

Public participation in planning the coal-fired power plant projects in Thailand

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Abstract

Many coal-fired power plants in Thailand are often faced with opposition and conflict resulting from their severe environmental impacts, in particular air pollution, affecting the public living near the projects. The public has lost confidence in the environmental monitoring and mitigation plans of the Environmental Impact Assessment (EIA) system since many ongoing projects cause severe problems to their environmental and social impacts. To handle the issue, public participation becomes a key element of the development of the power plant project since the participation process can create mutual understanding among stakeholders including engaging the public in the decision-making process. This research aims to evaluate the present status of public participation in development of power plant projects. The case study, the Hin Krut Coal-fired Power Plant Project was studied and analyzed. The Thai EIA legislation and EIA system were identified in the analysis with an emphasis on the opportunities of public participation, as well as the strengths and weaknesses of the public participation process. The study found that the development of power plant project could be more successful where the appropriate public participation is undertaken. It also can help avert confrontation and conflicts among stakeholders. Some lessons learnt from the study are revealed for improving and promoting the public participation process in Thailand.

Keywords: public participation, Environmental Impact Assessment (EIA), coal-fired power plant, Thailand.



1 Introduction

The tendency of energy consumption in Thailand is forecasted to continue further in the future, following the industrialized countries; therefore, Electricity Generating Authority of Thailand (EGAT) is planned to expand the power generation capacity to keep up with growing demand. Since 1992, EGAT has announced invitations to the private sector or Independent Power Procedure (IPP), to take part in producing electricity for the country. This program was expected to help development of electricity generation, reduce the risk in investment, and increase the electricity performance in Thailand [1]. Besides, the government and EGAT have planned to increase the coal energy as a new alternative approach because the cost of natural gas and fuel oil is unstable depending on the world situation. A number of power plant projects were initiated since then.

The impacts from the coal-fired power plant were critical and severe, in particular air pollution. Either the construction period or the operation period, the communities surrounding the power plant are directly impacted from the pollutants. The cumulative impacts from the power plants were also critical to local residents. A previous coal-fired power plant, Mae Moa, in the North of Thailand has a bad reputation for its air pollutions. In addition, in the past many coal-fired power plant projects had been implemented by the authorities without appropriate public participation. Many projects have faced the problem of public protest due to their impacts and the NIMBY syndrome (Not in My Back Yard) resulting in more expenditure and time delay [2]. Many projects were cancelled or delayed by the local people or the protestors. This might be because the public participation process has not been taken appropriately in the development of these projects until the conflicts among stakeholders, in particular, the government/project proponent and the local community [3]. To solve the problem, participation in the planning and decision-making process of the project should be carried out in a proper manner. Presently, Thai people demand greater participation in the decision-making process concerning highly controversial issues of development activities, in particular the siting of coal-fired power plants. They recognize that public participation should play a substantial role in environmental development projects and the Environmental Impact Assessment (EIA) in order to prevent the project's pollutions.

1.1 Public participation in Thailand

Public participation has numerous different meanings and definitions. It is always viewed differently depending on its contexts and purposes [4]. Principally, 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 [5]. Indeed, public participation is acknowledged as a key concept of a people-centered approach to any development fields [6].



Presently, in Thailand public participation is accepted as a key component of Environmental Impact Assessment (EIA) [5]. Public participation can help avert confrontation and conflict between the authority/project proponents and the affected people and can achieve a higher level of support for decisions during all phases of the project's planning, development, and implementation. Importantly, public participation provides different views which can lead to better decisions [7]. It can also reduce costs and decision delays, and prevent unforeseen situations arising from inaccurate information. However, there are some constraints regarding public participation which are especially time-consuming and costly. In many cases, it is difficult for the public to access the information [3].

Accordingly, a proper public participation process should be planned to deal with these problems since public participation techniques and methods are varied. Different techniques have different purposes and suit different contexts [5]. Proactive participation is beneficial to all stakeholders. Implementing public participation in appropriate time can develop a desirable and acceptable project, resolve conflicts, establish cooperation and collaboration, and improve the process and outcome of environmental decision making [8].

1.2 Significance of the study

The Hin Krut coal-fired power plant is one of a large-scale project in Thailand which having significant environmental impacts, in terms of air pollution. This project was also having conflicts with a high level of controversy among stakeholders. According, the Hin Krut coal-fired power plant is appropriate to investigate how, in Thai experience, a public participation program in managing environmental conflict did not succeed.

This study aims to illustrate the public participation that integrates into the project development in the EIA process of the coal-fired power plant project in Thailand. The case study, the Hin Krut Coal-fired Power Plant Project was studied and analyzed. Then, how to implement effective participation in order to prevent or eliminate environmental conflict is also investigated. Finally, recommendations on how to improve the effectiveness of public participation in the Thai context are presented.

2 Methodology

2.1 Case study approach

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. Documental reviews were applied throughout the study. The 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. All relevant data was reviewed to build up background knowledge about the case study and



frameworks about a public participation process. These reviews aimed to provide background on the rationale for public participation and conflict management.

2.2 Controversy of the case study

Following the IPP program, EGAT has allowed private companies to build and operate the power plant to increase power supply of the country. One of IPP projects, the Hin Krut coal-fired power plant projects was introduced in 1997. It was a 1,400 MW coal-fired thermal power plant proposed by the Union Power Development Company Limited. Prachuab Khiri Khan Province was chosen to be the base on the important condition that the IPP power plant should be located in Industrial Zone 3 areas for free tax reason. Furthermore, Prachuab Khiri Khan Province has been selected since the government has planned to develop a new industrial zone in the western part of Thailand. The use of coal as energy source is due to its low and stable price compared to the other energy sources such as petroleum and gas [1].

The EIA study of the project was separated into two parts and they were approved in May 1998. The first was a deep sea port part which concerns offshore structures. The second part was an onshore coal-fired electricity generating power station. Cooling water which is the main significant impact is considered in the first EIA. In this EIA study, data on coral reef location was unclear. Most data was gained from government agencies without any input data from the local public who know the area best. Later, data was verified to be wrong by the academics from an educational institution.

Urgently, the additional EIA on marine ecology and coral reef was restudied and resubmitted by another consultant, however it was too late. The public did not trust the EIA study anymore. While lack of public participation in the early stage became the significant problem which affected the local community related to the information and environmental pollution monitoring and control programs of the project.

A group of people objected to the construction of the power plant which would close the main highway in December 1998. The opposition grouped together at Prachuab Khiri Khan Province's city Hall to demand that the government change the project location. There was physical harm inflicted on the survey group from the university in September 2001. The opposition expected that the survey team would use chemical substances harmful to the environment. After many conflicts occurred, The Prime Minister visited the project site to listen to the public's opinions in January 2002. The information center of the project was set near the site. The company emphasized local employment and sound environmental management. Other public participation processes occurred after there were a lot of conflicts between government/project proponents and local people. A public hearing on the project was scheduled for February 24–25, 2000 at Prachuab Khiri Khan Province's city Hall to solve the conflict, but some opposition groups of people debated in this meeting. Therefore this formal public participation process failed to achieve a conflict solution because people in the public hearing were mostly in favour of the project. However, the result of the public hearing recommended that the



Tripartite Monitoring Committee (TMC) including government, project proponents and local community should be set up to solve any problems and undertake project monitoring [9].

The project also provided some compensation programs for the community, such as the Artificial Corals Program with cooperation of the Fishery Department and the Sea Farming Program with cooperation of Chulalongkorn University [9]. However, the local community still did not trust the project and still opposed the project. The Hin Krut power plant project was delayed and finally terminated by changing to another location.

3 Results and discussion

3.1 Law and regulations regarding public participation in Thailand

Public participation has become a significant part in project development since an amended of The Constitution of the Kingdom of Thailand 1997. This constitution stipulated that the public have right to express their opinion and have a chance to participate in the management, maintenance, preservation and exploitation of natural resources and the environment [10]. Presently, the Constitution of the Kingdom of Thailand 2007 also encourages public participation in environmental management. As stated in Section 67, any activities or projects that may seriously affect the quality of the environment and people's health could not be permitted, unless the impacts on the quality of the environment and the public's health have been studied and evaluated [11]. Moreover, the constitution also provide the public right to access to information from the government or the local authorities before permission is granted [12].

In the past, the Office of Natural Resource and Environmental Policy and Planning (ONEP) is an administrator of EIA, issuing the EIA guidelines for projects in Thailand under the NEQA 1992. Nowadays, the Division of Environmental Impact Evaluation (DEIE), under the Office of Natural Resources and Environmental Policy and Planning (ONEP), is responsible for reviewing and making recommendations on the EIA report of large-scale projects which may cause seriously environmental impacts.

Presently, 22 categories and magnitude of projects or activities of the government agency, state enterprise or private organization are required to submit an EIA report. The projects or activities can be categorized in 7 groups: industry, residential building and service community, transportation, energy, water resource, watershed area, and mine. The large-scale project, in particular, the coal-fired power plant projects that are more than 10 MW are required to set up and submit an EIA to the authority before permission is granted [13]. EIA study is conducted following the Enhancement and Conservation of the National Environmental Quality Act 1992 (the NEQA 1992). The aim of EIA is to predict, evaluate and interpret the significant environmental effects of a proposed project and to provide information for decision-making [5].

Section 6 of the NEQA 1992 provides a right of the public to access to environmental information in general terms. However, the NEQA does not



provide specific mechanism for the enforcement of this law. Thus, a request to disclose environmental information is based mainly on the Official information Act 1997. Besides, the regulations on public hearings were issued in 2009 by the ONEP to give an opportunity for the public to provide some comments in part of a project's decision-making. Public hearings are compulsory for significant projects which might cause huge impacts to the environment and the public health. Nevertheless, this creates some problems resulting from both the background of people affected and the attitude of project proponents.

It could be seen that the Thai legal and regulation encourage and support the public to participate in environmental management and project development. However, 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 Hin Krut Coal-fired Power Plant Project. The Thai legal and regulation are unable to effectively solve the environmental problems and public participation is not well established. The main reasons for this failure of the legislation may result from the lack of effective enforcement of laws and regulations. This research finding is consistent with many studies [14, 15]. 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.

3.2 Lessons from the case study: the Hin Krut Coal-fired power plant

The case study showed that the authority made the decision to initiate a large-scale project development which might cause harmful effects to the public without proper consultation with them. The Hin Krut coal-fired power plant is obviously demonstrated for the problem of lack of public participation in early stages. In the EIA process, a study team assessed that they visited the local communities and get information from local residents; however, many local residents claimed that they were excluded from the survey. They also stated that they knew nothing about the project. In this case public participation was taken place too late and this was too late for the public to make meaningful contributions or influence the decisions. This issue of early involvement is a practical problem of public participation in the EIA process in many countries, such as the Czech Republic [16], Spain [17], Bulgaria [18], and Kenya [15]. These studies confirmed that a lack of public participation in the early stage of project implementation became the critical problem for implementing development project.

In this case, when the conflicts emerged, information gathering in terms of interviews with the local people was difficult to carry out in these areas. Consequently, some important information in the EIA report was missed. So many parties criticized the EIA study's incomplete processes and lack of accuracy. The insufficient, unclear and incorrect information of the environmental and health impacts including safety issue resulted in conflicts between the corporations between the government/project proponents and the impacted communities. A similar finding is also found in a study of the EIA



process in Bulgaria [18]. In their study, a number of mistakes were found in the EIA report, such as, a lack of social and economic facts to support the project's claim of being safe and sound to the environment, and a lack of investigation on the effects of project operation.

Thus, the public participation in EIA was only a social survey. Indeed, the main public participation of the Hin Krut coal-fired power plant project was a public hearing and Tripartite Monitoring Committee. Clearly, in this case the selected participation methods, particularly a public hearing, seemed not to be appropriate and suit in the Thai context. The Thai government often used public hearings to solicit the public's opinions and solve conflict among stakeholders in development projects; however, frequency the public hearing was not successful in solving the conflict in Thai society. In accordance with this finding, Almer and Koontz [18] affirmed that although the public hearing is a forum for discussions, it could intimidate and be prone to adversarial confrontation. In many cases, a public hearing is not the most appropriate means of engaging the public [5].

The protestors believed that the project would cause massive environmental and social impacts such as air pollution, and impact on the marine ecology, fishermen's livelihoods, and the tourism industry. The villagers did not believe that the project's monitoring programmes could control any impacts to the environment from its operation. They believed that the government and the project owner were not honestly attempting to solve their problems and did not pay attention to their concerns. Similarly, Tippet *et al.* [19] stated 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.

4 Conclusions

Public participation seems to be a key strategy for development project implementation. However, public participation in Thailand is viewed as an ineffective process which does not comply with a real concept of public participation. The Coal-fired power plants in Thailand are mostly faced with the public's opposition and conflict resulting from their severe environmental impacts in particular air pollution. The impacted communities are worried about the project's pollutions and have lost confident in the project monitoring and control program. Local residents in the impacted area who are directly affected by the project did not have an opportunity to be informed and to express their ideas from the very beginning, and their opinions were not considered in the decision-making process.

Although public participation in decision-making processes of any large-scale projects which cause severe pollution and the public's right to protect wellbeing and livelihood are noticeably stated in both the 1997 and the 2007 Constitution, the decision-makers tend to violate the Constitution by employing their power to support their decisions. Much evidence in Thai history indicates that the decisions of many development projects had already been made prior to the EIA



study. The public participation processes of that EIA were only an instrument to fulfil legal requirements. In addition, government agencies should provide the clear regulations and guidelines of public participation practice in the development of projects for providing more public participation and better future development. This issue needs to be carried out very soon.

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. To achieve it, it is very important to plan and execute the process very carefully, allowing adequate time and resources. 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. The other interesting point is building public confidence. It is important that local people have an understanding of the nature of a project and opportunities to make their views about it known to the proponent and to decision-makers. Importantly, reliable information and accurate data are essential for an effective participation process since they make the process transparent and credible.

This is a challenge for Thailand to move towards effective public participation. However, this requires motivation and effort from all relevant parties and needs more time to cultivate and develop. The authority or the project proponents should conduct a public participation process in every step of the project implementation. In particular, public participation should be started in the earliest stage of planning and implementing stage to increase trust and good relationship among stakeholders, in particular the project and local community. If public participation is credible, transparent, and legitimate, the process could simply reach an acceptable and desirable outcome for every party. 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.

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