging participatory decision-making processes could be viewed as challenging representative democracy. Since, more often, citizens were opposed to a plan or project while their representatives were supportive of that proposal.

Lack of public participation

From this case study, it was clear that public participation was almost omitted at the beginning of the project. One interviewee explained that: *“for this project, the authorised organisations made the decision following the national policy, but the problem always occurred because the local people were not allowed to participate at all levels”* (NGO 1).

Clearly, the public has no power to influence the project’s decision at any stages. A number of the opponents stated that the government refused to involve the public in the project both before and after the decision-making process (Villager 2, 9, 15, 20). This aspect was claimed as one of the important factors that caused the conflict in this project.

“Conflict primarily stemmed from the government as it wielded its powers over its citizens and was not concerned with indigenous wisdom which may have alternative dispute solutions. The government did not give an opportunity for the public to be involved in the decision-making process of the project both before and after” (Local leader 4).

However, different opinions on this matter were presented. In this study, one villager stated that the developers allowed the communities to tell them about their concerns and needs.

“When we consider this issue with a neutral mind, there would be difficulty in project implementation. The project owner told us that if the villagers wanted them to do anything to improve the project, please let them know and they would listen to these concerns. The power plant could make our community more civilised. The villagers could work with the power plant” (Villager 17).

In agreement with this finding, the Center for Asian Area Studies (2003) and Vatanasapt *et al.* (2004) found the affected communities were always omitted from the decision-making process of development projects that might have huge and adverse impacts that directly affect their lives. Fiorino (1996a) suggested that an important source of conflict was a gap between the citizens’ expectations and their genuine ability to participate and contribute to the decisions. According to Sathirathai (2003), Bureekul (2007) and Coenen (2008b), a lack of public participation and insufficient publicity in the decision-making process could lead to an illegitimate decision, a lack of a trust among stakeholders, and a failure of project implementation. This could result in violent conflict between stakeholders. Conversely, Montaz (2002) and Primmer and Kyllonen (2006) indicated that through public participation, the decisions about the projects would be accepted and legitimated. The public trust could be increased and facilitation of projects would be smooth.

This problem was a national level dispute between people and the government over the manner in which conflicts could be solved. More often, the preferred technique selected by the government to solve conflict is to conduct a public hearing to listen to people’s opinions (King Prajadhipok’s Institute, 2004). Indeed, the local affected communities tried to request the government to conduct the public hearing when they first knew about the project, in fact at the beginning of the protest movement; nonetheless, their request was completely overlooked by their government and the project proponents (Center for Asian Area Studies, 2003). One villager argued that: “*we were not supported by the government. Especially in this public hearing, this forum was managed in order to support the project owners. They had their own public hearing: they had their own attendees*” (Villager 2).

Finally at a very late involvement stage, when the conflict became more serious, the government then assigned the relevant parties to conduct the public hearing in order to

resolve conflict. However it was too late, the public hearing hardly affected the controversy. One interviewee argued that: “*it was difficult to make any changes to the project from a result of the hearing*” (Local leader 4). Many of the affected people from the indigenous communities supported this argument.

“What was the point? They had already made the decision. Our participation could not make a difference. They were going to build the power plant anyway. They just invited us to listen to what they said in the hearing. I knew nothing would happen after that so why did we have to participate in this meeting. It was a foregone conclusion” (Villager 1).

Importantly, a number of the protestors considered that this hearing was illegal and unacceptable since it was not organised in the appropriate phase. They claimed that it was too late to conduct the hearing because many decisions had been made and, significantly, the contract between the government and the project owner has already been signed. The leader of the local environmental conservation group presented her view of this issue:

“... It must refer to the constitution. ... According to the 1997 constitution, in section 59, it clearly indicates that citizens have a right to receive information, explanation and reason from the government before the permission is granted for any project that may affect the quality of their way of life and environment. Conversely, in this case everything was completed before we have any information. In fact, the public hearing should be conducted before any decision about the project was made. The hearing should not be organised in order to reduce the conflict when it had already occurred” (Local leader 2).

Finally, even though the public hearing was organised as a means of reducing the conflict, the situation became worse. The project opponents refused to participate in the forum unless the government recalled all the approvals and licenses granted to the project proponents.

“Actually, we have no question about the expertise and the appropriateness of the hearing committee, but we did not agree with the selection process. We did not have an opportunity to be involved in this crucial process” (Local leader 1).

Clearly in this case, many protester activities were conducted in an aggressive way. For example, a great number of the protestors blocked the southern highway to protest against their government. They remarked that their concerns were hardly considered until the protests became violent. The following quote presents this issue.

“In an overview, participation is cooperation in decision-making, implementing, and monitoring. Nonetheless, for this project villagers did not issue the idea: it was the government authority. If the government thinks carefully, we can accept the idea: but in this case the project was too huge and seemed to have more adverse impacts. In fact, co-decision was not suitable to apply with the government agendas, but the public should have the right to monitor. However, only one measurement method that we could do was to give our views and concerns to the authorities. Although the government has already decided to initiate the plant, we had our reasons. We, then, had to do everything to present our grounds to the government. They should consider our concerns as well” (Local Leader 1).

Confirming this issue, Beierle and Cayford (2002), Beierle and Konisky (2000) and Jackson and Pradubraj (2004) stated that when the decision-makers did not consider the local stakeholders' concerns and made a decision without involving the public or stakeholders, the affected people would fight for their rights and to protect what they are likely to lose. This could lead to strong opposition to policy initiatives or project implementation.

Unclear legislative framework

The other aspect that was important and could be viewed as one of the main causes of this environmental conflict was a legislative factor. An example discussion is illustrated as follows.

“We should accept that we did not have an official process to allow the public to be involved in the decision-making process. Laws and regulations supported for citizen's right in public participation have been amended for a relatively short period at that time. There were no laws, regulations or procedures that clearly and actually pointed out about this issue” (Project proponent 1).

The other issue about the legal system in Thailand is that the laws, regulations and guidelines are unclear on how to involve the public in the decision-making process of any development project, and how to improve public participation. Particularly, the NEQA 1992 provides the public with rights and duties to participate in environmental issues, but does not provide any mechanism for the public to directly participate in the EIA process. One officer explained that:

“At the time the conflict occurred, the ‘Public Hearing Act 1996’ had just been recently enacted and we had no experience of how to use it. I felt that the project was initiated before this act was introduced. We have tried to develop public participation in the EIA system as indicated in the Constitution. However, we did not exactly know how to do it because we did not have this before. In the past, we did not allow the public to directly participate in the system. Moreover, we did not disclose the EIA report to the public or place it a public place, such as, a library, as we do now. Everything has changed since the government launched the ‘Public Hearing Act 1996’ and the ‘Public Official Information Act 1997’. These acts provided the public more opportunity to participate” (Central government officer 1).

A similar problem was found in the study of the EIA system in Bulgaria (Almer and Koontz, 2004) and Egypt (Badr, 2009). Neither Egypt’s nor Bulgaria’s EIA statutes provided any requirements for public participation at the beginning stages of the project implementation. In the Bulgarian EIA system the public hearings occurred too late in the EIA process and often led to the controversies among stakeholders.

At the same time, one project proponent argued that the developers were constrained by their lack of knowledge of how to employ public participation properly. He stated that:

“When we conducted the EIA study, we had never been informed that the project owner needed to involve the public because at that time, there were no laws or regulations requiring the developer to provide public participation before we apply for the license. The procedure was very unclear. When no law clearly mentioned that as well as there was no clear example for the developers, thus, we

could not implement it in the appropriate way to involve the public” (Project proponent 1).

The other critical problem in the government constitution is correlated with the EIA practice. Eleven interviewees hinted that the EIA process has not been carried out in a participatory manner due to a lack of public participation. Consequently, it has not been able to effectively capture the environmental, socio-economic dynamics of the affected local communities (Ban Krut Environmental Conservation Club, 2000). Many disagreements about the appropriateness of the project implementation were evident. The following was an example of this point.

“... The approval and study process of EIA should be transparent. ... In the EIA study process, the consultants went to the community and directly made contact with the villagers. They conducted a survey to explore the villagers’ perspectives. They asked for people’s ideas if the power plant would be constructed in their community. Actually, in the EIA processes, there was a survey process to study the affected villagers’ attitude if the power plant were to be built. Nonetheless, if the question was ‘did the locals have a meaningful participation in the EIA study processes’, the answer would be ‘no’. The villagers would never be truthfully involved in the study process. When the OEPP advised us to restudy the EIA process, we had conducted more studies about the marine ecology. In this process, the villagers should be involved in the study process. We should allow the locals to attend the meeting with the technical committee. The committee would receive more useful information: at the same time, the villagers would see the study process more transparently and then accept it” (Project proponent 1).

In summary, it could be said that the public need to be involved in the decision making process of development projects that directly affects their lives. One interviewee gave an interesting statement that: *“if the stakeholders could not equally participate in the process, how a consensus could be developed”*? (Freelance researcher 1) It could be seen that in the Thai context a number of constitutions do not support public participation; in particular, the Thai government still favours the conventional decision-making process which excludes public participation. Although many laws and regulations emphasise

public participation, the Thai bureaucratic system has not properly adjusted itself in accordance with those intentions (Thailand Environmental Institute, 2005).

5.4.2.2 Value differences

In this case, more than 85% of all interviewees indicated that conflict between the developer and the protestors resulted from the difference in their perception of the value of the environment. On one hand, the project owner could gain a lot of money and benefits from the power plant operation and the government also wanted to build the power plant to support electrical sustainability in the country. These benefits could trade off any impacts to the environment. One officer explained that:

“To develop our country, it is important that the electricity supply for every activity must be sustained and sufficient. Every person and every house uses electricity. If we preferred only the dam to produce electricity, why we did not think that in some day the water would empty. Natural gas could run out as well. We have to buy some electricity from our neighbours; Laos, or Malaysia. It was better to have a good power plant project to produce electricity in our country” (Central government officer 2).

On the other hand, the local villagers did not want the power plant because they strongly believed that the project would impact their way of life and environmental values. The following quote demonstrates the differences in interpreting the value of natural resources and the environment.

“We thought in different way. We could not value fresh air, beautiful beaches or coral reefs. Local people needed peaceful and sustainable ways of live. We want to protect our beautiful environment. We did not want any kind of industry to destroy it. The developers would gain what they want, but we, the local people, would lose our valued things” (Villager 2).

Comparable findings were evident in research by Webler (1995) which showed that in many cases, the problems evoked serious conflicts between cost minimisation and equity, and between the social rationality of local communities and the bounded rationality of the

decision-makers. In the Hin Krut case, one of the governors reflected that the project had value and its effects could be controlled, while one of the leaders of the protestors claimed that environmental and national resources are priceless. The difference of the two sides of perception in environmental values is clearly presented in the follow argument.

“Personally, I thought this project was worth the investment. In the EIA report, there were hardly any harmful impacts. It could be protected. For the tourism industry, there would hardly be any effect as well. The coal-fired power plant can be sited without any change. For example, there are many places in the world that the coal-fired power plant sits in tourism regions and that area is still a visitor attraction” (Central government officer 2).

This statement was strongly contradictory with a comment that:

“If they ask about how much compensation would be enough for our destroyed environment, I can say that they cannot pay to cover all the damage. The developer gains more than one-hundred thousand million baht from the project’s life time, twenty-five years. But the public lose countless natural resources, such as, clean air, coral reefs, sea-side scenery and fishery resources” (Local leader 1).

The opposed villages argued that whales and dolphins have recently been witnessed in this surrounding area. They argued that these animals indicated the diversity of the ecology and also claimed that the government and the project owner did not recognise this point. The EIA did not appropriately mention the power plant's impacts on them. Additionally, the affected people also stated that the EIA report undermined the value of a coral reef in the area. One NGO pointed out that: *“the value of a coral reef cannot be measured only by its appearance”* (NGO 3). This issue was supported as this respondent indicated:

“We lived in a very nice environment so why did we want a power plant, and pollution to be in our hometown? The power plant would cause harmful emissions to the environment. ... There would be a pipe line for hot water from the plant’s production process into the sea. In this area, there were many different kinds of fishes. What would happen with these fishes if they had to live with hot water for a long time” (Local government officer 3)?

According to these dissimilarities, the protestors refused to listen to other opinions and retained their own values. This concern was also the important cause of conflict in the case study. However, there was disagreement on this point. Some of the villagers and the project owners viewed differently that the project could bring benefits and add values to the community and the society as a whole.

“For me, personally, I thought this project could contribute valuable things to our community. Many villagers were hired to work at the power plant. The villagers could sell more of their products since many labourers would come here. Besides, our community would have more money from the power plant funding to develop our community in many ways, such as, building a road, a school or even a hospital” (Villager 16).

Comparable findings are evident in studies of public participation by Lyster (1998), Schneider *et al.* (1998), and Tippett *et al.* (2005). The research showed that individuals and stakeholders had different perspectives, criteria and values which influence a determination of what the problem was and how to deal with it. According to Antunes (2009), the decision-making process which could not properly include the interests, perceptions and values of all stakeholders could cause conflict among them.

With respect to the Ban Krut location, its surroundings feature a number of recreational and tourist attractions. The beaches are appropriate for recreation, except during the northeast monsoon period. Though this place is not a significant scene for year-round tourism, there were a great number of tourists from March to May, annually. However, this tourism was a comparatively small industry compared to other locations in those surroundings. There were several resorts encircling that area (see Plate 5.1) (Saangsan Consultants Company Limited, 1999). The proposed site was next to the sea and located along a stretch of the beach as shown in Plate 5.2.



Plate 5.1 Resorts in Ban Krut community

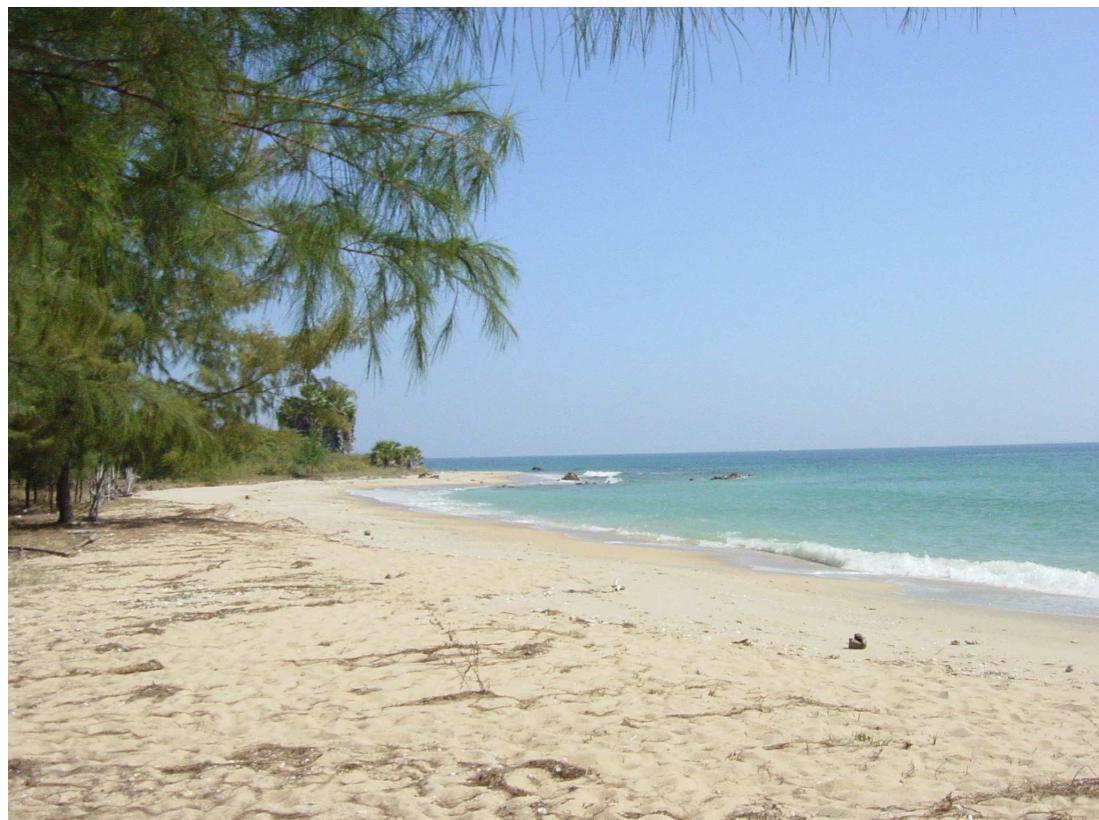


Plate 5.2 The proposed project site

Actually, in Prachuab Kiri Khan Province, local people's preference is for it to be an attractive tourism place. One villager claimed that: "*we preferred to maintain the environment and did not want the high economic growth from this development project. Our preference was for it to be an attractive tourism place*" (Villager 5). Many affected villagers agreed with this value. An example is presented here.

"They (the villagers) have their own occupations. They had their farms. They had palm trees (see Plate 5.3), fishes and many kinds of foods. If you told them to protect the environment, they could. Conversely, the power plant would destroy their environment; they drained the hot water into the sea. What did you think they would do? Would they agree with the project?" (Local government officer 3)?

In agreement, Owens (1985), Daniels and Walker (1995), Pradubraj (2002), Moore (2003) and Elias *et al.* (2004) indicated that the differences in values and interests with respect to the quality of the resources and the use of environmental resources that existed in society was inevitable since a society comprises a diversity of people who have different opinions and concerns. There is no doubt that these differences in individual values regarding environmental issues potentially lead to conflict in the society (Dietz *et al.*, 1989; Proctor, 1998; Persson, 2006). Stave (2002) found that conflicts amongst stakeholders with different environmental values and goals were also dramatically increased, and usually involved resource allocations and use decisions (Mitchell, 1997).

In summary, it could be said that different perceptions on environmental values of stakeholders caused the controversies in this case study. On one hand, the government and the project proponents have desire for economic prosperity at the expense of the environment. Whereas, the local communities preferred to maintain their ways of life and culture depended on the clean environment. They favoured conservation of the environment rather than the economic goals of receiving profit. To deal with this issue, Elias *et al.* (2004) suggested that an awareness and understanding of people's different value system was a crucial step to resolve the conflict. Simmons (1994) and Thabchumpon (2002) recommended that the differences of perspectives and values must be carefully demonstrated and handled to ensure a balance point to make every party satisfied.



Plate 5.3 Coconut farms in Ban Krut community

5.4.2.3 Competing interests

At the beginning, when massive amounts of land were purchased around Thong Chai sub district in 1996, local villagers were informed that a new golf course and resort were planned to be built on the purchased land. One villager told that: “*we did not know that the land would be the location for the coal-fired power plant. We just were informed that a large golf club would be constructed here*” (Villager 5). Many opposed people had an enquiry about the purchase of land and indicated that there was a hidden agenda on this issue.

“A corruption allegation over the land acquisition was a vital argument in the society. The land purchase was not transparent. This corruption was revealed by the local government officers who know more about this proposed project” (Villager 21).

The land selection process was a moveable platform for local politicians with a direct relation with the potential benefits they could derive from supporting the project

construction with respect to an effort on land sale and construction business. Many villagers claimed that their leaders gained a lot of money and benefits from these businesses. Furthermore, they also pointed out that people who lost their benefits from the land sale became the key personnel of the protest groups.

“The conflict was started because some landlords could not sell their land to the projects. I think they lost some benefits from the project. The landlords were upset for failing to sell their land to the project owners. They, then, told other villagers about the power plant and some of them became the leaders of the opposition group” (Villager 12).

According to Owens (1985) and Martin (2005), conflicts from competition for environmental and resource use are inevitable. These competitions have become a significant issue in many developing countries (Jackson and Pradubraj, 2004), particularly in Asia (Kalland and Persoon, 1998). A number of scholars confirm this statement (Owens, 1985; Ross, 1993; Shepherd and Bowler, 1997; Koontz, 1999; Pellow, 1999; Elias *et al.*, 2004; Le Tissier *et al.*, 2004; Mitchell, 2005; Aasetre, 2006; Persson, 2006). They pointed out that, usually, conflicts among stakeholders, in particular the local communities and the developers, stemmed from their competing interests due to limited space and resources.

Undoubtedly, in the Hin Krut power plant case, a lack of mutual benefits among stakeholders was viewed as a cause of conflict. The stakeholders' benefits from the controversial project were different and unevenly distributed. The affected villagers felt that they were losing their benefits while the government and the project owner grasped more. For the developer, the power plant would be located in a suitable place for the production process and coal-fired transportation and using national resources to maximise their profits. Conversely, more than 95% of the project supporters presumed that the power plant would induce more investment and development that would result in more income to the communities. One villager argued that:

“In my opinion, I thought the power plant could bring more development to the community. Many local villagers could work there and they would have more income... When the project was first proposed here, there were a lot of shops.

“People had more money. Nonetheless, when the project was withdrawn, many locals lost their jobs; many shops were closed” (Villager 6).

Indeed, the developers provided financial funds for local communities, in particular local government bodies and schools. The developer also proposed to give annual benefits from the project to communities through a community fund which was co-managed by a tripartite committee, including the local community, the local government and the developer, to handle any effects from the project. One local officer gave an interesting idea that:

“As a local government officer, I was confident that the power plant could increase tax income for local administration, and increase local employment. Most importantly, the project could even promote foreign investment that would finally benefit the country economically. Besides the increased investment from private sectors, all citizens would have long-term benefits from the low cost of electricity since the government’s investment in the power industry would be decreased. The power supply to the southern part of Thailand would be more sufficient and stable” (Local government officer 1).

Additionally, a number of supporters claimed that the local government administration would gain more revenue from tariffs and taxes. The proposed local development foundation would support the community’s activities and also solve the community’s problems. In agreement with this finding, Lidskog (1997) and Elias *et al.* (2004) found that a large-scale development project tended to generate conflicts from an involvement of multiple stakeholders. The conflicts of interest among them were inevitably from their competing demands. This was because interests can often be difficult to identify and allocate since each party had different interests and were entrenched in their beliefs and positions. Importantly, Mitchell (1997) stated that the benefits and costs from development projects were difficult to fairly distribute and hard to evaluate and compare. According to Owens (1985), when competition for shared resources amongst stakeholders was mutually exclusive, conflict was then created.

Similar to other development projects in Thailand, the Hin Krut power plant project was predicted to produce adverse impacts to culture, tradition and the way of life of the local

communities, in particular the surrounding environment. The most important concerns were related to the environmental impacts. One of the villagers expressed that:

“Actually, there was pollution everywhere. In Bangkok, there was lots of pollution as well. In my opinion, some places or some projects had more serious problems. They had more hazards and pollution than this project had; however, people could live and the project was continuing” (Villager 26).

On one hand, the support groups of the project were confident in the power plant's technology to control the environmental aspects. The following presents some views that believe in the project technology and expertise. *“I believed in their technology that they can find the best technology for the project, to protect our environment”* (Local government officer 1).

On the other hand, the project opponents had many reasonable arguments against the project. The protesters strongly argued that the power plant would have dramatically negative impacts on their communities and the environment. They did not believe that the project owners could decrease and control all of the adverse impacts on the environment. One villager claimed that:

“I was not confident in the project proponent's monitoring programme for the power plant implementation and environmental protection. I did not think that it could be effective enough or had less impact to our health and environment. The impacts from the power plant on the environment were serious and it was impossible to control all these effects” (Villager 11).

Indeed, the issue of environmental impacts from the power plant's construction and operation was also initially a concern for the local villagers that they cited as a rationale for resistance. An investigation from Ban Krut Environmental Conservation Club (2000) and Center for Asian Area Studies (2003) showed that ashes emitted from the power plant would pollute the air; adversely impact villagers' health; and affect the local tourism industry as well as a large amount of greenhouse gas being released into the environment. One leader of the villagers claimed that: *“although the plant planned to use low-sulfur coal, the emission of air pollutants, such as, carbon dioxide, particulates and ashes from*

its operation were inevitable" (Local leader 2). However, the developer claimed the emissions from the power plant were within the acceptable levels.

Regarding this issue, there were two opposite beliefs. On one side, the project supporters were confident in the power plant's technology and method to control the environmental aspects from the project's construction and operation. For example, one villager stated that:

"Their technology seemed to be reliable for me, in particular, the monitoring programmes for preventing adverse environmental and health impacts. It was impossible that when the power plant was built, all villagers would be killed. There should be a safety system" (Villager 13).

Conversely, the project opponents argued that the mitigation scheme was insufficient. For example, the EIA proposed cultivation of seven fish species as a compensation measure. This strategy was highlighted as an unproductive approach to protect the existing fish diversity. One villager explained that:

"The marine ecology in our community, Ban Krut, is much sustained and high in biological diversity. The expert from the fishing department discovered that there were around 340 species of commercial fish, and the total number of fishes in this area would be more than 400 species of fish and living creatures. Unbelievably, the EIA report indicated that there were around 140 species of fish. Most importantly, the mitigation programme of the company was to provide a cultivation of seven fish species instead of the affected 140 species. What an idiot idea it is" (Villager 7).

Additionally, the project opponents indicated that the construction of the power plant's port for imported coal transportation would damage coral reefs, affecting marine ecology in particular small scale fisheries, the important occupation of local villagers. This would hinder fish migration and villagers' fishing activities. The opponents supposed that, as a consequence, their self-sufficient fishing community would face problems with their ways of life.

“The construction of the power plant’s port was huge and would damage coral reefs. Its extension length was around 3.5 kilometres into the sea. The corals in this area are very nice and complete. They are very important to small fishes and animals in this area. The port’s construction certainly had adverse effects on marine ecology of our community as well as small fisheries (see Plate 5.4). How could the fishermen, with their small boats, sail further than three kilometres from the shore? They were certainly affected from the construction” (Villager 19).



Plate 5.4 Small scale fisheries in Ban Krut community

Not only the construction of a jetty for coal transportation would endanger the life cycle of the living creatures in the sea nearby the project site, but heated water released from the cooling towers also causes hazards. This would have negative effects on the environment, especially the fisheries in the area as well as the nearby coral reefs. One leader of the opponents explained that:

“The power plant was designed to use a large amount of seawater as a coolant in its cooling system, and then, a massive amount of hot water would be discharged

directly into the sea. The temperature of this waste water would be 1-3 degrees higher than that of the normal seawater. Can you imagine what would happen with small fishes and living creations in this area? They could not live in this dangerous environment... What would happen with our corals if the temperature was higher? Undoubtedly, all coral reefs in this area would suffer and be destroyed. All living creations would be affected and, finally, die. I could not imagine what our ecology would be when massive cooling water was pumped into the sea. How could our marine ecology be the same" (Villager 9)?

As aforementioned, coal would be used as a fuel to generate power of the Hin Krut power plant. Although the project owners explained that the power plant used clean coal, producing low sulfur content, imported from Australia and Indonesia, the local communities still enquired.

"What could we do if the coal was accidentally dropped into the sea during its transportation? Who can guarantee that there would no any impact to the ecology, the government or the project proponent? Who would receive the most impacts from the power plant? We, the local villagers, were the group who received all these adverse impacts. We have a very nice sea, clean water and fresh air. Why do we have to live in a bad environment" (Villager 4)?

These findings are in agreement with the results of similar studies by Jackson and Pradubraj (2004) and Regan *et al.* (2006). They stated that conflicts could occur among competing users of the resources, in particular, between the decision-maker who made a decision on resource allocation and use and people who were affected by that decision; or between stakeholders who wanted to use a resource and those who wanted to protect it.

It could be said that environmental problems usually involve a number of stakeholders with competing agendas and vested interests in the decision (Regan *et al.*, 2006) and these different interests among them are key root causes of conflicts (Shepherd and Bowler, 1997; Schmidt and Tannenbaum, 2000; Tippett *et al.*, 2005), as found in this study. Antunes *et al.* (2009) stated that a decision-making process which could not balance the interests of all affected parties is potentially facing difficulties. Thus, it is important to

accept this fact. According to Persson (2006), with this concern, there was a possibility for involving stakeholders to create a conflict solution approach and find common gains which satisfy every party.

5.4.2.4 Data insufficiency and misunderstandings

Once the affected villagers realised that the power plant was planned to be constructed in their communities and the contract between EGAT and the project proponents was signed already, more than two-thirds of the villagers claimed that they did not receive any information about the project. One villager claimed that: *“Truly, the local villagers knew nothing about the project at the beginning. We did not receive any information from any party that the power plant would be built here, at our communities”* (Villager 4).

When the local villagers asked for more information about the project, in particular the EIA report and the project's contacts, their requests were ignored. All information requested was always delayed. They had to wait for a long time to receive all requested information. Conflicts and opposition actions then took place. One key informant gave her comment on this issue as follows.

“All information we received especially the contract and the EIA report, we had to request from relevant parties. Our group leader had to find out all relevant data from the government in Bangkok. We had searched for information ourselves. The government and the developers did not aptly provide us the information we wanted. Indeed, everything was revealed after the project was approved and the conflict was stimulated. The contract we got from the project proponents was in English: we had to find the interpreter and the contract had many pages” (Villager 3).

Conversely, one of the representatives from the government gave her opinion about the enquiries for these documents from the opposite perspective.

“At that time, we could not give them the EIA report at the time they wanted. This was because we had to ask for the permission from the project owner. We had to inform them that some affected villagers want their EIA report and ask whether

they were willing to give the locals their information. The report was in the reviewing process we had no authority to make public this document" (Central government officer 1).

Confirming this concern, Lyster (1998) pointed out that unequal access to project information and related data caused a significant problem. Diduck and Sinclair (2002) found that, frequently, technical and scientific information was not available to the general public.

The Hin Krut power plant was a good illustration of a controversial project that had a high controversy caused by incorrect and unreliable information in particular in its EIA report. A number of the protestors firmly remarked that its EIA report was incomplete, incorrect and untrustworthy. Some of the villagers also claimed that the impacts claimed in the report were too low and unreliable.

"For information provision, they did not give us all information. Some data were incorrect, such as, the missing of the coral reefs in the EIA report. A number of fish species was underestimated. The EIA identified less than 200 species, while an expert at the Bureau of Fisheries found much more in numbers. The report also missed fisher folks in neighbouring areas. It did not reflect on the impact on villagers working in related industries, such as, food processing and fishing-gear making. The impacts from the power plant were wider and greater than was determined in their study. I thought they knew about them but they did not want to discover it" (Local leader 1).

Many mistakes have been spotted in the EIA report. They were found and pointed out by the opposed citizen collaborative with assistance from academic staff and NGOs. One leader of the protesters explained that:

"We did not believe the information in their EIA report or from the project developers. They said that the power plant would not have any impacts to our way of lives, but we thought it should have. A number of fishing households was also underestimated. They said that only 99 fishing families would be impacted from the project. We then checked for the truth. We asked that how could they get this

number and the answer was they got this number from the office of fishing in Bang Saphan district. ..., but, in fact, there were more than 500 fishing families. If the company had to pay the compensation to the affected family, they should pay to 500 families not only 99 families as they claimed" (Local leader 2).

A similar finding is evident in a study of the EIA process in Bulgaria by Almer and Koontz (2004). In the EIA report a number of mistakes were found, such as, a lack of social and economic evidence to support the project's claim of being harmless to the environment, and a lack of investigation on the effects of project operation. Besides, minutes of the hearing meetings were not always recorded completely. According to Hinte *et al.* (2007), reliance of information was significant since this issue could increase mistrust and led to conflicts among stakeholders.

The project opponents then asked the OEPP to reconsider the EIA report, as well as requesting the authorities to rescind the approval for the project. As a result, the government decided to review all relevant information about the project, and the project owner had to produce a new EIA report from the government requisition. However, the cancellation of the project was disregarded. One interviewee argued that: "*Even though many questions remained, the government authority did not take any action to stop the project*" (Local leader 5).

Concerning many issues and though an inability to provide true and reliable facts and information, the project was strongly protested. One of the affected villagers highlighted a very interesting point:

"We needed to know everything that affected our lives, our community. The information must be accurate, clear and correct. Most importantly, the information when they gave us must agree with what happened when the project was done" (Villager 7).

It could be said that a lack of information, along with inaccessible, inaccurate and technical information, were considered to be a significant basis for the conflict in this project. This tallies with studies by Moore (2003) and Glasson *et al.* (2005) which indicated that these aspects could lead to differences in analysis and interpretation process

and would result in misinterpretation of data, in particular, information about a proposed project which could cause a conflict from misperception. According to Haklay (2003), reliable information and accurate data are essential for an effective participation process since they make the process transparent and credible. Pradubraj (2002) suggested that an exchange of factual information in a two-way communication was an effective strategy to take when facing environmental conflict situations.

5.4.2.5 Relationship problems

In Thai society, the government and the project owner were respected because they were well-educated compared with most of the local people who were poorly-educated (Klein, 2003). More often the local villagers were underrepresented because the authorities assumed that the lay people would believe whatever they were informed. Consequently, the public were usually excluded from any decision-making process. This made the locals feel that they were cheated and overlooked. Importantly, a lack of public participation of the local affected communities in the decision-making process for this project resulted in a loss of trust in their government and led the opposed people to conduct their protest activities (Center for Asian Area Studies, 2003). Similarly, Daniels and Walker (1995) found that, basically, an implementation of a development project often involves multiple parties, frequently with volatile prior relationships and little trust.

In 1997, as soon as Ban Krut villagers knew that their hometown was chosen as a mega coal-fired power plant project site proposed by the UPDC without consideration of their concerns, the controversy about the credibility of the project began. The protestors did not trust the decision-making processes of the government in two main issues: the project approval process and the pollution monitoring programmes. Firstly, more than 90% of the affected villagers perceived that the decision-making processes were not open to the public. So they could not trust this decision.

“I thought the decision making process of the project was not transparent. Not all important information about the project was revealed. This project was decided by the top government. I know that it was difficult to make the process open but they should try. The bidders and the management knew about this but we did not know. The local government did not know as well. How could we say that the project was

transparent and how could we trust this decision of our government?" (Local leader 1).

This issue needs to be investigated and a solution found because, until now, frequently, the government and the project owners still cannot make the public trust their decisions regarding any proposed development project. Conflicts are still occurring in Thai society and seem to be more difficult and complicated to resolve. Comparatively, Phongpaichit (2001) found that a lack of transparency in the decision-making process made people feel that the use and exploitation of natural resources was unfair. Pradubraj (2002) suggested that instead of concealing information and any decision-making about the development project, open processes and letting information flow would be a means to prevent conflicts among stakeholders and increase the public's trust.

For the second issue, more than 90% of the affected villagers did not trust the pollution monitoring and control programme initiated by the developers. This was because the local communities in the north of Thailand have been faced with serious environmental and health problems from another coal-fired power plant project. Until now, the government still can not solve these problems. Many respondents emphasised this aspect.

"The problems stemmed from the adverse effects to the environment and humans from the previous development projects; the other coal-fired power plant project, Mae Moh and Mab Ta Pud industrial estate. At the beginning until now, the government has not been able to solve, manage and control the impacts of these severe environmental problems from these projects" (Local leader 1).

According to Petts (2003), trust is a fundamental factor of the extent to which people wish to be engaged and involved in the decision-making process and the expectations from their participation. In this case, one interviewee argued that: *"Critical distrust was a significant and uncontrollable problem that the company cannot handle"* (Project proponent 1).

Besides, the public hearing, that Thai government often used as a mechanism to reduce the conflict (Bureekul, 2007), was not effective in handling the situation. Conversely, it heightened the controversy. One interviewee indicated that: *"the government would conduct the hearing only when they gain advantage or they want to reduce conflicts"*

(Local Leader 2). In the forum, the project protestors did not accept the public hearing committee because they were not engaged in the selection process. A number of the opponents claimed that some of the hearing committee were not neutral since some of the committee worked for the organisation that initiated the project.

“How could we believe in the public hearing? While some members of the hearing committee had a close relation with the management board of the power plant, how can we trust the process? How can we believe that the hearing was conducted in an unbiased manner?” (Villager 23).

Besides, the opponents contended that only small groups of people and a limited number of participants were invited to attend the meeting whereas everyone wanted to attend. This led to the protestors agreeing not to participate in the hearing.

“All project licenses have already been granted. There was no need for a public hearing. We did not want to participate in the public hearing because we did not want the project owner of the government to claim that we accepted the result of the hearing. I was sure that my ideas would have no bearing on the decision. The project owner and the government would gain more benefits from our participation than the affected people. So why did I have to be involved in this unfair hearing” (Villager 7)?

Related to the social and political issues, the project protestors argued that the government did not support the members of the public including the local people and communities to be adequately involved in the decision-making process. This practice resulted in social and environmental problems in the local communities, in particular controversy within families.

“In fact, this area had a very nice landscape and environment and there were not too many citizens. The community was very peaceful and calm. Nonetheless, when the power plant was introduced here, everything was changed. People were fighting; the community became a controversial society. In some families, the father agreed with the project while the son did not. They clashed. Close friends were struggling” (Local government officer 3).

In this project, it was clearly seen that relationships were seen as a significant problem in Thai society. The public strongly distrusted its government. This assumption was clearly presented in the following statements:

“We did not believe them or listen to them. They told us only the good things of the project but they did not inform us of any negative side of it. They could not clarify our enquiries about the impacts to our communities. How could we believe in their project operation or any monitoring actions when the developer did not tell us the truth at the beginning?” (Villager 19).

Consistent with this supposition, Petcharamesree (2002) and Moore (2003) considered that relationship conflict was primarily initiated from distrust and suspicion between parties, in particular the government and its citizens. Siroros and Haller (2000) found that public trust in the officers who make a decision on mega-development projects tended to decline, whilst Raimond (2001), Beierle (2002), Halvorsen (2003) and Vari (2004) indicated that a lack of trust in the authorities was a significant root cause of conflict in many countries. Whenever the public did not trust in the authorities' performance and transparency, this relationship might lead to a high degree of conflict among stakeholders.

The different approach in problem solving between the government and the public was also a contributing factor to the conflict. These aspects were merged and then created a complex environmental context for conflict resolution. In this case, despite taking the negative effects on the environment of the power plant project into consideration and inviting the public to take part in this issue, the authority ignored it. This created hostility from the affected people in the sense that they were excluded from decision-making that directly affected them. This government approach fostered a non-supportive attitude towards the implementation of the project. As a result, people's disappointment and hostility has gradually transformed to resist the project.

Consequently, the competition strategy of conflict management, which is the most confrontational style, was preferred by the protesters, in particular the majority of the affected villagers based on social movement and direct action, than to adhere the ideals of collaborative approach. The result was obviously that conflict was not properly resolved.

It is essential to realise that conflict arising in the society may or may not be resolved and it should not be assumed that conflict can be completely resolved (Uptreti, 2002). There is no most appropriate or inappropriate strategy to deal with conflict. Importantly, identifying and knowing what the causes are at an early stage is important for effective conflict resolution. It is, therefore, the responsibility of the person or group to be conscious of the problem, and to select the most suitable strategies depending on the context in which the problem has emerged (Vivar, 2006).

After investigating all root causes of the conflict of the Hin Krut power plant project, it was found that the conflicts stemmed from five key causes: structural constraints, values and opinions differences, conflicting interests, conflicting cognitive information and inappropriate relationships. Sub-categories of these causes and their findings of the evaluation are summarised in Table 5.8.

Table 5.8 The conceptual summary of the conflict analysis

Environmental conflict root cause categorised	Causes	Findings
Structural constraints	- Culture of non-participatory government bureaucracy	-Top-down decision-making - Excluding the public and the affected people from the decision-making process
	- Weakness in legal system	-No supported law or regulation for public participation
	- Ineffective EIA system	- No effective approach to input the public concerns into the EIA system
Value differences	- Differences in beliefs and criteria in evaluating ideas or behaviours	- Differences over environmental values and how to evaluate them between key stakeholders; the government, the project owners, and the villagers
	- Different ways of life	- Tourism, agriculture and fishery communities
Competing interests	- Competing interest	-Competition for resources -Imbalance in resource allocation -Nontransparency in the land purchase
Data insufficiency and misunderstandings	- Lack of information - No available information	- Difficult to access important information especially from the government and the developer -Disclosed information by officers -Delay in information request process
	- Misinformation or incorrect information	-Incomplete, incorrect, and unreliability of some information found in the EIA report
	- Complicated and technical information	- Technical information, in particular in English, found in many reports that are not easy to understand
Relationship problems	- Personal and strong emotions	- Distrust in the government's decision and conflict solution approach -Distrust in the developer's technology and monitoring programme

5.5 The level of public participation

This section aims to provide the empirical evidence from the research as well as other relevant studies to answer research question no. 2: What was the level of public participation in the Hin Krut power plant project, Prachuab Kiri Khan Province, Thailand? It was found that many opinions were expressed in a different way in this question. More details are discussed below.

Basically, public participation process involve multiple stakeholders with differing groups' authorities, roles, objectives, and expectations from public participation and these construct their attitudes towards public participation (Tosun, 2006). For example, in this case, the government perceived that the state's development projects and policies were its authorisation and responsibility. The best approach for development project management should be initiated and implemented by the government thus the government had to direct the project to be targeted. Consequently, in the government view, the level of public participation should be low and cannot control the government decision and should not apply to the decision that had already been made (Central government officer 2).

“We signed the contract on June 30, 1997 and the opposition groups were formed in November 1997. In that year, The Constitution of the Kingdom of Thailand B.E. 2540 (1997) was just enacted. This became a point that the locals were not being involved in the decision-making process for the development in the way that they wanted. It should be accepted that at that period the public participation level was low. It was just an information provision that was mainly trying to give information and make people understand about the development project rather than allow people to have a true participation in the decision-making process. This was a weak point. Every project that was initiated at that time was in the same situation” (Project proponent 1).

On the other hand, in the public's view, more than 95% of the respondents reflected clearly that although the traditional decision-making practices in Thailand were top-down and the government was the only main party who has a full authority to make a final decision of any development project; public participation should be on a higher level. The

public should have an opportunity to be involved in the decision-making process of the project especially to monitor the project operation. One leader of the villagers argued that:

“The decision was not based on fundamental and imperative information and, in particular, was missing the consideration of economic, social and environmental impacts since this project was approved before the EIA process was completed. Before any development project will be approved or planned to be in any community, the local people in that community should have a right to decide and manage their community and resources. What do we want our community to be? Do we want this project? Do we agree with the project? However, actually in practice, this never happened” (Local leader 2).

In common with this finding, public participation in China (Xiuzhen *et al.*, 2002) and Spain (Palerm, 1999c), were frequently remarkably limited, because of restricted procedures. Most policies and strategies were kept secret from the public (Xiuzhen *et al.*, 2002). One governor exploited this issue for the Hin Krut power plant project as follow.

“We had to accept that in this case the level of public participation was a bit low. It just provided the communities with information and tried to make people understand the project and accept it. It was not a true participation that gave the public an opportunity to be involved in the decision-making process” (Local government officer 2).

Therefore, for the public, the government should be more open and allow the public and project opponents to be engaged in the development project at a higher level of participation. One interviewee stated that: *“the government and the project owners could gain more accurate and useful information from more interactive participation before making any decision”* (NGO 2). Moreover, if the project had already been decided, the authorities should include this information in the re-consideration process before the new decision will be made.

“Even though the contract has already been signed; we could still reconsider it for its appropriateness. If we could not do this, negative impacts could occur. In fact, there were many development projects initiated by the government that created

unpleasant outcomes. ... If the project procedures did something wrong or were unclear, the government should bring it back for reconsidering. The policy should also be reviewed. We should have the right to do this" (Local leader 1).

Following the schema of public participation levels as introduced in Chapter 2, information from semi-structured interviews showed that the level of public participation at the beginning of the project implementation was the lowest level of participation or non participation.

"People were only being informed about the project. The government had already decided what was to be done, and allowed only a few stakeholders, such as the developer and the land owner, to be informed and involved in the first stage of the project implementation. Only the project owners planned, worked and negotiated with the government. Conversely, the local villagers in the affected area were not provided an opportunity to do that" (Villager 9).

According to Sinclair (2004), the level of participation varies, frequently seen as degrees of power sharing among stakeholders. Obviously, in this case the public did not have any. Later, after the decision was made, the local villagers in the proposed project area were finally informed about what would happen in their community. One key informant argued that: *"the local villagers did not have a chance to actually participate in the public participation forum. We just passively received information. We did not have any power to negotiate with any parties. There was no true participation provided for us" (Local leader 1).*

This result tallies with empirical evidence of; citizen participation in water management in the U.K. (House, 1999), the EIA process in waste management in the U.K. (Petts, 2003), public participation in forest planning in Finland (Leskinen, 2004) and an evaluation for sustainable river basins of different projects in European countries (Antunes *et al.*, 2009). These studies showed that the public was not directly involved in the decision-making process. The public participation process focused on gathering information from people, such as on what their concerns were about, to serve the authorities, rather than providing them an opportunity to meaningfully communicate and deliberate among different perspectives in the process and influence the outcomes. The last case also found that the

purpose of public participation was still limited to constituting an accountability of the decision-making process rather than contributing to substantive decisions and outcomes. The implications of the participation process were only at a minimum requirement level of informing the public. O'Faircheallaigh (2010) indicated that when the officers refused to share decision making power with the public, public participation would be as low as tokenism. In all cases, a true involvement and collaboration of stakeholders in the public participation process was still not achieved.

The results from most in-depth interviews showed that the public participated in the participation process at two levels; information provision, and consultation. The communication approach was mainly top-down; people were being informed about the project with information passing from the government to the public. However, the public still did not know whether their concerns and comments had any influence on the decision or not.

“Actually, in practice, our laws do not identify how public participation should be done properly. Public participation is just being seen as an approach for the public to present their opinions and concerns. However, more often, these comments were not used in the decision-making process” (NGO 2).

This statement is supported by the fact that these participants, who were stakeholders from different parties, had more opportunities to be involved in the different stages and activities of the participation programme. Significantly, they played different roles in the decision-making process. Most of these stakeholders participated at the consultation level. However, the decision had already been made, and then they had been invited to participate. The interviewees from local and central government, project proponents, and freelance researchers were involved at the consultation level while representatives from NGOs and community leaders were engaged at both information provision and consultation levels. Comparable findings are evident in research on public participation in EIA in Kenya (Okello *et al.*, 2009). It was found that the level of public participation was low which failed between the beginning level of consultation and involvement stages. In the U.K., Petts (2004) found that no British regulations called for public participation beyond consultation. Thus, no resources were provided within an authority to perform more than a minimum requirement.

In this regard, it should be realised that public participation is very important when siting any development projects in Thailand. Through effective and appropriate public participation, conflicts among stakeholders could be prevented or eliminated. The following response supported this statement.

“To be successful and to avoid conflicts and a situation when people get frustrated with the project, the authority should pay more attention to listening to people’s voices, not just going through the process. There should be a truly participative process to make people feel that when they were making comments, someone listens to them. When people could not see how their input mattered in any way, they think that it was a waste of their time. Then you would alienate people” (Central government officer 1).

Nine interviewees agreed that it was very important to push the current level of public participation, which was low, to the higher level, such as, partnership level. One interviewee recommended that:

“Indeed, we still did not have a true participation. Our current practice was just at a beginning stage and had no meaning at all. The public input was not clearly reflected in any stage of the process. For me, the developers or even the authorities just conducted public participation to legitimise their project rather than to integrate public values and concerns into the decision-making process. This kind of practice was worthless. The public needed more power to negotiate with the authorities or even had a full authority to decide what they wanted their community to be or what kind of development they want” (Local leader 1).

This finding is consistent with those of Leskinen (2004) and Okello *et al.* (2009). That is, there was a need to progress public participation from a low level to a higher level, such as, involvement, collaboration and then further to the empowerment level. Gathering information was not enough for effective participation of the public. With regard to the varied levels of citizen power in participation programmes presented in Figure 2.3, effective public participation can occur only at the high levels. Where the government is prepared to enter into a collaboration level, power may be: *“redistributed through negotiation citizens and powerholder”* (Arnstein, 1969; p.221). At the higher level of

public participation, where the public had more power to communicate and negotiate, the process could overcome misunderstanding regarding different perspectives and interests. The decision-makers could better understand the values and knowledge possessed by the public. In highest level, citizens would have a full control of all policy and decision-making aspects (Lyster, 1998; Agarwal, 2001).

Similarly, Purnama (2003), stated that public participation processes could be seen as a continuum ranging from low levels of information provision to higher degrees of involvement and decision sharing. However, Harding (1998) indicated that achieving the right level of participation and satisfying all stakeholders is difficult. Therefore, implementing public participation needs to be well planned and organised since, the higher levels of participation requires more and higher conditions to achieve which must be provided (Harding, 1998; Purnama, 2003). For example, Purnama (2003), suggested that from the lower public participation level to the higher level, public participation needed to meet with suitable conditions, such as, sufficient information provided, appropriate legislation, two-way communication with more interactive and deliberative or sufficient education and expertise of either the authorities or the public. Importantly, Thomas (1990; 1993; 1995) suggested that the degree of public participation depended on the nature of the problem, the issue involved, the characteristics of the stakeholders; some problems may demand high levels of participation while others require less. A high level of public participation is essential when the issue is controversial and needs high acceptability. This issue should be realised whenever a public participation process is planned.

Clearly, in this study, there is a suggestion of encouraging public participation to the higher levels of participation since the implementation of development projects in Thailand always face high controversy. However, regarding the relevant regulations in Thailand, the public are allowed to participation in the government's decision at only at the consultation level where the final decision is still in hand of the authorities. This is similar to the placation level in the Arnstein's ladder of participation. In the Hin Krut case, although the public perceived that their involvement was useless since the government did not clearly show how their inputs were exploited, at least, public comments were submitted and considered by the decision-makers which could imply that the authorities were aware and concerned about the public's concerns.

The in-depth interviewees agreed that local people had been entitled to participate in the Hin Krut power plant project between the information provision and the consultation levels, but the villagers were in agreement that they were only allowed to take part in the project at the highest level of information provision. This result is similar to many countries where public participation is only at the consultation level. It can be implied that the level of public participation in this case study was on the lower steps of the ladder of public participation ranging from non-participation to consultation levels. Top-down participation is the most accurate description for analysis of the level of public participation from the interviewees' experiences and views. The summary of this issue is presented in Table 5.9.

Table 5.9 Summary of Public Participation level in Thailand as perceived by the interviewees

Stakeholder groups		Public Participation Level
Government	Ministry of Resource and Environment Ministry of Industry	Consultation
	Local officer leaders and officers - Thong Chai Municipality - Ban Krut Municipality - Thong Chai School	Consultation
Project proponents		Consultation
NGOs		Between Consultation and Information Provision
Academics and experts		Consultation
Local people affected by the project	Community Leader	Between Consultation and Information Provision
	Villager	Between Information Provision and Non-Participation

5.6 Conclusion

This chapter presents results and discussion of the conflict root case analysis and public participation level of the Hin Krut power plant case. Jackson and Pradubraj (2004) argued that environmental conflict is a frequent result of a development process, in particular in implementation of development projects. From the research findings, the environmental conflicts of the Hin Krut project resulted from a number of factors including: structural

constraints, value differences, competing interests, data misunderstandings and relationship problems. Particularly, the centralisation of the environmental management approach and a lack of public participation caused low acceptance of the project. Whenever public participation is limited, conflicts will usually occur (Vatanasapt, 2001; Bureekul, 2006).

Indeed, if the situation in Thai society is not improved and the government is still practicing the conventional decision-making approach which does not encompass and support public participation concepts, there will be more conflicts leading to severe impacts. In order to effectively solve the conflict, respect must be paid to differences in societal viewpoints, interests and concerns. A disclosure of factual information of the development project to stakeholders is essential. Importantly, public participation in decision-making processes must be encouraged. This will lead to a greater chance of achieving a consensus.

In the Hin Krut case, it was found that public participation was limited to the low level of information provision or consultation. The findings show that the public was allowed to participate in the project's decision-making process at the low levels of non-participation and information. Some participants claimed that it could be in the consultation category. Although the public are now provided more opportunities in the participation process, in practice, public participation is still limited to the level that the authority wants it to be. The cabinet still has a full authority to make a final decision on the project. If the government actually realises the importance of public participation, relevant laws and regulation that enforced and encouraged public participation practice will be initiated; and, as a result the level of public participation should be increased (Bureekul, 2007).

In the next chapter, an evaluation of the effectiveness of public participation including its contributions and barriers from the case study are presented and discussed.

Chapter 6: Evaluating the Effectiveness of the Public Participation Processes

6.1 Introduction

An evaluation of the effectiveness of the public participation programme applied in the case study is an essential part of this study. It can identify the strengths and weaknesses of the programme and, moreover, the result will help to improve participation programmes in the future. This chapter aims to identify and document common themes drawn from the interviews about the effectiveness of public participation. The effectiveness of public participation, as perceived by the participants, is qualitatively analysed. The data obtained from various sources of information: in-depth interviews, semi-structured interviews, and the literature review findings, was used to evaluate the effectiveness of the process.

This information will be analysed, interpreted, discussed and applied in relation to public participation concepts using evaluation criteria developed and discussed in previous chapters. This evaluation incorporates both the participation process and outcome, as shown in phase two and three of the framework. The questions to gather sufficient data for analysis included: how representative were the participants?; how did the public input influence the decisions?; and whether the public participation process resolved the conflict. The results of the participant interviews illustrated how well the criteria were met in the process. A number of quotations are used to emphasise these aspects.

6.2 Evaluating the effectiveness of public participation in environmental conflict management

In the light of the theoretical framework set out in Chapter 2 and 3, the research aimed at evaluating the effectiveness of the public participation process for the case study. Undoubtedly, evaluation is necessary to determine the effectiveness of public participation

in terms of improving the process itself (Sewell and Phillips, 1979). In this study, an evaluation was based on experiences and perceptions of various stakeholder groups in relation to the pre-defined criteria. Three main data sources were used to evaluate the effectiveness of the programme: documents; in-depth interviews; and, semi-structured interviews. Finally, the results of this research highlight the key components of effective public participation and the factors that influence them.

In relation to the findings reported here, each interviewee was initially asked for their perspectives on how effective the public participation processes they experienced were. The interviews were mostly open-ended questions rather than a list of closed questions. The purpose was to stimulate unbiased thinking and obtain the wider views of individuals. Moreover, time was allowed to ensure that the interviewees had included everything they thought relevant.

6.2.1 Process-based evaluation

6.2.1.1 Participant activities: Clarification of goals and stakeholder roles

Clarification of the participation process' goals, stakeholder roles, and how to handle these diverse perspectives are widely accepted as critical aspects of effective public participation in project implementation in much research (Barnes, 1999; Tang and Waters, 2005; Tress *et al.*, 2005). 15 participants from the research interviews stressed that it was important to have a clear definition of the participation process in its scope, purposes and stakeholder roles in order to effectively run the process. For example, one villager argued that: *“There needed to be a clarification in terms of who the decision-makers were, what the purposes of the process were, and what they were going to do with this input”* (Villager 17). Other participant from the local communities supported this idea.

“When I thought about the participation process, one of the important aspects to be understood was what the purposes of the public participation were, what would be achieved, and then, did not forget to communicate these proposes to all stakeholders” (Villager 3).

In the Hin Krut case, two-thirds of the participants argued that they were not informed clearly about the purpose of the participation process, their roles, and very importantly, how the outcome of the process would be used. The government was not aware that it should clarify all these issues. The following is an example to support this argument.

“The participation process, in this case, such as a public hearing was set up without really ever articulating what the stakeholders or participants’ roles were. I think it was because, very often, the authorities who developed the plan for it have not thought it through. They did not clearly realise what they expected from the participation and what they were going to do with the input, such as comments. So they did not communicate it to the participants” (Villager 4).

Frequently, in organising public participation processes, unrealistic expectations and frustration from stakeholders, which might result from careless planning (Harding, 1998), could occur and might slow-down the decision-making process (Roberts, 1995). One participant explained that: *“when the purposes of the process were not clearly defined, this brought a mismatch in expectations and a misunderstanding which negatively affected the participation process”* (Freelance researcher 1). An illustration of this mismatch is below.

“We were not well informed about the purpose of the process and our roles. For us, the impacted villagers, the public participation processes were taken forward by the authorities and project owners without really ever articulating what the expectation of the process was, and most importantly, what the final result was going to be. ...they did not inform us... did not. What could we expect from the process? When we did not know what was going on; how could we believe that our participation was worthwhile? How could we believe that everything would be better? We were guaranteed nothing” (Villager 5).

One academic researcher suggested that to avoid these problems of misunderstanding and conflicting expectations from the public participation process, it is crucial to make sure that the purpose, intentions and scope of the process are clearly identified and agreed before the process starts. The following comment reflects this suggestion.

“The first thing that the organisers delivering the participation process should be aware of was what the purposes of the process were, because if they haven’t thought about what they expected or what they were going to do, they would not be able to speak to persons who would be the participants, who would give input into the process. Let’s think, what would have happened if the process was running without communicating these elements to the participants. What should the final results of the participation programme be” (Academic 1)?

Verification was presented in a study by Sinclair (2004) that the first imperative for any participation activity was clarity about its purpose(s). If a public participation process does not have clear goals, its outcomes would be partial and irrelevant to decisions (Antunes *et al.*, 2009). For instance, it is important to determine in advance whether the participation aims to educate the participants or to reach consensus over the controversial issue. Besides, different stakeholder groups have different perceptions of the goals of the participation process (Santos and Chess, 2003). These issues are significant since they have an influence on the design of the participation process.

The results of a study of participation process in Hungary (Vari and Kisgyorgy, 1998) proved that public participation would be effective where stakeholders clearly understand the goals of their participation, their role in the process and the concerned issues. In agreement, Thomas (1995) recommended that the authorities explain how different levels and methods of participation process were connected to the decision-making process. Otherwise, all the effort, time and money put into the process would be worthless since the process would be significantly affected by the frustration felt by confused participants.

One leader of the protestors hinted that: *“a public participation programme could not be effective without the sincere commitment of the lead authority”* (Local leader 2). In agreement with this finding, Thomas (1995) stated that the participants in a public participation process should not be engaged without first getting commitment including what the aims of the process were, and what the process and outcome of the participation process would be, from the authorities.

According to Sinclair and Fitzpatrick (2002) and Sinclair *et al.* (2009), providing adequate notice and fair timelines were considered as important factors for a meaningful process,

since they referred to a genuine attempt to engage as many impacted citizens and interested parties as possible, and encourage them to participate (Stewart and Sinclair, 2007). Despite this, in this study, many participants argued that they were not given fair notice and time (Villager 4, 8, 9, 14, and 17). This was reflected in the comment of a participant as follows.

“It would be better if we were noticed very early about the participation process before it was carried out. The authorities should provide enough information, and flexible time, for us to participate and make a comment on the issues. These are very important for our participation. Indeed, we had very little information” (Villager 10).

Conversely, the authorities argued that they tried to communicate all the important information about the participation programmes before they were carried out. This included the purpose of the programme, its participants, and what the expected outputs were. One participant explained that:

“As a civil servant, who was directly concerned with the public hearing for this project, I tried to make everything clear. At the beginning, when we wanted to deliver the process to the public, an important thing was to know what we were looking for. If we did not know what we were going to do or expected to achieve, we could not correspond that to the public or any stakeholders who will be the participants of the processes, as well as to who needed to be asked for an input” (Central government officer 1).

There is empirical evidence of inadequate and late notification in other public participation research (Pellow, 1999; Palerm, 1999b; Sinclair and Fitzpatrick, 2002; Diduck *et al.*, 2007). These studies suggested that the notification should be made with sufficient time to allow the participants to prepare their information to discuss and contain all important information such as background information, venue, time and date of the activities.

It could be said that before the public participation process originates, all participants should have a clear consent and understand what the participation purpose is (Praxis, 1988). This is because a clear plan of public participation containing clear aims, the

participants' roles and responsibilities, combined with effective communication in a proper time line, is an important factor to minimise confusion and unrealistic expectations from all stakeholders which could exacerbate distrust and cause dissatisfaction and frustration (Crowfoot and Wondolleck, 1991; Tippett *et al.*, 2005; Peterson and Franks, 2006). Harding (1998) and King *et al.* (1998) indicated that poor planning and execution could result in ineffective participation processes and delays in the decision-making process.

6.2.1.2 Participant activities: Educating and informing the public

Basically, knowledge is recognised as an important factor for effective decision-making (Beierle and Cayford, 2002; Park *et al.*, 2006). A number of scholars stressed that a public participation process should facilitate learning and system thinking amongst the participants (Beierle and Cayford, 2002). Although this aspect is significant, it was not fully achieved in this study. A significant number of participants argued that they did not receive any support to increase their knowledge about the issues from relevant parties, in particular the authorities and the project proponents (Villager 2, 4, 7, 11 *etc.*). One villager explained that: "*we hardly had any support from the government and the developers. No effort was made to assist us to understand the issues or alternatives*" (Villager 14).

Later, after the conflict had occurred in the communities, a series of informal and formal meetings and seminars were conducted to educate and inform the public (Local leader 1, 2). However, these activities were initiated by different parties and the villagers preferred to attend only forums conducted by their favorite one. For example, although the developers set up many meetings for the public, the opponents refused to participate.

"We set up the meetings ourselves. The meeting was organised once a week at our leader's house or the temple. From this conservation group, I was learning a lot from many parties. Our leaders gave us information about the issues, or how the project progressed. Sometimes, we got external speakers, such as academics or NGOs, to teach us in particular issues. They were very nice and willing to support us. We learned a lot from them. However, this was all done from our own endeavours. Indeed, there should be more support from the government" (Villager 14).

After attending these activities, the local villagers from both protest and support groups explained that they had a better understanding of the issues. They had widened their horizon about what was going on in their community, what was going to be built or what they were planning to do. One villager explained that: *“In the process, I also learned more about the power plant from NGOs and some academics who came to help and teach us. I learned that I had the right to protect my community, the environment and the way of life”* (Villager 2).

Confirming this issue, Vantanen and Marttunen (2005) suggested that public participation should be organised as a forum for social learning for all stakeholders. The conditions for social learning should be supported. For example, the authorities should create forums for discussion such as seminars or meetings. A study by Park *et al.* (2006) illustrated this by demonstrating that participants in conferences had learned a lot from other attendees during the sessions.

Although the supporters and the protestors mainly participated in their own activities, meetings, or seminars, they agreed that this was beneficial. One participant explained that: *“... at least they could increase their knowledge about what had happened and what the issue was about. They have raised awareness of the impacted people in this environmental problem”* (Academic 1).

In this study, a significant number of interviewees also argued that they needed to have the opportunity to develop a high level of knowledge in the subject, problems, situations, and alternatives, as well as the different perspectives and views of other parties. To support this concept, a quote from fieldwork interviews is presented below.

“We needed to be informed and educated. They (the government and the project proponents) should do that. The lay people needed to have sufficient knowledge about the issues, about the problems so that they could make a valuable response” (Villager 9).

This is similar to Beierle and Cayford’s (2002) study that when insufficient effort was devoted to educating the public, the participants would be powerless to engage in the decision-making process. According to Creighton (2005), to be an effective process,

stakeholders, in particular the affected citizen, should be provided with enough information to be able to effectively discuss and debate the issues, alternatives, and their concerns. Importantly, Graham (2004) pointed out that public participation is not only a transmission of information, whether one-way or two-way, but also is a process of learning and social construction. To make public participation more effective, Daniels and Walker (1996; 2001), King *et al.* (1998) and Jabbour and Balsillie (2003) suggested that a collaborative and constructive learning process was required. One interviewee explained that:

“A key problem was how to enable the participants to have a high level of understanding on the issues and be aware of it, as well as how to encourage a constructive process among them. Stakeholders, in particular the authorities and the citizens, needed to learn from each other as well. The factors that were relevant to the topic such as technical aspects or alternatives should be well known” (Villager 19).

One participant stated that: *“because of the time taken and the complicated approach used, the authorities and the project proponent did not begin public participation to educate people at the beginning of the project”* (Local leader 2). As a result, conflict occurred. This finding supports Omekaew’s (2001) study in that whenever the citizens do not understand their actual roles and real causes of the problems, false assumption can then make the situations more serious.

It could be summarised that, in the Hin Krut case, the participants learned about relevant technical issues and problems through their meetings and seminars which were mostly set up through their own efforts. However, this was not enough to make them feel effective in the process.

6.2.1.3 Characteristics of stakeholders: Inclusiveness and adequate representativeness

The importance of inclusiveness and representativeness of public participation processes is frequently mentioned, with many practitioners calling for an inclusive and adequate representative process (Rowe and Frewer, 2000; Anex and Focht, 2002) because complex societal and environmental problems cannot be solved by only one perspective or power

(Wagner, 1996). Likewise, in this study, more than 95% of interviewees emphasised the significance of ensuring that public participation is both inclusive and representative of the potentially impacted parties, interested parties and stakeholders in order to be effective. The following idea reflects this point.

“The participation needed to include all the various publics or parties who have a stake in the issue. They could be local people, government officers, NGOs or any interested people. Every party or individuals who might affect from the project should be involved” (Villager 16).

Although the representativeness of public participation was perceived as a very crucial aspect, a number of the villagers in the project area argued that they were excluded from the process (Villager 2, 3, 7, 9). They claimed that, either the authorities or the developers did not make enough effort to engage the right participants in the participation process. Thus, the opinions and comments from the meeting could not represent the voice of all who were likely to be affected by the project (Local leader 2).

“Both government and the project proponents did not sincerely make an effort to engage us in their forum. They did not let us engage in their participation process. They had already prepared the participants who thought in the same way as them. Importantly, some of the participants were from other communities, even from other parts of Thailand. The rest of the participants were from other parties such as NGOs or academic institutions” (Villager 7).

There was also an argument that broad participation among different groups of stakeholders and individuals was lacking. One project proponent pointed out that broad involvement could be reached by proactively engaging the people. *“If you hold a meeting or any activities, and nobody attends, then you have to knock at their doors and invite them”* (Project proponent 1). One interviewee explained that: *“... to get wider and relevant information for supporting the decision, the participation process needs to collect information from the wider public as well as the impacted citizens in the controversial area”* (Academic 1).

12 participants noted that one problem with the public participation process was that individuals or groups were engaging in the processes independently of each other. For example, the project proponent initiated their participation programme by aiming to give knowledge to people while the protest group carried out their own activities to educate their members. These groups of stakeholders had conducted their activities separately without any connection.

In this case, a large number of protestors had a more negative attitude towards the project than average people. This made most protestors refuse to take part in the participation programmes run by either the authorities or the developers and made it difficult for the government to engage all parties in the participation process. However, one participant claimed that: *“the local government did not make any real effort to encourage the villagers to work together to find the solution to this problem”* (Local leader 5). The results had often led to misunderstanding and conflict.

“We found that it was very difficult to be involved in the project. The people who were there, in the project owner’s exhibition were not true stakeholders. They were from other villages or even other provinces. We were directly impacted by the project. We should be the key stakeholders who had a first priority to participate. So at that time, there were separate participation activities. On one side was the project proponents, whilst the opponents were on the other side. At that time, the government had to do something to bring these two collections to work together” (Local leader 1).

Conversely, one officer argued that the government tried to engage all stakeholders in the process. She explained that:

“We tried to let every affected person who wanted to participate in, and we tried to give everybody a chance to say what they wanted. We only cut them off in the end when it was clear that they were repeating themselves and that we weren’t getting anywhere” (Central government officer 1).

A great number of researchers faced the same problem that the participants in the processes were not representative and inclusive of all stakeholders, for example, a study of

the EIA process in Bulgaria (Almer and Koontz, 2004), a participation in water development project in Finland (Vantanen and Marttunen, 2005), a study of citizen engagement processes on genetically modified (GM) crops in UK (Horlick-Jones *et al.*, 2007), a study of the assessment process in Canada (Hinte *et al.*, 2007), and public participation for traffic planning in Gröningen, the Netherlands (Coenen *et al.*, 2008). These studies failed to represent either demographic or attitudinal characteristics. A lack of larger and wider numbers of citizens to engage in the process limited the effectiveness of public participation from lack of inclusive viewpoints and interests, and legitimacy and cooperation from the excluded parties (Tippett *et al.*, 2005).

On the other hand, a number of other empirical researchers have identified success stories. Vari and Kisgyorgy (1998), Beierle and Konisky (1999), House (1999), Strobl and Bruce (2000), Beierle (2002), Bickerstaff *et al.* (2002), Nisker *et al.* (2003) and Wittmer *et al.* (2006) identified that a wider participation of stakeholders in decision-making was a crucial means of gaining broad support from stakeholders, particularly a public, increasing transparency, promoting greater understanding, increasing a sense of ownership, finding reasonable and broadly accepted solutions. Pretty and Shah (1997) found that local citizens who were engaged during planning and implementation of the project were more likely to continue their participation activities after the project was implemented.

However, this does not imply that larger groups are truly representative. In some cases, there is a need to select participants who have more knowledge on the issue so that they can provide more informed perspectives (Coenen, 2008b). One government officer argued that sometimes, the participation process was suitable to engage only a small number of people to obtain more precise information. He supported his argument as:

“The key issue was to include all values of the impacted community into the process. However, in practice, under some conditions, it was better to carry out the public participation and get comments from a small segment of the society instead of the entire public” (Central Government 2).

In accordance with this view, a study of public involvement in development projects in Finland found that the local activists and stakeholders close to the project formed a highly motivated steering group with high experience and expertise that could contribute benefits

to the process (Vantanen and Marttunen, 2005). However, the majority of the local residents, who were potentially impacted from the decision and living in that area, could be left without a representative in this steering group.

Engaging the public and all stakeholders in the decision-making process is also viewed as a significant component of good democratic governance (Haklay, 2003; Alberts, 2007). However, not all citizens are able to directly participate in the process. Accordingly, the selection of participants in the process is a critical issue and is always concerned with representation and fairness (Webler, 1995), by including all stakeholders and any interests that could not participate in the process (Martin and Boaz, 2000; Jabbour and Balsillie, 2003), as it is important to find out who are potentially the most affected people by the development project (Roberts, 1995). However, both in principle and in practice, an identification of, and engagement with, all relevant stakeholders and interested parties (in particular the public), and the selection of participants, is problematic and difficult to manage (Bickerstaff *et al.*, 2002; Quantz and Thurston, 2006; Prager and Freese, 2009).

An identification of relevant stakeholders could be achieved either by a top-down approach by the authorities or a bottom-up approach by the public or the third parties (Thomas, 1995). In the Hin Krut case, the attendees in the public hearing case were identified and selected by a top-down approach which seemed to engage all stakeholders; Both the project proponent and central government did not make clear who the stakeholders were and who should participate in the process. This point was raised by one of the government officers who work closely with the EIA process.

“To identify who the main affected people were was very problematic in practice. At present we only have the guideline from the relevant regulations and the EIA practice. It was difficult to say who the right participants should be” (Central government officer 1).

In agreement, Pellow (1999) and Martin and Boaz (2000) indicated that it was difficult to engage an appropriate and inclusive representative cross section of the entire community in a forum. Particularly, Thomas (1995) and Oels (2008) found that if the top-down approach was applied, there would be a risk of missing some important stakeholders or parties since the number of participants who can join the forum was limited. Martin and

Boaz (2000) identified those people who were at greatest risk of being excluded from the participation process: people of low income groups, young people, older people, members of families with disabled people, and people in ethnic minority groups. These results showed that these groups of people were willing to be involved in the process, at least passively. Horlick-Jones *et al.* (2006) suggested that people at the grass-roots level whose voice has not been heard should be encouraged to participate in the programme. This is because overlooking an engagement of poorer community member could cause an opposition to the project implementation (Thomas, 1993; Stringer *et al.*, 2006), while focusing too broad public could lead to complicate decisions (Thomas, 1993).

Although, frequently, random selection is the main approach (since this is acknowledged as a fair method for selecting the samples), in this situation, random selection may not be equitable and should be combined with other methods such as purposive selection (Ritchie and Lewis, 2005). An example of ineffective sampling procedure was found in Australia in public participation by the Aboriginal Community Health Council in health policy, which could not capture all relevant opinions of the community members (Quantz and Thurston, 2006). The sampling procedure resulted in the selection of people who had been involved with the council for a period, and who had a good relationship with them. Consequently, only positive opinions were reflected and the views of the community members who had no experience with the council were ignored.

In this study, seven interviewees highlighted that there were problems in practice when selecting the right participants due to selection criteria not being clear. They stated that the participation process should emphasise engaging local affected villagers and communities by stating that "*the authorities should engage and give the first priority to people in the impacted area*" (Villager 4). One officer explained that: "*if the villagers were directly impacted by the project development, they were more likely to participate*" (Local government officer 3). Accordingly, more than 95 percent of the lay people felt that, as they were directly impacted by the project implementation, they should have the first priority to take part in the decision making-process.

"To get support from the public, it is necessary to get data from them. However, the people whose interests could be more impacted should have more of a say about their problems than the people who were not" (Villager 20).

Importantly, a number of the interviewees argued that persons who do not have any direct impact from the project or issue should have less influence and less opportunity to present their concerns compared with the most impacted participants. As stated by one villager, “*How could villagers from another village come in and be in the same position as the villagers in this area?*” (Villager 11).

In agreement, Pratchett (1999), Dungumaro and Madulu (2003), Priscoli (2004) and Vantanen and Marttunen (2005) suggested that local villagers and stakeholders who would be directly affected by, or benefit from, the decision or development project, and were closer to the project, should have first opportunity to participate and present their concerns. Alberts (2007) found that stakeholders who felt they were excluded from the decision-making process, or whose concerns were not considered, would mount strong opposition to the project or policy initiatives and some of these could be delayed or cancelled.

Additionally, some participants highlighted that people with a stake in the issue should be involved in the process: “*whether you agree with other’s opinions or not*” (Academic 1). This was because, if the debating issue was too big, it became difficult to get new ideas and achieve goals (Freelance researcher 1). Although sometimes people abused the process by trying to deviate from the main issue or goal of the participation process, this could bring benefit to the process from these various ideas.

Seven interviewees reinforced this issue, by pointing out the significance of representation and they agreed that this could not be achieved unless the participation events were held at convenient times and places for the participants. One project proponent explained that: “*most of our activities were presented all day and even during holidays in order that working people could join our activities in their free time*” (Project proponent 2).

In Thailand, the most popular technique for public participation was public hearings in which it often proved very difficult to engage and represent all stakeholders and interested parties in a single forum. Many participants also noted they were not provided the opportunity for an appropriate attendance of the programme. One villager argued that: “*Actually, a list of people who want to participate in the public hearing was quite large,*

and I could not see that all people on the list could join the forum” (Villager 13). Another interviewee explained that:

“In my experience, there was no responsibility for everyone to attend the meeting. In terms of representativeness, a wide range of stakeholders should have an equal opportunity to participate which will result in a diversity of opinions from the meeting. People should sit and participate in the same way” (Villager 12).

There was a claim that those who participated in the public hearing were not truly representative of all affected stakeholders: the attendees did not comprise a broadly representative cross section of the affected population. One villager claimed that:

“There were only a few representatives from NGOs and the protested group. Most of the citizens who attended the hearing seemed to have positive attitudes with the proposed project. It can be said that there were not various groups of stakeholders in the hearing” (Villager 8).

In summary, an important issue to be recognised is whether different viewpoints are sufficiently represented in the decision-making process. To be effectively implemented, the project should involve as many different parties and individuals as possible (House, 1999). The appropriate representation of participants in any public participation processes is crucial and needs to be carefully considered since an inadequacy of representation will result in a reduction in the diversity of the participants in the processes, which can affect the quality of input as well as the processes (Diduck and Mitchell, 2003; Mitchell, 2005). Particularly, Schneider *et al.* (1998) and Sinclair (2004) suggested that every participant should have an equal status and right to participate, present their ideas, and evaluate the alternatives. For many reasons discussed earlier, it was difficult to claim that the representatives in the public participation process of the Hin Krut power plant were appropriate and inclusive since many affected villagers claimed that they were excluded from the process.

6.2.1.4 Method employed: Multiple and appropriate participation methods

Actually, there are numerous public participation techniques available to the authorities and the developers to engage the public in different situations (Canter, 1996; Harding,

1998; Creighton, 2005). In the Hin Krut case, many public participation techniques were employed in different stages by different parties. However, clearly, the decision was already made before any public participation programme was conducted. From the research findings, the developers did apply several participation techniques to engage and provide information to those communities affected by the project. Information brochures were distributed to communities, schools and local government offices. Nonetheless, their first attempt was to let the public know about the project and accept it, by giving information about the project and educating the public through either formal or informal meetings, or seminars in different locations. More interactive programmes such as exhibitions or open houses at their project site as well as many public locations such as the community's convention hall, the local government office or the local school were conducted later. Due to the fact that these activities were not initiated at the early stage of the project and they were conducted later when the problem seemed to be unsolvable: as a result, these efforts were not effective in resolving these conflicts.

“Indeed, we set up numerous activities to support public participation. We issued and distributed many printed materials introducing our project. We also hired the local villagers as public relations staff to communicate our project information to the local communities and set up many activities with them. Everyone who was interested in our programmes was welcome to join in our seminars, site tour, or exhibitions at our site” (Project proponent 1).

Additionally, one of the project's public relations staff argued that: *“actually, I did communicate with most of the affected villagers about our participation activities. Some of them were interested in the programme, while some refused to participate and protested against the project”* (Project proponent 2). One interviewee explained more about the participation activities provided by the developers:

“I participated in many programmes initiated by the developers in the role of both a local authority and citizen. I joined many meetings with the project proponent and the villagers. They provided many activities to give information to the villagers. I had a chance to join in the overseas field trip to the Philippines to visit the power plant there. Personally, I thought these programmes were good and the developers did well in their roles” (Local government officer 1).

From this research finding, more than 90% of the lay people in the affected communities felt that the project owners and the government did not provide sufficient public participation techniques to engage with all the people. They claimed that the methods adopted did not allow them sufficient opportunities to be involved in the processes as well as engage in the discussion. One villager claimed that “*We had less chance to ask for information we wanted since most of their activities were just passive which aimed to give us the pre-set information. We were provided with only what they wanted us to know*” (Villager 22). Most importantly, one villager hinted that most of the participation methods were not conducted at the proper stage (Villager 13). The following quotes a discussion illustrating this:

“It was impossible in Thailand that if some people want to be involved in the hearing, they can. Or if some people want to join in the open seminar, they can. We were not allowed more opportunities to do this. They just thought that we were lay people who do not have a right to shape any decisions. They thought we were only the citizens who had to accept every decision they made for us” (Villager 8).

Noticeably, public participation techniques employed in this case study were varied and could range from traditional public participation methods on an education and information provision level, to a more interactive approach such as public meetings. However, the majority of participation techniques were traditional. Thus, the public did not have more opportunities to discuss the issue and there was no appropriate means to manipulate the decision. Many affected villagers were frustrated with the participation process and their government because they felt that the process was not a participation process in which they could make any change to the decision or create appropriate dialogue. It seemed to be just a public relations activity to convince them to accept the project already approved. Clearly, in this case, traditional participation techniques had been unsuccessful in developing collaboration between stakeholders.

This tallies with Kingston’s (2007) finding that traditional methods, in particular public hearings or meetings, was always held in a fixed place or location and at a fixed time, often during office hours. Thus, many people were not available to attend. These activities could be dominated by minority groups and are often difficult for the lay people to

understand since the whole process often involves highly technical information. Importantly, these meetings could lead to confrontation among stakeholders.

Although there were many arguments expressing dissatisfaction with the implementation of participation methods, many participants enjoyed the developer's activities such as seminars, site tour and sports activities. One local villager highlighted that:

“I liked the multiple types of their participation approaches. They provided more benefits to us. I like their creative activities in particular the social activity. They made people share ideas, do more activities together. It benefits the whole society. Whenever we wanted to make input or learn more information about the power plant, we had a variety of ways to do that. They set up an open exhibition at their site for more than a month, and they also provided staff to answer our questions. They invited students and teachers to our communities to run their seminars. They did give us the information we wanted to know” (Villager 6).

Frequently, traditional public participation techniques have been criticised as ineffective approaches to engage the public (Kingston, 2007). Fiorino (1990), Daniels and Walker (2001) and Bickerstaff *et al.* (2002) pointed out that, although traditional methods were being widely applied to provide the public with an opportunity to communicate their concerns with the authority and receiving feedback, they focused one-way transmission of information from the developer or the authority to the public and the public had less opportunity to input into an early stage of the decision-making processes. Importantly, a meaningful public input is not guaranteed. The citizens do not know how their input will be used and whether it will influence the decision (Daniels and Walker, 2001; Walker and Daniels, 2001).

Although, there were many participation activities, in particular meetings or seminars, conducted by both sides (*i.e.*, the project opponent and the project proponent), only supporters for each group attended these events. The project supporters joined in the forums conducted by the developers, while the project opponents always refused to participate in the activities organised by the project proponent or even the government. At the same time the local villagers set up their own activities to educate themselves on the issues. They conducted regular meetings in their location every week and most of them

were supplied with information by NGOs and academics. One villager stated that: “*In fact, we wanted to discuss or debate with the project owners; but when we set up the seminar with NGOs or other academics, they did not come. We wanted them to be in the forum to clarify our enquiries*” (Villager 11). Another villager argued that:

“*Although I did join in some of their programmes, most of the participants were their supporters. The developers invited only their supporters. Most of the impacted villagers did not participate. We did not believe what they tried to convince us. Their information was not correct*” (Villager 4).

In the Hin Krut case, at the beginning of the conflict escalation process, the protestors called for a public hearing to make their voice heard. However, the government paid no attention to their requests. Finally, the public hearing was conducted in the Provincial Hall in Prachuab Kiri Khan province but it could not solve the problem since it was too late and the conflict was too complicated to solve. Although the public hearing was not the only technique employed to solve the problem, it seemed to be the most recognised mechanism to engage the public and solve the conflicts. There were a great number of the research interviewees who experienced this event. Some of them gave their perspectives on the positive side of the public hearing as follows.

“*From my point of view, it was a useful mechanism because it is a method for all stakeholders and interested parties to meet with one another and discuss together to find out agreements and disagreements. In the public hearing, there were a great number of the representatives from different stakeholders for instance; central government officers, local government officers, the developers, and local villagers. Different opinions were presented appropriately. I thought that was a pretty good mix of opinions. Although this vehicle did not work for this case, I think this was a good approach that had to happen*” (Local government officer 4).

On the other hand, many participants felt that the public hearing was not effectively organised and, importantly, caused more conflicts. One academic researcher pointed out one weak point associated with large public hearings whereby too many attendees in the hearing made it impractical for the organisers to allow every attendee to present their ideas, so the organisers could not accurately ascertain the representative public views

(Academic 1). Obviously, in this case, the public hearing seemed not to be an effective technique to engage the public, or to solve the conflict among stakeholders.

“Basically, the public hearing aimed to bring everybody’s input into one forum. However, you could have too many difficulties if the attendees did not sit down together, discuss based on reason, listen to other voices, and try to accept the views of everybody. Many different ideas were raised. How to manage this complex issue was still problematic. Moreover, how to make everyone pleased and accept the forum was more difficult” (Academic 1).

A public hearing is a classic example of a participation technique grounded in a traditional approach, and perhaps it is the oldest and most widely used technique for citizens to participate in governmental decision making at the local, national, and international level (Petts, 1999; Yang, 2003; Senecah, 2004). Frequently, the public hearing is the only main approach in the public participation program (Fiorino, 1990). In the Thai experience, a public hearing was a common technique which the government usually adopted to solve conflict problems in construction projects in a non-violent way (Ogunlana *et al.*, 2001). However, it was clear that frequently this technique was not successful in solving the conflict in Thai society (Nicro and Apikul, 1999; Bureekul, 2006).

On the equality issue, a public hearing hardly ever allows people to participate equally in the process with government officers and experts. This is because, normally, in the hearing, the authorities define the agenda, set up the format, and provide the information and analytical resources (Fiorino, 1990). Petts (1999) and Halvorsen (2001) stated that the structure of the public hearing process could lead to expert bias and by nature of the public hearing, attendees may not truly be the representatives of the public. In the public hearing of the Hin Krut power plant, a number of villagers claimed that the hearing committees were not neutral enough since some of them worked for, and had a close relationship with, the project proponent. Many participants agreed that public hearing committees should be neutral and allocate time fairly and give an opportunity for all attendees to express their ideas, both negative and positive (Academic 1, Local leader 1, 2, Villager 2).

Moreover, more than two-thirds of the participants from local villages claimed that the seats and the presentation time were distributed unequally between the participants. They

explained that almost all of the attendees in the hearing event were supporters. This made the villagers who wanted to be involved in the process feel that the hearing process was unequal and unfair. Thus, they boycotted the forum. The protestors sent only their representatives into the hearing. As one villager explained:

“It was unacceptable from the beginning of the hearing process. The stage could carry less than two-hundred attendees. The number of impacted villagers who wanted to participate in the forum was vast and they could not all be registered. Only the members of central and local governments, the project owner, academia, and the villagers who supported the project were booked on the stage. On that day, we went there but we were excluded. We could not get in. We were all around the hall. The seats were limited and not enough for us. Furthermore, the process was not neutral, we did not want join them. We sent our representatives to present our concerns” (Local leader 5).

One leader of the protestors, who joined in the hearing process, stated that there were limitations of presentation time for the protestors in the hearing and that the attendees from the supporters and the developer had more chances to speak. She said that:

“We wanted to express our perspectives, our concerns but we had very limited time. The representatives from the project owners and their supporters spent a lot of time talking. They had more opportunities to speak. I thought the process was offensive” (Local leader 2).

Frequently, public hearings are mandated by law; however, they can lead to troublesome rather than productive participation (Duram and Brown, 1999; Petts, 1999). It allows not only for the diffusion of antagonism, but also the assuaging of public opinions (Smith, 1984). This is especially the case if hearings are held late in the planning process, and there were no, or few, previous attempts to engage the public (Duram and Brown, 1999). As clearly presented in this project, when the public hearing was held too late, it could not resolve the dispute, and the situation became more controversial. This statement was supported by one interviewee from an academic institution that:

“In our experience, we hardly found a successful public hearing. Indeed, Thai people usually preferred to avoid conflict. However, in this case when people’s voices were not heard, they started to oppose the project. Public hearings could easily lead to confrontation among stakeholders. Importantly, the lay people were more likely not to listen to others’ concerns. Confrontation might work in a strong democratic country but not in Thailand. We were different. In my opinion, the public hearing was not suitable with the Thai context” (Academic 1).

In accordance with this finding, Arnstein (1969) had earlier distinguished public hearings as a weak mechanism for public involvement in her classic ladder of citizen participation. As stated by Fiorino (1990) and Almer and Koontz (2004), although the public hearing is a forum for discussions, it is often superficial and causes conflict over the exploration of the common ground. Petts (1999) commented that the hearing could intimidate and be prone to adversarial confrontation. In many cases, a public hearing is not the most appropriate means of engaging the public.

6.2.1.5 Methodology employed: Early involvement

When the Hin Krut power plant was first initiated, it could be argued that it was implemented without creating opportunities for local villagers to take part in project development at the right time and stage of its environmental management. A number of villagers argued that they were not given an opportunity to know the government’s plan with the local settings in the proper period. The locals knew about the project only after the government decided to launch the power plant project and the project proponent bought the land (Villager 1, 3, 4, 7, 17).

Clearly, in this case study, the employment of public participation programmes was criticised as occurring too late. The affected citizens had no chance to air their concerns or any opinions at the very beginning of the project’s implementation. One interviewee explained that:

“At the beginning, only representatives from the villagers, in particular the local leaders of the communities, were invited and informed about the power plant at the district office. Later, the leader informed the villagers this information. They set up

the exhibition at their proposed site near the sea but they did not invite us. The UPDC exhibited without directly inviting the protestors; however, they allowed anyone who was interested in the project to become involved. In fact, they invited the project supporters, students, teachers, and local government officers to join their activities. Some local villagers went there and received documents from the developers; we then know more about the project" (Local leader 5).

Due to a late involvement, there were a great number of respondents of the opinion that the public participation process must be initiated at the very beginning of a project development before any important decisions were made because the public hardly had a power to influence the decision. One interviewee gave an explanation to support this view that:

"In this case, public participation took place when the decision was already made. Whenever the authorities decide to initiate any development project, we need to know what would be happening in our areas beforehand. However, in Thailand, almost all public participation processes were an end-of-pipe type and usually took place after the decision-makers had already intellectually and emotionally decided on their position. It is not right to let us know after the decision was already made. The public did not have a real opportunity to shape any decision" (Freelance researcher 2).

As is evident in this case study, it was clear that lack of public participation in the early stage of project implementation became the critical problem. Particularly, a public hearing was conducted after a decision has been made and conflicts among stakeholders already occurred. In line with this view, a study by Chaisomphob *et al.* (2004) showed that public participation processes were usually conducted after the conflicts between project proponents and affected citizens have occurred. Smith and McDonough (2001) highlighted that early participation could help to ensure that no significant issues were omitted which could cause conflicts and costly delays if they were discovered later.

Interviewees, however, had somewhat different perceptions of the issue. For example:

“Indeed, the government had an authority to plan and launch any development project to serve the whole country. If the public are involved in the project from the beginning, these might be some controversies about the project. This could be a problem rather than a benefit” (Local Government Officer 2).

Clearly, in the Hin Krut case, the public, in particular the affected people, were given an opportunity only to receive information about the project and this occurred after the decision was made. Surprisingly, one member of management staff of the UPDC supported the fact that the public participation process did not occur at the beginning stage. He explained that:

“Although we had a public participation programme, it was not initiated at the beginning stage. This was the problem that the villagers might think that they did not have an opportunity to be involved in the development project that had a direct impacts to the quality and way of lives” (Project proponent 1).

A large number of research studies show that public participation frequently occurs too late in the decision-making process, sometimes even after the decisions have been already made (Richardson *et al.*, 1998; Palerm, 1999c; Garin *et al.*, 2002; Almer and Koontz, 2004; Depoe and Delicath, 2004; Flynn, 2008; Okello *et al.*, 2009), as evidently illustrated in the Hin Krut power plant case.

6.2.1.6 Method employed: Transparency

As illustrated in Chapter 2, many development projects in Thailand were implemented with a lack of transparency and public participation (Awakul and Ogunlana, 2002). The Hin Krut power plant project was planned and implemented in the same manner. This practice led to conflicts among the project’s stakeholders. As a result, public opposition emerged. One leader of the villagers added that:

“For me, it was very important to know how my concerns affected the decision. It would mean nothing if people present their ideas, but nothing happens, like happened in this case. The government should make it clear. I thought that the conflict occurred due to an ambiguity in the government’s decision-making

process. We walked away from the process and did not trust the government because we couldn't see any change from our involvement" (Local leader 2).

Importantly, evidence from the survey showed that, most interviewees (97% of the respondents) argued that this concept was not fully met in this study. *"One thing that I think was very important but that was not really found in this case was transparency. We need to know what would be happening in our areas beforehand" (Villager 15).*

Correspondingly, Bengston and Fan (1999), Phongpaichit (2001), Smith and McDonough (2001), Diduck and Mitchell (2003), Stagl (2006) and King Prajadhipok's Institute (2007) suggested that to solve this problem, the government should increase transparency by disclosing pertinent information to the public, and conducting public hearings or any participation techniques to establish people's opinions prior to commence a policy or any decisions about the project being made.

In point of fact, 21 villagers in this study stated that their government and the project owner were not honestly attempting to solve their problems and did not pay attention to their concerns, as reflected in the following comment:

"We were not being paid attention to at that time. The government ignored our distress, our problems. In fact, there was no sign to show that the authorities paid any attention to our opinions. Nonetheless, they just tried to go through a process without having any intention of listening" (Villager 14).

In line with these research findings, there is considerable empirical evidence of implementation of public participation processes having similar problems concerning a lack of transparency. For example, research on public participation processes, in local transport planning in the UK (Bickerstaff *et al.*, 2002), in the EIA system in Italy (Furia and Wallace-Jones, 2000), in the environmental assessment in Canada (Diduck and Sinclair, 2002; Hinte *et al.*, 2007), in an application of the SEA Directive (Theophilou *et al.*, 2010), found that the decision-making and public participation processes failed to demonstrate transparency.

More than 95% of local villagers and all of the respondents of the in-depth interviews stated that it was crucial to know how the public's input was used and influenced the final decisions. However, "*if this input was not used, a rational reason must be given for why it was not applied*" (Freelance researcher 1). Clearly, in this case, the local villagers were not informed as to their concerns were considered and applied, as stated by one villager: "*I think it should be better if the government made sure that our input was used and feedback the result to us*" (Villager 9). A supporting statement was captured in the quote below:

"What I perceived as good process was that where possible, any information from the public must be actually used and the public must be able to see how it was integrated in the final decision. The authorities could be able to explain that this input was incorporated or not incorporated in the decision process. However, this did not happen in this case. I could not see how the input was used or reflected in the decisions. No one explained to me what points they made and what use was made of our comments" (Local leader 3).

Additionally, a number of participants in the Hin Krut case indicated that, to be transparent the public should be able to follow the participation process including a clear consideration of the results of the input collected from the process. To achieve this, one participant stated that: "*The key thing is accountability. In particular, there should be more transparent links between the public's input and the final decision outcomes*" (Villager 8). For example, a number of the public hearing's attendees argued that they did not receive any result of the hearing from either the public hearing committee or the government. One stated that:

"To track that your views were heard was a good strategy. However, actually, this practice did not manifest in any reports of any participation activities. We were not only unable to see how our input was used, but there were also no follow-up processes that the villager could trace the progress" (Villager 10).

For this reason, most villagers perceived that the process was not transparent. These attendees also identified that they expected to receive information about the hearing results, the progress of the project, and the follow-up process.

“For me, I could not say that the participation process of the Hin Krut case was transparent. There was no follow-up process to ensure that appropriate and relevant information from the public was actually used in the decision-making process as well as how it was manifested in the final decision. For example, after the public hearing event, there was no summarised report circulated back to us. No feed back at all” (Villager 5).

Confirming these concerns, Schneider *et al.* (1998), Martin and Boaz (2000), Bickerstaff *et al.* (2002), and Fiorino (2006) stated that a result of participation should be explicitly reported and demonstrated. It was very important to provide feedback to participants about the decisions made and why, including what would, or would not happen. Raimond (2001) suggested that the public needed a follow up process on their inputs to ensure that their concerns were considered and incorporated in the decision-making process. Through this practice, the public will view the process more transparent and acceptable.

Based on the earlier discussion, it was clearly found that the public participation process in the Hin Krut power plant project has not satisfied the transparency criterion. Most interviewees, (25 local villagers and 19 in-depth interviewees), strongly agreed that the public participation process should be run with transparency and accountability. As stated by one freelance researcher:

“Indeed, the public participation itself needs to be transparent and inspire confidence. What is meant by a transparent process is that the appropriate and relevant input from the public must be actually exploited in the decision-making process, when it was practicable. An input needed to be checkable, and balances in place, to make sure it was really taken into account in the decision-making process. Moreover, this input should be applied in the final decision. But if this input was not used, there should be a reasonable reason why it was not applied” (Freelance researcher 1).

This assumption was evident in a number of studies (Webler and Tuler, 2001; Abelson *et al.*, 2002; Hamilton, 2004; King Prajadhipok's Institute, 2004; Hartley, 2006; Primmer and Kyllonen, 2006; Russell and Hampton, 2006). These studies found that the development of openness and transparency with the public was a central theme to effective participation

process. These could build trust, increase awareness of rights and responsibilities, generate respect for diverse perspectives, accept individual's actions, resolve conflicts, and develop the relationships between the developers and impacted communities surrounding the project site. If the participation process was credible, transparent and legitimate, the policy or the project would be smoothly implemented because it would be more accepted and increase public satisfaction with decisions. Importantly, in order to be a transparent and legitimate process, the participation process needs to be respectful to the public and open at every step. It could be said that transparency is an important factor to achieve an effective participation process which needs careful consideration and implementation in the Thai context.

6.2.1.7 Method employed: Two-way communication

Fundamentally, in public participation processes the information exchange spectrum has two-sided flows (Creighton *et al.*, 1981; Aasetre, 2006). One side is a flow of information from the government or project owners to the public, such as an update of information on a proposed project and its options (Creighton *et al.*, 1981), while the other is a flow of information from the public to the government (Coenen, 2008b). A pattern of communication between key stakeholders is influenced by many factors such as a distribution of power and conflicting interests (Aasetre, 2006). As presented in this case, regarding a decide-announce-defend strategy of the government, the Thai government did have the absolute authority to make a decision. The developer had more important roles than other stakeholders, while the public, particularly the affected villagers, had less power in negotiating with other parties. The communication was mainly a one-way approach from the developers which was based on inappropriate time and dialogue. A limitation of public access to official communication channels and forums was noticeably predominant.

Indeed, the project owners produced and circulated printed materials about the power plant structures and processes, along with other important information such as its pollutants and how to reduce and control their release, to the local agencies and lay people, but most of the impacted villagers still refused to receive and study this information. Just a small number of the local villagers received this information and studied it. However, some participants said that the provision of this information was

limited and contained only positive information about the project (Villager 4, 5, 7, 17). One villager stated that:

“In fact, we received much information from the project proponents; however, it was only a good side of the project. We just received the information they wanted us to know. We did not have too much chance to gain what information we want as well as discuss and present our ideas” (Villager 8).

Additionally, 76% of the villagers argued that in many forums, such as the public hearing, seminars or exhibitions at the project site, most participants comprised the supporter groups as they had more chance to be heard and be listened to, than the protesters. One respondent stated that:

“Actually, in participation activities, there were hardly any opportunities for the participants to discuss in two-way communication approach. Although we had some chances to present our ideas and ask some questions, we still felt that we did not have a real opportunity to engage in discussion. Our questions were mostly ignored. Moreover, many forums were full with the project supporters and they always had more chance to speak” (Villager 7).

This might be because both the government and developer wanted the public to be a passive stakeholder, relying on only the information they provided and accepting what they have decided for them. Comparable findings are evident in studies of public participation in the EIA system in Italy (Furia and Wallace-Jones, 2000), and Spain (Palerm, 1999c).

Around two-thirds of the participants expressed their views about their desire to see participation processes which conveyed a two-way flow of information as well as encouraging open discussion and debate. They claimed that although the project proponent provided opportunities for the public to ask, discuss and debate relevant issues about the power plant, they still felt that the process was not fair and open.

“When we attended the public hearing or seminar, we tried to ask the lead organisation some questions but we never got an answer or any clear solution.

Especially, in the hearing, we sent our representative to participate. When they issued any enquiries about the project, in particular a negative side, our questions were almost neglected" (Villager 13).

A few participants also commented that in the participation processes, the participants' abilities to communicate and participate were different. They claimed that the lead organiser should be more aware of these differences and try to persuade individuals to present their ideas and participate in an effective manner. The following illustrated this:

"In the meetings or seminars conducted either by the project owners or NGO groups, the villagers were not considered because they lacked the ability to communicate and discuss the issues. We did need someone to support us to present our idea in a meaningful way. We needed to explain our concerns directly and correctly" (Villager 2).

Importantly, more than two-thirds of the villagers argued that to achieve effective participation, the forum needed to have a fair facilitator or committee in initiating, conducting and maintaining the process to be fair and to have two-way communication.

"The authority should encourage the participants to discuss and debate in a two-way information flow approach. The project owners and the government had to receive information from the public and provide important information to them. Moreover, the public should not only be provided information, but it should also be given an opportunity to discuss and debate the issues. This approach would essentially allow people to make points and challenge other's opinions. Most importantly, a good and fair organiser was needed in order to lead the process and people in a constructive manner" (Academic 1).

Although, in some cases, a participation process utilising one-way communication and traditional approaches could be effective, for example, the case study of Australian water saving (Coenen *et al.*, 2008), a great number of studies on public participation in different fields showed strong evidence to support that good two-way communication could provide a high level of, and more effective, participation (Beierle and Konisky, 1999; Duram and Brown, 1999; Palerm, 1999b; Strobl and Bruce, 2000; Beierle and Cayford, 2002; Jones,

2002; Abelson *et al.*, 2003; Bond *et al.*, 2004; Hamilton, 2004; Leskinen, 2004; Stringer *et al.*, 2006). Allowing the public a chance to take part in two-way communication with all stakeholders allows the participants to learn other's perspectives, adjust their preferences and create shared moral values.

To consider information exchange and learning in this case study, it could be said that there has been partial success. From this finding, all practitioners and scholars should bear in mind that participation processes should not be one-way communication from the government to its citizens or the citizens to their government, but should instead involve collaborative and two-way communication which not only engages the impacted citizens, but also all pertinent stakeholders and allows every party to interact and influence each other independently. Highlighted by Canter (1996) and Innes and Booher (2004), effective participation was the process where communication, learning and action were evolved properly.

6.2.1.8 Availability of resources: Resource and information availability and accessibility

Principally, information is a fundamental element of a well designed participation process (Abelson *et al.*, 2007). In this study, 97% of the villagers claimed that they did not receive accurate information and found it very difficult to access and gain all relevant information. A number of factors which can be seen as having an influence on the value of the information were identified based on the participants opinions and relevant literature including accessibility (Abelson *et al.*, 2002; Sinclair and Fitzpatrick, 2002), sufficiency and correctness (Fitzpatrick and Sinclair, 2003; Creighton, 2005; Stringer *et al.*, 2006), comprehension (Creighton, 2005; Stringer *et al.*, 2006) and presentation (Vanderhaegen and Muro, 2005).

Accessibility

There is an increasing demand for public access to environmental information (Haklay, 2003). In this research, more than 95% of the affected villagers highlighted that one of the weaknesses of this case was that the local people had difficulty accessing all data and information related to the project, maintained either by the government or the project proponent. A number of villagers confirmed that: "*in this case, full access to information*

was problematic” (Villager 2, 7, 8, 11, 14). One villager explained their difficulty in accessing the project information as follow:

“We had requested for an EIA report for a long time, more than one year, I think. Finally, we had got it. Unfortunately, it was written in English. How could we understand it, when most of our villagers graduated from primary school? We asked for a Thai version and requested the authority to translate it for us. We spent another one year to receive the report in Thai” (Villager 2).

Similarly, an access to information was found as a key problem in a number of participation studies (Sinclair and Fitzpatrick, 2002; Diduck *et al.*, 2007; Okello *et al.*, 2009). The findings showed that information was difficult to access either in terms of readiness or physical access and often too late in its arrival since some screenings decisions were already made before the public attained the information.

A number of villagers and stakeholders indicated that the extent of accessible information for the development project needed to be more widespread. They called for convenient access to all relevant information because they believed that this was critical in determining the quality of their involvement. One villager stressed that: *“indeed, information needed to be available to public. We wanted the authorities to provide us with sound information”* (Villager 20).

“We needed to be able to fully access all relevant information in order to proactively participate, and also had more knowledge about how complex the issues are. We had to search for things we want. We went to ONEP in Bangkok many times until we could get the EIA report. This was just one example. In fact, almost all relevant information about the power plant we had to find by ourselves. The government or even the project owners should have provided this to us, but they did not” (Villager 4).

These findings support Tippett *et al.*’s study (2005) that stakeholders needed the information to be more accessible to a wide range of the public. Owen *et al.* (2008) indicated that it would be better if the public could work with the authority to control and use the relevant information to meet their needs. Particularly, Petts (2003) suggested an

assessment of the environmental impacts of any plan or development project to be open to the public.

Additionally, a great number of local villagers complained about the inappropriate roles of these government bodies in that they did not gain any support from them. One villager said:

“I expected to receive good support from the officers who should stand on the side of people. Conversely, we were not supported in any way. We had to do everything alone. I expected the government officers to tell people what’s going on in our community, or what would happen to us if the power plant was here. They should provide us all necessary information and how to access it” (Villager 19).

Sufficiency and correctness

From the interview data, most interviewees from local communities claimed that they were not provided with sufficient information, in particular relevant information about the project. Thus, they felt that they did not have enough information to effectively discuss the problems or achieve an informed position on the issue. They stressed the need for sufficient information, including information sharing. This was shown in the quote from an NGO interviewee:

“If we were given appropriate time and information before we participated in the forum, I thought the villagers could deal with any kind of consultation. For example, after the EIA report was revised, the OEPP invited stakeholders including the developer, impacted villagers, and NGOs to have a meeting to review this second report at The Century Park Hotel. Actually, if you have to make comment on any report and have to prove whether all information is correct, you should have that information beforehand. In particular, a technical issue basically needs more time for consideration. In this case, I did not receive any information from them. I got information on that day. As a result, I could ask them only one question” (NGO 1).

It could be seen that information in this case was deficient and could not reduce misunderstanding and increase cooperation in the project. Empirical studies by Huttunen

(1999), Sinclair and Fitzpatrick (2002) and Diduck *et al.* (2007) showed a similar finding of poor and insufficient information, particularly project information.

Importantly, one scholar highlighted that in order to increase the public's knowledge and understanding, the public requires sufficient information which is relevant and accessible (Academic 1).

“If you are willing to meaningfully engage the public, you have to provide them with all the necessary information. You need to share information with them. How can the participation be legitimated, if the information can not be accessed or shared” (Villager 18).

In agreement with this finding, Creighton *et al.* (1981), Lenaghan (1999) and Stagl (2006) indicated that people could not effectively evaluate the problems and alternatives unless they were provided with appropriate and sufficient information, in particular, related to the development project and its consequences.

Importantly, many affected people argued that information presented by the project developers contained only the positive contributions of the project and some were inaccurate. For example, there were some mistakes in the EIA report. There was an error in estimating the number of fish species in the impacted area. The existence of coral reefs was dismissed. This made the villagers feel that the basic information was incorrect and they questioned whether they could trust other information provided by the government and the developers (Villager 4, 5, 7, 19). Similar mistakes were found in the study of the EIA system in Canada (Sinclair and Diduck, 2001) and Bulgaria (Almer and Koontz, 2004). In their study, the authorities did not successfully ensure that the EIA report contained all accurate and complete information. In the Bulgarian case, inaccuracy in addressing national and international laws and conventions protecting rare and endangered species was pointed out by NGO groups.

Comprehension

While there was a crucial problem over the lack of information provision in this case, there were contentious issues with the information provided. As one villager stated: *“before involving the public in any participation programme, it was important to make the*

villagers precisely understand the project. People should know, first, what the project was and what the importance was” (Villager 2). In this study, a number of respondents claimed that almost all information was too technical and difficult to understand (Villager 2, 11, 14, 23). 20 local villagers indicated that, in some situations, they needed assistance from the government bodies or other institutions in interpreting some technical information and documents to enable them to understand the issues more effectively. They argued that they need to understand the relevant information to gain the highest benefits (Local villager 11, 20, 27 etc.). The following quote illustrated this claim.

“One barrier to clearly understanding the project information was that it contained technically dense information. The project was about a coal-fired power plant. Its major activities concerned high technology in its activities and consequent impacts. How can we, who just are lay people and graduated from high school, comprehend this scientific data? We did need assistance from the authorised bodies but we hardly got it” (Villager 2).

This issue was found as a critical problem in many studies. For example, research on public participation process by Huttunen (1999) and Sinclair and Fitzpatrick (2002) found that more often the information about development projects contained more technical and scientific information which was difficult to understand. O'Faircheallaigh (2007) suggest that the authorities should provide the public with sufficient technical or scientific information required to participate effectively.

However, in contrast, five villagers thought that the project's information did not contain too many technical and difficult terms. One leader of the community claimed that:

“I did not think that all information was too technical and difficult to understand. We can make it more comprehensible. Use simple words to make lay people easy to get along. However, we do need support from relevant organisations” (Villager 10).

Pellow (1999) found that the public, particularly the environment movement groups, often needed assistance in interpreting technical data, legal statutes and other relevant information. In agreement, Laird (1993), Kinsella (2004), Stringer *et al.* (2006) and Okello

et al. (2009) consented that the public needed a broader and more critical understanding of the problem and technical issues at hand. They should not only be provided all relevant information, they should also be educated to understand the problems, interpret and analyse these data, in particular the technical information, in order to be able to efficiently use this information in the way that enables them to effectively participate through integrating the information with their knowledge and assessment criteria. Indicated by Haklay (2003), people were interested in access to interpreted information, which was more understandable and related to them, rather than raw data.

A great number of affected villagers pointed out that for them, who did not have any degree, the use of English was their constraint and they needed support in translating (Villager 6, 14, 20 *etc.*). Many affected people felt that they were not adequately expressing their perspectives since they could not fully understand information presented in English and technical terms. The following quote demonstrated the significance of the use of language.

“Most information about the project, in particular an EIA report, was in English. We could not understand it. I graduated from high school. Not only me, most of us, the lay people graduated from high school. How could we understand the English report over several hundred pages?” (Villager 11).

This finding supports a study of environmental assessments in Kenya by Okello *et al.* (2009) that language was an important device that influences the participants' ability to understand information. When English was not the first language in that community, frequently the message was missing because of inadequate interpretation. This limited stakeholders' abilities to meaningfully participation in the process.

Presentation

In this study, two-thirds of interviewees had some experience of poor public presentation in the EIA findings. More than 80% of local villagers expressed that the project information, in particular the information about the power plant processes and their monitoring programmes, was not illustrated in an understandable pedagogic format which made them difficult to understand. One villager stressed that:

“Actually, not only was the information about the power plant, environment and marine geology too technical, its presentation was also problematic. The information was not well presented. Some information contained more descriptions which needed special technique to make it easier to understand. The villager found it was difficult to understand the contents, such as the process diagrams, or the by-product from the plant’s operations” (Villager 5).

An empirical study by Vanderhaegen and Muro (2005) showed a similar finding that a number of people experienced difficulties to understand the spatial data in the EIA reports. They suggested that the results of the EIA study should be presented in an understandable format to the public and without technical background.

These people highlighted that information should be well presented in order to get lay people interested and to facilitate comprehension. The following quotes stress the significance of good presentations.

“The authorities should focus on the process of selecting, synthesising, and presenting all relevant information in order to prevent misunderstanding which may occur to people who have little knowledge about the subject. In particular if this information was too technical and difficult to understand, it should be presented in an appropriate format and easy for all stakeholders to correctly understand. If the information is well presented, the local villagers would find it easier to understand. And it would be beneficial to everyone” (Academic 1).

According to Abelson *et al.* (2004), the best available information did not guarantee its understanding or acceptance by the participants. In the same way, Wiedemann and Femers (1993) indicated that information about the project should be simple, easy to access, transparent, reliable and trustable. Significantly, this information should cover the benefits, disadvantages, costs and technical fields of the project. Nykvist and Nilsson (2009) suggested that scientific and technical knowledge should be communicated and presented in a less complex format.

Based on different backgrounds and experiences, people interpreted and recognised information in a different way; it would be useful to use multiple techniques in order to reach the participants when presenting data. This issue was introduced as:

“Actually, people learn differently. Some people prefer watching, so using video or a movie presentation is better; others may learn by reading or questioning; an exhibition or a seminar is also appropriate. It is important that the information should be presented using a variety of techniques” (Academic 1).

Timing and venue

Not only is sufficient information crucial for effective participation, but the appropriate time allowed for all stakeholders to study and comprehend the information is also significant (Creighton, 2005). For example, in this case the public hearing was organised on a working day. Thus many people were not available to participate. Many interviewees of this study expressed how the timing of these aspects could be important to participants when they were trying to participate in the process. This point was identified in the following statements:

“In this case, we were not given lots of notice and time to access, think about, and discuss with others, especially project owner organisations. We did not receive an appropriate notice from the authorities. For example, the project owners set up the open house at the power plant site for a month, we were lost in communication. They told only the supporters, not the protesters like us. We had to find out information we needed by ourselves” (Local leader 4).

In support of this, 34 respondents also argued that to be allowed to have fair timelines before any participation activities; they should have adequate time to collect, receive, and review all relevant information to take part in a meaningful discussion or deliberation over the issues that concerned them. One villager stated that: *“It would be better if we had more time before participating in the hearing. At that time I was notified just a few weeks before the event. I did not have enough time to examine the issues”* (Villager 6).

Additionally, fifteen respondents expressed that not only is the timing of the beginning of the participation process important, but the appropriate time for the villagers to evaluate the information is also essential. One villager claimed that:

“Time to study and review information of a huge project like this power plant was certainly important and needed to be sufficient for the participants in every participation process. We did need more time to find out whether it was good information or not. At that time, we did not have enough time to do that” (Local leader 3).

A similar problem was manifested in studies of public participation process by Lenaghan (1999) and Furia and Wallace-Jones (2000) which showed that, in practice, the time was limited for creating the public comments. People did need adequate time to produce their input and make a discourse before the decision has to be made.

Turning to the Hin Krut case, the facilities, especially some locations to conduct the participation programmes, were inappropriate. For example, a place for conducting a public hearing, the convention hall, was too remote and too small to accommodate all registered stakeholders, in particular, the affected people. This point was supported by one villager who argued that; *“The hearing took place at the provincial hall. It was not suitable and convenient. It was too small for a massive number of people who wanted to join the meeting”* (Villager 17). Besides, the hearing was located in a well-respected place, which many ordinary people felt uncomfortable to enter (Villager 25). A study by Nadeem and Hameed (2008) agreed with these conclusions. They found that the venue for the public participation programme should be convenient and accessible for the directly impacted lay people who often lived in remote communities. Okello *et al.* (2009) suggested that meeting a public in their local places where they could carry on their livelihoods is more convenient to them rather than formal places such as hotels.

Taken as a whole, in this study, a large number of interviewees considered that provision of resources was insufficient and unsatisfactory. Most relevant information was difficult to access and not available to the public, for example the EIA report. The lack of a wide and inclusive distribution of project information was criticised as a main reason for irreconcilable views. In this study one interviewee highlighted that:

“The success of public participation depends on how well public participation techniques were employed. It meant that time, duration, venues and methods, and public relations were influential factors in the success of public participation activities which should be carefully planned and managed” (Freelance researcher 1).

This finding is similar to that in a study by Tippett *et al.* (2005) that insufficient provision of time and resources could be major barriers to effective public participation. The importance of a provision of sufficient resources was reinforced by a number of scholars, such as Schneider *et al.* (1998), Vari and Kisgyorgy (1998), Lenaghan (1999), Sinclair and Fitzpatrick (2002), Haklay (2003), Coenen (2008b), Antunes *et al.* (2009) and Theophilou *et al.* (2010). They agreed that the participants should be given the appropriate time and resources, in particular rich information related to the issue and the public’s concerns, in order to make them be able to consider, debate, discuss and clearly understand the various issues before they participate and make a comment about the project.

6.2.2 Outcome-based evaluation

6.2.2.1 Results of participation programme: Impact and influence of participation

When thinking about effective public participation, one basic issue which is often considered is whether the information from the public is used and implicated in the decision (Nadeem and Hameed, 2008). As clearly presented in this case, the public input and their participation hardly influenced the decision-making process of the government. The outcomes of the participation process were not obviously brought into the decision-making stage. 95% of the villagers felt that their inputs and concerns were not reflected by any adjustment to the decision. One villager said that:

“I did not think that my input was being considered and my participation would have value in the decision-making process. The decision had already been made before the authorities asked me to give any comments. It has to have an essence of being able to make any change in a project” (Villager 8).

This problem also was apparent in participation practices in many countries, for example, case studies of public participation; of a hydropower station in Finland (Huttunen, 1999), in local economic development in Wales (Raco, 2000), of public hearings for EIA projects in Bulgaria (Almer and Koontz, 2004), in the health service in the UK (Barnes *et al.*, 2005), of hydro development in India (Diduck *et al.*, 2007), in traffic planning in the Netherlands (Coenen *et al.*, 2008), and in the EIA system in Pakistan (Nadeem and Hameed, 2008).

Clearly, in this case the government initiated the policy in a traditional approach which often did not get support from the affected communities. One leader of the villagers explained in more detail that:

“Typically, to effectively engage the public in a participation programme, people must be given an opportunity to participate at any level of their interest by different formats of methods. However, at that time, we did not have more occasions for doing that. We mostly received only supportive information on the project. We needed true participation in which our participation was empowering. Our concerns should be visible and reflected in the outcomes of the process or the final decisions” (Local leader 4).

Key-informants from the leaders of the local villagers claimed that the decision-makers at central level did not have any intention to encourage public participation in any form (Local leader 2, 3 and 4). Some argued that this is because: *“they did not want to distribute their power to the local people, or even the local government bodies”* (Local leader 4). Another interviewee claimed that: *“the political power was limited to elite actors only, and institutions such as the central government”* (Freelance researcher 1). Additionally, one interviewee commented that: *“the public administrative system in Thailand was too bureaucratic to respond to the public’s needs effectively and efficiently”* (Local leader 3). Interesting statement in this issue is explained by one officer that:

“I was a local government officer in Thong Chai District Municipality two years after the project was initiated in this area. I had to participate in the meeting all the time as a chairman and a local officer authority. However, the decision-making was not my authority: I just had to do my job following the central

government direction especially the Cabinet Declarations. The Cabinet had already approved the project. I'm a local government officer: I had to obey this statement and allowed the developers to do their business" (Local government 1).

This finding confirmed Klein's study (2003) that, in Thailand historically, there has been a strong central government which has precluded the emergence of effective and autonomous institutions at local level. Other institutions in society were excluded by the nature of the Thai culture in power distribution and decision-making process (Vatanasapt, 2003; Bureekul, 2007). This aspect is a critical barrier to an implementation of public participation in Thailand and leads the local people to involve themselves in their own affairs.

According to Simonsen and Robbins (2000), when people feel that they were unable to influence the decision-making process, or even the administrative process through the participation programme provided, such as the public hearing, the affected citizens might choose to participate in direct action such as a protest or a blockade of the project to make their voices heard. This was evident in this case as the impacted villagers found that their involvement was too late in the process to have any impact on the decision or even make any change to the project, so they preferred not to participate in the government's or the project owner's participation processes. Instead, they set up their own protest activities.

"In reality, everything was done. The decision was already made. The government wanted the power plant to be here, in Ban Krut, in our hometown. They did not listen to us. Thus, we had to protest to get our voices heard. We began our own actions. The government must have reasons to stop our protest, but, they have not" (Villager 5).

Eight interviewees mentioned the importance of follow up processes in order to trace how the public input is used.

"In fact, I did not know how my concerns were used. The government officers and the project owners did not feedback any progress in any way. I really did not know what the hearing was set up for. For me, I think it should be better if the authorities or the project proponents really used this information and also

informed us what use of my input was being made. There should be a direct channel, like a listening process which from our voice can be traced. If I had already made a comment but I could not see its reflection in any way or nothing happened, it made me very upset and did not want to join in the process" (Villager 10).

This statement agrees with studies by Vari and Kisgyorgy (1998), Strobl and Bruce (2000), Beierle and Cayford (2002), The Office of the Deputy Prime Minister (2002), Vantanen and Marttunen (2005), and Russell and Hampton (2006) which highlighted that, when designing participation activities, it is important to ensure that it was made clear to the participants how their input would be reflected in the decision or plan and what they could expect as a result of the consultation. Nadeem and Hameed (2008) stated that the participants should be informed how their concerns shaped the final decision.

Besides, many participants mentioned that they should be informed about the level of the influence on the decisions that the authorities should communicate clearly how the input could be used in order to avoid any difficulties that could occur with misrepresentation. This statement was supported in the following quotes.

"No one told us how our input could impact the final decision. We did not know what they were going to do with our comments or how we could stop or make any change to the project. Particularly, we did not know anything changed about the project after the hearing was conducted. We knew nothing at that moment. They just wanted to end their process without really intending to listen to our problems" (Villager 8).

Conversely, the local authorities argued that they supported the public being involved in the participation process and listen to their voices. One local officer explained that:

"We did provide many participation activities for the public. However, the format of participation might be more indirect and passive. This might not meet their need and strongly support them to have their voice heard in the decision-making process but we did try our best" (Local government officer 2).

Not surprisingly, on the other hand, some of the representatives from the central and local government agencies argued that: “*there was no point in engaging the local people in the decision-making process of environmental management since the lay people are not ready for this*” (Central government officer 2). They claimed that local government agencies, in this case Thong Chai Municipality, could implement their own decisions. Since the head officers and committees were selected by the local villagers, it was implied that the role of the local people in local affairs had increased (Local government officer 1).

“To have an impact on the decisions needs more educational skill. When you recommend a policy or strategy to follow, you must have an ability to implement it. If people are not ready in terms of their education or knowledge, they cannot implement any suggestion they initiated effectively. It is important to know how logical your recommendation is” (Central government officer 2).

A similar finding was apparent in a study by Coenen *et al.* (2008), where citizens were not authorised to make decisions on policy, as the final decisions were still made by representative democracy. Indeed, people wanted to see their input influence the decision, while the officers did not have high expectations of the value of public inputs. A study of public participation on waste policy in Ireland showed that although a summary was distributed to participants, the report did not appropriately present the concerns of stakeholders (Flynn, 2008).

Indeed, in Thailand, only after the enactment of the 1997 constitution (this was the first constitution that introduced the concept of public participation into Thai society) did the lay people realise their rights in protecting their communities and environment and use their rights employing their own methods. One leader of the affected villagers stated that:

“The 1997 constitution does permit the local people to participate in environmental management. The citizens have the right to protect their resources and environment. However, in fact, we did not have any opportunities to have any inputs to environmental management at both central and local levels. Only well organised and economically powerful groups, such as the project owners, had impact on the decisions, especially in the environmental development project” (Local leader 2).

In agreement, Haklay (2003), Coleby *et al.* (2009) and O'Faircheallaigh (2010), indicated that the stakeholders, in particular the affected people, need more opportunities to express their views and concerns and needed their input to influence the decision-making process. Sidaway (2005) stated that, from a democratic perspective, the citizens who might be affected by the decisions and development projects should be involved in what concerns them. This is in accordance with a central theme of public participation that the citizens can contribute directly to the decision-making process that affects their rights (Clarke, 2008).

Additionally, some participants reinforced the importance of a rationality of the decision and that they wanted to see the decision based on reason. They revealed that they could accept a decision they did not agree with if the decision was logical; one villager stated, "*I think if there is a rational reason to support what has been chosen or has been done, it would be easier for me to understand and accept it even if I did not agree with it*" (Villager 11). Although the final decision was to stop the project, slightly over half of the affected villagers argued that they were not informed of any rationale for this decision by the government. There was no obvious evidence to show that this decision was influenced by the public input since the Prime Minister announced the decision without any reasonable justification.

In the Hin Krut case, a great number of participants argued that they should be directly involved in the decision-making process and they were very sensitive to the questions regarding the influence of their participation. More than 95% of the participants were adamant that in the public participation process, the public needed to have a genuine opportunity to be heard and influence the final decisions. They wanted the information, in particular their opinions, from the participation process to have influence on the decision-making process. The following statements reflect the stakeholder views on influence.

"There should be a real opportunity for us to influence the decision, even though, in fact, we did not have any. This contribution is really needed. The implication should be that the participation occurs throughout the entire decision-making process, so that people would know how the problem was defined, what alternatives were considered, how they were evaluated, and which alternative was selected. However, this did not happen in our case. What can we do when the

government was already intellectually and emotionally locked into their answer”
(Villager 9)?

Similarly, to improve and facilitate the public participation process, Hendry (2004) suggested that the voices of people who were ultimately left with the environmental consequence of the government’s decision must be recognised. In agreement, Simmons (1994), Petts (1995), Bond *et al.* (2004), Mitchell (2005), Okello *et al.* (2009) and O’Faircheallaigh (2010) suggested that, to achieve effective participation process, stakeholders, especially the public and the local groups, should be empowered and have a real influence in the decision-making process, in particular a decision of any development projects and plans that affects them. According to Wiedemann and Femers (1993), empowering was not only power sharing and free access to information, but also an efficient transfer of necessary competency to the public. The authorities should express their good faith to allow the participants a real influence on the decisions and incorporate public inputs into the decision-making process (Thomas, 1995; Hendry, 2004). Since, the participants in the public participation process who were not successful in achieving their desired outcomes may question the time and effort they have invested (Thomas, 1995; Conley and Moote, 2003). Stewart and Sinclair (2007) stressed that people were keen to stop their participation when they did not have an opportunity to influence the decision. This, finally, would turn into opposition to the project.

6.2.2.2 Results of participation programme: Incorporation of public values and concerns

The question of what information from the participation process contributes to the quality of decisions is crucial and widely discussed. In fact, there are different kinds of information available to be used in the consideration process, especially expert and local knowledge (Coenen, 2008b). Local knowledge is mainly generated from ordinary people and has more of a basis in common sense, causal empiricism or thoughtful speculation, while scientific knowledge is basically produced from experts and subject to more testing, degree of verification or distinctive techniques (Beierle, 2000; Coenen, 2008b).

When thinking about effective participation, the concern is not only how the information from the public impacts the final decision, but also whether the public information from

the participation process is exploited and played a role in the decision-making process (Coenen, 2008b). In this case, it was clearly presented that local villagers of Ban Krut tried to add their ordinary knowledge and concerns into the process. However, there was no obvious evidence that their knowledge was soundly integrated into the process. As stated by one villager: *“the decision made it clear that we were excluded. It was out of our power to decide or control”* (Villager 18).

In addition, one leader of the villagers added that, in fact, the local people had useful information for the project as they were more accustomed with the area. This knowledge could have added value to the decision-making process and should not be overlooked. For example, the local villagers made a useful comment about incorrect information in the EIA report such as wrongly estimating the number of fish species and the coral reefs. This issue is reflected in the following statements:

“Although, the lay people here were poorly educated, old people finished from primary school, the next generation might have graduated from high school, but they hold local knowledge. They knew best about their community. The fishermen knew deeply about the diversity of fishes and seaweeds, about the monsoon, everything about their career. They spent all their lives in this location. They were more professional in fishery than academics who hold a PhD from fishery science. When researchers did their study, they had a plan of what should be investigated and what topics should be covered. They just copied the old report. They came to the impacted area for less than a month. How could they know everything better than the local people?” (Local leader 5).

A similar finding was apparent in a study of public participation for resource conservation (Pretty and Shah, 1997), and a study on a water planning process in Sacramento, California (Connick and Innes, 2003). In the former case, stakeholders revealed a number of errors in a federal agency’s calculation of available water and forced much more accurate modeling; while in the latter case, farmers were more familiar with soils and plants and this specific knowledge was valuable information for the decision-making process. These studies highlighted that local knowledge could complement experts’ knowledge, in particular where unique local situations were concerned.

Although the importance of incorporating the public's values and concerns into the decision-making process is extensive, there were many cases where this notion was dismissed. For example, a study of public participation of environmental policy by Flynn (2008) found that a citizens jury report did not contain all the significant information from stakeholders. The information from elected representatives was largely missing and that from the local government was minimal.

As discussed earlier, in this case many affected villagers claimed that they were not provided enough opportunity to speak. One villager argued that: *"the government did not intend to listen to us. We wanted our voices to be heard and our concerns to be taken seriously"* (Villager 14). Thus, people expressed frustration at not being heard. According to this weakness in the process, many participants mentioned that the public participation process appeared to be meaningless. One interviewee stressed that: *"when your opinion was blocked, why do I have to attend? There was no meaning when you knew the outcome was going to be what they want"* (Villager 18). This finding confirms a study by Mitchell (2005) that an effective decision-making process, particularly environmental management decisions, could not rely on only technical expertise and knowledge. Bringing local knowledge and values into both the participation and decision-making processes is very useful and can assist in finding consensus that satisfies a wide range of interests (Pretty, 1995; Pretty and Shah, 1997).

Not surprisingly, more than 95% of participants expressed their desire to voice their concerns or provide inputs into the decision. They stated that they needed to ensure that their views and concerns were meaningfully incorporated into the decision-making process. *"I wanted to see my views was valued and was going to be used, not abused"* (Villager 23). Some argued that they felt strongly that they wanted to be involved in the process in some way. One villager explained that:

"Undoubtedly, we wanted to be able to have a stake in the decisions that impacted our way of life. It was a very bad feeling when I realised that my voice was ignored, either because I did not have a chance to present my idea or because my questions were not answered" (Villager 25).

Empirically, a number of researchers in the public participation field substantiated the importance of incorporating the public's values, knowledge, and concerns into the decision-making process, such as Shepherd and Bowler (1997), Vari and Kisgyorgy (1998), Beierle and Konisky (1999), Duram and Brown (1999), Van Ast and Boot (2003) and Stringer *et al.* (2006). They indicated that integrating the input from the public and stakeholders could help find an emergence of new perspectives, alternatives, and solutions previously not considered. These relevant values, viewpoints and knowledge could assist in solving the environmental problems, and environmental protection (Dungumaro and Madulu, 2003).

On the other hand, disregarding expert knowledge can create problems through lacking meaningful details, in particular for complex environmental problems because these missing factors can lead to long-term problems (Welp, 2001; Welp *et al.*, 2008). This means that the public has to recognise the importance of scientific discourse as well as their own values. They should have at least some basic level of technical knowledge in order to effectively participate in the process (Kinsella, 2004). A number of researchers confirm this notion. For example, empirical studies by Eden (1996), Kinsella (2004), and Oels (2008) showed that without adequate technical knowledge, lay people could find difficulty in participating in the process; as well as being unable to make valid comments or argument.

Noticeably, this research finding is a strong evidence of the enhancement of incorporating the knowledge and values of stakeholders, particularly the affected parties. Richardson *et al.* (1998) and O'Faircheallaigh (2010) stated that the public participation process needed to be conducted carefully to ensure that all stakeholders were given opportunities to voice their ideas, values and concerns, and every interest was considered fairly. Thus, a cautious consideration of all relevant information, concerns and values of all stakeholders could provide the authority with more valuable and substantive information and wider perspectives for making a right decision, with more accountability and legitimacy (Innes and Booher, 2004; Creighton, 2005). The research in sustainable consumption by Coenen *et al.* (2008) emphasised that better information from an inclusion of local and expert knowledge contributed to make the outcomes more sustainable and environmental friendly.

Nonetheless, it should be realised that the integration process could face difficulties with subjective, biased, value laden, context specific, and ambiguous information. For example, an investigation of the public viewpoints in a preparation of river basin management plans in the south of France by Garin *et al.* (2002), focused on this issue. By comparing stakeholders' viewpoints, the study showed that: private concerns were not identified by the experts; some problems suggested by the experts were overlooked by the public; and, experts' and stakeholders' opinions on the root cause of the problem and the approaches for a solution could be opposed. This could lead to opposition among them.

6.2.2.3 Contribution of participation process and activities: Values and Trust

Basically, public values are different from, and often conflict with, other stakeholders' values (Tippett *et al.*, 2005). Thus, in this study, every stakeholder tried to present their views and concerns; nonetheless, each party had strongly insisted in their own beliefs and information. These conflicting opinions were the causes of failure in creating understanding and trust among stakeholders. One interviewee explained that:

“We had to accept that we see things differently. The villagers and the developer valued the natural resources, the environment and ways of life in their own way. The villagers wanted to live peacefully. They tried to protect their environment while the developer wanted to use this resource to lower their cost. It is very difficult to find an equilibrium point among them” (NGO 2).

Beatty (1991) advocated that a correct identification of citizen values would facilitate the authorities to help the public better articulate its common desires and interpret the public needs. The study highlighted that the decision-making process would be effective in reflecting both citizen values and individual self-interest. Accordingly, the decision-makers should try to find out what the public or citizen values really were in environmental issues to effectively handle them (Beierle and Konisky, 2000).

Definitely, trust among stakeholders in the public participation process is essential since it is a significant factor that can influence both the process and the outcome of the programme which contributes to its effectiveness (Seneca, 2004; Prager and Freese, 2009). However, trust was a crucial problem in the implementation of many development

projects in Thailand (Bureekul, 2007), in particular the Hin Krut power plant project. Throughout the interviews, many interviewees made numerous comments on a lack of trust between citizens and government since the implementation of the power plant did not gain high levels of trust and acceptability from the affected communities. One villager stated that: *“how could we trust the government? They decided everything without asking our opinions. They did not come and ask us whether we needed the power plant”* (Villager 15). Importantly, the information they received at the beginning was different. One villager explained that:

“The developer bought the land before informing the public that they would build a power plant. I knew only the land was purchased to construct a golf club ...I knew the truth when the local leader told us that the developer would construct a coal-power plant here, in Ban Krut. That was why the local villagers did not trust the developer. How could we trust them? They did not tell us the truth, they were not sincere” (Villager 24).

Similar problems were found by a number of researchers. As stated by Shepherd and Bowler (1997), Siroros and Haller (2000), and Connick and Innes (2003), trust and confidence in the authorities decreased since the public could not see the government’s willingness to support them and be transparent in its decisions. These strongly impacted on their relationships.

According to Laird (1993), mistrust was composed of two components; technical competence, and fiduciary obligation. From the study technical competence referred to an ability of the managers or scientists to do their jobs; while fiduciary obligation referred to a focus on the public’s interests before the government’s interests. Noticeably, in the Hin Krut power plant case, technical competence was an inability of the authorities to run the process which might result from a lack of legal support. Non-transparent administration by the government was prevalent as the decision-making process was conducted without consulting the public. This could be viewed as fiduciary obligation.

Although many public participation programmes were conducted later, it was clearly evident in this case that these processes could not increase the trust among key stakeholders; the government, the project owner, and the local villagers. Conversely, the

participation processes, especially the public hearing, did create more distrust in the government. This view was reflected in the following comments.

“The government supported the UPDC. The committee was selected without asking for our opinions. Some members of the public hearing committee were from the company. How could we believe that the forum was set up for us to resolve this conflict?” (Villager 7).

This finding supports Dungumaro and Madulu's (2003), Vantanen and Marttunen's (2005), and Persson's (2006) studies that trust was closely related to openness and transparency. If trust is lacking, the public then were difficult to see the decision is transparent and led to protest and antagonism among stakeholders. When the stakeholders did not trust each other, they were more likely to end the conversations. However, they pointed out that if the participation process was run on a dialogue basis and complied with regulations, many conflicts could probably be avoided. According to Elliott (1999), only the authorities and the decision-makers who were perceived as neutral would be able to gain trust and confidence of all stakeholders. Thomas (1993) highlighted that the public's acceptance and trust were essential for project implementation.

Looking at the Hin Krut case, the government and the project owners were unsuccessful in providing the public assurance on minimised social and environmental impacts. The Thai government could not effectively manage and control any impact to the environment and people's health of the operation of other coal-fired power plant projects. This was a key reason why the local villagers did not believe in any monitoring programme of the project presented by the developer and their government. Thus, a state of low trust levels was not improved. Conversely, it was decreased.

However, it should be realised that trust is difficult to generally operate across individual situations and contexts and needs a long-time to achieve (Senecah, 2004). It could not be dealt with by a specific form or formula (Owen *et al.*, 2008). Choosing the right participatory technique at the right stage could increase trust among stakeholders. According to Beierle (2002), building trust could be made through generating new knowledge and this would eventually result in improving the quality of decisions and

resolving the conflict. The participation practitioners should be aware that trust takes time to be developed.

6.2.2.4 Contribution of participation process and activities: Resolving conflict

Surprisingly, conflict and mistrust are viewed as standard factors for environmental project development and policy making in the early stages (Fiorino, 2006). Often, local opposition to large-scale development projects frustrates the project owner since a large-scale project was easily justified to be in the public interest (Beierle, 2001). In Thailand, “*over the past twenty years, many development projects have often faced negative and obstructive opinions when it came to put in local communities*” (NGO 2). As discussed in Chapter 5, the conflicts stemmed from different viewpoints, an unbalanced distribution of costs and benefits, incorrect information, and the local communities’ distrust in the willingness and competence of the government and the developer to protect their environment and interests. These controversies were complicated and difficult to handle.

“At that time, the problems were very serious. In some families, if the members have different ideas or were on different sides, they were fighting even within the same family. The husband did not agree with the wife. The brother fought with his brothers. The situation was very bad. Conflicts occurred everywhere in our community and could not be resolved” (Local leader 5).

Conceptually, to find consensual solution is typically cited as an intended goal of public participation processes which should be defined and accepted by all stakeholders (Central government officer 1, Vantanen and Marttunen, 2005). Particularly, in the Hin Krut case, there was an argument in this notion. On one side, the project proponents and the officers claimed that they tried their best to resolve the conflict between them and the local villagers; whilst on the other side, the villagers argued that the developer was not willing to do so. One villager said:

“I did not believe that they (the developers) tried to solve this problem. They just wanted the project to be built and processed. They just set up these events to demonstrate that they got support from the public. How could they claim that they intended to solve the conflict in our communities?” (Villager 5).

This notion was strongly disagreed with by the developers as presented in the following quotes.

“Talking about our effort to resolve the conflict at that time, I could guarantee that we (the developer) tried our best in every approach that we could. We set up many activities to provide the villagers with the information we had. We organised many formal and informal seminars in the local communities such as local government offices or schools. Actually, we did get collaboration from the local villagers who favoured the projects. In particular, we set up an exhibition at our project site for more than a month. Many people joined there, not only the local people, we opened to the wider public to get into our activities. ... However, the villagers who were opposed to the project had a very strong emotion and they mostly did not join with us. To be honest, we tried our best to resolve the conflicts in the communities”

(Project proponent 1).

When compared with other research, the result of achieving consensus was similar. The study of the health-system in Ontario and Quebec, for instance, found that public participation for the purposes of achieving consensus and resolving conflict largely failed (Abelson *et al.*, 2002). Abelson *et al.* (2004) indicated that, in practice, it was really difficult to reach consensus and the point where everyone agree with a decision. This might result from high expectations from citizen-centred reforms which may be too ambitious to achieve.

In this study, several respondents enlightened the importance of information provisions both in terms of accessibility and technical assistance as essential factors to consider conflict perspectives and search a consensus. One interviewee presented an interesting idea that:

“We found difficulty to access to project’s information so how could we meaningfully participate in a consensus process. They (the government and the developer) did not provide us the information. Even if we did, the information was too scientific in nature or written in English, we could not understand it. How can the conflict be solved and reach the consensus if the public did not have full

disclosure and full information? So not only do you needed full disclosure and information, but you also needed translation of some information you could not really understand it” (Local leader 4).

This finding supports Pellow's (1999) study that access to information and technical assistance are necessary elements for effective participation. Without these aspects, effective public participation would be hard to achieve and conflict resolution was at best elusive.

Evidently, in the Hin Krut case, the public was excluded from the decision from the beginning, so they thought the project was not transparent and did not accept it. As one villager stated, “*the government just did what they want, doing whatever they want. They did not care about us, the directly impacted person. They did not even ask did we prefer it or not?*” (Villager 2). Although there had been an attempt to resolve conflicts between the protestors and the developer, it proved impossible and this effort was disregarded. Consequently, not only was the existing conflict not solved, it was made worse. Besides, mistrust in this case made conflict resolution more difficult and complicated. Similarly, Renn *et al.* (1993) enlightened that conflicts could not be solved if the process of decision making is perceived as unfair or biased.

In the Hin Krut case, the developers usually argued the project's long-term benefits simply outweighed the community's short-term impacts. “*Indeed, we provided payments of cash and community funding as well as public services to further compensate the affected communities for the costs they had to bear*” (Project proponent 1). However, this proposition was not agreed and could not please all villagers. The protestors refused the offers since they perceived that their loss could not be compensated. One villager stated that: “*why we had to bear most of the social and environmental costs while the whole society got the benefits?*” (Local leader 2). Furthermore, the monitoring and control programmes designed to reduce the adverse impacts and encourage public acceptance were unaccepted. Most villagers did not agree with them. Unsurprisingly, local villagers usually felt that: “*we had little protection from any pollution and affects from the project under current laws and regulations which focused on limiting a highest level of pollution rather than reducing it*” (NGO 2). In accordance with this notion, a study of public participation in tourism development in Turkey by Tosun (2006) depicted that different

stakeholders groups looked for different approaches to achieve their own concerns and interests. This potentially led to conflict with other stakeholders.

Frequently, stakeholders might have a misunderstanding about the public participation concept. In many cases, the participants have unrealistic expectations for the outcome of their participation and inputs from the participation process (Roberts, 1995). This also applied in this case. For example, many local villagers thought that the public hearing was a means for conducting a referendum, in particular the local leaders. Conversely, the authorities' view, as stated by law, was that the hearing forum was an activity to solicit the public inputs to support the decision-makers to make more reasonable decisions. This caused difficulties in building a consensus among stakeholders. Similarly, Vantanen and Marttunen (2005) suggested that the public participation process should be an interactive forum for discussion, learning and collaboration rather than to dictate whether the project should be implemented.

Even if the conflicts of the Hin Krut case were not resolved, "*at least the stakeholders could learn to understand each others' goals and perspectives through communication and building relations*" (NGO 2). To effectively resolve the conflicts, one interviewee suggested that:

"Most importantly, all different parties should be fairly open-minded to determine other's concerns. Consensus could be reached and conflicts would be solved where the stakeholders' goals are appropriately shared and common. However, it would be more difficult in controversial environmental cases" (Academic 1).

Similarly, a study of public participation on watershed planning by Duram and Brown (1999) showed that the public participation process persuaded the participants to better understand each others' concerns as well as to construct common ground for deliberation.

A number of researchers enlightened the importance of public participation in resolving conflicts (Shepherd and Bowler, 1997; Abdel-Massih, 2005; Persson, 2006; Coenen *et al.*, 2008). These studies showed that encouraging people to learn about the environmental problems they faced, and empowering the public to stimulate alternatives and solutions could increase democracy concerning, transparency, trust, and the legitimacy of decisions.

This, finally, could considerably decrease the level of conflict in society and help finding a consensus. As stated by Beierle and Konisky (1999) in a study of public participation in the Great Lakes region in North America, the communication process, consensus building and fairness were significant since they allowed the participants to raise their perspectives and resolve differences.

To sum up, one researcher who works in the participatory field in Thailand suggested an interesting meaning of public participation. He highlighted that important characteristics of an effective participation process should be as follows:

“Successful public participation is a process that engages stakeholders; in particular, the public who want to be involved in decision-making processes and the authority who could make the decision in a two-way dialogue. To do so the public must be provided with the appropriate means of participation which creates mutual learning and consensus. Most importantly, this participation process must be initiated before any decision has been made” (Freelance research 1).

6.3 Conclusion

There were a great number of comments from participants in the process indicating that the public participation process was not completely effective when tested against these pre-set criteria. Table 6.1 presents a summary of the overall results of the evaluation of effective participation process by each criterion. In this study, in each criterion, fully successful means there are no deficiencies in that criterion. Moderately successful refers to a moderate sufficiency extent or degree of the effectiveness of public participation with one or two deficiencies; while partly successful are less effective with few deficiencies respectively. Minimally successful means public participation process is slightly effective with a number of deficiencies against that criterion. Finally, not successful means that public participation is not sufficient. For example, when public participation is partly successful in any criterion means that the process is not completely successful; however, some conditions are met. In this study, no criterion was evaluated as fully successful or not successful.

Table 6.1 A summary of the evaluation of public participation of Hin Krut power plant

Category	Evaluation Criteria	Overall effectiveness	Arguments/Supports
Process-based evaluation	<i>Clarification of goals and stakeholder roles</i>	Partly successful	The scope, content, the stakeholders' roles, and the overall aims of the process were not clearly identified.
	<i>Educating and informing the public</i>	Moderately successful	Participants learned more about the problem and conflict. Most of them had developed a high level of understanding in the issue and alternatives. However, some of them were not able to meaningfully participate.
	<i>Inclusiveness and adequate representativeness</i>	Partly successful	All potentially affected parties were invited to participate in the process but not all of them could be involved due to some constraints such as limited time, inappropriate venues or strong opposing ideas of the protestors themselves. Thus, most participants in the process were not composed of a broad cross section of representatives from the affected citizens.
	<i>Multiple and appropriate participation methods</i>	Moderately successful	A number of participation techniques were used to engage and communicate with the public. However, these participation methods seemed not to be appropriate to the situation and involved parties.
	<i>Early Involvement</i>	Minimally successful	The stakeholders, in particular the affected villagers did not engage early enough in the participatory process.
	<i>Transparency</i>	Partly successful	The process seemed not to be open and transparent enough. The affected villagers did not have an opportunity to participate through the processes.
	<i>Two-way communication</i>	Partly successful	Two-way communication approach was not properly promoted through the participatory process. The process did not create fair and open dialogue for discussion of the issue.
	<i>Resource and information availability and accessibility</i>	Minimally successful	The public were not provided with and informed how to access all relevant data. The information was inappropriate and incomprehensible for many participants since most of it was in English and had many technical terms.
Outcome-based evaluation	<i>Impact and influence of participation</i>	Partly successful	Even though the project was cancelled, there was no official evidence presented that the public input was influence the final decision.
	<i>Incorporation of public values and concerns</i>	Partly successful	The public input was only minimally incorporated into the decision-making process.
	<i>Values and Trust</i>	Partly successful	Trust was improved only among the participants' groups. However, trust among different stakeholders, in particular among the affected villagers, the government, and the developer was decreased.
	<i>Resolving conflict</i>	Minimally successful	The conflict could not be resolved and was even made worse. The participation process did not reach consensus on a written agreement.

The success or the failure of public participation also depends on the way the public participation techniques are employed so the entire process should be well structured and organised (Bureekul, 2007). Time, duration, venue, and participation techniques are

perceived as major factors that are relevant to the organisation of the public participation programmes (Creighton, 2005). Although a well-scheduled participation programme is necessary, and should include clearly and appropriately defined times, places and participants, the process should be flexible (Chess and Purcell, 1999; Chess *et al.*, 2000). To achieve an effective participation process, Creighton (2005) and Vantanen and Marttunen (2005) suggested that a plan for conducting public participation processes should be flexible because all participation techniques do not automatically work in all situations and there is no single universal public participation technique to best suit every situation. Importantly, there is no single factor that could contribute an effective participation process, rather a combination of components (Carnes *et al.*, 1998).

A closer analysis of the qualitative data suggests that participants were in favour of public participation in a more effective manner and at a higher level, as described in the participation typology in this thesis. Thus, these affected people called for innovative participation approaches which encouraged them to properly deliberate on the issues and have more power in the participation process. As remarked by Wondolleck and Yaffee (2000) and O'Faircheallaigh (2007), to achieve an effective public participation process, innovation and collaboration was critical. The innovative methods should foster two-way communication, and an interactive flow of information. The decision should be made through an open and interactive process rather than a closed process. A problem-solving process should be encouraged by allowing stakeholders to learn together, understand constraints, increase trust, and develop relationships and creative ideas.

Based on the overall results, it may be concluded that the local affected people want to take part in the environment development process. Lack of consideration of people's concerns caused a major problem in the project's implementation (Coenen *et al.*, 2008). Simply recognising the value of citizens' perspectives and concerns was considered as a partial solution (Abelson *et al.*, 2004). When diverse interests are involved in an effort, the ability to devise an appropriate problem-solving strategy is more important. The process requires mutual respect, knowledge and teamwork to create the best solution for every stakeholder (Wagner, 1996).

Explicitly, participation of stakeholders is a significant component of any development project since their involvement is a key factor for a broad acceptance and successful

implementation (Vari and Kisgyorgy, 1998). There is a requirement that all stakeholders should have an open mind to accept other parties' information and opinions. Alternatives for conflict resolution, in particular to prevent any impact that may affect the public quality of life and environment, should be carefully ascertained and fully covered (Sidaway, 2005). This issue is not only dependent on accurate and accountable information provided to the public, but also related to the adequacy and appropriateness of participants in the public participation process (Creighton, 2005).

The next chapter presents the research results and discussion of barriers to effective public participation of the Hin Krut case, and recommendations for improving the participation practice in Thai context.

Chapter 7: Barriers to Effective Public Participation and Interviewees' Recommendations

7.1 Introduction

An investigation of the barriers to effective participation is crucial as it will enable identification of the missing elements of public participation in development project implementation. This chapter is significant as a means to explore, identify and analyse the barriers that can be assessed as having a significant influence on public participation of the case study of the Hin Krut coal-fired power plant project. The empirical results of the case study drawn up from the interviewees' perspectives from both semi-structured and in-depth interviews, and relevant literature are presented and discussed here.

This chapter consists of two main sections. It begins with a presentation and discussion of the categorised barriers to effective participation pointed out by the interviewees. Afterwards, recommendations from the respondents in the research are presented as suggestions for improving public participation in the future implementation of development projects in Thailand.

7.2 Barriers to Effective Public Participation

Due to the fact that public participation is a relatively new phenomenon in the Thai environmental decision-making system, it tends to be subjected to a variety of problems, in particular, of a legal and constitutional nature (Jarusombat, 2002). This section presents the barriers to effective public participation identified by the research respondents and aims to answer research question no. 4: what are the barriers to achieving effective public participation for environmental conflict management in development projects in Thailand?

Since the participants did not participate in every available activity, the factors that prevented participation were identified through interviews. The interviewees also

suggested a variety of factors that could constrain the public participation process. Their answers were then classified by themes extracted from the related literature review and will be presented in the next section.

Nine factors were identified from the semi-structured and in-depth interviews as barriers to participation which could be grouped into three primary categories applying guidelines in Chapter 2. These barriers are summarised in Table 7.1, and details of these barriers and the associated findings are described and discussed in the section below. Finally, the research results from this section will guide the recommendations from this study to improve public participation in Thailand and make it more effective in the future.

Table 7.1 Summary of barriers to effective public participation

No	Barrier Factors	Number of interviewees from semi-structured interview	Number of interviewees from in-depth interview	Total number
7.2.1 Individual barriers				
7.2.1.1	Lack of time and money	4	9	11
7.2.1.2	Strong opposition	21	16	37
7.2.1.3	Mistrust	24	21	45
7.2.1.4	Educational constraint	16	19	35
7.2.2 Structural barriers				
7.2.2.1	Political and instructional culture of decision-making	25	17	42
7.2.2.2	The Thai bureaucratic system	12	9	21
7.2.3 Legislative barriers				
7.2.3.1	Legal framework	6	19	25
7.2.3.2	Ambiguity in legislation and guideline	5	9	14
7.2.3.3	Legal enforcement	9	15	24

7.2.1 Individual Barriers

7.2.1.1 Lack of time and money

Lack of time and money was identified by many of the interviewees as a key barrier to public participation. In this case, four impacted villagers stated that they could not participate in the participation activities provided for them because they were not

available. They had to run their business or take care of their family. Additionally, some of them thought that it was a waste of time because the project had already been approved and the decision had already been taken. One villager argued that:

“I could not join the activities because I did not have enough free time to go. I had to work to feed my family. If I went to the meetings, I had to close my shop. I also had to take care of my babies as well. I could not leave my babies alone at home” (Villager 28).

Comparing this finding with those from other studies in the public participation field conducted in Canada (Diduck and Sinclair, 2002), the U.S.A. (Chess and Johnson, 2006), and the Netherlands (Woljer, 2008), it was found that people refrained from participating due to a lack of time. They pointed out that people simply did not have time or have limited time to participate, or thought it unnecessary to be involved continuously in participation processes. It may also require a high degree of interest to get them involved.

In addition, one representative from an NGO hinted that: *“the less time for involving the public, the less understanding from them”* (NGO 2). This was because most participation activities were limited in time. The developer usually conducted their activities on the working day which did not match with local people’s available time (Villager 1). In agreement, Simmons (1994), Hughes (1998) and Diduck and Sinclair (2002) suggested that providing many public participation activities and spending more time with the public could lead to successful participation processes and outcomes since this would allow the people more opportunities to participate. This argument was supported by many interviewees from all groups of stakeholders.

“Basically, the lay people were willing to give us the information, but maybe they are not available. They have to do their jobs so they do not come to join. If we run the participation programmes in their free time, the local villagers would love to participate because this process is concerning their lives. Actually, they want to be involved if they do not have to work or they have free time” (Academic 1).

7.2.1.2 Strong opposition

It was understandable that a great number of affected villagers from the coal-fired power plant disagreed with and opposed the project because they thought their lives and environment would be affected and they would lose what they were accustomed to receive. However, there were still a number of people who supported the project. In this situation in which people had different ideas, a conflict would potentially be generated. 21 villagers affirmed that there was a very strong opposition to the power plant. One villager explained that:

“At that time, there was a very high level of a strong opposition. There were a lot of conflicts in our communities as well. Many people were fighting from their different view points. There were even some villagers who wanted the power plant; they were scared to express their ideas honestly” (Villager 11).

16 in-depth interviewees experienced a strong negative perception about the project. This factor prevented the opposition groups from listening and receiving any information from the developer. Although the developer had set up many participation activities and invited the protestors to take part, they refused to participate in any activities. One leader of the opposition group gave a reason that: *“if we took part in the participation process, this would make the process creditable which would mean that the decision was legal and the developer was authorised”* (Local leader 2). Indeed, only a few leaders of the opposition groups participated in these activities to obtain information and debate issues. However, they argued that their participation did not mean that they agreed with the project and believed in the information. One project proponent provided more information on this issue as set out below.

“We did provide different activities to approach the community. Actually, we introduced our project to the community at the beginning, before any opposition activities occurred. We told them directly how the project would be; what the effects would be; and what the measurement programmes were. Then we set up the public relations centre located at our project site. We also showed the power plant model. Sometimes, you would hear that the project owner presented only the good side of the project; that was not true. We provided them all the information we had. We showed them the EIA report both in Thai and English. Moreover, we set

up an exhibition and gave out information in schools and local government offices. However, the local people had different viewpoints at that time. It was simple to say that there were the supporting groups, the opposition group, and the so-so groups. When we conducted any activities people who agreed with the project and some villagers who had not taken sides came, but people who disagreed with the project did not come. Moreover, the protestors sometime tried to interrupt our activities. However, we tried to involve all stakeholders in our project" (Project proponent 1).

Usually, wherever conflict occurs, the communication between different parties would be less. In contrast, the communication within their group is increased (Creighton, 2005). In this case, in order to increase their ability in negotiating and the decision-making process, the impacted villagers who had the same attitudes gathered into the same group, in particular the opposition group. It is apparent from this study that a great number of villagers from this opposition group hardly participated in any activities provided by the developer or the government because they believed that their voices would not be heard. One local government officer stated that:

"The project owner held a sports event at one local school. Many local villagers came including the students. They asked for our support. We helped them to organise leisure activities. There was a lot of fun. Nonetheless, just only the villagers who supported the project participated. The opposition groups refused to join. It was very difficult to get in touch with the protestors or even to give them some information about the project. They had very negative viewpoints about the project and did not open their mind to listen to anything" (Local government officer 4).

Obviously, strong opposition ideas constrained the developer and supporters from effectively contacting, providing and discussing anything with the villagers. Another villager commented that:

"I remembered that the project proponent made the leaflets and tried to send them to every household. They contained information about the project. Only the supporters collected it. The protestors refused to receive any information from the

developer and some staff of the UPDC were afraid to contact the opposition group as well” (Villager 19).

In this case, it was found that the affected villagers tended to believe and accept only the information which supported their position: *i.e.*, NGOs or freelance researchers, rather than information from the government or the project proponent. As a result, information provision to the protestors was restricted. This problem is discussed by one academic. He pinpointed an interesting issue that:

“However, this is the problem of Thai society. They do not listen to others. The government does not see the importance of their citizens; while the citizens now increasingly want to be involved in every government decisions. This point must be carefully considered and a solution found” (Academic 1).

This confirms the study of Creighton *et al.* (1981) which stated that the participants' perceptions and beliefs basically depended on the credibility of the information sources and were influenced by communication. In controversial projects, people tended to believe the information which supported their position.

Clearly, strong opposition prevented the opposition group from being open to listen to information from the developer, although they invited them to participate. It can be said that a strong opposite perception was a key constraint to public participation and compromise between the opposition group and the project proponent.

7.2.1.3 *Mistrust*

Unquestionably, trust is essential for cooperation among stakeholders (Bureekul, 2007). In this case there were many root causes that created distrust. 45 of 52 research respondents had experiences that created mistrust in this study, for example; exaggerated information, incorrect information, and biased selection of participants both for the hearing committee and for the public hearing.

In this case, the Ban Krut villagers were suspicious of the experts' technical report and suspected the credibility of the project's information. The villagers felt that the

information was biased and only presented the good side of the project (Villager 2, 7, 11, etc.). One villager argued that: *“in order to increase the level of project acceptance by the local residents, the developer might exaggerate because they believed that the lay villagers would believe whatever they were told”* (Villager 27). This is significant because, in Thai culture, the government and developer are generally respected as they are well-educated when compared with lay people (Klein, 2003). Many interviewees found that exaggeration could cause confusion and lead to distrust in the public.

The fact that information in the EIA report was not accurate in many points was considered important. Regarding this point, the protestors did not trust the agencies and did not believe any information provided. One villager explained that:

“The EIA report was conducted in order to support the project, to legally carry out the project. The survey did not appropriately study the effects. For example, the report identified that there were ninety-nine fishery households and less than one hundred fishery boats in the communities. This was absolutely wrong. In Ban Krut, there were around five hundred fishery households. More than three hundred boats were still being used” (Villager 5).

Noticeably, this erroneous information became a key factor that reduced the credibility of any participation methods that the developer tried to conduct later. One local affected person also added that:

“The EIA report was not correct. At first, it did not talk about the fertile coral reefs offshore which were near the project site. The report missed important information. How could we trust them? We are the fishermen, we live with the sea. We know that there is a lot of coral. They were immoral to us” (Villager 7).

Additionally, not only was incorrect information contained in the EIA report, some respondents who had participated in the overseas trip to the Philippines found that the project owner had also provided untruthful and unrelated information about the project. This made them confused and led to distrust of the developer as shown in the statement below:

“The UPDC invited many villagers to visit the power plant in the Philippines. Some villagers could communicate with the local people there. They found that that power plant was different from this project. The coal used as an energy source was different and people were still affected from the plant operation. They just took us to see what they wanted us to see. They could not answer all our questions. So, I did not believe what they tried to convince me” (Local leader 5).

Besides, many villagers mentioned a biased process in selecting the hearing committee as well as the registered attendees in the hearing event.

“For the public hearing, the only thing we needed was accountability from the hearing committee to make the process transparent. We had a right to refuse the biased committee. We had a right to inform the organiser. Even when we told the government, there was no response from them” (Local leader 1).

One attendee recommended that: *“to make a public hearing accountable, the hearing committee should be selected by stakeholders and citizens. The committee should not be from any side. The committee must prove that they are neutral”* (Project proponent 1). Basically, the affected villagers tended to believe freelance experts whom they trusted more than the government.

Furthermore, there were a limited number of seats of the public in the hearing forum comparing with those of other stakeholders. The numbers of the project’s supporters were more outweighed than the opponents. This caused distrust in the project.

In the absence of trust, the affected citizens thought that the government organised public participation activities did not allow the public to influence the decision-making process. This was illustrated in this case when the opposed group did not participate on the second day of the public hearing. In this case, when the public became more distrustful, a compromise became more difficult to reach.

Evidence of the same problem was found in a study in landscape development in Switzerland (Buchecker *et al.*, 2003), which illustrated that mistrust made co-operation more difficult stated. In line with this research, studies by MacNaghten and Jacobs (1997),

Hughes (1998), Vari (2004), White (2001), Tippett *et al.* (2005), Oels (2008), and Owen *et al.* (2008) identified that mistrust has serious implications in the public participation process and a lack of trust among stakeholders hindered effective public participation, particularly, mistrust in the government and the developer.

Creighton (2005) stressed that if the degree of trust among stakeholders increases, the level of public participation would be increased as well. One freelance researcher explained that:

“If the affected villagers do not fully trust their government or the developer, participation in any participation activities hardly occurs. On the other hand, if some civil servants and some experts do not trust the citizens for any reason, strong public participation would not occur because of skepticism on providing the citizens an opportunity to play an important role in the participation and decision-making process” (Freelance researcher 1).

7.2.1.4 Educational Constraints

Educational level and poor education

More than two-thirds of respondents found that education was a vital barrier to effective participation. Most grass root villagers were poorly educated and short of knowledge. The demographic structure of interviewees' education indicated that the highest education level achieved by local villagers was from secondary school for 20 respondents, and primary school for five respondents. Six people graduated at diploma level, two at undergraduate level, and one at postgraduate level. On the contrary, the interviewees from in-depth interviews who were the government officers, academics, NGOs, and some of local leaders, had a high education level. Most of them obtained bachelor degree (nine participants). 12 interviewees obtained a masters degree and two respondents hold a PhD degree. One interviewee stated that: *“Actually, in these communities, the villagers were poorly educated. They were not acquainted with high technology”* (Local leader 5). 19 of 23 in-depth interviewers identified educational level as one of the barriers to effective public participation.

“In my opinion, education is very crucial. It can be said that meaningful public participation could not be achieved without sufficient knowledge and this is closely connected with level of education. This is because, basically, it takes a long time to make people have enough ability such that they really understand the points that enable them to really be able to investigate the issues, consider the alternatives, and build up the consensus that can be valuable in the decision-making process” (Academic 1).

Similar findings are evident in other studies, such as Hughes (1998), Klein (2003) and Tang *et al.* (2008), which identified that a low level of education was a constraint that restricted the ability of people to effectively participate in environmental decision-making and the EIA process. This was because the low educational level of the villagers could have led to a misunderstanding of information and the facts of the project because of the difference in their education and background beliefs. For example, the planning process for an infrastructure project may be too complicated and require specialised knowledge to carry on the processes (Woljer, 2008).

Besides, 35 of 52 interviewees emphasised that poor education, in particular a lack of an ability to learn new information and exchange ideas, was a critical constraint to effective participation. This finding reflected those of Sinclair and Diduck (1995), Diduck and Sinclair (2002) and Tosum (2006), who stated that a lack of appropriate knowledge, competence and background in the issues amongst participants leads to difficulty in discussing, making arguments and decisions.

One interviewee argued that: *“most Thai citizens do not know how to be proactive participants in the decision-making and politics processes because they were not provided an opportunity to learn”* (NGO 2). This may result from the current education system in Thailand that pleads with students to strive to be number one (Klein, 2003). This kind of system does not properly encourage Thai people to listen and make reasonable arguments. It makes people more individual and does not encourage team work (Temcharoen, 2003).

On the contrary, there were some villagers who perceived that poor education should not restrict them from participating in the process. One leader of the protestors thought that although the lay people had a low education level, they could increase their knowledge

through meetings or seminars by asking for support from academics or NGOs. She claimed that;

“Although, we, the local villagers did have a low educational level, it did not impact our participation. We could learn. We could increase our knowledge. We could find many supporters, for instance university lecturers, freelance researchers or NGOs; they were willing to help us. For example, EIA was first issued in English version. We then requested for the Thai version. However, there were many technical and specific issues that were too difficult and complicated for us to understand. We asked for help from many parties. We got much support from them. They helped us to understand more about the topic” (Local leader 2).

In fact, not only can insufficient knowledge of the public affect the success of participation processes, but a lack of sufficient knowledge to run the process by the government officers and the project owners is also significant. As pointed out by many interviewees, many authorities did not have sufficient knowledge and competence to conduct the public participation process. Since both government and the citizens had little experience with participation, they did not truly understand what public participation really was (Project proponent 1). One NGO argued that: *“only a few government officers at both national and local level truly understand the implication of public participation”* (NGO 2). This is similar to Vari’s (2004) study that one hindering factor for effective public participation was that a number of officials and planners lacked the methodological knowledge to administer public participation procedures successfully.

Lack of understanding in technical issues

A number of villagers stated that a lack of understanding of technical issues and the potential effects from the project was their constraint. 19 villagers indicated that the highly technical terms and techniques made the EIA information difficult to understand. Besides, most relevant information was available only in English and contained technical vocabulary. One interviewee stated that: *“For me, I found that the EIA report was highly technical, particular information about the power plant. This made this value information difficult to understand and inaccessible for the public”* (Villager 2).

Similarly, one civic servant argued that technical terms made it difficult for the villagers to comprehend the information which could mean the impacted people did not correctly understand the project information.

“It really was a problem. In the public participation process, we tried to suggest the developer use plain language with the lay people. If the project information contained too many technical terms or technical academic issues, they should make a new version of their document in a simple format which is easy to understand” (Local government officer 1).

Empirical research by Diduck and Sinclair (2002) showed that lack of knowledge in technical issues deterred people from being involved in the public participation process. Alberts (2007) indicated that people without sufficient knowledge in technical issues were unable to engage in meaningful discourse and were consequently incapable of engaging effectively in the decision-making process. On the other hand, people with better experience were able to take part in meaningful discourse which led to more successful participation.

Deliberative skill

Some respondents indicated that educational constraints limited the opportunities for dialogue about the project, and this resulted in a reduced ability to take part in the public participation process (NGO 2, Villager 11, 20). This argument is supported by the statement from one NGO.

“Since the beginning, the contract between the EGAT and the company was in English. The EIA was also first written in English. Most relevant documents were written in English. Therefore, how to access and understand them was problematic. This was a limitation to the local villagers’ participation” (NGO 2).

One villager expressed that one way to limit this constraint was through capacity building in order to effectively communicate in a fair and open dialogue in a two-way approach.

“...in fact, a number of lay people may not have a good background in communication skills. There should be an opportunity for the people, who have a

stake in any decisions or developing projects, to develop their ability so that they would be able to discuss, debate and be involved in an effective way" (Villager 10).

Empirical research on public involvement in Canada shows a comparable finding. Diduck and Sinclair (2002) found that people refrained from taking part in the participation process due to their deficient speaking and deliberative skill.

7.2.2 Structural barriers

7.2.2.1 *Traditional culture of decision-making in Thai institutions*

In this study, 80% of the respondents felt that a traditional culture of decision-making in Thai institutions impeded their participation. Information from them indicated that the decision-making process in Thai culture was mostly top-down, from the government, to the developer and academics, and then the public respectively. In this case, a bottom-up approach was restricted to stakeholders sending their comments to the government; however, there were no appropriate responses from the governor. One officer explained that:

"In our traditional practice, most of the decision-making for, in particular, the national energy policy and power supply industry in Thailand was carried out by the responsive government organisation, in this case the EGAT, the MONRE, the MOI, and other related organisations. The coal-fired power plant was one of the factories. These authorities made a decision following the Thai government's development policies of 1996; nonetheless, there was no participation from the public at this stage. However, there was an attempt to increase transparency and deliver unbiased performance, an environmental issue was investigated and recommended separately by the responsible department, in this case the OEPP, through the EIA report" (Central government officer 1).

Similar finding was made in a study of waste separation project in Hatyai City in Thailand by Charuvichaipong and Sajor (2006) which agreed that a practice of a traditional top-

down approach and a non-participatory style of administration of Thai government and the authorities were causes of failed public participation. The public were not allowed to be directly involved in planning, decision-making and implementation of the development project in all stages. Charuvichaipong and Sajor (2006) and Diduck *et al.* (2007) indicated that this traditional style of management precluded a development of good relationships and co-operation with the local communities.

Decision-making on both the policy and project level is extremely important and affects a great number of citizens but, frequently, this kind of decision-making process is closed to the public (Awakul and Ogunlana, 2002). Clearly, this project was initiated by the government's policy and it had a full authorisation to control everything about the project's implementation. The government argued that all of its actions were lawful or it was authorised by law to do everything to complete the policy. One NGO stated that:

“If we followed the project from the beginning, we would have found that the government launched the policy and project and searched for a private company to operate the power plant. This was because the EGAT could not supply the electricity to meet the forecasted demand in the future. This was a national issue and difficult to be criticised by other parties. Later, the government selected the investors and signed the contract. This meant that the government was not only the project's initiator, searching for the contractor, but also was the inspector of the project. This process did not have any involvement from other organisations” (NGO 1).

Additional information was added by one government officer. He commented that:

“In this case, the government made the policy. The EGAT launched an Independent Power Producers (IPP) programme to allow the private sector to build and operate large-scale power projects and sell the electricity back to EGAT. The developer then planned where to build the power plant and what kind of technology would be used. All these processes blocked the local people who were affected by the project from participating at the beginning of the development” (Local government officer 2).

A lack of follow-up actions was an institutional gap in the public participation process. One interviewee stated that:

“There was no link to the official decision-making process from the participation practice. The participation process itself had no inbuilt mechanism to formally transfer the process’ outcomes to the decision-making process. Thus, the public might question about the transparency of the process and this might constrain their participation” (Freelance research 2).

Importantly, in the Thai context, nothing could change the policy and planning process because the commitments which were made at the policy and planning levels were decided by the government. This is shown in the following statement from one lecturer: *“We did not prepare public participation at the policy and planning level or even the project level. This meant that there was no participation prepared before the decision-maker made a decision and signed the contract”* (Academic 1).

One officer argued that only the government had the authority to approve or cancel the project.

“We can not decide anything. My department’s role is to review and make a comment on the environmental issues in the EIA report, but we cannot make any decision to pass or fail the project. We are not authorised to do that” (Central government officer 1).

This finding supports King Prajadhipok's Institute's (2007) study which stated that, traditionally, the Thai government's role was to specify the policy and then bring it into practice. The government has full authority in the decision-making process and it can command all relevant functions in order to achieve the policy's target. This concept was deeply embedded in the Thai society for a long time. The same statement was apparent in other studies. Petts (1999) and Diduck and Sinclair (2002) indicated that when the final decision was a foregone conclusion, the public then would believe that their participation could not make a difference. They would not participate or prefer to participate in other ways. This was a significant barrier to effective participation.

7.2.2.2 The Thai bureaucratic system

After the 1997 Constitution came into effect, the people's perception of their rights and actions was changed since many sections of this Constitution guarantee the right of the public and local community in preserving and using their environmental and national resources, or common property goods (Office of the Council of State, 1997a). Consequently, in this study, under this constitution, the villagers understood that they had a right to protect their own environment, to be against the project, and to deny the project. This issue was supported by 12 villagers and nine in-depth interviewees. The following statements reflected this issue.

“We had to accept that, in the past, before the 1997 Constitution was adopted, we did not have real public participation. We were rarely aware of this issue. Besides, occasionally we did wrongly interpret the meaning of the public participation term. We usually thought that public hearing is public participation. ... Actually, we signed the contract on June 30, 1997 before a declaration of the 1997 constitution. Nonetheless, the opposition was mobilised in November, after the constitution was enacted. The local villagers came to recognise their rights to protect their environment and their community. The point was that the local people did not take part in the decision that affected their lives. They did not have an opportunity to be involved and decide what kind of development they needed” (Project proponent 1).

In Thailand, most government officers are accustomed to the bureaucratic system where hierarchy is significant. They obey the chief and hardly listen to their citizens, while lay people have to listen to their governors (Bureekul, 2004). Vatanasapt *et al.* (2004) stated that although the 1997 Constitution aims to reform the practice of bureaucratic ownership of national resources towards more citizen stewardship, the public's role is limited. Klein (2003) and Charuvichaipong and Sajor (2006) indicated that decentralised functions, government officers and local politicians still remained captive of elite domination. They did not want to lose the power and influence they had enjoyed for many decades. Thus, they did not support the promotion of participation at the grassroots level. Not only are they unaccustomed to being questioned by the public, the civil servants also refused to countenance political reform (Klein, 2003). Importantly, Bureekul (2004) hinted that, according to the political tradition in the past, most Thai citizens believed that politics are

the government's and government officers' responsibility. This seems to be a crucial constraint for public participation in Thailand.

This constitutional influence on public participation is experienced elsewhere, Tosun (2006) conducted a study of tourism planning in Turkey and identified that a lack of democratic culture in the government institution and a lack of developed mechanisms for participation at the local level were key obstacles to local community participation because of its strong centralist institution and omnipotent bureaucracy.

Importantly, more often the problem of facilitating public participation stemmed from a lack of government readiness. Many government officers had a limited knowledge and awareness about public participation. One interviewee explained that:

“Although there are many kinds of participation techniques to be applied, participation techniques have rarely been taught and applied in the government institutions. Clearly, public hearings were used most commonly in Thai practice but it could not effectively resolve problems. More often it produced more conflicts in the society” (Academic 1).

Similarly, King Prajadhipok's Institute (2007) found that a number of Thai local administrative organisations did not have a clear understanding of their rights and scope of their authority. They were not ready to run public participation programme.

While many groups of people called for public participation in the decision-making process, a number of officers were not aware of the importance and advantages of public participation. One interviewee indicated that:

“In Thai society, it was believed that governors were the citizens' masters. They did not believe that public participation could create benefits and even solve the social problems. Thus, people were not allowed to be involved in any decision” (NGO 1)

This is consistent with the study of public participation in sustainable development in Lancashire by MacNaghten and Jacobs (1997). It was found that a lack of a sense of

individual agency could have serious implications for the political salience of public participation. O'Faircheallaigh (2010) indicated that, generally, the decision-makers preferred to keep control over the decision and declined to share their decision-making power. Thus, public participation practice was often avoided and limited.

7.2.3 Legislative Barriers

7.2.3.1 Legal Framework

In recent decades, a great deal of legislation requiring and structuring public participation in decision-making process and policy-making has been issued internationally (Graham, 2004). However, a lack of regulatory support is generally criticised as the fundamental barrier to effective participation (Petts, 2003; Gunes and Coskun, 2005). From the research findings, it was obvious that in the Thai context the legal framework was a significant barrier to effective public participation. Three key problems were highlighted; no clear guidance for direct participation in the EIA system and decision-making process, no supported and clear legal obligation for implementing public participation and a limited distribution of information by the government.

Firstly, the research respondents draw attention to a limited legal framework both in public participation process and information provision aspects. From this survey, 25 research respondents agreed that there were no laws or regulations that provide an opportunity for the public to directly participate in the government decision or project. One interviewee explained that: *“We had to accept that in the past there was no procedure to allow the public to participate in the decision-making process. No law mentioned this. There was no regulation mentioning this as well”* (Project proponent 1). The following presents further evidence of the limited legal framework.

“In Thailand, there was no existing regulation allowing the public to directly participate in project development since the beginning stage. No law mentioned this practice until now. Although section 56 of the 1997 constitution declares support for public participation, there has not been any regulation to support this section. At that time, the public was very aware about environmental issues but

“there were no supporting laws. Moreover, relevant regulations were unclear” (NGO 2).

Actually in the Thai context, there are a number of environmental laws and regulations involving environmental management (Vatanasapt, 2003; Bureekul, 2004). However, there is no requirement in law for the authority or policy makers to consent to the public participating in decision-making (Papussaro and Tabungam, 1999). One NGO agreed that, in fact, there were a number of relevant laws about public participation but the problem was to adopt them in practice.

“Actually, we have some relevant laws about participation but they were not effectively enforced. At present, public participation is better than it was in the past but this was not from the legal framework. This resulted both from the social movement and the fact that there were some related laws that gained the citizens’ rights” (NGO 1).

Other limitation of the legal framework is that the public is limited to directly participate in the decision-making process. In more detail, section 7 of the NEQA 1992 allows the public to legally participate in the process only through the registered NGOs or local group (Office of the Council of State, 1992). The law does not allow the public to directly and appropriately participate in the process. This point raised consequent problems as presented in this case. For example, in the public hearing forum, the numbers of seats available for the public were limited. Only key persons and representatives from the local groups could attend the meeting. Thus, an enquiry about the representativeness of the public was initiated. One interviewee explained that:

“The results from the hearing or any participation programme could not guarantee that the opinions of the non-participation party or individual villagers were appropriately represented through these participating NGO or local groups. This was because their representatives might present only their own personal views, not those of their groups” (Freelance research 1).

Second, there is a lack of minor laws or supporting regulations with respect to public participation issues. For instance, some sections of the constitution needed a supporting

regulation to clarify details in practice or identification. One officer presented an idea about this issue in the following statement:

“Some aspects need more clarification. For example, Section 67 of the new constitution states that any project which has high potential to cause severe impacts to the community and environment should conduct SIA and HIA using specialists. As designated by the constitution, there is a need to have a supported regulation for this issue to verify what types and kinds of project may cause serious impacts. Presently, we still need an announcement of the types and scales of the development projects that need SIA and HIA. In fact, in our department, we have only a declaration about the types and scales of development projects that need to carry out the EIA report” (Central government 1).

Mallikamarl (1996), suggested that since these relevant laws have been used for many decades, many of them need to be revised. This is because they do not respond to existing problems or situations and cannot effectively collaborate with one another (Office of Natural Resources and Environmental Policy and Planning, 2004). Most importantly, these laws and regulations need to be applied corresponding to the new Thai Constitution 2007 that strongly promotes public participation, decentralisation, and good governance.

“In Thailand, there was no grant for the public to participate at the beginning. No law concerned that until now. Section 56 of The Constitution 1997 supported public participation. However, there were no sub-series of laws or regulations to support this subject of the constitution. When this Constitution was first amended, public awareness about the environment was considerably increased. Presently, we had a new constitution, the 2007 Constitution but the same problem still existed. There were no subordinate laws for this issue” (NGO 2).

It is clear that the Thai legal framework does not appropriately support public participation (Ogunlana *et al.*, 2001). This inadequacy in relevant regulation may be explained by the desire of the decision-makers or the government to reclaim power (Petts, 2003). The subordinate laws and regulations for public participation are required. There is a considerable empirical evidence of insufficient consideration of legal and fiduciary obligations in the assessment process in Canada (Hinte *et al.*, 2007; O'Faircheallaigh,

2007). In those cases, it was found that public participation was encouraged in the EIA process; however, there was a limited opportunity for the indigenous peoples as a part of the decision-making process. Legislation should be revised to encourage indigenous participation. Steinemann (2001) indicated that public participation often occurred too late in the EIA process and could not extensively influence the design of alternatives.

Third, a resource provision, especially of information held by the government or the developer, was pointed out as a critical problem by 47 interviewees. Clearly, in the Hin Krut case, even where there was some legal support for the right of citizens to access the crucial information that impacted their lives, the public could not get all the information they wanted. This was because the NEQA 1992, the Thai Constitution 1997, and the Office Information Act 1997 clearly stated that the public has a right to know and to access official information, but there is an exception if the information is confidential (Office of the Council of State, 1992, , 1997b).

Accordingly, occasionally, the government cannot provide all kinds of information to the public because, legally, the public may not get information if that information is confidential. In this case, when the public required in-depth information from both the government and the developer, there was a controversy because, occasionally, some information was defined and kept confidential for technical reasons. For example, the government could not provide an unapproved EIA report to the public since it was still in the approval process so it was treated as being confidential information by the legal definition. Thus, the officers could not reveal this unapproved information to the requestors without any permission from the owners or the authorisers. The following is a quote from one governor:

"If the public wanted to know information in the EIA report but it was still in the consideration process, we could not disclose it. Basically, if someone made a comment on the draft report, the project owner could decline that recommendation because it was just a draft report. The developer could claim that it was a draft report that could be adapted all the time. For the reason that during the consideration process, the secretariat and the expert committee called this report a 'draft' and it was also keep as a confidential document. Importantly, if the EIA report was in the reviewing process, any measures could be changed or adapted at

anytime depending on the consideration of the technical committee. If the committee thought that the impacts from the project are significant or serious, they might ask the project owner to revise the mitigation programmes and resubmit the EIA report again. After the authorities had completely approved it, then we could open it. We could then put the report in our library for the public to retrieve it or study it" (Central government officer 1).

Conversely, one developer argued that they had disclosed every related document such as the contract and the EIA report. However, they could not give the public all the information they needed if that would be material for a competitor. He explained this issue as follows:

"In fact, some documents such as the contract between the government and the company contained some confidential sections. We could not reveal to the public. We could disclose all documents except some parts. However, since the contract was related to both the government and the company so if the public want it, we had to get an approval from the government before releasing it" (Project proponent 1).

One interviewee presented an interesting idea about this issue in the following statement:

"The system of how the public could get information and give a comment was very unclear. In particular, when the document was claimed to contain confidential information, the authorities might not reveal it. How to define the term of 'confidential' was also problematic and complicated. This issue needed to be made clear to every party" (Freelance researcher 1).

This barrier is also a critical problem in practice in other countries. The empirical evidence of public participation studies in the Czech Republic (Branis and Kruzikova, 1994), the UK (Petts, 2003), Bulgaria (Almer and Koontz, 2004), Turkey (Gunes and Coskun, 2005), and China (Tang *et al.*, 2008) presented that public participation in development decisions were constrained through a weak framework and a limitation of environmental legislation. Gunes and Coskun (2005) found that the regulation which could not fully reflect current

social, economic and environmental realities could hamper the effectiveness of the participation process.

7.2.3.2 Ambiguity in legislation and guideline

As discussed earlier, prior to the 1997 Constitution, public participation has been identified in many laws, regulations, and government's action plans such as the Office of the Prime Minister's regulations concerning public hearing, the NEQA 1992 *etc.* However, these laws and regulations did not clearly provide detail about public participation processes or methods (Mallikamarl, 1996; Bureekul, 2004). The Hin Krut power plant was largely in progress in 1996, when the early stages of a public participation regulation was emphasised via an announcement of the 1997 Constitution, and the public hearing regulation has also just been launched. The different types of participation addressed by these different laws and regulations seem to be a practical problem and need to be worked out properly (King Prajadhipok's Institute, 2004).

For example, the guidelines for putting public participation into practice are unclear. As presented in this case, the main law, the NEQA 1992 allows the public to participate in assessing and monitoring environmental standards but the responsible organisations were faced with ambiguous guidance. 14 interviewees identified an ambiguity in legislation and guidelines in relation to public participation practice as one barrier to effective participation. One interviewee gave details that:

“The law and guideline were unclear on how to involve the public over an environmental problem issue and how to conduct public participation. Thus, the responsible organisations did not do well in planning and preparing to involve lay people in the process. This might be because they did not know how to implement the process” (NGO 2).

Another officer explained that:

“At that time the 1997 Constitution was just launched and the Public Hearing Act 1996 was just adopted. We never used them before. I recognised that the Hin Krut power plant was started before the new constitution. However, the public were

very concerned about their rights and community rights in protecting the environment in their communities. My department tried to develop public participation in the EIA in the 1997 Constitution, but we did not have this before. We had no practical experience. At first, we could not release the EIA report to the public since it was in a reviewing process. We had to ask the UPDC before we could publish it. However, it was better when the Public Official Information Act was adopted. The public could obtain easier access to the information. As I told you before, there was no law which mentioned that the developer needed to involve the public. Consequently, when the procedures were unclear, we could not force the project owner to provide public participation before they got the license from the industrial department. There was no mention in any law. When one law covered this practice, there was also no example for the developer. They could not do the right approach to involve the public" (Central government officer 1).

This finding tallies with findings elsewhere, for example, the study of Blahna and Yonts-Shepard (1989), which stated that the public's goals might not be achieved and public participation might not be successful because of a lack of guidelines on conducting interactive public involvement.

Since there was no case study of effective public participation, the project proponent argued that: "*the practice was constrained by an imprecise guidance for practicing*" (Project proponent 2). The developer was unclear how to engage the public in participation processes and activities and at the same time the public also were not clear how to participate or whether they should take part in the project. One developer claimed that:

"Bad planning in the project was a weak point in providing public participation. Possibly, this could result from an unclear guideline. In fact, at the time or even at present, in Thai society we hardly had a good example of effective public participation. There was no good example to show how the public participation process really worked. This limited our practical expertise" (Project proponent 1).

One officer supposed that: “*In the future, development projects might be faced with the same problem since the project owner is afraid of involving the public*” (Local government 2). The findings of Vari (2004) and Okello *et al.* (2009) support what was found in this case. They highlighted a lack of methodological knowledge to manage public participation procedures as a factor hindering the effectiveness of public participation.

Additionally, one researcher stressed that in practice it was very difficult to define who the public and stakeholders were. This was supported by one academic who also indicated that, “*How to identify stakeholders was still a key problem in Thailand?*” (Academic 1). This problem leads to another important issue. One researcher supposed that

“*In practice, it was problematic to decide who should participate in the participation process. Should the public be the same in every case? How could we define who were the public, who were impacted people, and who were stakeholders? What were the guidelines for these actions? If we could not correctly define who stakeholders were, we could not identify appropriate participants in the participation process. Consequently, how to define effective public participation is also crucial and complicated*” (Freelance research 2)?

As the developer did not clearly understand how to approach and involve lay people, at the beginning they approached the public by firstly making contact with the local government, the local village leaders, then local groups and finally the local people. This might be because the local village leaders, in particular Phoo Yai Ban and Kam Nan which are the local leader positions in Tambon Administrative Organisation (TAO), had an important role in their communities because they have to work and cooperate with the local authority and lay people. Usually, they are well known and accepted and they know everything about the community (Klein, 2003). Thus, the developer who wants to initiate any development project in the community is principally willing to make a good contact with them and asks for their recommendations. Significantly, the local village leader seemed to have more opportunities to participate in many participation activities than the lay people. For example, in this case a large number of local leaders were invited to have fieldtrips both inside and outside the country. On the contrary, this may be a barrier of a true representative of the whole community because, occasionally, the local leaders and the local villagers may have different opinions. Clearly, in this case, a large number of

villagers disagreed with their leaders since most of the latter supported the power plant. Consequently, conflict in this different idea was merged.

According to Hughes (1998), unclear wording in legislation and guidelines was a significant barrier to managing and encouraging more participatory processes. Thus, clear legislation and guidelines of how to practice public participation programmes and techniques are essentially needed.

7.2.3.3 Legal enforcement

A number of scholars point out that Thai environmental laws and regulations are not effectively implemented and enforced (Mallikamarl, 1996; Bureekul, 2000). It was found in this case that, not only was there a lack of participation laws and regulations, their enforcement was still a problem. One leader of the protestors stated that:

“It could not be said that there were many laws about public participation. It did exist but the problem was about how to use them effectively. Actually, the implementation of public participation was better than it was in the past. However, this resulted from the strong social movement rather than the law enforcement. We had to accept that the enforcement of the environment laws in Thailand was ineffective” (NGO 2).

This research finding is consistent with that of Purnama (2003), Abdel-Massih (2005), Gunes and Coskun (2005) and Okello *et al.* (2009). That is an ineffective implementation and enforcement of the regulations promulgating public participation was a key barrier to achieve effective process and could lead to more environmental problems and conflicts. There is a need to implement and enforce the regulations related to public participation effectively. Particularly, in Thailand while the public hearing is acknowledged as a tool to ensure the transparency of a project, there is no enforcement, by any laws or regulations, for the government authorities to conduct public hearings before project approval, in particular no law enforces the findings of the public hearing (Ogunlana *et al.*, 2001).

“We do not have a regular public hearing law; we have only a Prime Minister’s Public Hearing Order. It is not a standard. Besides, we know that the developer

has to follow the EIA monitoring programmes, but they are usually ignored. For example, in the Suvarnabhumi airport case, the EIA report required the developer, the government, to move the impacted people from the noise nuisance away from the affected area but nothing happened. The impacted people were still there, the airport could be constructed. When these people brought this issue to the court, the result was that the project could not be closed down for economic reasons. People only just got compensated. Actually, the EIA indicated that the affected people must be relocated before the airport is operational. An enforcement of the EIA measurement and monitoring programmes were not effectively applied" (Local leader 3).

This issue should be mentioned and a solution sought urgently by all relevant parties, in particular the government and the public. One local leader suggested that:

"... In the Thai legal system, there were no supported regulations to fulfill these law enforcements. In fact, the 1997 constitution had already decreed that the public must be heard. These laws must be clearly written and be considered as tools that could be applied effectively" (Local leader 1).

7.3 Recommendations from research findings

This section presents recommendations suggested by the research interviewees to improve the public participation process in the Thai context in the future. To progress the public participation process as well as to increase the effectiveness of the decision-making process, interviewees discussed their ideas which sometimes were different depending on their knowledge and experience. For instance, some respondents wanted the government to change their roles and to be more decentralised. Some wanted to see the participation process be more transparent. Importantly, recommendations from this research exemplified not only how to effectively achieve a public participation process, but also how to implement a development project effectively by employing appropriate public participation.

7.3.1 Timing of public participation programme: Early and on-going participation

An important question for facilitating a public participation programme is when the public should be involved in the processes (Chess and Purcell, 1999) since timing of conducting public participation is crucial to achieve effectiveness (Creighton, 2005; Vantanen and Marttunen, 2005; Flynn, 2008). In this study, a great number of interviewees raised the issue of timing to conduct public participation as an important factor of effective participation. 19 of 23 in-depth interviewees suggested that participation processes should begin before key decisions have been made and take place at the early planning stage of the project. Additionally, 95% of affected villagers felt that it was very important that participation should occur as soon as possible. One officer explained that:

“I think it is very important that the public should have a chance to participate in any decisions respecting a development project at the beginning, before the project would be launched with appropriate methods for them. Public participation should not be created after the project has kicked off. The local people should be involved before the project was initiated; before the conflict was created” (Central government officer 1).

The importance of an early involvement of the public in the participation process is confirmed by a great number of researchers (Thomas, 1995; Shepherd and Bowler, 1997; Chess and Purcell, 1999; Huttunen, 1999; Palerm, 1999a, , 1999b; Furia and Wallace-Jones, 2000; Welp, 2001; Bickerstaff *et al.*, 2002; Sinclair and Fitzpatrick, 2002; Adomokai and Sheate, 2004; Bond *et al.*, 2004; Hartley and Wood, 2005; Tippett *et al.*, 2005). These studies agreed that public participation should be taken place early enough to allow the public or stakeholders input to have an effect on the decisions or an implementation of the project. They concluded that a development project which included an earlier participation process would have less controversy and opposition from stakeholders.

Ashford and Rest (1999) and Rajvanshi (2003) stated that early participation enabled citizens to meaningfully engage in discussions of issues, options, and consequences. They agreed that if the decision has already been made or if the public cannot influence it; the public participation process would be worthless. To confirm the importance of early involvement in a participation process, one project proponent presented an interesting idea from the view of the process organiser that it would be much better to spend plenty of time at the beginning to make the people understand and accept the project. The opposition would be reduced and the project could be a success. He gave his idea as below:

“From the past experience, if I could choose, I would like to spend more time at the beginning. I prefer to get people involved in the project at the beginning. Time spent at the beginning means we have a strong participation process. If we let the public get involved and have an argument from the beginning, the problems are less and could be earlier to solve. In this case, at the beginning everything was fast, the contract was signed very quickly, but the public participation process was not appropriately established. When the conflict was created, we could not get back to solve everything at the beginning. Eventually, the project was delayed and cancelled. So if I could choose, I choose to be slow at the beginning and get fast later” (Project proponent 1).

This finding supports O'Faircheallaigh's (2009) statement that corporations have increasingly recognised that they could not run their business or projects unless they were accepted by, and met the needs of, the public before their project's execution. Loring (2007) found that development projects conquering high levels of public acceptance were more likely to succeed in their implementation than projects attaining low levels of public acceptance.

Based on evidence of late involvement, many scholars argue that public participation should be initiated early in the decision-making process to define and formulate the problems and be sustained throughout (Chess and Purcell, 1999; Palerm, 1999a; Ogunlana *et al.*, 2001). In the Hin Krut case, the following statement supports this view:

“To make public participation processes more effective, the public should be provided a genuine opportunity to participate in a participation programme which

should occur early and throughout the entire decision-making process. The public views should influence the decision. There also should be some participation in how the problem is defined, what the solutions are and how they are evaluated, and which solution is selected and why” (Freelance Researcher 1).

Additionally, nine out of 23 in-depth interviewees suggested that public participation should not only be started at a very early stage, but it should also be implemented at all levels of decisions in particular at the national policy and planning level. One interviewee explained that:

“When thinking about when public participation should be conducted, the answer is that it should be started early and reasonably. Certainly, public participation is essential in every stage and level of decisions. The government and the project proponents have to start to talk and consult with the public, in particular the affected people, as soon as possible. We need to be brainstorming, planning, and studying, at the beginning not in the last step. This approach would let people gain more useful information for their decision about the proposed project. They would talk about the resources, how to use and distribute it as well as how to control the impact, especially the pollution. The stakeholders should think together ... work together. Finally, if the public state that they don’t want it, the authorities should accept this, and don’t force them” (NGO 2).

The research finding supports what House (1999), Strobl and Bruce (2000), Momtaz (2002) and Badr (2009) indicated in their studies that, in order to achieve meaningful public participation, it should take place at a very early and every stage of the development project, particularly at the points where all opportunities are still open and the public’s comments and options could be considered and enforced. Involving stakeholders, in particular local people, in project development processes would lead to better decisions. Importantly, this practice is more likely to be publicly accepted (Loring, 2007).

Also related to the time issue, one scholar gave an interesting point that a suitable time to involve the public would be the convenient time for the public not the regular working day. He presented his suggestion in the following quotation:

“For the timing issue, it should be a most convenient time for the local villagers. It means their free time or after they finish their routine work from their field. People could come to join in participation activities whenever they want which is convenient to them. The authority project owners should always be available for the public to consult. In big communities, the presentations or meetings should be conducted a number of times to inform and engage people effectively. We must recognise their available time” (Freelance researcher 1).

It can be concluded early involvement was crucial to achieve effective participation, and needed to be rigorously executed. As one interview stated: *“an involvement of stakeholders should start as early as possible since this could prevent conflicts and help to reveal hidden issues that may cause any problems later”* (Freelance researcher 1). This finding agrees with Petkova *et al.*’s (2002) statement that an early implementation of public participation can reduce the opportunity for confrontation between opposing parties and also minimise both the number and the magnitude of conflicts arising over the project’s life time.

7.3.2 Multiple and appropriate participation techniques

Although a need for effective public collaboration and participation has been increasing and yielded abundant literature, the process itself remains challenging due to many perspectives of what a public participation format might be for any specific endeavour (Webler *et al.*, 2001). In the Hin Krut case, 12 interviewees indicated that to make the public participation process meaningful, the authorities should employ a multiplicity of techniques or formats to engage the public because the public would have more opportunities to be involved in the process and enter into dialogue. One interviewee explained that:

“In my opinion, there should be different opportunities for people to get into the process. I think using multiple methods is a good approach. So that whenever people want to make any comments they can have several ways to do that. It would be less convenient for people to be involved in the process, when only a few

methods were employed. Sometimes, if people were not available to present their idea at one particular forum then they could join in the process later" (Local government officer 4).

Strong evidence for using multiple participation techniques as a means to reach effective participation was enlightened by many scholars, for example, Simmons (1994), Chess and Purcell (1999), Al-Kodmany (1999), and Owen *et al.* (2008). They suggested in their studies that multiple participation methods were more effective than a single technique to provide the public with increased familiarity with, and awareness of, the process. In the Czech EIA system, Richardson *et al.* (1998) illustrated that a broad range of public participation techniques was employed in the decision-making process, which facilitated the prospect of stronger public participation in the EIA system.

In practice, a combination of participation methods could be more fruitful than application of only one specific technique, for the reason that no singular technique can fulfill all requirements of the participation process in every context (Sinclair, 2004) and different public participation techniques can complement the limits of other(s) (Smith, 1984; Coenen *et al.*, 2008). Fiorino (1990) suggested that for the more successful approach for effective public participation, the authorities should employ multiple techniques such as large public hearings, workshops, seminars, information brochures, and other techniques to sustain a high level of public participation in different stages of the decision-making process.

A number of research studies confirmed the benefits of using multiple and appropriate participation methods when running public participation programmes (Praxis, 1988; Stewart and Sinclair, 2007). Facilitating multiple public participation techniques to solicit people's viewpoints is one effective approach to ensure the representativeness of the participants (Vantanen and Marttunen, 2005), and the process would be more accessible and get wider involvement and interest from a wider public (Al-Kodmany, 1999; House, 1999; Tippett *et al.*, 2005; Stringer *et al.*, 2006). According to Stringer *et al.* (2006), employing different participation methods at different phases of a participatory planning process would encourage maximum public input and participation. This is because people usually favour different levels and methods of participating (Stewart, 2005). A study of participation processes in the United States by Simonsen and Robbins (2000) showed that

a combination of methods could help to accurately identify citizen's opinions and concerns and provide the public genuine information and an opportunity to think about, or work out, a problem and its solution. For example, more traditional techniques such as public hearings and public surveys can involve larger groups of the population (Creighton, 2005), whilst focused workshops or local events could consider a broader range of local interests more effectively (Horning, 1999).

Despite the fact that public participation techniques are numerous with a wide range of potential applications, frequently only very few are employed in the process (Creighton, 2005). In practice, one of the most common administrative problems of the participation process is deciding which technique to employ to achieve participation objectives (Wiedemann and Femers, 1993; King *et al.*, 1998), and constructive public participation (Daniels *et al.*, 1996)? This is because the choice of public participation techniques could impact on the usefulness of the results, the quality of participation, and the acceptance of the processes (Thomas, 1995; Vantanen and Marttunen, 2005).

A number of commentators highlighted that the success of selecting participation techniques is extremely dependent on their appropriateness and fitness to the purpose, specific project, situations, affected publics, and national contexts (Mermet, 1991; Thomas, 1995; Shepherd and Bowler, 1997; Raimond, 2001; Sinclair, 2004; Stringer *et al.*, 2006). This is because different techniques are best suited to different contexts and problems (Laird, 1993; Thomas, 1995). For example, public meetings are useful in informing the public and soliciting people's ideas while they might not be suitable to integrate the public's values in the decision-making process (Raimond, 2001). One interviewee explained that: "*participation programme should be planned specific to the conditions of decisions case by case and its conflict solution approach should be appropriate with in its contexts*" (Academic 1). In particular, Thai society is complex and unique in its characteristics (Boonsathorn, 2007), the selected participation techniques should fit with the Thai culture and contexts which lead to less confrontation among stakeholders (Academic 1). One interviewee highlighted that:

"A public participation process will be more effective when it is designed collectively maintaining awareness about the special circumstances of the situation. The authorities must carefully select the appropriate methods, to both

conditions and parties involved, to engage, communicate and participate with the public” (Freelance researcher 1).

Agreeing with this finding, Simmons (1994), Thomas (1995) and Shepherd and Bowler (1997) identified that selected participation techniques should suit the participants and match the expect outcomes from, and current stage of, the process. Thomas (1995) and Halvorsen (2001) also suggested that participation techniques should be convenient, accessible, and attractive. In this study, a couple of interviewees stated that the best way to design a public participation process to be appropriate with a specific situation and community was to involve the public by consulting them at the beginning of the designing process.

“From my experience, there was a common mistake that the public participation process was designed without any discussion with the public. More often, we ended up with an unsuccessful process. The programme was conducted in ways that did not meet with the public needs. As a result, people did not join; they did not participate. If you did not know how to get people in the process, you just go to the community, make friends with them, and ask them how they want to share their idea and get involved” (NGO 2).

Besides, three interviewees argued that a selection process needed careful consideration and the organiser’s skills. One of them explained that:

“In Thai society, we need our own approach to solve the conflict and to get people to participate. A special method is needed since we have special characteristics. For example, there is gap between the elders and the new generation group due to differences in education and culture which make it difficult to balance these ideas” (Academic 1).

To achieve effective participation, practitioners should pay attention to the types of issues; problems and decisions so that they can predict accurately what kind of information, input and outcome they need from the processes (Thomas, 1990; Abelson *et al.*, 2007; O’Faircheallaigh, 2010). This is because different types of information and knowledge are drawn upon and utilised in different stages of a decision process (Coenen, 2008b), and

different participation techniques provide different types and formats of valuable information which are appropriate for different stages of the participation process (Al-Kodmany, 1999; Creighton, 2005; Coenen, 2008b). Importantly, sufficient resources and information are also required and need to be associated with each participation technique (Creighton, 2005). Attention to these attributes will enable the authority to choose the right mechanism for the public participation process (Abelson *et al.*, 2007). For example, the case study by Huitema (2008), found that any person who had accessed the participation process during the consultation and inquiry stages could receive and determine the information as well as provide feedback. However, in less participatory stages, such as occur in regional planning, citizen panels were facilitated to solicit an input from experts at the first stage.

Accordingly, Thailand urgently needs to find appropriate mechanisms of public participation which suit with the specific context of Thai society in order to bring peace to the country as a whole (Nicro and Apikul, 1999). One interviewee pointed out that in the Thai context there was a need to shift away from traditional participation methods with a typically large and formal structure to smaller, informal and more collaborative approaches.

“In my opinion, informal approaches such as working groups or unofficial meetings were appropriate. This would support closer working and discussion. In our society, searching for a consensus needed unofficial meetings and deliberations. When we thought about the committee, it seemed to be very official. This could cause barriers between the local people and the developer or the government. The authorities needed to rethink about other available techniques which suit our contexts. If it was possible, we should develop our own technique to engage the lay people in the decisions or projects that affected their lives” (Academic 1).

Agreeing with this finding, King *et al.* (1998), Horning (1999), Chaisomphob *et al.* (2004) and Sinclair *et al.* (2009) agreed that participation techniques should move away from static and reactive processes toward more dynamic, interactive and deliberative participation processes. Similarly, Aasetre (2006) indicated that formal participation was not always a guarantee for a real influence in the decision-making process. According to

Daniels and Walker (1996; 2001), Halvorsen (2001) and Bickerstaff *et al.* (2002), public participation methods became less focused on gathering information from a wide range of the public, and concentrated more on becoming more deliberative and interactive, with the emphasis on achieving agreement among a small group of stakeholders. In agreement, Barnes (1999), House (1999), Diduck and Sinclair (2002), Jabbour and Balsillie (2003) and Graham (2004) identified that informal participation techniques and activities within small group could facilitate effective participation. These techniques could contribute co-operation, deliberation, democracy and ultimately appreciating the different views since the members were more likely to have adequate opportunities to speak and equally distributed decision-making power. Importantly, the participants' relationships were well developed through a small group discussion format. These methods are useful means of reaching the silent majority's voices which are frequently overlooked in a direct approach (House, 1999).

However, the small group format has some disadvantages. Graham (2004) indicated one of its difficulties was a problem of the choice of where to sit has on what kind of exchange took place and what kind of conversation was created. Basically, participants preferred to sit down with people with whom they are already familiar. This could limit the degree to which relationships actually build up among the attendees who were new to them since most people sat and communicated with people whom they already knew or had the same ideas in common.

Traditional techniques for public participation are frequently perceived as necessary only as part of a command and control strategy (Webler, 1999). Fiorino (1996a) argued that due to the participation gap between public expectation and their actual power, citizens persistently called for alternative approaches that not only provided information to citizens, but also defined and deliberated the issues with the authorities. This was confirmed as a result of a study of public participation initiatives across local government in UK. The Office of the Deputy Prime Minister (2002) reported that, although the traditional participation techniques, such as public meetings and surveys were widely used and accepted in engaging the public, there was a dramatic rise in the application of more innovative techniques of participation.

The research finding related to the Hin Krut power plant demonstrated strong evidence to support this notion. A great number of affected villagers called for more innovative approaches which would provide them with more opportunities to participate in a more meaningful way. One local leader stated that: *“we did not want to just receive information from the developers or the government. We needed to be able to discuss and deliberate with them”* (Villager 18). Confirming this finding, there is an increasing demand for an alternative to traditional participation techniques which are more deliberative, democratic, and consensus building (Fiorino, 1989; Depoe, 2004). This demand was highlighted in many environmental case studies, for example, Daniels and Walker (2001), Konisky and Beierle (2001), Innes and Booher (2004), and Kavanaugh *et al.* (2005).

However, in some situations, collaborative participation techniques need more consideration before being carried out. Before undertaking a collaborative effort, if the conflict already exists, the authorities should be sure that a conflict assessment is conducted to find the problems and determine whether they could be solved. This includes an identification of stakeholders and their concerns. Importantly, collaboration can be costly. A carefully consideration of costs is also crucial (Innes and Booher, 2004).

To go beyond the traditional approach, Fiorino (1990) suggested features of public participation techniques grounded in a more democratic approach, such as: encouraging direct participation of citizens with diverse opinions; providing sufficient access to information and resources; providing direct interaction and discussion among stakeholders. Along with this criticism, many scholars and practitioners have been challenged to articulate and develop alternative participation processes (Fiorino, 1989; Depoe and Delicath, 2004).

Occasionally, the problem of effective participation lies in the technique itself. A number of participation techniques have no integral mechanism to transfer the outcome of participation process to the decision-making process (Coenen, 2008b). In many cases, the authorities usually commit to honour some of these outcomes themselves. If the participation techniques do not have a built-in mechanism to automatically incorporate their outcomes from the participation process to the decision-making process, the participation process would risk the decision-makers dismissing this information and the process may become separate from the genuine decision-making context. This all leads to

ineffective participation processes (Flynn, 2008; Coenen, 2008b). Besides, every mechanism could be modified to account for its deficiencies as well. For example, a survey could provide a baseline to understand the causes of controversy in preparation for a negotiation or a public hearing.

It could be summarised that there is no single method or approach that can fit every context and situations. Thus, the public participation process should be flexible, multiple, and dynamic depending on the specific context and conditions, and also meet with the identified purposes, level of participation, the types of decisions or projects, and the needs and natures of stakeholders (Mermet, 1991; Simmons, 1994; Chess and Purcell, 1999; Chess, 2000; Chaisomphob *et al.*, 2004; Churchman and Sadan, 2004; Stringer *et al.*, 2006). The selection of methods applied must be carefully determined (Petts and Leach, 2000). A combination of methods appears best structured to accurately gauge public attitudes and preferences (Simonsen and Robbins, 2000). Particularly, conflict over large-scale projects is complex so that a solution would be complex and need more consideration as well (Klein, 2003). A tailor-made public participation process in every specific context seems to be the best approach to achieve effective public participation. However, it should be kept in mind that public participation techniques do not guarantee the success outcomes or predict the desired outcomes. When conducted with valid methods, participation programmes are expected to help the authority to accurately identify the true values and judgments of the citizens and lead to consensus building among stakeholders.

7.3.3 Improving the educational system

As mentioned earlier, education was highlighted as a crucial constraint of effective participation processes in this study. Of the 52 interviewees, 29 suggested that stakeholders and all parties should have an opportunity to enhance their knowledge through dialogue so that everyone participating in the process could effectively share their ideas and learn from each other, and most importantly, end up with a desirable consensus. Some commented that, in fact, the government and the project owner should provide all affected people with an opportunity to increase their level of understanding in the issues as well as the various perspectives of participants.

“In the participation process, the villagers or every stakeholder need to be informed and educated. The participants need to know enough about the project or the related matters so that they can make a discussion or an argument to present their views and protect their concerns. How can the participants make their comments credible if they do not have sufficient knowledge?” (NGO 2).

A number of empirical studies by Simmons (1994), Sinclair and Diduck (1995), McCool and Guthrie (2001), Webler and Tuler (2001), Jabbour and Balsillie (2003), Adomokai and Sheate (2004), Stringer *et al.* (2006), Yang (2007) and Sinclair *et al.* (2008) reinforced the importance of education and suggested that the participation practitioners should encourage learning process, educating people, and pay attention to promoting constructive discourse to involve the public. One academic who has been working in the public participation field stated that:

“What works in Thai society in terms of effective public participation is that a process that engages usually a variety of stakeholders being in a forum where the initial part of the process is dedicated to learning, to mutual understanding and relationship building. Once people truly understand their constitutional roles and duties; they would realise how to protect their rights, and conflicts could be minimised. If you reach that, then you can achieve successful participation” (Academic 1).

In agreement with this research finding, Jabbour and Balsillie (2003), Russell and Hampton (2006), Owen *et al.* (2008), and O'Faircheallaigh (2010) stated that, through a learning process which allows for interaction and deliberation between people, the more learned and educated participants could facilitate more effective approaches to meaningfully and actively engage in the process, by producing a better analysis and assessment of relevant information and alternatives. This is because appropriate education and interaction allows participants to share information, rethink an issue, make an argument, consider alternatives, and create new ideas (Beierle and Cayford, 2002; Park *et al.*, 2006; O'Faircheallaigh, 2010). According to Blatner *et al.* (2001), people with a relatively high level of education better recognised the importance of incorporating other parties' views rather than their own in the process. A number of commentators, such as

Webler *et al.* (1995), Schneider *et al.* (1998), Jabbour and Balsillie (2003), O'Faircheallaigh (2010) and Petts (2006), suggested that the concept of social learning could develop mutual respect among stakeholders make them recognise the differences in attitudes and preferences amongst them. This could make the stakeholders integrate these differences with broad diverse and common interests and ground the basis and rationality for constructive deliberation to contribute potential alternatives to solve a shared problem and, finally, reach consensus.

According to Diduck and Mitchell (2003), learning could help people to overcome personnel constraints on public participation, in particular a lack of knowledge, understanding or deliberative skill. In the Hin Krut case, one respondent suggested that:

“There should be an educational process organised by the government or the project proponents to increase public knowledge. This would make these affected people able to know what they were talking about, and people could effectively exchange their ideas with them. Most importantly, the villagers might increase their trust in their government and the project” (Freelance Researcher II).

Verification was presented in the studies by Blatner *et al.* (2001), Carr and Halvorsen (2001), Klein (2003) and Nisker *et al.* (2003) that illustrated that educated citizens or citizens who have sufficient knowledge about the issue and understood conditions were more likely to engage in the participation process and present their opinions. They were more confident to participate in the process as individuals or even on behalf of the community as a whole. Conversely, studies by Purnama (2003), Adomokai and Sheate (2004), and Kinsella (2004) showed that without sufficient technical knowledge and confidence, the lay people could have difficulty in participating and representing themselves in the programmes and may not engage in more extensive approaches. This was because they felt that they could not contribute much into the forum.

Increasing the public and stakeholders' awareness of the environmental, social and economical impacts of a development project is also necessary (Sinclair and Fitzpatrick, 2002; Primmer and Kyllonen, 2006; Nadeem and Hameed, 2008). Through a learning process, the citizen could develop awareness of contributions to the issues and a willingness to resolve the problems. During deliberations and discussion in the

participation process, the participants would have more opportunities to learn different values and make arguments (World Bank, 1996). In studies on public participation in the Great Lakes region (Beierle and Konisky, 1999) and watershed planning initiatives in the U.S.A. (Duram and Brown, 1999) presented the significance of the education issue. Their findings showed that educating citizens motivated them to recognise their contribution to pollution and take more responsibility over the environmental problems. Importantly, people took more part in the decision-making process and public awareness on protecting the environment was increased.

In summary, new and effective learning systems are necessary to achieve effective participation in the Thai context. Education should be appropriately and continuously available to the citizens, in particular at the local level (Pretty, 1995). However, it should be realised that to develop participation capability for the citizens and interested parties to the point where they have a sufficient level of knowledge and be ready to be involved in the participation process will take a long educational process and require flexibility (Tosun, 2006; Alberts, 2007). Similarly, Alberts (2007) suggested that given sufficient time, commitment, and interaction, lay people could develop sufficient knowledge to participate in a meaningful way. Healy (2008) indicated that effective participation should account for how to construct knowledge and deliberative skill through sound processes. One interviewee stated that: *“education and knowledge of people is very important for effective participation. The citizens should have sufficient knowledge and sense of environment in order to make a right decision”* (NGO 2). This will eventually lead to successful achievement of both participation and environmental goals (Owen *et al.*, 2008).

7.3.4 Strengthening public participation in the EIA system in Thailand

Although the EIA system has been adopted as a tool to reduce and minimise environmental impacts from large-scale development projects in Thailand for several decades, public participation in the system has not been effectively carried out because of a number of practical constraints (Office of Natural Resources and Environmental Policy and Planning, 2004; Stardahl *et al.*, 2004). In the Hin Krut case, many restrictions in the system were identified by the research interviewees including: a lack of public

participation in the EIA procedures, inefficient legal requirements, unclear practical guidelines, and improper institutional arrangements.

7.3.4.1 Lack of public participation in the EIA procedures

In the Thai EIA system, there was a lack of appropriate public participation in the EIA procedures. Five interviewees of in-depth interviews agreed that there should be an appropriate approach to meaningfully integrate public participation and the EIA process. One civil servant stated that:

“To conduct the EIA study, there were a variety of techniques to gain the public opinions. It was dependent on the developers which method they preferred. These techniques were varied in their practices and concepts. They could prefer to involve the public by interview, focus group, meeting or operational meeting, or public hearing. These methods could be conducted with the representatives from relevant parties or with stakeholders. However, there was no clear specific approach allowing the public to directly involve and influence the decision-making process” (Central government officer 1).

Similarly, in the Taiwan EIA system, a lack of public participation in the decision-making stage was also found (Leu *et al.*, 1996). In contrast, Bell (2001b) suggest that there were many EIA patterns that successfully integrated the participatory concept in its system. Soneryd (2004) suggested that when EIA was conducted with aiming to integrate the public in environmental decisions, it could enable the public to influence the decisions. Public participation should be incorporated through the project lifetime; at the beginning, implementation, and monitoring stages.

Accordingly, the current EIA system in Thailand should be revised. There was a comment that the process could be made more valuable and acceptable by containing useful information from impacted people. One NGO argued that:

“Public participation should be integrated into the development process. It should start from the EIA study which includes public information, public hearing. After that the developer gets the permission and constructs the project. Then, the project owner sets up a public relations programme, provides them the project

information both on good and bad sides. Besides, the developer should share the benefits with the public such as providing participation activities and hiring staff from the lay villagers. When the public participation is appropriately conducted, there will be fewer problems and opposition since the public is always consulted. The public concerns could not be overlooked” (NGO 2).

7.3.4.2 Ineffective legal requirements

Based on 9 in-depth interviews, ineffective legal requirements of the EIA system caused practical problems and controversy in many project developments in Thailand. This issue is a critical problem in practice in the EIA and SEA systems in many countries, such as China (Yang, 2007), Pakistan (Nadeem and Hameed, 2008) and Kenya (Okello *et al.*, 2009). It was found that public participation has not been successfully carried out. There was a lack of implementation of compulsory requirements in the EIA system, including inadequate enforcement. These studies recommended strengthening current legal requirements, adapting institutional arrangements and establishing guidelines.

Furia and Wallace-Jones (2000) recommended that the legal framework to foster effectiveness of an EIA system should address provisions of public participation practices and its timely implementation, the accessibility of information and documents, and an adequate time for formulating comments on the project. These aspects should be clearly illustrated with specific references.

7.3.4.3 Unclear practical guidelines

17 interviewees highlighted that EIA was not the most effective means to resolve the problems since it still has many practical problems arising from its unclear practical guidelines which included a lack of an effective application of Social Impact Assessment (SIA), a lack of specification of the types and scales of development projects that should be subjected to EIA, and a lack of an effective environmental monitoring programme.

In this case, the social contexts were disregarded. The project proponent did not have sufficient information to explain to the public and get their understanding and confidence. A number of respondents stress that the system did not have an appropriate approach to conduct SIA and this point led to conflict between the lay people and the developer (Academic 1, NGO 1, 2, Local leader 3). As one interviewee highlighted:

“It could be said that in Thailand, social aspects were always overlooked. Many people thought that if the project was subject to the EIA process, accordingly, a social impact assessment should meet the criteria. The EIA system does not emphasise all issues that the lay people are aware of, in particular, social problems and concerns. Actually, there were no specific guidelines. There was no legitimate enforcement to run the SIA. This could cause problems as well” (Local leader 3).

Clearly in Thailand, SIA was not properly adopted. One interviewee suggested that:

“A sound integration of SIA and public participation in development projects is crucial in Thailand as a possible way to tackle the social problems and conflicts. Indeed, SIA in development decision making has been facing practical constraints and needs to be continually improved” (Academic 1).

In agreement with this finding, a number of studies confirmed the importance of SIA. For example, Rickson *et al.* (1990), Gagnon *et al.* (1993), Gagnon (1995), and Scott (1999) found that public participation in SIA could improve the intelligence of decision-making in resource development, and empower affected communities in decision-making processes to control their own territory and future development. This is because SIA is fundamental to development as it is a learning process contributing to communities and societies learning to increase their abilities (Rickson *et al.*, 1990).

One respondent made a comment that the process of identifying all of the potentially affected communities and interested parties is problematic from a lack of regulatory guidelines. He suggested:

“How to identify stakeholders was still a key problem in Thailand? Who had an authorisation to say you were the impacted groups while the others were not? There was no responsible party to do this. Importantly, information about stakeholders, context, and controversy are essential and needed to be carefully considered by the authorities in order to select the most appropriate participants

for the each activity. In Thailand, supported laws for this particular issue are still lacking" (Academic 1).

In this study, three interviewees stressed that there was a need to revise a list of specification of the types and scales of development projects that needed the EIA study to be updated with the current situations of environmental problems. One interviewee suggested that:

"Clear lists of additional project types which potentially caused serious impact to the environment and should pass the EIA report before its implementation is urgently required. There should be a revised process for this issue. Some types of manufacturing process should be added even where the project is not a large-scale project since it could cause severe impacts to the environment. Relevant guidelines are also necessary and some should be revised as well" (Freelance research 1).

Confirmed by King Prajadhipok's Institute (2007) and Trethanya and Perera (2009), in the Thai EIA system, there were a number of projects, in particular small- and medium-scale infrastructure development projects that did not need to issue an EIA report despite the high potential to affect the environment after its operation. This issue must be considered urgently. This problem is also found in other countries. Branis and Kruzikova (1994) investigated the public participation in the EIA system in the Czech Republic and found that a list of projects which required the EIA report was too broad and misleading to be a good basis for assessment.

Ineffective implementation and monitoring programme

There were many arguments that the environmental monitoring programmes proposed for after the project is operational in the EIA report were not sufficient and the developer usually dismissed them. Besides, "*In Thailand, there was no procedure for the public to review the EIA report*" (Central government officer 1). More than two-thirds of the villagers did not believe that the project's monitoring programmes could control any impacts to the environment from its operation. The ineffective environmental monitoring programmes of the Mae Moa coal-fired power plant project was the key concern that made most of the affected communities not believe in these programmes. The subsequent response was an example of this opinion:

“Actually, the developer did inform the local villagers about the monitoring programme of the power plant; however, they did not believe it. They disagreed with this project. The project opponents did their protests at many places such as the offices of the MONRE, and the MOI. There were some official staff on one side, the affected villagers sat on the other side and commented that the power plant could affect their communities. The officers told the protestors not to worry since the project’s technology and monitoring programme could mitigate the impacts but the local villagers did not believe this claim. The villagers strongly disagreed, no way. Finally, the project was stopped and then they decided to move out from Ban Krut” (NGO 1).

Likewise, Badr (2009) and Trethanya and Perera (2009) found that the EIA system in Egypt and Thailand, respectively, have placed small emphasis on the operation and monitoring phases of development projects. This caused the problem of people’s distrust in the project’s monitoring plans. The similar statement was evident in other countries, such as, Canada (Sinclair and Fitzpatrick, 2002), Sweden (Soneryd, 2004) and England, Wales and Denmark (Loring, 2007). These studies showed that the public should be provided an opportunity to participate in an implementation of development project not only at an early stage but also after the project was already constructed and operated, particularly in the monitoring and auditing processes.

7.3.4.4 Improper institutional arrangements

Drawing from the research findings, there were a number of respondents who mentioned that improper institutional arrangements in the Thai EIA system caused difficulties in development projects. In this study, improper institutional arrangements included: site selection process; a lack of authorities who evaluate the EIA report; inappropriate organising of the EIA consulting companies; and a lack of application of Strategic Environmental Assessment (SEA).

First, an ineffective site selection process was highlighted by 12 in-depth interviewees. Actually, there was a discussion about how to find the most appropriate location for any development projects. One freelance researcher suggested an approach as follows:

“To find out the site location, we must search for the most suitable area. GIS could help to find the right region. Any technique could be used to find out 4-5 nominee sites, and then we could conduct focus groups or any participation technique to get the public ideas. At this stage, economical and social issues could be considered. If the study shows which area is not appropriate and gets resistance from the public, it can be stopped at the beginning. The preferred location should be confirmed at the very beginning” (Freelance research 1).

Confirming this finding, Petts (2003; 2004) indicated that site selection was an intrinsic technology process, relating to the definition of exclusive and inclusive selection criteria and a verification that the sites were appropriate and met these criteria. This process was usually undertaken by the authorities or the developers.

Nine interviewees recommended that when the government had initiated any development project, it should have the candidate sites in hand. Then, the public participation process should be started to select the most advantageous location in agreement with the affected community. This approach benefits every party since it could prevent any dispute that would arise later.

“Actually, the project must be kicked off by the government. At first, the government should search for the optimum locations by itself. The government should find out which locations are possible and suitable to construct a power plant. Then the government should conduct a public participation process. It may organise a public hearing or any participation activities with the public and have to inform their citizens that the project was owned by the government, we don’t know which private company will be an operator. Tell them that the country needs the power plant for which fuel could be either natural gas or coal to produce electricity to support our demand. Explain why this location is suitable and what kind of benefit the community would gain. Importantly, the government must ask for their opinions and feedback on whether they want the project to be located in their community. Then the government will know which community needs the project and which community does not want it. With this process, the government would get some optimum locations where the local people would accept the project in hand. After that the government could run the auction process. The company

presents its technology and price. The winning company could choose the suitable location for building its project. Then the developer conducts more participation with the lay people, gives them more information. If the indigenous people accept the project at the beginning, the problems should be decreased. The conflict would be easier to solve. This approach benefits every stakeholder. The government and the country have the development project. The developer could do their business without opposition. The local villagers gain benefits from the projects and get their compensation. This is a win-win solution. The government has to do hard work which it should do" (Project proponent 1).

One villager also argued that: “*if the public gets involved at the beginning, the conflicts could be decreased. However, it depends on what kind and how much of the benefits that the community could gain*” (Freelance research 1). 2 respondents suggested that to site a development project on the government’s land could be one solution. This idea was shown in the following statement:

“From my point of view, the government could construct this kind of facility at its own property. If the development project is processed by the private sector, it can offer the developer to select the suitable site from the list. If the government does have any appropriate location in hand, it should find out and agree with the lay people before” (Local leader 5).

Empirical studies on the siting process of waste management in Germany and Switzerland (Schneider *et al.*, 1998), and U.K. (Petts, 2003; 2004) suggested that if the public could be directly involved in and learn through the site selection process as well as an application of selection criteria to site identification, this could provide more benefits since they would be able to make a consideration on what the trade-offs should be.

Second, three respondents highlighted that there are only a few staff in the Environmental Impact Assessment Department who will be directly involved in all of the EIA issues. This, occasionally, limited the state capacity in carefully considering the EIA report and making correct recommendations on the report in time. Two interviewees stated that a lack of authorities who evaluate the EIA report was a problem in implementing the EIA process. One government officer argued that:

“The number of staff is not balanced with the projects that need to be considered. In some periods, there was a massive amount of work. For example the officers had to consider the project, conduct a meeting, and service the community at the same time. Sometimes they had too many meetings in one week and had to go to the site if there was any complaint. They had a heavy work load. In some departments, there were few staff and they could not complete everything in the limited time” (Central government officer 1).

Similarly, to strengthen the EIA procedures, Sinclair and Fitzpatrick (2002) and Nadeem and Hameed (2008) suggested that adequately qualified staff and support, in particular for enforcing the EIA requirements and inspecting the monitoring programmes, are necessary and need to be fulfilled. One interviewee suggested that: *“in the Thai EIA system, the authorities should be provided administrative power to impose fines or stop any development project breaking EIA requirements”* (NGO 2). In this case, it was clear that the ONEP were not authorised to cancel the project, they could only make a comment to the developer advising of improvements.

Additionally, sincerity and willingness in solving the problems and bringing benefits to the public were deemed essential to achieve effective process. One interviewee explained that:

“In the EIA process, the authorities have to go to study the impacted area. They do a survey asking for the public attitudes. In this case, they asked the public whether they want the power plant. In the EIA process, there seems to have been a participation process but the affected villagers do not really get into the process. In fact the lay villagers have a local knowledge which is valuable. They should be invited to have a conference and discuss the project with the technical committee” (Project proponent 1).

Third, in the Thai EIA system, the EIA report was carried out by specialists certified by the ONEP as consultants and these companies were hired by the developers. Five interviewees pointed out that this structure would cause problems because the developers make a payment directly to the consultant for the EIA making processes. It could be

implied that the consultant would try to make the developer happy with the report and make this report pass the consideration process from the technical committees. This may lead to biased information in the study. One academic suggested that:

“Our current practice is that the developer hires the consultant company to carry out the EIA report. Thus, the consultant needs to listen to the developer because the developer will pay for the completed report. The developer is a payer so everything in the report should be satisfactory before the compensation process. If the government authority make a change by being an absolute controller of the EIA process, this would be better. The authority should directly control the EIA study process. The consultant is directly paid by the government and the government reimburses the money from the project proponent. So the specialists do not need to listen to the developer. They could do their job fairly. Instead of payment being made by the developer, the authority should do it” (Academic 1).

Finally, more than one-third of the interviewees argued that EIA is not effective enough to solve the environmental problem. The public need be involved at higher levels of decision-making. They want to take part at the policy level where they could say what they want their community to be and issue their own strategy. Five interviewees recommended that the public should be involved in the government decisions since the very beginning, particularly at the policy level (Academic 1, Freelance researcher 1, Local villager 2, 3). One respondent stated that:

“We need to be involved in the decision at the national level in national policy not only at the project level. If public participation occurred at the EIA level, it was too late to change anything. It would be better to involve the public and make an assessment at the policy level” (Local leader 2).

These interviewees suggested that SEA should be taken into account in the policy planning process, such as energy use plans, since SEA could increment the limitations of EIA process. One of them explained that:

“I didn’t think that EIA could solve all problems. I thought that SEA should be adopted and allow the citizens to take part by presenting their ideas and their own

development approach. They should be involved in the policy-making process. The development strategy of the whole country should not be dependent on only one committee, a national economic and social development committee. I was not surprised why many development project proposed to be set up here faced many protests. This was because it was not the development approach they wanted” (Local leader 3).

Confirming the importance of SEA, Wood and Djeddour (1992), Shepherd and Ortlan (1996), Alshuwaikhat (2005) and Sinclair *et al.* (2009) found that SEA was often promoted as a means of improving and facilitating EIA of development projects. Alshuwaikhat (2005) highlighted that in many developing countries, SEA was adopted as a way to promote sustainable development since the SEA process could mitigate a lack of transparency and accountability and ineffective public participation in the development of the policy, plan and program.

However, there was no clear evidence of implementation of SEA in the Thai administration. Trethanya and Perera (2009) found that although there has been an attempt to use SEA by considering environmental impacts of development plans in Thailand, it was not yet a legal requirement like EIA. Studies by Xiuzhen *et al.* (2002) and Okello *et al.* (2009) showed parallel practice in China and Kenya to that in Thailand. They pointed out that in the current situation; a comprehensive application of SEA in these countries has not properly occurred.

Drawn up from the research findings, a number of respondents perceived that EIA was not the most effective tool to solve environmental problems. They strongly recommended that EIA could not solve the conflicts and participating at SEA level is a better approach to handle environmental problems and conflict.

7.3.5 Improvement of legitimacy

In Thailand, there are many laws and regulations stipulating the importance of public participation in the management of environmental and natural resources at the localised level, such as, the NEQA 1992, the 1997 Constitution, and the 2007 Constitution.

However, a distribution of power to people seems to be unsuccessful. It is still at the beginning stage where each party is learning about their rights and duties relating to participation and decentralisation (King Prajadhipok's Institute, 2007). One interviewee illustrated that:

“Actually, there are many parties asking for public participation. We are all agreed that public participation is important but we do not know how and when to start, do we? The government has a blank idea. In practice, if we think about public participation, the government and the project owner should talk with the public from the beginning. The lay people just want to protect their communities and environment. Besides, there should be laws and regulations to encourage and control the project proponent to strictly manage the participation process” (Freelance researcher 2).

It is essential to enact the relevant laws and regulations governing the environmental management so that the environmental provisions of the new Thai Constitution 2007 can be effectively enforced (Kokpol, 2007). The issue of enacting the supported laws and their enforcement was raised by nine interviewees during in-depth interviews. One leader of the protest group interestingly presented his perception of how to encourage people to effectively participate in any project or decision as follows:

“The right and role of the citizen in public participation must be clear and the law has to support its practice. National laws are needed to encourage the public to directly participate at the beginning of the decision-making process and the detailed laws and regulations need to be issued immediately. It means that this aspect needs to be clearly developed under documentation and strong standards in order to protect and support the community more than it was in the past” (Local leader 1).

In contrast to the Thai context, in the US and Canada, public participation occurs in the context of significant legal powers of citizens and local government can approve only development projects that are acceptable to the public. The project proponents usually adopt more public participation in their decision-making process since they realise that if

they exclude the public from the process they will be confronted with a legal battle (Beierle, 2001).

Although the 1997 constitution and the Government Information Act 1997 insist on the public right to access information, in this case, this right is still unfulfilled. It was clearly stated that some government officers doubted what kind of information could be revealed. Sand (2002) revealed that public access to environmental information held by governmental authorities or private stakeholders, in particular information on environmental risks, was crucial and should be properly made available. The study suggested innovative initiatives to establish civil society's 'right to know', by mandatory disclosure of information, held by government and industry, through court and law enforcement. Legislation on government and private data disclosure was essential.

Five interviewees argued that in Thailand there were a number of environmental laws but some of them had overlapping contents. Not only did these laws have some common characteristics, the government officers' roles overlapped. These sometimes caused practical problems because the officer could not decide which law would be applied and who should take this responsibility. One interviewee explained this point.

"Actually, there were a number of legal frameworks about environmental protection. For example, in the waste management sector, more than 20 laws could be used. Most of them overlapped. The authorities would take response only identified by laws and most of them were not clear. Some of them were just second level laws so they had less enforcement and penalty" (Freelance researcher 1).

A similar finding was apparent in a study of public participation in Kenya (Okello *et al.*, 2009), which showed that the inconsistent legal framework with many overlaps caused confusion and lead to difficulty with interpretation and practice.

As aforementioned, law enforcement is problematic in Thailand (King Prajadhipok's Institute, 2007). One interviewee suggested that: "*to achieve effective public participation process, there is a need to emphasise legal support and enforcement. The related laws and regulations need to be effectively enforced*" (Local leader 1). This statement confirms studies of Hartley and Wood (2005) and Okello *et al.* (2009) which indicated that if laws

and regulations relevant to public participation practices were adequately enforced, people would participate appropriately and effectively in the implementation of development projects.

According to the importance of laws and regulations, many studies' findings reached the same conclusion as presented in this study. Yang (2007), Gunes and Coskun (2005) and Okello *et al.* (2009) concluded that to improve the public participation process, there was a need to enhance the institutional supports to monitor and enforce the relevant law and regulations. The legal requirements must be strengthened. Finally, one scholar also mentioned the importance of providing public education so that the lay people could sufficiently understand the concepts of the environmental laws.

“If we enact the laws for them, but they don’t know how to use them or how important they are. It is nothing. The government needs to increase the citizens’ knowledge as well. Consequently, people could effectively participate in the process” (Academic 1).

7.3.6 Encourage social movement and network

Clearly, the government or the developer alone is not a sole repository of wisdom and information. Citizens, NGOs, and related parties also have important knowledge and insights which are important to development projects and the decision-making process. One local leader affirmed that: *“the lay people should not be left and their concerns should not be ignored. All public knowledge is valuable and should be rigorously considered to support the decisions”* (Local leader 1). Accordingly, in this study, the local villagers set up their own network to expand their knowledge and support their members (see Plate 7.1). One interview described that:

“In our case, we tried to set up a strong community to support ourselves. We were assisted from other parties, such as NGOs or academics. They gave us information to increase our knowledge. Then we transferred what we have learned within our group. If social activities are conducted with adherence to good governance, and

strong community, these will finally bring society to peace in the future” (Local leader 3).

In agreement with this research finding, many practitioners mentioned the significance of the social movement and network as a strategy to enhance public participation. Jabbour and Balsillie (2003) and Adomokai and Sheate (2004) recommended that to achieve effective participation, all stakeholders should be encouraged to work together as a network to increase their awareness, knowledge and power. Research by Botes and van Rensburg (2000) identified that community participation was expanded and exemplified from social movements by NGOs and local community organisations. However, interestingly, Loring (2007) found that if an organisation group of the project’s opponents was established, there was a significant chance of project failure, as presented in this study.



Plate 7.1 A meeting at Ban Krut Environmental Conservation Club

According to King Prajadhipok's Institute (2007), the social network could create a forum because various types of information and knowledge could flow freely and rapidly among

stakeholders (Innes and Booher, 2000). Quantz and Thurston (2006) presented that through social networking, partnerships and relationship among different parties could be built. Bell (2001a) indicated that encouraging public participation in the form of providing data, experience and opinions via the social networks could strengthen the decisions by making them more realistic and acceptable. In this case, one interviewee explained that:

“Now, we know that we had the same the cries, issues and concerns. That was a good feeling that we were not alone. We were a community. We had our own working partners that we could be together all the time to learn together to work together with the same particular issues” (Villager 2).

In agreement, Dungumaro and Madulu (2003) and Bureekul (2007) recommended that grassroots community organisations should be strengthened in order to encourage the lay villagers to meaningfully take part in any public participation processes or programmes at all levels.

Indeed, the developer's role is also crucial. Roberts (1995) emphasised the project proponent's role in promoting meaningful participation process. From his recommendation, the responsive parties or the developer needed to recognise that if the participation process was well organised and open and transparent, the project would be more acceptable to the public. Additionally, NGOs are proposed as a suitable institution to lead and empower the local people to take part in public participation processes through various means such as education (Tosun, 2006).

Drawing from the information above, it could be argued that effective public participation can be achieved through social movements via strong networks. One leader of the protestors stressed that: *“An achievement of their claim in protecting their environment or receiving information they need resulted from their strong collaboration within the community comprising NGOs and academic networks”* (Local leader 2). Cooperation from stakeholders is essential, in which at least five parties should be involved including the government sectors, the private sector, NGOs, the academic sector, and the grass roots community (Vatanasapt, 2003). Significantly, the social learning process should take place in the society to promote meaningful participation (Vari, 2004).

7.3.7 Encourage decentralisation and participatory democracy

In Thai society, the government is elected from the majority of the country and its main responsibility is to protect the country's national interests even if it creates conflicts of interest in a specific local area (Albritton and Bureekul, 2002). However, there were several cases involving natural resource management where the government's decision faced opposition from the public, in particular the Hin Krut power plant. From the in-depth interview processes, three respondents highlighted an approach to improve the public participation process by promoting participatory democracy as well as decentralisation. One key informant explained that:

“To be effective, public participation needs more government support. For instance, local administrative organisations and relevant authorities should provide resources and enforce pertinent laws. If all these issues are well thought through, we will discern readiness, willingness, reasonable participation, confidence, and capacity-building of people for participation. Then, these will lead to the growth of a democratic culture, in particular participatory democracy, at both the local and national level. Moreover, these will fulfill the objective of the constitution resolving conflict through peaceful means and making communities more decentralised” (Freelance research 2).

Basically, decentralisation in natural resource management extends opportunities and empowers the citizens so that they can participate in politics and control and monitor the environment. Public participation is a tool to decentralise from the state to local authorities because the local people are the ones who know best about their problems and concerns. If the public pay more attention to participation, the government's operation would be better monitored and inspected (King Prajadhipok's Institute, 2007). Similar to these research findings, Charuvichaipong and Sajor (2006) found that recent democratic decentralisation drive in Thailand did not sufficiently promote public participation at the community level. Correspondingly, a study by Webler *et al.* (1995) suggested that successful public participation must yield a contribution to the development of democracy. According to Lyster (1998), bureaucratic power should be decentralised and the government should be aware of the pluralistic sentiments of the community.

Besides, local governments are often cited as a keystone to successfully implementing participation (Tuler *et al.*, 2002). Thus, the government should increase ability in participatory development which should be promoted from the central to the local levels by maximising lay people's opportunities to participate in the government's decisions.

Principally, participatory democracy relates to a leverage of unbalanced authority and unequal resource allocation which could fulfill the weak point of representative democracy (Pratchett, 1999). This is because occasionally the decision-making authority is not truly representing the minority; thus the authority should be distributed in the same way so that individuals could have influence in any collective activities (Bureekul, 2004). Moote *et al.* (1997) stated that participatory democracy's principles allowed the citizens to participate in politics and management and encouraged an equal delegation of decision-making authority and resource management among stakeholders (Moote *et al.*, 1997). Overdevest (2000) highlighted that public participation might reject a representative democracy process in which interest groups participate yet represent the underlying distribution of issue interests of the public at large. In this study, one interviewee highlighted that: *“many Thai politicians, officers, and citizens failed to recognise a distinction between representative democracy and participatory democracy. This sometimes causes practical problems in Thailand”* (Academic 1). Another interviewee emphasised the importance of participatory democracy:

“In fact, in our society, we were accustomed with the representative democracy. When the citizens select their representatives, they think that on behalf of the citizens’ representatives, decide, and plan everything. They will try to do everything as they had planned. This is right but if we ask whether the process of issuing the policy has properly involved the public. The answer would be no. This process hardly involved the public. The participation is only from the academics not the grass roots people. Consequently, an important thing to do is to encourage participatory democracy. Importantly, if the government does not promote what public participation really is, effective participation is hardly generated” (Project proponent 1).

Participatory democracy not only focuses on the representative selection processes at localised and national level, but also the government operations and decisions which

affected the public at large, especially the citizens' standard of living (Bureekul, 2004). According to Moote *et al.* (1997), through participatory democracy, public participation could prevent environmental conflicts from the beginning of the planning process, since the voice of people is a crucial part of the decision-making process (Bell, 2001a). One interviewee stated that: "*if participatory democracy is appropriately set up, the citizens' rights will be better protected and guaranteed*" (Academic 1).

A similar finding was apparent in a case study of public land planning by Moote *et al.* (1997), which illustrated that the authorities decided to make a considerable shift from the traditional public participation process to a more participatory approach by widely advocating an application of the participatory democracy concept to public participation. It also argued that successful collaboration is increased. Dungumaro and Madulu (2003) hinted that a participatory approach which involved the local communities could increase the public's trust and reduce conflicts. It is vital to make the decision making process legitimised through a public participation process since the public has an opportunity to be involved in any decisions that affects their rights (Lenaghan, 1999).

Finally, it could be argued that the principle of participatory democracy could resolve the weak point of representative democracy in the Thai constitution (King Prajadhipok's Institute, 2004). This will be challenging for Thailand to ensure that public participation is democratic and transparent because it will be essential for the government officers who generally organise the process to adjust their attitude towards the public and re-establish their reputation for honesty and integrity. One interviewee argued that: "*encouraging participatory democracy to establish a strong democracy in Thailand is highly recommended*" (Project proponent 1).

7.4 Conclusion

This chapter presents the results and discussion of barriers to effective public participation in accordance with research questions no. 4 in section 7.2. Recommendations for improving participation process in the Thai context with regard to research question no.5 are also illustrated in section 7.3.

From the research findings there were a number of barriers to effective public participation which could be characterised into three main groups; personnel barriers, constitutional barriers, and legislative barriers. The research respondents recommended that public participation needed to be improved and presented a number of recommendations to improve a public participation process in Thailand. Fundamental factors of public participation should be developed. Relevant laws and regulations should be revised, better supported and enforced. The government, as a key stakeholder in environmental management in Thailand, should encourage public participation right through the country. An administrative service to create and procure participation resources such as the governments' skills should be constructed. Participation could also encourage learning processes among stakeholders. Importantly, constructive participation could build up alternatives and help identify consensus. This is a challenge for Thailand to achieve this commitment, overcome all barriers, and move toward a high level of public participation that fit its contexts as well as strengthen the protection of the country's environment and natural resources.

The next chapter provides a complete summary of the research strategy applied in this thesis, together with the research findings and discussion in Chapter 6, 7 and 8.

Chapter 8: Conclusions and Recommendation

8.1 Introduction

Thailand's rapid economic growth and industrialisation over the last four decades have led to significant environmental challenges. The Thai government recognises the linkage between continued economic prosperity and the protection of the environment. Thus, the government established the concept of public participation in the environmental decision-making process through a number of laws and legal requirements, and the public began to recognise their rights granted by laws. Although a foundation for involvement in the decision-making process is provided to the public, this is still in the early stage of implementation (Violette and Limanon, 2003).

Public participation is a continuing challenge in Thailand. A number of development projects initiated either by the government or the private sectors frequently have faced strong public opposition, and the public participation process itself is viewed as unsuccessful practice (Violette and Limanon, 2003). The question of how to be sure that the participation process is effective and results in desirable outcomes seems to be vital (Rowe and Frewer, 2004). A systematic evaluation of public participation is recognised as a means to ensure the acceptance of the process and outcomes, and, importantly, to develop knowledge of how to improve the practice (Chess, 2000; Charnley and Engelbert, 2005).

This study is important to Thailand because it highlights the significance of conducting public participation in the implementation of development projects in Thailand and identifies the critical factors for effective practice of public participation. The public participation processes of the Hin Krut power plant were evaluated to provide evidence on how to constitute effective public participation. The evaluation was achieved by studying and determining the stakeholders' perspectives and experiences based on evaluation criteria. Recommendations for effectively conducting public participation in development projects were constructed and justified by integrating information from both the

participants' interviews and literature. These recommendations are vital to enable all stakeholders to effectively participate in the decision-making process.

8.2 Research implications and recommendations

In Thailand, the concept of public participation has become more and more acknowledged as a significant element of the decision-making process at all levels, in particular for project development. Indeed, in Thai society increased public participation is often associated with an increase in conflict. Particularly, many conflicts that have arisen were related to disputes over mega-projects, since they would widely affect people and communities and had an adverse impact on the environment.

Although many organisations try to practice public participation, the process has brought a lot of problems and complications. There have been more failures than successes in trying to encourage effective public participation in Thailand. In particular, the Hin Krut power plant project was recognised as evidence of unsuccessful public participation and ineffective management of resources at both national and local government level. The project faced strong opposition due to its environmental and social aspects which eventually brought serious conflicts. There are still significant barriers since many problems concerning its implementation still exist. Problems found in building the public participation process in Thailand stem from many reasons (as stated in Chapter 7) which need to be solved. Significantly, one crucial factor that makes this process more difficult is the traditional decision-making process of the authorities, which has always ignored public concerns.

8.2.1 Synopsis of Thai legal framework related to public participation in the EIA process

Public participation has become a popular term across Thailand since the country adopted the 1997 constitution by specifically establishing rights for Thai citizens to participate in environmental decision-making. Presently, constitutional provisions for public

participation are presented in many sections in the 2007 constitution. Indeed, many Thai laws and regulations, in particular the NEQA 1992 and the 2007 Constitution, mention the concept and importance of public participation in environmental management; however, these laws lay only a framework for this concept and some issues need to be clarified.

For example, section 58 of the 2007 constitution states that a person shall have the right to participate in the decision-making process of state officials in their performance of the administrative functions which affect or may affect his or her rights and liberties. The 2007 constitution also has provisions to protect people's rights concerning property and dwellings. Section 33 states that a person shall enjoy the liberty of dwelling. A person is protected for his peaceful habitation in, and for possession of, his dwelling (Office of the Council of State, 2007). Further, Section 41 promises that the property rights of a person are protected. Besides, the NEQA 1992 states that a person has the right to receive compensation in the case of damage caused by the spread of pollution or changes in the environment arising from activities or projects initiated or sponsored by the state (Office of the Council of State, 1992).

The constitution also contains specific provisions aimed at protecting the environment. Section 85 establishes public participation principles in state environmental management. It stipulates that the state should encourage the public to participate in conservation and protection of the quality of the environment under the sustainable development principle. It also requires the state to promote public participation of the local communities and the local governments in controlling and eliminating pollution which may affect health and sanitary conditions, welfare and quality of life of the public. Besides, in section 87, the government shall implement the public participation policy by encouraging public participation in the determination of public policy and the making of economic and social development plans both at the national and local level. The government has to encourage and support public participation to make decisions on the provision of public services.

Reinforced by section 85, section 67 guarantees the right of a person to participate in the preservation and exploitation of natural resources and biological diversity as well as in the protection, promotion and preservation of the quality of environment (Office of the Council of State, 2007). Importantly, this section explicitly prohibits an implementation of

projects or activities which may seriously affect their lives, their health, their quality of life and the environment without conducting an EIA and HIA study. It also establishes a right to environmental information, and a right to provide public comment on the environmental impacts of projects since it requires a public hearing to obtain the opinions of the public and interested parties before project implementation. The development projects which are subjected to a public hearing (as stated in section 67) are any projects or activities deemed harmful to the community and the environment such as power plants, underground mines or expressways. This is a significant requirement since the 1997 constitution did not require a HIA study before an implementation of those projects. Besides, the right of a community to sue a state agency, state enterprise, local government organisation or other state authority as a legal entity to perform the duties is protected (section 67). It could be seen that this section is subject to pervasive corruption in Thailand in which legal efforts aimed at getting compensation are extremely rare and take decades (Awakul and Ogunlana, 2002).

However, it could be said that the provision in the constitution for conducting public participation and public hearings are not clear enough and this might cause confusion in practice. Therefore, it is necessary that Thailand must have a clear practical guideline that sets the general framework for the government to conduct public consultation. Consequently, the Notification of the Ministry of Natural Resources and Environment Thailand Re: Rule, Procedure, Method and Guideline for Preparation of the Environmental Impact Assessment Report for Project or Activity which may Seriously Affect Community with respect to Quality of Environment, Natural Resources and Health was enacted in December 2009 to set up the scope of public hearings, their format, organisation and ways to handle comments from the public (HIA Co-Unit, 2010). This guideline is the latest regulation and is treated as an essential tool for conducting public participation, in particular the public hearing, under the Thai EIA system, since any public participation programme must follow the contents list laid down in this guideline. Thus, it is essential to examine every aspect of this regulation to understand the current practice of public participation in Thailand and to reflect on this along with the findings of this research which pre-date this regulation, in order to make recommendations of how to improve the practice.

Indeed, there is some confusion in the Thai legislation regarding the public participation concept. For example, in many clauses in the 2009 Notification, the term ‘interested parties’ is often used instead of ‘stakeholders’ - which might cause problems in practice (HIA Co-Unit, 2010). Besides, section 67 of the 2007 Constitution stipulates that projects or activities deemed harmful to the community must be studied and evaluated on their environmental and health impacts, and a public consultation must be held on its virtues before proceeding. However, the Constitution in the English version uses the term ‘public hearing’ instead of ‘public consultation’. In practice, whenever the developers or the authorities want to receive the public opinion or consult with the public, the only favoured technique in Thai society is the public hearing. In this sense, it could be implied that public participation in Thailand is perceived only as public hearings.

At present, despite apparent progress towards addressing weaknesses found in cases such as Hin Krut, real improvements are not likely to be realised without further strengthening of public participation procedures. The Notification (HIA Co-Unit, 2010) provides that, before approval of the project, public consultation is required in three main stages of a preparation of the EIA report: determination of terms of reference; assessment and preparation of the EIA report; and reviewing the draft of the EIA report. This is a new practice which aims to provide the public more opportunities to be involved in the decision-making process and increase the public acceptance to the project and this is expected to improve the Thai EIA system. However, since the Notification states that public consultation must take place three times in each EIA and, given that public hearings are the only favoured consultation method, this might cause inconvenience in practice.

This is because public hearings spend more time and cost and need highly skilled organisers. However, in practice, in many cases public hearings as a means of public participation are conducted at the same time as construction of the project commences. This is a key problem in Thailand that needs to be addressed.

Second, this Notification should recognise that there are many different formats for public hearings. It is important to avoid proscribing specific procedures which would preclude the flexibility to conduct alternative formats which might be more appropriate for a specific policy or project. Indeed, public hearings do not always have to be formal

discussion in a conference room or community centre. Public hearings should provide a forum for discussion.

Third, in particular, the Notification states that the EIA must include opinions of an independent organisation, consisting of representatives from private environmental organisations and from higher education institutions providing education in the environmental, natural resource or health fields. Importantly, formal public consultation, such as a public hearing, should be conducted by an independent ad hoc committee. Members of such ad hoc committees should be appointed by an independent organisation from the list of impartial specialists. However, no legislation has been issued to found such independent organisations and their establishment is still in process. The extent to which specialists will be ‘impartial’ and the organisation ‘independent’ remains to be seen. Cashmore *et al.* (2008) suggested that power and agency dictate which stakeholders are involved, and this may extend to the membership of the independent organisation.

Fourth, regarding the 2009 Notification, the responsibility to organise the public hearing (including the reviewing process of the draft EIA) is still in the hands of the private agencies and the authorities without a true opportunity for the public to be involved in organising the process. In the hearing forum the public might have an opportunity to give comments. However, the form of participation is top-down and passive, where the public are simply informed about the project and asked for their support. The communication approach within the participation process is mainly one-way communication. It could be argued that the public are still passive participants in the process, as was the case in the past. This is expected to change when the independent organisation is established because the participation process should be more neutral and accepted.

Finally, the 2009 Notification calls for public consultation to be held before the project gets an approval from the authority to explain how the project proponent responds to the public concerns; however, how to make the documents about the result of the hearing publicly available to the public is still unclear. At the beginning stage, the Notification only requires the consultant company to send the report directly to the ONEP staff and does not require the organiser to communicate this report to the public. At the final stage, involving reviewing the draft of the EIA report, the Notification only states that the draft

final report shall be disclosed to the public through at least three public communication channels, but no specific communication channels are explained or cited. This might cause problems in practice as, importantly, how to feed back the results and summary of the hearing to the public is not identified. Although the Notification requires the authority to clarify the public's opinions on each issue in writing and convey such justification to the public on the website, access to the internet is still limited to large cities and to young people only. This might not be an appropriate approach to communicate important information to a broad cross section of Thai people.

Indeed, most procedural practice for public hearings through this Notification is the same as was stated in the Prime Minister's Public Hearing Order 1996. It could be said that as the overall practices of public hearings have not been changed, problems regarding their practice still exist. There are several critical issues associated with public hearings that should be considered to make the law more effective. Importantly, as pointed out by many scholars (Klein 2003, Vatanasapt 2003, Bureekul 2007), public hearings should not be used as a single tool through which public opinions will be provided to the decision-making process because of its weaknesses. Clarification for this statement is provided below.

First, public hearings in Thailand are considered to be an inflexible and unsuitable method since it often causes confrontation between pro and con groups, in particular between the project opponents and the project proponents, rather than compromise. Using public hearings to find yes or no answers in Thailand might not be suitable because this would lead to the loss of face of one of the parties involved which potentially leads to a more serious confrontation. Thus, public hearings should be used as information sharing forums combined with other techniques to find alternatives for the project and to assimilate useful information about the project from the public into the decision-making process.

Second, a public hearing is a participation technique which could be manipulated by the organiser and the information could be managed. The problem in the Thai context, learned from the Hin Krut case, is that usually negative information about the project will be disclosed at the forum. The explanations given at the hearing are occasionally inconsistent with what is written in the schema. There is a lack of a proper format to handle public

hearings regarding agenda setting, interaction among stakeholders, consensus finding, especially issues regarding the use of the public comments in the decision-making process. These contribute to the problems with the public hearings in Thailand. Importantly, these illustrate a need for using public hearings in combination with other public participation techniques, such as public meetings or roundtable discussions.

Third, the EIA report should make recommendations on how any identified adverse effects of the scheme can be prevented, reduced or managed. However, in this Notification, these issues are not clearly mentioned. The contents in the Notification are only about when and how to conduct public participation through public hearings. Besides, the need for identification of alternatives to the project is not clearly stated in any Thai legislation. Indeed, for projects with a significant negative environmental impact it is incumbent on the environmental consultant to consider alternative ways of delivering the project. More often than not these include design modifications to mitigate the negative impacts, but in extreme cases can also include a recommendation to abandon the project and locate it elsewhere.

Finally, most public hearings held in Thailand could not adequately represent all stakeholders. As stated in the 2009 ONEP Notification, the selection of the hearing participants depends on the organiser, the consultancy company. The independent organisation, consisting of representatives from different parties, should participate and provide an opinion in public hearings before they proceed; however, it would not be able to determine who the attendees are or how representative they attendees are. The independent organisation could only advise the government on the approval process of projects. The hearings are seen as biased as they are used as a means for the project proponents to bargain their interests since the organisers are the consultancy company who work for the project proponents. This might cause bias in the selection process of the participants in the forums and leads to the question of how inclusive the participants in the forum are? Moreover, this also raises questions about the extent to which the authority should react to the comments from the forum?

These public participation regulations are strong on paper, but there are serious impediments due to the powerful figures, that use force, threats and intimidation to scare

people from participating. Indeed, in the Thai context, the public affected by the project is usually kept in the dark about what is going to happen in their areas until construction has already started. The project owners, government included, do not want them to know, fearing an increase in land price and opposition to the project. The community affected by the project then views EIA as a tool allowing the project owners to do anything they want once EIA is approved. They generally mistrust the EIA process because they have no part in it. It could be seen that violence and intimidation aimed at activists and lawyers, combined with bureaucratic delays and lack of capacity, as well as corruption and kickbacks between companies and government officials, mean that these provisions lack effectiveness in practice (Awakul and Ogunlana, 2002).

Public participation also constitutes a significant part of the EIA process and the views of local residents and stakeholders including NGOs and other relevant agencies should be canvassed via appropriate methods so that their concerns can be addressed in the EIA (Hostovsky *et al.*, 2010). The importance of public participation should not be overlooked as the Thai experience, in particular the Hin Krut case, has shown that fervent public opposition to a project during the early stages of a project can result in high production cost, significant programme delays or even project cancellation.

It could be summarised that from Thailand's legal framework, the public is granted the foundations of public participation: the right to know, right to be heard and the right to affect the decision. However, the means by which these rights are facilitated have yet to be formalised effectively.

The public's right to know: Public access to information

A right to access official information, including information relating to the environment, for the public is granted in the NEQA 1992, the Official Information Act 1997 and the 2007 Constitution. Thailand's 2007 Constitution has several sections that guarantee free information from the government and provide for public participation. For example, section 56 states people shall have the right to gain access to public information in possession of a state agency, state enterprise or local government organisation, except if it will affect state security or public safety. Also, a person shall have the right to receive information, reasons, and explanation from a state agency, state enterprise or local

government organisation before permission is given for implementation of any project or activity which may affect the quality of environment, health, and sanitary conditions, quality of life or other material of interest to him or her or a local community and shall have the right to express his or her opinion on such matters to agencies concerned for consideration.

In places where an EIA is required by law, one of its tasks is to ensure that enough information is available to all concerned parties for them to make informed decisions (Kakonge, 1998). Affected local communities and other stakeholders need to know what impact the planned activity would have on their quality of life and their societal well-being. This means relevant information has to be available freely in a language and format easily understood. In short, transparency assumes the availability of user-friendly information that is not misleading, cannot be misunderstood, nor is easily misinterpreted.

However, there is still a limitation and the officers have a right to refuse disclosure of some information if they deem it to affect the country's security, public safety, personal rights, property right or any business confidentiality. The terms of "environmental information" and "confidentiality of commercial information" require specification to clarify which types of information can be disclosed or must be made available to the public. A lack of clarity in these issues results in ineffective enforcement of the legislation and arbitrary decisions. Besides, the Official Information Act (Office of the Council of State, 1997b) should specify a timeframe to respond to the public enquiry or requisition.

In previous Thai practice, most government officers provided information to the public in a passive manner. Often, this information was not up to date and was not delivered promptly. In the Hin Krut case, the villagers argued that they received and heard about the project from their neighbours rather than the developers or the government. This might distort the reality and understanding of the information and create conflicts among these parties.

The research participants stated that the government officers should regularly publicise the environmental information including the steps needed to access relevant information via various media, and should encompass full coverage and sufficient and up-to-date

information. This information should be in varied formats to reach the wider public. For example, the EIA report should be put in the local public libraries rather than being available only in some libraries in Bangkok (such as ONEP's library). The 2009 ONEP Notification does not mention this issue. It was suggested that information about the project should be simple, accessible, transparent, unbiased and correct. Exaggerated information should be avoided to re-establish the public trust. Importantly, using sound information to communicate with local communities should be key prior to any decision being made. This tallies with Wiedemann and Femers' (1993) statement that providing the information to the public could close the knowledge gap among stakeholders, particularly the villagers and the experts. According to Creighton *et al.* (1981), without sufficient information the public would face difficulties over decisions to support or oppose the project.

The public's right to be heard

Clearly, in the Hin Krut case, the public's views, in particular the lay people, who were directly affected by the power plant, have not been listened to and their views not appropriately incorporated into the decision-making process. For example, in the EIA process, a public opinion survey through questionnaires was often used to solicit the villagers' ideas about the power plant. When used as participation techniques, surveys have some weak points (Denscombe, 2002). Sometimes, it was difficult to use quantitative data to make a decision since it did not provide much detail for analysis. Particularly, individuals have their own perspectives. The responses depend on who the researcher met and represented the negative or positive views about the project. This technique does not allow people to communicate in-depth opinions. The responses might not be inclusive and reflect the true perspectives of the community. Importantly, good surveys need resources for organising which could be costly and time consuming. This might not be considered practical.

Clearly, as revealed section 7.3.2, the villagers tried to express their ideas about the project through the different participation techniques provided. In Thailand, the public hearing was a key technique that the government preferred to employ to collect the public comments. In the Hin Krut case, the public hearing caused confrontation between the project's supporters and opponents rather than leading to compromise. Public meetings,

both formal and informal, were faced with a low attendance and the inclusiveness of different parties was quite low. Thus, the information from a few groups might not represent the entire community. Besides, some questions were unclear which might lead to biased information. It was difficult to conclude that the responses represented the public viewpoints. Furthermore, the authorities paid no attention to develop or apply any other techniques that suited the Thai context.

In this study, it was found that the local people had different backgrounds, interests and opinions, any of which might have limited their involvement. The recommendation from this study is to provide the public with education to increase their ability to meaningfully participate in the decision-making process. To strengthen the education, the government should increase the public's knowledge in scientific, environmental and legal areas in order to enable them to use this knowledge and legal method to participate in the process and protect their rights. If the public does not have sufficient knowledge, it is very difficult for them to play a positive role in the process and make their voices heard. As presented in this study, public education could be delivered through open houses, workshops, or public meetings since these techniques are appropriate to increase knowledge of a project's impacts and environmental awareness. This conclusion tallies with a study of public participation in EIA in Vietnam (Hostovsky *et al.*, 2010).

This research showed that the public wanted their views to be heard. Thus, whenever a new policy or regulation is established, the public should be consulted. Encouraging public participation in decision-making processes can build trust among stakeholders through a good relationship. This tallies with House's (1999) statement that true participation is achieved when the public are actively involved in the decision-making process.

The public's right to affect the decision

Undoubtedly, the public wants to participate in a decision-making process of any development projects that affects their lives. However, in this study, the decision was made without the public having an opportunity to participate in the decision-making process. The public participation did not make a significant difference, nor did it have any direct impacts on the decision-making process and failed to produce stakeholders' satisfaction and, indeed, even increased conflict. Particularly, public participation often

happened at the later stages of project implementation, in particular after the conflict had already occurred, as opposed to the prescribed practice in developed countries (Almer and Koontz, 2004).

This study affirmed that it was difficult to empower citizens if the public administration was not committed to public participation. To achieve effective public participation, the central government should delegate important parts of its power and responsibility to lower levels of government bodies, in particular to local government. This will help to overcome the institutional restrictions for Thailand to be a more democratic country.

In the Hin Krut case, the lay people participated legitimately only at the project level. However, from the research findings, public participation in Thailand should occur both at the policy and project levels, including project planning, site selection and the environmental impact assessment. The authority should focus on the public's interest and opinion and reflect it in the decision. It is also imperative to clearly identify the purpose of the process and explain how decisions are being made and how the public input could influence the final decision. Particularly, public participation should start at the earliest stages in the decision making process since it is then more likely to be publicly accepted. This could reduce conflict and doubt between the government and the public, as well as legitimising the public right as granted in the Constitution.

A number of scholars have stressed the importance of involving the public in the decisions that affect them (Pratchett, 1999; Beierle and Konisky, 2000; Rowe and Frewer, 2000). However, the public participation processes can still occasionally be valuable, even if they do not directly impact on the final decision in any development projects. They can increase the government accountability as well as increase the knowledge and activities of different stakeholders who are willing to effectively participate in the process (Almer and Koontz, 2004). In this regard, public participation in decision-making processes could be a promising approach to effectively manage this problem and fulfil the public desires.

An important judgment from this study is that public participation is not a magic tool that can solve every problem and satisfy every party. The final decision could not please everybody. However, it depends on whether the affected parties from that decision accept

it or not. People tend to fight to change the decision to meet their desires. This is a dilemma which cannot be evaded in public participation processes.

In summary, it could be seen that several articles in the NEQA 1992 and the 2007 Constitution have secured the rights of the public and local authorities to participate in the decision-making process regarding projects that may impact their living conditions. Presently, there are few specific laws to enable these rights. The 2009 ONEP Notification is the only detailed regulation establishing rules as to how the public could participate and be heard before the projects take place. However, some aspects of the Notification are still unclear and are not appropriate. Thus, these laws, which are seen as too lenient in the area of the rights of public participation, should be revised and improved. The constitution, laws, rules and regulations must be reformed to be joined-up, fair, and transparent, and to support public participation. Finally, effective enforcement of laws is essential. No matter how good they look on paper, if each stakeholder continues to go their own way without the proper checks and balances, conflicts would still occur and the people's well-being would deteriorate.

8.2.2 Problems with the EIA process and public participation in Thailand

EIA is utilised as a decision supporting tool in many countries around the world and Thailand is no exception in this regard. It was first introduced in Thailand as a part of the NEQA 1975, which has been amended from time to time, most notably in 1978 and 1992. Presently, the EIA process is a compulsory system of procedural control mechanisms for certain types and sizes of project and activity under notifications issued under Section 46-47 of the NEQA 1992. Currently, 34 types of proposed projects or activities in Thailand are required to undergo EIA study, which range from oil refineries to medium sized hotels and condominiums. In Thailand only environmental consultants approved by, and registered with, ONEP can prepare and submit EIAs on behalf of their clients.

The DEIE is responsible under ONEP for specifying the types of projects that require EIA and for undertaking the preliminary review of submitted EIAs and making recommendations to the expert review committee who will make the final judgement. The

DEIE are also responsible for monitoring the environmental performance of projects after the EIA has been approved.

Indeed, the primary aim of an EIA is to ensure that the potential impacts, both positive and negative, of a project on the natural environment and local communities are assessed at the planning and decision making stage so that appropriate measures can be put in place to prevent, limit or manage the negative impacts of a particular project and promote sustainable development (Canter 1996). Nonetheless, although the EIA process was introduced to Thailand over 30 years ago, it is still filled with controversy. Many parties involved in the process still cannot agree on what EIA exactly means and they each have differing views about it. For example, many developers in Thailand regard EIA as a burden that they have to overcome in order to obtain their construction permit. In order to get their projects approved quickly, they usually promise to do anything the EIA reviewers want, but without a sincere commitment to follow through (Ogunlana *et al.*, 2001). Moreover, as presented in this case study, many EIA reports are made after the projects are already underway, which always causes conflict among stakeholders. This is a narrow-minded attitude and does not do the process justice because international evidence shows that producing a robust EIA actually makes sound economic sense. For example, focusing on energy efficiency and waste minimisation not only benefits the environment, it also makes the stakeholders happy. Consequently, the smarter developers have learnt that it makes perfect economic and marketing sense to commit wholeheartedly to the EIA process (Sinclair and Fitzpatrick, 2002; Diduck *et al.* 2007).

Moreover, many ONEP officers view EIA as a heavy burden, which requires more knowledgeable personnel and budget than is available. They also lack the authority to enforce EIA requirements since they are not the final authority for project approval. They cannot cope with the monitoring and follow up after the project is underway. Besides, the EIA consultants can also be careless. Since a thorough EIA consideration requires a large amount of accurate field data, they will try to get by with data borrowed from other reports with little site-specific information. Large volumes of reports are generated to hide the lack of detail. Many EIA consultants view EIA just as a way to make money. Moreover, the EIA reviewers themselves are not experts in all areas. They work for very little compensation reviewing and approving EIA reports for projects worth several hundred or

even thousand million baht. They also work under pressure, since the law imposes a review time limit on private projects. They view the EIA process as an overwhelming task (Central government officer 1).

Indeed, the provisions for public participation in the EIA process are new and quite specific in Thailand, where the powerful bureaucracy is historically quite secretive. In many cases, the political will and expertise to fulfil them are lacking. Even if the Constitution and relevant laws grant the public an opportunity for participation in the government's administration, the officers lack readiness, understanding and intention, and so effective public participation cannot occur. Furthermore, the release of many EIAs is prevented by overzealous bureaucrats guarding their administrative turf (Vatanasapt, 2003). This prevents fully informed participation by the affected public, and must be overcome to produce effective EIAs that protect the environment while allowing sustainable development to proceed.

It could be argued that EIA has had a minor effect on Thai's development planning and decision making to date. In particular, the Thai EIA system is viewed as a technical tool, which lacks a formal 'participatory culture', which is also found in other countries, such as Indonesia (Purnama 2003). Stardahl *et al.* (2004) highlighted that the Thai EIA system suffers from inadequate staffing and experience, lack of monitoring and evaluation, poor coverage of baseline information, the failure to integrate responsible ministries and agencies, and lack of transparency in public involvement. These problems are also present in the EIA systems of many developing countries (Stardahl *et al.*, 2004; Hostovsky *et al.*, 2010).

In this study, public participation resulted from the public's demands, particularly the citizens who were affected by the project, not from the government's initiatives. Unquestionably, the awareness and strength of the officers are important factors to establish public participation. It is clear that without the necessary changes in practice, and increases in resources for skills training and more personnel, the officers cannot deliver effective participation to the public. Accordingly, there should be training programmes to develop and increase the officers' skills and knowledge in participation practice, such as to improve their understanding of their responsibility in granting the public access to information. Importantly, public participation workshops should be conducted because

listening to public opinions is quite new to concerned agencies and to many developers. Besides, specific procedures of public participation in development projects, such as through publishing operational manuals for conducting public participation, should be established. Such a manual should include not only objectives, benefits, levels and tools, but also the processes or steps for people to participate.

8.2.3 Improvement of public participation and the EIA Process

In order to improve the EIA process in Thailand, the controversies and problems concerning the practice were tackled and investigated. Four major issues were identified based on the research findings which are: steps in EIA process; special EIA organisation; NGOs roles, and public participation.

Historically, in Thailand, public participation is formally required only in the scoping stage of the EIA process but as mentioned earlier current EIA practice is for public consultation to be held in three main stages. However, public participation as part of the site evaluation and selection processes, which are arguably sub-stages, is not compulsory and this potentially leads to conflict among stakeholders. This might be because project siting has always been a key issue that created problems for project implementation in Thailand. Although there were several factors that contributed to the conflicts, the fact that people who lived near the proposed site did not know or have a chance to participate at the beginning stage of the project implementation. In particular, the site selection process is viewed as a key factor that caused the problems. However, this issue is not stated in this Notification. Indeed, there are at least 5 steps in the Thai EIA Process including; screening, scoping, report preparation, EIA review, and monitoring (Ogunlana *et al.*, 2001). Public participation must be included in all steps.

In Thailand, the public has a limited role in the monitoring process, including for the construction and operational stages. Indeed, the project proponents must provide assurances over the running and maintenance of the project in order to increase the public's confidence that the project is of good quality with social, health and environmental soundness. Otherwise, it will be difficult to gain support from the public. This is because the participation of local people and NGOs in monitoring the operational

impacts of a project can lead to the early identification of problems, and can foster public acceptance. Importantly, public participation must be continued throughout the project to prevent failure of the project. At this stage, one academic in this study suggested one approach to deal with this issue that the developers can provide call centres or hotlines to respond to the public complaints and inquiries. Thus, they could take prompt action to alleviate the problem.

Based on this study, it was found that the public trust in the officers and the project proponents was low. A number of interviewees pointed out that loss in public confidence over the neutrality and non-partisanship of the authorities causes further decline in confidence in the decision-making process. Thus, one recommendation was to set up a special EIA organisation as a government supported organisation independent from the ONEP. Its duty should be to support and act as the secretary to the expert panels, perform EIA monitoring, manage the EIA fund, conduct public participation activities, and promote EIA knowledge. Besides, these interviewees also commented that a separate EIA Fund should also be set up. The money should be collected from project owners to support EIA review costs, expert panel fees, and monitoring costs. They argued that this would make the EIA process more effective and independent. Through this strategy, conflict in the Thai society is expected to be lessened, which benefits the country as a whole.

Another context for public involvement in the EIA process in Thailand is the nature of NGOs. Based on the research findings, many NGOs have played significant roles in helping local communities manage their natural resources. In the past, attempts to gain access to government information have had mixed success. However, recently NGOs and the public have been more successful in their efforts to gain access to the EIA and other government documents. Besides, MONRE has organised and supported the network of NGOs and volunteer groups at the grass-roots level in the villages to protect natural resources and environment. It has been realised how public participation is important and can help protect the environment. Many organisations in Thailand have an agenda to promote public participation; in particular local activities related to public participation that could be supported by the environmental fund under the 1992 NEQA (Office of Environmental Policy and Planning, 2002).

Since NGOs and grassroots groups have begun to play an important role in monitoring environmental issues and, in conjunction with local community leaders or committees in diminishing or mitigating the potential of environmental impacts from development projects, these groups likewise should be encouraged to monitor and curb misuse, abuse, and illegal allocation of natural resources by the authorities. These problems are expected to be solved via public participation. This tallies with Kakonge's (1998) statement that direct community involvement by NGOs is necessary in order to minimise the causes and consequences of environmental conflict.

Furthermore, NEQA 1992 states that the government can provide assistance to support registered environmental NGOs if they face difficulties in undertaking their activities and request assistance. Also, this Act sets up an environmental fund, which can be used to support projects that NGOs can propose for financial support from the government.

In sections 7 and 8 of this Act, NGOs can undertake their roles indirectly through the NEB. NGOs are allowed to nominate representatives to the NEB who can serve on a three-year term, but the cabinet has to deliberate and give approval. Within the NEB, NGOs can participate at the policy level and in the law-making process, because NEB is the highest authority in controlling, managing, supervising and determining all environmentally-related policies and plans of the country. On one hand, it is a good opportunity for the government and NGOs to work closely and the government can gain wider perspectives. On the other hand, the registration can be seen as an effort of the government to manage the NGOs through legal regulation and financial manipulation.

Regarding this issue, it could be seen that it is an advantage that environmental issues have received greater attention from active non-state environmental actors. However, its weak point is that the environmental agenda is dominated by a small group of actors. Environmental concerns might not be based on actual interests for the environment, they could be used to obscure the economic interests of some businessmen-cum environmentalists in those private organisations. Indeed, it is difficult for NGOs in Thailand to become commonplace in the opposition to major development projects. All NGOs must receive approval to operate from government authorities, but strong NGOs are seen as a threat to the government. Besides, a senior officer of the OEPP argued that

public participation is a good concept, but people are not ready. She claimed that some NGOs are narrow-minded since they keep insisting on their issues and do not listen to other people's opinions. Public participation, in turn, causes government projects to progress very slowly because some people tend to prejudge or obtain wrong information from some quarters.

However, there is one important issue regarding sections 7 and 8 of the NEQA 1992. Presently, there has been no precedence, rule or method of selection process available. The officers could not clarify criteria for choosing the NGOs; nor could they explain which NGOs would or would not be chosen. Theoretically, nominees should be selected among NGOs by the registered NGOs. Nonetheless, in practice nominees were picked by officers of ONEP. Based on the research findings, the NGOs representatives in this study complained that the present selection procedure is inappropriate and it should have been more democratic. They claim that most of the representatives are from those NGOs which usually have warm relationships with the government. OEPP officers usually select those who work at certain NGOs and are widely known among environmental experts. The ONEP officers only point out that they prefer well-known academic NGOs, not the activist NGOs. This might be because some of the NGO's roles are supportive of the government's decisions and activities, some are not. Sometimes the intentions of some NGOs for organising demonstrations are not clear. On several occasions NGOs have been accused of staging protests against the government for their own political purposes (Vatanasapt *et al.* 2004). Importantly, the NGOs representatives in this research pointed out that many NGOs used to be on the opposite side to the government, while only a few NGOs from the academic field were accepted by the officers. Prominent academic NGOs and private institutions in Thailand represent only one small group of people, especially those of the middle and upper-classes. They are based in Bangkok and they consist of public figures, businessmen, and scholars with international backgrounds. Thus, it could be argued that the selected nominees may not represent all environmental NGOs.

This aspect must be changed and criteria for selecting the NGOs representatives to sit on the NEB must be clearly set up. For example, the selection criteria should state that the selected representatives should have an eminent role and a distinguished record in participatory activities, or should have significant direct involvement in, or job responsibility for, public participation in the case of NGOs, or should have direct work

experience in public participation in the case of academic members. Importantly, these representatives should be varied and from diverse groups.

In the Thai EIA system, it is required that the public be involved in decision-making on developments that affect them. It has been proposed that all stakeholders must have a chance to participate in the EIA process. However, the question of how to define a stakeholder continues to challenge the authorities in Thailand. The definitions of “general public” and “stakeholders” are not clearly stated either in the NEQA 1992, the 2007 constitution, nor the latest regulation (the 2009 ONEP Notification); thus, public participation is often misinterpreted and inappropriately applied and frequently causes conflicts in society. These issues lead to difficulty in implementation and corrective actions to these problems are needed. Basically, the definition of a stakeholder is influenced by factors such as the issues, the methods used to evaluate whose views need to be solicited, and the skill with which stakeholders articulate their interests. However, at least the following groups of stakeholders are identified to be the EIA participants: local community which would be impacted; project owners; the ONEP; the permitting authorities; the EIA consultants; the local authority for natural resources; independent environmental organisations; educational institutions; and the media.

Moreover, EIA and HIA should be considered as tools to indicate the strengths and weaknesses of an area or region in terms of its natural resources and environment. They should be made available before a policy calls for the development of an area or region, which could further damage the environment or misuse the natural resources in the area. Unquestionably, only integrated environmental, economic and social considerations could help to promote sustainability of a project and alleviate public opposition.

Clearly, this study revealed an ineffective public participation process that resulted from bad governance, as manifested by ineffective and conflicting legislation, lack of empowerment of the public, lack of transparency, accountability, or responsibility and, arguably, corruption. Unfortunately, underlying laws are nonexistent, and the constitutional provisions are poorly implemented so that unscrupulous officials and corporations often ignore them with impunity. These loopholes in the bureaucracy and decision-making in Thailand must be plugged so that communities would be able to effectively protect their rights and liberties. However, more details on how to overcome

these problems are beyond the scope of this study. Thus, this research recommends these issues for future researchers as a focus for how to further improve public participation practice in Thailand.

The recommendations to improve the EIA process discussed above need to be implemented as soon as possible. The duration of an EIA process including effective public participation may take longer, but it should result in more acceptable solutions to the impacted public and save more time in the long term. Importantly, the government should also make basic environmental data available for use in preparing EIA reports. Failure to consider an area's natural resources and its capacity to support a given project often results in controversy, as found in this study.

It should be realised that even the best public participation programme may not alleviate the public's dissatisfaction. Nonetheless, this statement can be cited to justify only minimal public participation efforts. Active public participation could positively provide a long-term contribution to the public acceptance and public confidence could be increased when a real opportunity to participate is provided to the public. Thus, a public participation programme is an essential part of any development projects.

From this study, it is recommended that public participation should be considered as obligatory in any development projects with potentially significant impacts and local communities should be empowered as equal development partners who should participate in activities related to development projects, in particular, in the design, implementation, mitigation, and benefit sharing aspects. This confirms Dungumaro and Madulu's (2003) statement that public participation is more than just a procedural obligation to be complied with in development project implementation. It can provide extensive advantages to the whole of society in particular preventing, minimising and resolving conflicts, developing trust and co-operation among stakeholders, increasing acceptance in projects, establishing democratic involvement, and improving the environmental decision-making process and its outcome (Shepherd and Bowler, 1997).

Drawn from this study, it can be seen that public participation in Thailand lacks transparency and is led by the authority and the proponent. A participation culture, or the high degrees of public power which exist at high levels of Arnstein's ladder, are absent.

From this case study, there was either little input or no identifiable comments from the public in the decision-making process. Indeed, the public participation process should not concentrate only on increasing the higher levels of participation but a full set of conditions for effective participation should be established. It could be said that there is no single component that contributes to effective public participation, rather a combination of components - because public participation is multi-dimensional and complex (Carnes *et al.*, 1998). Most of the components are interdependent, and there must be a combination of components to make any programme meaningful. Consequently, when one factor deteriorates it is difficult for the other elements to be incorporated to their full capability. This finding corroborates Beierle and Konisky's (1999; p.44) statement that, "*public participation is far too complicated to come to easy conclusions about what works and why*".

Importantly, in this research, it was found that a failure to achieve inclusiveness of stakeholders in the participation process led to a lack of trust and cooperation in implementation of the development project from stakeholders who were excluded from the process. Therefore, the project will be seen as lacking transparency. The legitimacy of the decision-making process is potentially affected either by the extent to which inclusiveness of the stakeholders is achieved or when the participation process is conducted. A good decision requires careful consideration of all these relevant factors, as mentioned in this study.

Principally, participatory processes are highly influenced by prior experience with participation, and cultural and institutional contexts (Tippett *et al.*, 2005) and there is no consensus on a format for public participation (Owen *et al.*, 2008). As the public hearing is the accepted method of public participation to gather public comments in Thailand (Vatanasapt 2001; Bureekul 2007), the government agencies paid no attention to developing any other suitable techniques. According to the specific and dynamic context of governance in Thai society, public participation techniques should be carefully considered to be properly applied in this specific context. For example, smaller public meetings should be used instead of public hearings, which are traditional in the West, since they create more informal settings without the risk of losing face. The informal meetings provide an opportunity for the public to express their perspectives without the

scrutiny of other people. The research finding showed that different methods are particularly favoured and are suitable in different contexts and vary in their purposes which should be judged on how well they fulfil a particular purpose. Thus, this research recommends that, in practice, a combination of participation methods could be more fruitful than application of only one specific technique - for the reason that different public participation techniques can complement the limits of the other(s). These participation mechanisms should be multiple and rigorously applied case by case in order to achieve the effectiveness of public participation.

Based on this study, it could be implied that effective public participation is not a single event, but a carefully designed and planned process that applies a multiplicity of techniques suited to the situations, contexts and the communities involved. Importantly, due to a variety of stakeholders' attitudes on what constitutes effective public participation, it is very difficult to design a public participation programme to please every party (English *et al.*, 1993; Hartley and Wood, 2005). Understanding these limitations is vital to effective choice and applications (Petts and Leach, 2000). Based on this study, it was clear that to achieve effective public participation, it is very important to plan and execute the process very carefully, allowing adequate time and resources. The public needs to be involved as early as possible in the EIA process; preferably from the screening phase and, in particular, from the site selection process onwards. The participation issues need to be clearly framed and communicated before the processes are commenced. The sessions should be employed in two-way communication and sufficient information should be exchanged. This finding confirmed Abelson *et al.*'s (2003; p.239) statement that: "*complex decision making processes require a more informed citizenry that has weighed the evidence on the issue, discussed and debated potential decision options and arrived at a mutually agreed upon decision*".

Drawn from this study, it should be said that effective public participation in environmental issues requires motivation and effort from all stakeholders. The lack of trust shown by the public in the authorities, put together with the apprehensions of the regulators about public involvement in the EIA process, will require a great deal of work to change. Open and inclusive debate amongst all stakeholders on what changes are needed in their relationships, and in the distribution of decision-making power, is essential. However, this might need more time to cultivate and develop. Particularly, it

requires skills from the authorities and trust and confidence from the public. If public participation is credible, transparent, and legitimate, the process could simply reach an acceptable and desirable outcome for every stakeholder. In summary, a legitimate public participation process is a potential approach to effectively resolve conflict over large-scale development projects in every context in non-violent ways.

Therefore, it could be concluded that public participation is not a mechanism to slow down project planning and implementation. It is a useful approach to evaluate, in advance, the different problems, perspectives and interests by allowing grassroots people to interactively participate in the EIA process. Indeed, public participation is an effective mechanism for conflict resolution since the public's cooperation is fundamental to the successful implementation of any development projects. As pressure mounts throughout the country for large infrastructure projects, lessons can be learned from those which have experienced serious problems in recent years (in particular the Hin Krut case) and have sought ways to resolve them. It is clear from the experience of this project that the value and legitimacy of the EIA process in assessing social and environmental impacts hinges on the adoption of methods that safeguard the participation of multiple voices and perspectives. It could be concluded that if the development projects are to be effectively implemented, and the potential to resolve conflicts from their implementation succeed, the public must be appropriately involved in the decision-making process. A full involvement of the public in the decision-making process make the consideration of the project more efficient and effective than would otherwise be the case.

Finally, various assumptions discussed previously in this study could lead to a conclusion that public participation is the pre-eminent approach to achieve a balance desired between stakeholders from development projects or policy implementation (Churchman and Sadan, 2004). By providing public participation from the beginning through until the end of the process, it could reduce strong opposition (since the public could be involved before the decision has been made), resolve conflict, and lessen anger from the public, and enhance the trust and credibility of the authority or developer. This is a challenge for Thailand to move towards forms of public participation that fit Thai culture and institutions. Greater public awareness of their rights to be involved in the participation processes, and greater knowledge of how to be involved would lead to the greater environmental protection. The more the public are involved in the decision-making process, the better educated they will

become on environmental issues, and hopefully then the safer the environment in Thailand will be from thoughtless plundering and degradation of natural resources related to project implementation.

A summary of the recommendations to improve the public participation process in Thailand drawn up from this study is as follows.

- Public participation *must* begin before any decisions are made. The public should be involved early enough that they can have a reasonable expectation of influencing decisions. This point is clearly stated in both the 2007 Constitution and the ONEP 2009 Notification. However, most public participation programmes occur very late in the decision-making process and in many cases were conducted after the project was approved or constructed. Thus, effective enforcement of environmental laws is essential. They should not be left somewhere on the shelf. The authorised agencies, in particular the ONEP who are responsible for initiating the EIA process and the MOI who are responsible for granting the project approval licence, should also oversee enforcement of the environmental laws. Besides, the government have to enhance the institutional support, in particular the independent organisation from section 67 of the 2007 Constitution, academic institutions and NGOs to monitor and enforce the relevant law and regulations.
- Public participation *must* be included in all steps of project implementation. In particular, public participation in the site evaluation and selection processes of a project's implementation is necessary to reduce conflict among stakeholders at the beginning stage. Participation in monitoring the operational impacts of a project can also lead to the early identification of problems, and can foster public acceptance. These should be clearly stated in the EIA regulations, in particular the ONEP Notification that establish the EIA and public participation procedures. Indeed, there should be a new regulation regarding these issues.
- Public participation techniques should be varied and flexible since public hearings are too formal and rigid which might not suit Thai society. A combination of participation methods is recommended since different public participation techniques can complement the limits of other(s). This should be

stated in the new ONEP regulation regarding participation practice in the EIA process to allow the participants more opportunities to be involved in the process. In particular, they could select the time and their favoured method to participate.

- Bad governance, lack of transparency and accountability and corruption of the Thai authorities are key factors that affect the effectiveness of public participation processes. These problems in Thai bureaucracy and decision-making *must* be solved immediately so that citizens can be able to effectively protect their rights and liberties. Nonetheless, more details on how to overcome these problems are beyond the scope of this study. Thus, this research recommends these issues for future researchers as a focus for how to further improve public participation practice in Thailand.
- The constitution, laws, rules and regulations must be reformed to ensure that public participation is fair, transparent and supports a public participation strategy in Thai government administration. Law reform initiatives, in particular the drafting process, should employ a participatory approach. The reforming process should let all stakeholders (in particular the public, academics, relevant government agencies, NGOs and the project developers) be involved so as to get their opinions to make these laws achieve their goals.
- The definitions of ‘general public’ and ‘stakeholders’ should be clearly stated in the Thai legal framework to prevent confusion over who should be involved in the participation process. The *general public* covers a wide range of potential actors. It should be defined as ordinary people in society who could be either intentionally or unintentionally affected by a proposed development project. *Stakeholders* should be defined as any group or individual that has a stake or an interest in, or can affect or be affected by, the outcome of the development project. Normally those involved in the Thai EIA system should include the general public (including affected communities) and other stakeholders, including the developers, the consultants, NGOs, the authorised agencies, such as the ONEP officers, and the media.
- The ONEP 2009 Notification should be revised to clarify the terms of publication of the summary record of the public hearing, to disclose the consequential actions taken by the competent authorities in that project and the

rationale behind the decision to take that course of action. The summary record should be clear about how the public input informed or influenced the decisions and if it did not, an appropriate reason must be provided. This document has to be widely distributed to the public in particular the affected communities through more appropriate channels. Specific communication channels should be explained or cited such as leaflet distribution, or mail delivery to every household in the communities, or set up an exhibition board for at least one month in the affected communities. Importantly, an evidence of the consultation should be detailed in the EIA study report.

- The organiser or the authorised agencies should carefully plan and organise a public participation programme. The role and influence of the public in the participation process should be clear in advance before the forum is conducted. The participation issues need to be clearly framed and communicated before the processes commence. These issues need to be clearly stated in the practical guideline and regulation, in particular the ONEP regulations since ONEP is responsible for the EIA study and public participation.
- The organisers should employ public participation in a two-way dialogue and communication approach rather than a presentation of arguments and information for and against the project. The organisers should be educated on how to appropriately run the participation programmes. Training to develop the organiser's skill is essential. This issue should be addressed in the ONEP Notification or in other guidance regarding public participation practice. Thus, the related parties, in particular the authorities, could use this guideline as reference in managing public participation programmes.
- Motivation and effort from every stakeholder is needed. The government must be more pro-active and show stronger leadership in encouraging public participation. The government must provide sufficient resources to support the participation process. Moreover, the authority should identify or create public participation techniques that suit the Thai context. In particular, NGOs should be supported to play a greater role in the participation process.
- To achieve effective public participation, a prosperous attitude, understanding and skill are needed. Practical training and public participation workshops should be conducted for the concerned agencies, the public and even for the

project owners. The training organiser and trainer could be academics or a group resulting from cooperation among the practitioners and the authorised agencies. Public participation skills should then be widened since training will increase knowledge and help each party to know their roles clearly, which could support their participation in the process more effectively. Moreover, this might lead to a creation of a unique participation technique that suits the Thai society.

8.3 Limitations of the study

This thesis aimed to evaluate the effectiveness of public participation in development projects in Thailand through examining the perception and experience of various stakeholder groups of the process participants. The research results here should be highlighted as an investigation as they were based on a study of public participation in a single case study of one development project. The strength of the study relied on its controlled design. The participants were selected at random using snowball sampling. However, there are a number of reasons that the findings warrant cautious interpretation and analysis.

First, the case study approach and the small number of research participants limit the generalisability beyond the context within which the study was conducted. The issue of small sample size is difficult to overcome in this kind of study, however increasing the sample size would enable a broader generalisation of the study (Webler and Tuler, 2006).

Second, the research participants were predominantly low in their level of educational background. The samples also represented a small group of authority agencies. Consequently, the conclusions might not be applicable to those with a different educational background.

Third, the established conceptual framework for evaluating the performance of the public participation process consists of several criteria derived from the available literature. There might be other significant criteria that should be included in the framework - such as financial issues, which can be complicated and difficult to assess accurately. Therefore,

the authorities should consider these issues to achieve complete evaluation of the participation process in other practices.

Fourth, a case study approach was adopted for this research since it is a traditional approach to studies in social science. However, a single case study is not appropriate to represent the entire population since there are difficulties with cumulative generalisation of knowledge. The results of this study have been generalised in the Thai context, in particular the Thai legal framework, on the assumption that this research finding is representative of public participation practice in Thailand. However, whenever the contexts are changed, this research might represent only a set of cases with similar characteristics.

8.4 Future research

The recommendations for future research in Thailand would be as follows.

First, this thesis was limited to a single case study, the findings support and advance empirical study respecting an effectiveness of public participation processes in a development project. It is important to continue this line of this study with additional studies of public participation process for other types of development projects. A comparative case study is a good strategy to provide more information of public participation process to allow generalisation of conclusions regarding practice in Thailand. Any differences revealed might have significant consequences for the consideration of effectiveness of public participation - which would be useful for future practices.

Second, in order to find out the most suitable techniques for public participation processes in Thailand, an evaluation study of particular participation techniques, both in the siting of development projects and on related environmental issues, is required.

Third, there is still a lack of accepted evaluation criteria for public participation. There is a need to develop publicly acceptable evaluation criteria which could be widely applied to other fields of public participation studies.

Fourth, although this case study is important because of its extensive characteristics which make it suitable for an evaluation study (as described in Chapter 4), the project was initiated a long time ago and some context has changed. For example, the 1997 Constitution was replaced by the 2007 Constitution and, although the key concept of public participation already existed, there have been minor change in some matters. An in-depth investigation and study of current development projects is recommended in order to understand current conditions and practices of public participation process in Thailand.

Fifth, in some situations, in particular where conflicts are serious, some public participation methods such as public hearings might not be effective. Thus, an assessment of public participation processes should emphasise the risks of conflict development in order to prevent reoccurrence - including assessing the types, level and substance of the conflict which might affect the effectiveness of the process. This could benefit in improving the effectiveness of public participation.

Sixth, there is an increase in the use of technology in public participation which seems likely to play an important role in the future. Interactive internet is the cheapest technique for gathering public comments (Kingston 2007). For example, a list of e-mails and websites has been widely used for information sharing by a number of government agencies. This technique is suitable for the country in which there is a number of internet users. In Thailand, however, the use of interactive internet is normally limited to people in large cities. In addition, most internet users are teenagers who pay little attention to such serious matters as law, politics, civil rights *etc*. However, this situation could be changed within few years due to the sharp growth of information technology in all part of Thailand and the need for participation in decision-making process as well. Thus, a study of technology that could be a useful tool for public participation would be valuable for future applications.

Finally, in the very intensive situation of environmental problems in Thailand, it might be difficult for new and large-scale power plant projects to be located because Thai citizens are increasingly concerned about environmental issues. Thus, a study of public participation in implementation of small-scale projects, or on post-assessment after the development projects are located in the community, is useful. Besides, a study of public participation in the re-development of existing sites with poor management would be

significant and needs to be undertaken. Such studies would be expected to reduce the severity of environmental problems in Thailand.

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Appendix A: Consent form

Consent Form

An Evaluation of the Public Participation Practice in Environmental Development Projects in Thailand: A Case Study of the Hin Krut Power Plant Project

This consent form is a part of the process of informed consent, which will be left with you for your reference. It gives you a basic idea about the research and what your participation will involve. If you would like more information, please feel free to ask.

Dear Participant,

My name is Chatarat Chompunth, a PhD student in the School of Environmental Sciences, University of East Anglia.

This research project is being undertaken in the programme for Interdisciplinary Research in Environmental Assessment and Management, School of Environmental Science, University of East Anglia. The purposes of this research are to evaluate the effectiveness of public participation and explore the opportunities and barriers to its implementation in the contexts of conflict management of development projects. You are invited to participate in the interview part of this study in which representatives from governments, academic institutions, NGOs, project proponents and affected communities involved in the participation process will be asked a series of questions to gauge their opinions on the effectiveness of public participation. The results of these interviews will be used, in combination with a literature review, in order to evaluate public participation initiatives in the area of environmental conflict management.

This interview will cover a range of the topics related to public participation. You can refuse to answer any questions or end the interview at any time. Your responses will be kept in confidence, and the results of this study will be aggregated with no reference made to specific participants. Your mailing address is requested only incase you would like to receive a summary of the research findings.

Thank you in advance for your time and attention.

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**Appendix B: An example of interview questions
(for the project proponents)**

Interview questions for the project proponents

Interviewee Contact number.....

Position

The purpose of this study is to define the effectiveness of public participation and to explore the opportunities and barriers to its implementation in the context of environmental conflict management. This research aims to examine the approaches to improve public participation in conflict management through the examination of existing conflict management related participation programmes in environmental development projects.

The interview will take approximately 60 minutes and will cover a range of topics on public participation activities in related to development projects. You can refuse to answer any questions or end the interview at any time. Your responses will be kept in confidence, and the results of this study will be aggregated with no reference made to specific participants. Your mailing address is required only in case you would like to receive the summary of the research findings.

Part A: Participant information and background questions

A.1 Gender

Male Female

A.2 Age

<input type="checkbox"/> 18-21	<input type="checkbox"/> 22-30
<input type="checkbox"/> 31-40	<input type="checkbox"/> 41-50
<input type="checkbox"/> 51-60	<input type="checkbox"/> 60 ⁺

A.3 Education

<input type="checkbox"/> Lower than Undergraduate	<input type="checkbox"/> Undergraduate
<input type="checkbox"/> Postgraduate	<input type="checkbox"/> Others, please specify _____

A.4 Have you ever participated in the public participation process, such as in a public hearing, for any environmental development project?

Yes No

If yes, which one? _____

A.5 What was your role in that participation process?

Government officer
 Project proponent
 Academic or freelance researcher
 NGO
 Citizen from affected community
 Other, please specify _____

A.6 Did you get involved as an individual or as a representative of a group?

Individual Representative

A.7 What were your particular reasons for getting involved in the process? Please tick all that apply.

Invited to participate
 Concerned about the conflicts or the problems from the project
 An opportunity to present point of view
 An opportunity to listen to public concern
 To find out benefits from the development projects
 Time appropriate for participating
 Feeling of civil responsibility
 Related to responsible duty
 Other, please specify _____

A.8 What were your expectation from the participation process?

A.9 Were your expectations from the participation met?

Yes

Yes, partly

No

If no, which were not met? Please explain.

Part B: Evaluation the Effectiveness of Public Participation

This section is involved the evaluation of effective public participation. Key evaluation criteria are extracted through reviewing a large number of the literature.

1. What was your role or responsibility at that time?; and, please explain and give some examples of your role and responsibility in the public participation programme of this project
2. Were there any controversies concerning an implementation of the power plant?
 - If yes, why the conflicts arise?
3. What were the root causes of the conflicts?
4. When the participation process was taken place?
5. When did you all the local villagers to participate in this project?
6. Were the purposes and intentions of the participation process made clear at the beginning of the process?
 - If yes, how was this done?
7. Was the scope and context of the process clearly identified?
 - If yes, how was this done?
8. Please explain how the information was presented and provided in the participation process?
9. Was the information provision available to wider public?
 - If yes, how it was provided? If no, why not?
10. Do you think you have appropriate level of skill and knowledge in setting up, running the participation process and handling the outcomes?
11. Did you have adequate time to collect, review, share, and distribute relevant information?

12. Did the participation process allow for development of ideas, learning and new ways to look at the problems?
 - If yes, please explain how?
13. What strategy of public participation did you use at that time? Please explain.
14. What public participation techniques were used during the project?
 - Why this technique was used?
15. Were all stakeholders in the development clearly identified?
 - If yes, please explain how?
16. Did the participants represent all significant sections of the public and stakeholders, especially the affected community?
 - If yes, how was this achieved?
 - If no, who was omitted and why?
17. Did all of stakeholders have an equal opportunity to express their opinions?
 - If yes, how it was provided? If no, why not?
18. Were the participation processes open enough to see how the decisions were made?
 - If yes, how was this achieved?
19. Do you think the public hearing is an effective method for public participation in conflict management?
 - If yes, what were the strengths?
 - If no, what were the weaknesses?
20. In your opinion, were the participation processes well organised and managed?
Please give your comment.
21. Did the process contribute to build trust among all stakeholders?
 - If yes, please explain how?
22. Did you manage the participation outcomes to reflect any influence on the decision?
 - If yes, how was this done?
23. What were the specific interests and concerns of each stakeholder?
24. Were the benefits fairly distributed across all the stakeholders?
 - If no, what the interest and concerns of which stakeholder groups were neglected?

25. Did you think that the public participation process consistent with the aim of resolving the conflicts?
 - If yes, please explain. If no, why not?
26. Did you try to avoid and resolve the conflicts?
27. Did the conflicts were solved or the consensus was reached?
 - If yes, please explain how did you manage conflicts and disputes to be resolved?
 - If no, please explain why.

Part C: Wrap up Questions

The following questions ask about the barriers to effective public participation from participants' knowledge and views and ask you to recommend how to improve the participation practice.

1. In your view is it necessary for the public and stakeholders, especially affected communities, to be involved in the public participation process for environmental development project? Please give your comments?
2. Do you think the public participation process was useful in decision-making in your project or not? If so, how?
3. In your opinion what are the barriers to effective public participation?
4. What do you consider to be the obstacles of using legal about public participation?
5. After discussing about the effective public participation, what other factors do you think that can contribute to achieve effective public participation?
