

**A Political Analysis of the Environmental Impact Assessment in
Taiwan: A Case Study of the Tseng-Wen Reservoir Transbasin
Diversion Project**

Master of Science Thesis Environmental Policy

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Abstract

A major feature of the environmental impact assessment in Taiwan is the institutionalization of public participation at various stages of the review process, and whether the general public is allowed a completely open and democratic channel to participate in the review process determines the integrity of the environmental impact assessment. Considerable uncertainty continues to exist about how much general populace can freely participate in the environmental impact assessment process, however. This study set out to address this.

In this study, I first explored the prevailing power structure has contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project. I identified several sources of power in this power structure that sought to push this transbasin diversion project. Specifically, I identified Water Resources Agency, Township Office, Kaohsiung County Government, the Council of Indigenous Peoples, contractors of the tunnel construction of this transbasin diversion project, non-decision making and systemic power, paternalism, and powerlessness of the potential challengers.

I then explored how this power structure has shaped the nature and extent of public participation in the environmental impact assessment review. Contrary to the original conception of EIA as an environmental governance tool that sought to rely on objective and scientific procedure to assess development project, the current study discloses that EIA review process is in constant dance with varying rationalities and values, and this dance manifests itself as power struggle among participants in the review process. For example, the “scientific” data on the economical and environmental feasibilities of the Tseng-Wen Reservoir Transbasin Diversion Project turned out to be a disguise for the powerful actors’ rationalities and values, *i.e.*, the rationalities and values that hold economic development more dear than other considerations; as such, “science” was a tool that was instrumental to myth-making of the Tseng-Wen Reservoir Transbasin Diversion Project. “Virtual supporters” were summoned and told a story that did not correspond with the actual story that I have disclosed in my analysis. An application of environmental impact assessment without the acknowledgement of this inherent problem only allows it to be a fig leaf for the politics of environmental governance.

I also ventured some thoughts on what the role of environmental impact assessment as an environmental governance should be.

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1. Introduction

1.1. The Nature of the Problem

With the gradual opening of political opportunity structure for environmental organizations since 1993 (Lii & Lin, 2003, p. 62), environmental movements in Taiwan gained a symbolic victory in 1994 when the Environmental Impact Assessment Act was formally adopted by the Legislative Yuan¹ (literally, the “Legislative Court”). The environmental impact assessment is designed to use scientific, objective, and comprehensive methodologies to evaluate development projects, thus ensuring that necessary environmental managements are in place to safeguard the social, cultural, living, and natural environments from any potential, negative impacts of development projects (Anonym, 2009a).

But a casual glance of newspaper articles contradicts both the scientific, objective stance of the environmental impact assessment review process and the promise of having environmental activists served on the Environmental Impact Assessment Review Committee. That is, mainstream and alternative media have been reporting incidents where the so-called “scientific and objective” nature of the review process is violated by pro-growth regime, rendering the environmental impact assessment a political field where the non-ruling elites, *i.e.*, the general public, cannot democratically vie a say. These grievances against the environmental impact assessment may be more appropriately understood when they are situated in the larger political context in Taiwan. On one hand, thanks to the friendly alliance with the Democratic Progressive Party (the major political party oppositional to the then one-party authoritarian rule, the Kuomintang [also known as the Chinese Nationalist Party]), environmental organizations have been able to more effectively penetrate the state to launch reforms from inside the state after the Democratic Progressive Party won the presidency in 2000 (Ho, 2006). On the other hand, however, to recruit more material resources, the Democratic Progressive Party had since the mid-1990s been allying themselves with the capitalists, which in effect undermined the Democratic Progressive Party’s once radical environmental ideologies and visions. As a result, it was not uncommon, as remarked by several researchers (Ho, 2006), for the state agencies (e.g., Environmental Protection Administration) and government officials to collaborate with economically and politically powerful actors to play shell games with the regulations of the Environmental Impact Assessment Act to push for more development projects.

The discrepancy between environmental impact assessment *in theory* and *in practice* as well as the controversies surrounding the environmental impact assessment presents a highly confusing picture of the Taiwan’s environmental impact assessment and its role as an environmental governance tool. Which motivated me to conduct a systematic research to shed some lights on this confusing issue. What patterns of accommodation and power dynamics have to be broken before change could occur? What’s the status of public participation in the environmental impact assessment review process? If participation is low, which forces paved the way for this acquiescence?

¹ “Under the five-power framework by Dr. Sun Yat-sen, the founding father of Taiwan, the National Assembly exercises political power on behalf of all people, while the five Yuans of the central government, namely, the Executive, the Legislative, the Judicial, the Examination and the Control Yuans, share the governing power. This model defines the Five-Power Constitution and the role of the Legislative Yuan. The Constitution of Taiwan stipulates that the Legislative Yuan shall be the supreme national legislature with its members elected by the people, and it shall exercise the legislative power on behalf of the people. In terms of its power and function, the Legislative Yuan is equivalent to a parliament in other democracies.” (the Legislative Yuan of Republic of China, available from: http://www.ly.gov.tw/ly/en/01_introduce/01_introduce_01.jsp)

1.2. Literature Review

Environmental Impact Assessment (EIA) was developed and introduced in the 1960s against three social, economic and cultural backdrops: the growth of modern environmental concerns; the hegemonic view of the society wherein environmental problems called for rational, scientific, objective and technological solutions; and surge of pressure groups, among them the environmental non-governmental organizations, demanding higher level of inclusive democracy (Weston, 2004; Jay, Jones, Slinn & Wood, 2007). The legitimacy of the EIA as a decision-aiding tool for environmental and policy lies in the perception that EIA was a scientifically neutral and rational approach. In fact, the USA's National Environmental Policy Act of 1969, from which the EIA originated, first perceived the EIA as a stage-by-stage scientific procedure to evaluate the environmental impacts of development projects (Weston, 2004). Indeed, for Munn (1979), the institutionalization of the EIA was a response to the need for a "comprehensiveness" of approach, a "systematic" process and "subjectivity".

No longer does scientific rationality of the EIA prevail, and many subsequent researchers have criticized this rationalist view of the conceptualization of the EIA evaluation by recognizing that power plays a role in the EIA process (e.g., Armitage, 2005; Lawrence, 2000; Gismondi, 1997; Patel, 2006; Richardson, 2005). For example, Lawrence (2000) have called into question that planning theory and EIA theory have to a very large extent proceeded along parallel but separate paths, and proffered that the theory and practice of EIA can benefit much from five major planning theories: 1) rationalism, 2) pragmatism, 3) socio-ecological idealism, 4) political-economic mobilization, and 5) communication and collaboration. The overarching theme of the latter four theories is the recognition of the negotiation of varying and oft-conflicting values and rationalities in political and economic contexts, and implied in this articulation of planning and EIA theories is the acknowledgement that EIA is not a value-neutral process, pointing to the potential of this process to reinforce inequalities.

Similarly, Richardson (2005) decisively argued for the Foucauldian presence of power struggle in the EIA process in that EIA both becomes a site where power defines facts, judgments, opinions and rationalities and is used as a forum for mediating political and economic interests. Studies focusing specifically on EIA in Taiwan reached similar conclusions. Liu (1995) maintained that the implementation of EIA and its effectiveness (up to 1995) was severely hindered by the hegemonic Council for Economic Planning and Development with its priority of economic development over the concern of associated environmental implications, by the inadequate monitoring of EIA-approved development projects by environmental organizations, by the inadequate performance and political muscle of the Environmental Protection Bureau, and by the low level of the execution of environmental laws. It is for these reasons that the EIA has become a crucial site of struggle, as it is in this sphere a plurality of stakeholders can negotiate, contests and finally reify their perceptions of what environmental protection entails.

Despite the social, political and economic characteristics of the EIA evaluation and decision-making process clearly foregrounded by aforementioned studies, Gismondi (1997) asserted that the participation of sociologists has not kept pace with these discourses. Using the case of the commissioning of Alberta (Canada) government of pulp mills, Gismondi expressed frustration over the exclusion from environmental impact assessment of social issues such as "foreign ownership and the implication of a project that would produce pulp for export but would not commit to value-added local job opportunities" (p. 459). Gismondi proffered that the hegemony of economic development made visible only the question "Is there any significant environmental implications of any particular development projects?" while marginalized the fundamental question "Whether we want projects of this kind?". According to Gismondi, environmental impact assessment process was also gender-blind, ignoring the gender inequalities of employment opportunities promised by the pulp mills, that is, males were employed to a

disproportionately higher degree than were females. All these social issues were left unproblematized. The presence of these social issues related to the development of pulp mills failed to generate the incorporation of critical sociology in the EIA evaluation and decision-making process, thus “extensive questioning by government specialists of the social sections of ... EIA did not occur” (p. 458).

Not only does the social, political and economic characteristics of the EIA decision-making process call for a greater involvement of sociologists, but also a greater participation of the general populace. Jay *et al.* (2007), Glasson, Therivel and Chadqick (2005) and Tang, Tang and Lo (2005) have also pointed to the importance of public participation in EIA process and decision-making. Moreover, in response to the importance of public participation in the EIA process, Armitage (2005) examined the preconditions “that ensures the accuracy and completeness of information, an openness to alternative perspective, for the opportunity to reflect critically upon the assumptions embedded in the assessment process” (p. 241). Simply put, what are the intuitional, organization and socio-political factors that are conducive to a meaningful and real collaboration among various stakeholders in EIA process and decision-making? Using the environmental planning, management, and assessment regime in Canada’s Northwest Territories, Armitage was able to identify several institutional, organization and socio-political preconditions of collaborative environmental assessment.

Armitage (2005), albeit his contributions, does not accentuate the possibility that the outcomes of collaborative environmental assessment may be predetermined by the economically and politically powerful actors possessive of superior bargaining resources, rendering collaboration a mere formality without any substantive outcomes. Nor does Armitage (2005) disclose structural barriers against meaningful public participation in the environmental impact assessment. Indeed, in the context of a post-communist country, Bulgaria, Almer and Koontz (2004) evaluated criticisms leveled against public hearings held for developments projects under environmental impact assessment review. Specifically, they took as points of departure legal, administrative, and citizen representation problems as the main impediments against meaningful citizen participation in the public hearings. Legal barriers are instantiated by the lack of formal regulations of public involvement in early stages of the decision-making process – public hearing only took place only after the decisions have been made concerning the scopes of the environmental impact assessment, when “it is too late for public concerns decisions in a meaningful way” (p. 476). Administratively, the Ministry of Environment and Water, charged with administering the environmental impact assessment process, only followed the “standard” notification procedure by not going beyond than simply announcing in the government bulletin and local newspapers so that not all the interested NGOs were informed. Simply put, only “letter”, but not “spirit”, of the public participation in the environmental impact assessment was upheld.

Weston (2004), in situating his discussion of communicative approach to environmental impact assessment characterized by greater participatory decision-making, reviewed previous research efforts. Emerged from this review is the theme of inadequate implementation of public participation. Wood (1995), for example, found that “mandatory public participation at the early stages of EIA was rare and when it existed was not always complied with”. Evaluating the implementation of National Environmental Protection Act of USA, Erickson (1979) found that public participation, which was viewed “more as an adversary than as a partner” in the assessment process, remained largely an “unfulfilled ideal”.

In a study that concerned the lack of public involvement in EIA process, Diduck and Sinclair (2002), using interviews, identified structural and personal barriers to public involvement. Structural barriers includes constraints related to “societal structures, such as institutional settings, economic arrangements and legislative frameworks (i.e., [environmental assessment]

designs)” (p. 581); personal barriers includes constraints related to “an individual’s perception of the project being assessed, as well as personal apprehensions regarding one’s ability to participate in EA decision making” (p. 581). In the same study, the authors also probed for the importance of various reasons for not participating, and found out that the “The ultimate decisions were foregone” and “Didn’t know about the EAs [environmental assessments]” ranked first and second, respectively, in terms of the proportions of respondents (64% and 52%, respectively) that deemed them as important reasons for not participating. Significantly, “Not interested” and “No public hearings” ranked the last and second to last, respectively, in terms of the proportions of respondents (11% and 18%, respectively) that deemed them as important reasons for nonparticipation. This indicates that nonparticipation is a political process whereby citizens are prevented from participating in issues that they are interested in rather than that, to quote Dahl (1961, p. 225), they are not ‘by nature, a political animal[s]”.

And Patel (2006) warned that public participation should not be interpreted as a process through which consensus among citizens are sought for. Citizens don’t have common interests nor do they possess equal ability to participate in the decision-making process. Their understandings of “environmental problematique” (p. 689) also differ. Someone who value environmental sustainability more and who is willing to sacrifice short-term economic gains for long-term environment necessarily will not have a “common interest” as someone who holds economic resources dear (and who perhaps does not live in the geographical location where the development project is to be located). To try to establish a consensus by erroneously treat all public groups as equal, hence failing to redress varying accessibility to public involvement by treating them unequally, is to perpetuate the inequality.

These political-economic constraints are even more formidable in some non-Western countries that, albeit democratization, exhibit “authoritarian enclaves” wherein “cliente networks of political and economic elites dominate local government decisionmaking” (Tang & Tang, 2004). Taiwan, whose political ecology is dominated by clientele networks (Wu, 2001), will be the focus in this study.

A major feature of the environmental impact assessment in Taiwan is the institutionalization of public participation at various stages of the review process, and whether the general public is allowed a completely open and democratic channel to participate in the review process determines the integrity of the environmental impact assessment. Considerable uncertainty continues to exist about how much general populace can freely participate in the environmental impact assessment process, however. E. E. Schattschneider incisively points out in his classic book, *The Semisovereign People*, the difference between popular “involvement” in politics and the mistaken notion that the people “govern”, making the case that political involvement only represent a small percentage of people. Public participation ensures the spirit of democracy; in practice, however, several researchers have observed that public participation is usually met with barriers (e.g., Diduck & Sinclair, 2002; Weston, 2004).

Although public participation is institutionalized in various stages of Taiwan EIA process (Wang, 2006), the actual implementation of and the degree to which public participation is adequately realized remains an empirical questions. Only a few studies have examined the extent to which public participation has been realized and identified barriers to the public participation in EIA in Taiwan. Studies by Tang, Tang and Lo (2005) and Leu, Williams and Bark (1996) paint an optimistic picture. Tang and colleagues (2005) asked the question “is the implementation of public participation in EIA in Taiwan satisfactory?” and concluded that “the requirement for public participation in various stages of EIA has contributed to generating EIA reports that take into account a wide array of interests” (p. 19). Furthermore, Leu *et al.* (1996) identified a list of criteria of implementation effectiveness against which EIA in Taiwan was evaluated using the scale of “fully”, “partially” and “nonexistent”. Among these criteria is the

indicator for the degree to which public participation in EIA process was realized. Specifically, Leu and colleagues asked “Do the public have following formal channels to participate in the EIA procedure?”, and concluded “fully” as regards to “prior to the EIA study (i.e. scoping, public presentation)”; “partially” as regards to “during the EIA study”; “fully” as regards to “after the EIA study (formal mechanisms for public notification and inspection)”; “partially” as regards to “access to the EIA reports”; “fully” as regards to “public hearing held”; “fully” as regards to “to be involved in EIA review”; and “nonexistent” as regards to “to be involved in decision-making” (p. 121, Table 1).

However, reducing the complexity of the practice of public participation in Taiwan to a categorization of this kind in Leu *et al.*'s study (1996) obscures that complexity. For example, with specific reference to public participation, Wang (2004), approaching this question with better and qualitative methodology, documented that, although the EIA Act explicitly requires public hearing to be held during second phase of the EIA (for details of EIA, see Chapter 3), the project proponents need only follow the letter of the requirements, while they are able to maneuver around the spirit of the requirements. For example, in the EIA review of a landfill development project, the project proponents (purposely or otherwise) placed the small size of announcement of public hearing in the advertisement section of the newspaper to the effect of being ignored or being hard to be found by the general populace. And the project proponents (purposely or otherwise) changed the date and location of the public hearings four times within a 20-day period, rendering those who were interested in attending confused as to the exact date and location (p. 100). Leu *et al.*'s (1996) conclusion regarding public participation, therefore, doesn't adequately capture the power dynamics that shape the nature and extent of public participation as disclosed by Wang (2004).

As will be mentioned in Chapter 3, there was no opportunity for public participation during first phase of the environmental impact assessment before the Environmental Protection Administration enacted an Executive Order in December 22nd, 2004, which stipulates that project proponents shall invite local residents or any other relevant stakeholders to a public meeting for voicing their opinions, and the development proponents shall incorporate to the environmental impact statement how the public meeting was held and responses to the opinions of the attendees. Because no channel was allowed for public participation during first phase, developers would ideally want their development projects to be approved in this phase to minimize public involvement and attention. An interviewee in Wang's study (2004) remarked that although the Environmental Impact Assessment Review Committee recommended that the landfill project should undergo second phase of the EIA review, the county government, citing the reason that the landfill was urgently needed, granted permission for that project. Although this observation no longer was valid after the enactment of the Executive Order, the possibility still remains that the economically and politically powerful actors are able to flex their political muscle to bias the results of the environmental impact assessment.

Indeed, as Tang, Tang and Lo (2005) admitted, a majority of the EIA cases still lacked public attention and civic participation, a view also echoed by Lee (2008). The lack of participation, however, may be a manifestation of the political process through which power dynamics prevent the general public from participating as shown by Diduck and Sinclair (2002). Therefore, a more fine-grain examination of the public participation in EIA process needs to be conducted for an appropriate understanding of the power dynamics shaping the extent and nature of public participation.

To my knowledge, Wang's (2004) work is the only systematic, empirical research undertaking that examined public participation in practice, although the main emphasis of his study was to examine public participation from a legal stance: various ways of which public participation in the environmental impact assessment process was institutionalized in the EIA

Act or the Administrative Procedure Act of Taiwan. And Wang (2004) relied exclusively on government officials (e.g., the head of the subdivision of a district) for their opinions of the barriers to participation. However, the general public may have different perspectives of the barriers given the class difference between them and government officials. It is entirely conceivable that barriers identified by the government officials interviewed by Wang (2004) might have been dramatically downplayed and that other barriers might have been left unmentioned. So, much less is known about the power dynamics that shape the nature and extent of public participation in the environmental impact assessment. Therefore, one of the objectives in the current study is to conduct such an investigation using the case of the Tseng-Wen Reservoir Transbasin Diversion Project..

After researching more on the Tseng-Wen Reservoir Transbasin Diversion Project, I found out that no political-economic analysis has been conducted regarding this project, in addition to the lack of attention to its environmental impact assessment review process. And conducting few interviews with the people who have involved in the opposition movement against this project made me realize that as vivid to them were their experiences in participating in the opposition movement and the power dynamics encountered. Power came from various sources: the Water Resources Agency, the Kaohsiung County Government, the Township Office ... etc. Opposition movement has been constantly pitted against this power structure. As a result, power dynamics shaping the nature and extent of public participation in the environmental impact assessment were inevitably imbedded in this larger political-economic context. I think an adequate understanding of the power dynamics in the environmental impact assessment review process requires an understanding of this political-economic context. I then decided to examine the power dynamics surrounding the Tseng-Wen Reservoir Transbasin Diversion Project from a more macro perspective. Therefore, the current study is the first of its kind to undertake such an investigation.

1.3. Research Objective and Questions

With a case study of the Tseng-Wen Reservoir Transbasin Diversion Project, the current research aims to examine power structure underlying this development project to demonstrate how the prevailing power structure explains the development of this project and to assess the potential of environmental impact assessment to contribute as an environmental governance tool.

Given the above research objective, I will answer the following central research questions and their respective sub-questions.

- 1) How does the prevailing power structure contribute to the development of the Tseng-Wen Reservoir Transbasin Diversion Project?**
 1. What is the power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project?
 2. Through what mechanisms was power exercised by the economically and politically powerful actors in this power structure?

- 2) How did power dynamics shape the nature and extent of public participation in the environmental impact assessment of the Tseng-Wen Reservoir Transbasin Diversion Project?**
 1. What are the historical development, organizational structure, and review procedure of environmental impact assessment in Taiwan?
 2. What are the regulations regarding public participation in each stage of the environmental impact assessment procedure?

3. Through what mechanisms was power exercised to shape the nature and extent of public participation in the environmental impact assessment of the Tseng-Wen Reservoir Transbasin Diversion Project?

And finally, through addressing these two research questions, I will venture some thoughts on the role of environmental impact assessment in environmental governance.

1.4. Research Methodologies

1.4.1. Selecting a case

A case study is best defined as an “in-depth study of a single unit (a relatively bounded phenomenon) where the scholar’s aim is to elucidate features of a larger class of similar phenomena” (Gerring, 2004) by “confining the attention to those aspects that are relevant to the research at that time (Stake, 1988 as cited in Punch, 2005, p. 145). And case studies are generally more useful

(1) when inferences are descriptive rather than causal, (2) when propositional depth is prized over breadth and boundedness, (3) when (internal) case comparability is given precedence over (external) case representativeness, (4) when insight into causal mechanisms is more important than insight into causal effects, (5) when the causal proposition at issue is invariant rather than probabilistic, (6) when the strategy of research is exploratory, rather than confirmatory, and (7) when useful variance is available for only a single unit or a small number of units (Gerring, 2004, p. 352).

Given the nature of the research questions, a qualitative case study approach was used in the present study to capture the power dynamics surrounding the Tseng-Wen Reservoir Transbasin Diversion Project; and the power dynamics that shaped the nature and extent of public participation in its environmental impact assessment review process. I decided to use the case of the Tseng-Wen Reservoir Transbasin Diversion Project because it is indicatively significant.

Typhoon Morakot, possibly with other manmade factors, caused a mudslide and a landslide that buried the entire Xiao-Lin Village (southern Taiwan), killing an estimated 500 people in this village alone. Regarding manmade factors, accusations pointed to the Tseng-Wen Reservoir Transbasin Diversion Project as a cause for this particular tragedy. (Please refer to Chapter 4 for more details regarding this project.) Heated debates have been going on since then among those who argued that the construction of the project undermined the integrity of the mountain, resulting in mudslide and landslide, and those who attributed the tragedy solely to the heavy rainfall brought by Typhoon Morakot. However, no systematic and scholarly research exists of studying the legitimacy of the project with specific reference to whether the entire decision-making process was democratic, transparent, and participatory. The opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project had been quelled prior to this tragedy; after this tragedy the opposition resurfaced. So, in addition to the power dynamics that shaped the nature and extent of public participation in the environmental impact assessment review process, a political analysis of the power dynamics that quelled the opposition movement was timely.

1.4.2. Research methods and selection of relevant actors for interviews

I analyzed in-depth interview data in conjunction with written documents from various sources. Specifically, I collected a variety of documents and literatures, including ministerial

briefing, announcements and minutes of meetings, government statistics and publications, Environmental Impact Statement and Environmental Impact Assessment Report, other written reports of event, and nationwide newspaper. Drawing information from various sources was necessary because one single source of data is not likely to provide all the information needed for analysis.

I relied on my informants for their experiences in participating in the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project. I initially generated a list of four potential interviewees by conducting a Google search to identify who had participated in the opposition movement. I then contacted them. A Peer reference system, a snowball sampling technique, was subsequently used to identify more eligible interviewees. Finding stakeholders for interview proved to be difficult.

Because of the tragedy, some homes of the residents around the construction sites were destroyed or rendered unsafe. The state and the residents thus initiated their own versions of “Plans for Rebuilding Homes”. The state’s version envisions rebuilding homes down the mountains for the refugees *and* those whose residences were barely affected. The state never offered a satisfactory reason for wanting to force those living near the construction sites but whose residences remained intact to rebuild their homes away from their hometowns. The floating suspicion is that once they are forced away from their original residences – near the construction sites – no local residents would be there to protest against the Tseng-Wen Reservoir Transbasin Diversion Project. Thus, the residents’ version envisions returning to their hometowns to rebuild their homes.

Because of the heated debate between the state and the residents and the far-reaching implication of the final decision on the plans for rebuilding homes, relevant stakeholders were busy negotiating and debating with the state. Some of the people I contacted to ask for their participation in my research declined because, among other reasons, they had little time to spare. As a result, I was able to interview nine individuals: two core members of Sanming Township People’s Association (Interviewee A and Interviewee B); two core members of Taoyuan Township People’s Association (Interviewee C and Interviewee D); one of the lawyers representing Sanming Township’s local residents who were suited by the contractors (Interviewee E); two local residents in Sanming Township, one of whom didn’t involve in the opposition movement (Interviewee F), and another has been involving actively in the opposition movement (Interviewee G); one core member of the Kaohsiung Green Association, who has been actively opposing the Tseng-Wen Reservoir Transbasin Diversion Project and also a prolific author of discourses against this development project (Interviewee H); and one core member of an environmental organization that monitors the ecosystem of the Jhuokou River, a tributary of the Kaoping River in Taiwan, who was once involved in the opposition movement as an extra-local resident (Interviewee I).

I conducted these interviews from September to November, 2009. I conducted one in-depth interview with each interviewee with the exception of Interviewer E (two interview sessions) and Interviewer I (two interview sessions).

This thesis is written from what I consider to be a non-elite-class perspective; therefore, all interviewees are people who are not considered to be powerholders (e.g., Township Mayor, County Magistrate ... etc) and who oppose the project. I adopt this perspective for three reasons. First, as I note in the literature review, this study aims to extent upon Wang’s (2004) work, who assessed public participation in the environmental impact assessment from the perspectives of governmental officials. But the general pubic and non-elites may have different views and observations that the powerholders may consciously hide from the researchers. With this non-elite-class perspective, I hope to extent upon Wang’s study. Second, as I note throughout the thesis and especially in Chapter 6.2, the written materials are primarily of the supporting views,

which are manifestations of the rhetoric of powerholders who support the project. As such, I also engage in dialogue with powerholders who exercise power over individuals with opposing views. Therefore, although I didn't interview those in power who support the project, I don't think this would introduce significant bias in perspectives in the analysis in this thesis. Thirdly, practical considerations figure in as well. Because of time constraint, I decided to devote my time to get as many as possible the views of those who oppose the project, which only starts to provide a corrective to the existing literature that primarily reflects the rhetoric of powerholders.

1.4.3. Ethical guidelines

All semi-structured interviews were tape-recorded for in-depth analyses of the interview contents as well as for ensuring the accuracy of interviewees' answers. Due to the sensitive nature of the questions asked in the interview and the close-knit relationships among members of the communities, I didn't reveal their true identities, and their answers to my interview questions were quoted only with pseudonyms. I obtained their permissions to quote their answers with pseudonyms upon concluding each interview.

1.4.4. Methodological limitation

One limitation to my research methodology is the relatively small sample size, which may compromise the richness and completeness of information. More people can provide more pieces of information that paint a more complete picture.

Another limitation refers to memory loss of my interviewees because some time has elapsed since the environmental impact assessment of the Tseng-Wen Reservoir Transbasin Diversion Project. My interviewees may not remember incidents that didn't seem significant to them but which may be crucial to my research.

1.5. Thesis Outline

In Chapter 2, I present theoretical overviews of the four broad bodies of literature that inform the current study. I then present in Chapter 3 a brief history of the development, organizational structure, and review procedure of Taiwan's environmental impact assessment as well as what channels are allowed for public participation in the review process. In Chapter 4, I briefly discuss the case of the Tseng-Wen Reservoir Transbasin Diversion Project. In Chapter 5, to answer Research Question 1, I analyzed how the prevailing power structure contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project and of the eventual failure of the opposition movement. In Chapter 6, to answer Research Question 2, I analyzed how power dynamics shaped the nature and extent of public participation in the environmental impact assessment of the Tseng-Wen Reservoir Transbasin Diversion Project. And finally, through addressing my research questions, I venture some thoughts on the role of environmental impact assessment in environmental governance in Chapter 7.

2. Theoretical Overview

The current research is located at the intersection of four broad bodies of literature: the politics of public participation, the theory of three-dimensional power, the politics of pro-growth regime and clientelism, and the politics of paternalism.

2.1. Environmental Impact Assessment

Because any policy and economic development project entails a degree of environmental implications, the most immediate purpose of environmental impact assessment (EIA) is to use “scientific, objective, and comprehensive surveys, forecasting, analysis and evaluation” to provide decision-makers with indications of policy actions. EIA requires, *inter alia*, publishing these scientific evaluations of environmental impacts as EIA reports and involving the general public in the review process. As such, EIA is an “anticipatory, participatory environmental management tool” (Jay *et al.*, 2007, p. 288; see also Glasson, 2005).

However, Weston (2004) argues that the demands for objective, scientific evaluation and for public participation in the review process create tensions. Contrary to the scientific rationality of the EIA, “environmental concern and environmental assessment are intrinsically value based” (Weston, 2004). That is, what constitutes “right” and “wrong” decisions that are made based on the findings of EIA cannot be objectively assessed. From the perspective of environmental groups, vetoing a development project when EIA reveals a degree of associated environmental concerns is considered to be the “right” decision – which inevitably is considered to be the “wrong” decision for proponent of the development project in question.

Similarly, Tang, Tang, and Lo (2005) holds the view that EIA is often a zero-sum game wherein business elites and other economic stakeholders often possess great political and economic means to influence the outcomes of EIA in certain directions that are often in direct conflicts to the ecological considerations. One of the fields wherein business elites are able to exert their influences is the assessment report.

Weston (2004) conducted a survey by sending a short email questionnaire to each of the 34 experienced EIA practitioners from the European Union, Australia and North America to ask them about their experiences with and views of the EIA system. One of the common themes in the responses to the survey was a lack of trust in the environmental impact assessment report, whose information was provided by developers and their consultants. For example, a private sector environmental consultant and a Canadian public sector planner shared the view that because the relationships between developers and consultants are of patron-client nature, the general public generally believes the information are often selectively presented in the environmental impact assessment – and this belief is often justified.

2.2. Defining Public Participation

Government is no longer the sole actor in making policy, and, within increasingly complicated scientific and political contexts, the general public’s participation, support, and cooperation are often vital to successful implementations of policies relevant to people’s personal and collective interests. This is especially so for development projects whose benefits may not trickle down primarily to the communities, but the communities may bear the largest brunt of the negative effects arising from development projects. More importantly, policies can only gain political and moral legitimacies after public participation – “development ought to be what human communities do to themselves”, as W.M. Adams (2001) succinctly put. The problématique of public participation, therefore, has received considerable attention (Tu & Chen, 2007). But what is public participation? Is simply attending a meeting public participation? The

term “public participation” needs to be defined before it can be invoked, and some fundamental conceptual issues surrounding it need to be discussed.

Arguably, Arnstein’s (1969) theorization of public participation best elucidate what it is: “it is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future” (p. 216). Therefore, public participation is a strategy whereby the have-not citizens can involve themselves in public matters that they find interested, that they wish to participate, and that they are able to participate in these matters’ decision-making – so that the have-not citizens can share the “benefits of the affluent society” (Arnstein, 1969, p. 216). Mindful of this, Arnstein conceptualized public participation as having various levels to emphasize the distinction between public participation as mere formalism, i.e. “going through the empty ritual of participation” (p. 216), and having real power to affect the outcome of the process. Because Arnstein’s characterization of power explicitly acknowledges power dynamics, a conceptualization highly relevant to the current study, I will elaborate Arnstein’s definition of participation in the following paragraphs.

Manipulation and *therapy* are the two levels of public participation that have the lowest degree of decision-making clout. Public participation that remains at the level of manipulation reduces to a tool of the powerful to educate, persuade, and advise the citizens, not the reverse. Under this condition, public participation serves as rubberstamps to prove that “the people” are involved in the process leading up to and of decision-making while “the people” are totally blind to the contents of the letter on which they stamp.

Participation in the form of *informing* and *consultation* progress to levels of “tokenism”, and they as the total extent of participation ensures that the citizens hear and are heard, but citizens’ views may not be taken in account by the powerful. Citizens are merely informed, for the information exchange is only a one-way flow, flowing downward from the powerful to the general public via tools such as “news media, pamphlets, posters, and responses to inquiries” (p. 219). Citizens are consulted insofar as their opinions are sought after via methods such as attitude surveys, neighborhood meetings, and public hearings, but their opinions are not ensured to be considered in the decision-making process or to carry any weight on the outcomes of the decision-making. Participation at this level remains just a window-dressing ritual, showcasing “how many people come to meetings, take brochures home, or answer a questionnaire” (p. 219) – measuring participation this way reduces people’s views to statistical abstractions by ignoring the substantive contents of these views.

Public participation in “*placation*” form happens when the masses’ opinions carry some weight on the outcomes of the decision-making process but tokenism still prevails. An example of placation participation is to place a few handpicked representatives from each social and economic strata as a gesture of “representing” these groups, and to the extent that they are not accountable to a constituency in the community and “if the traditional power elite hold the majority of seats [on the decision-making board]”, the have-nots can be easily “outvoted and outfoxed” (p. 220). Another example is when citizens are allowed to participate in the decision-making arena with no apparent constraints but powerholders retain the right to “judge the legitimacy or feasibility of the advice” (p. 220).

Citizens form decisional *partnership* with the powerholders, which redistributes power by sharing decision-making responsibilities through institutions where citizens along with other government officials collaboratively make decisions. At this level of participation, citizens have genuine negotiating power in decision-making as there is an “organized power-base in the community to which the citizen leaders are accountable; when the citizens group has the financial resources to pay its leaders reasonable honoraria for their time-consuming efforts; and when the group has the resources to hire (and fire) its own technicians, lawyers, and community organizers” (p. 221).

Delegated power is a level of participation characterized by a higher degree of decision-making clout than are aforementioned levels, and this level is where citizens dominate the decision-making. A model of delegated power is “separate and parallel groups of citizens and powerholders, with provision for citizen veto if differences of opinion cannot be resolved through negotiation” (p. 222).

And in *citizen control* level of participation, people possess the degree of power (or control) “which guarantees that participants or residents can govern a program or an institution, be in full charge of policy and managerial aspects, and be able to negotiate the conditions under which ‘outsiders’ may change them” (p. 223).

It should be noted that Arnstein didn’t think that the eight-rung ladder is a perfect reflection of the “types” of participation in the real world. Rather, the emphasis of her typology is to call attention to the political process involved in public participation and the gradation of public participation is the product of this power struggle:

Obviously, the eight-rung ladder is a simplification, but it helps to illustrate the point that so many have missed – that there are significant gradations of citizen participation. Knowing these gradations makes it possible to cut through the hyperbole to understand the increasingly strident demands for participation from the have-nots as well as the gamut of confusing responses from the powerholders (Arnstein, 1969, p. 217).

And Arnstein’s conceptualization of public participation helps to illustrate what expectations people may have about a participation process. Aware of the gradations of power-sharing ranging between token forms of power-sharing to real ones, people may become disillusioned when powerholders treat citizens simply as figureheads.

From a different theoretical approach, Weblar and Tuler (2000) drew upon the normative theory of public participation (2000) and emphasized two “meta-principles” of participation: fairness and competence, which levels the playing field by making sure that all participants have equivalent chance to act. Fairness refers to the opportunity “for all interested or affected parties to assume any legitimate role in the decision-making process”, that is, no barriers to people’s ability to be present in stages leading up to decision-making, initiate discussion, participate in the discussion (by asking for clarification, challenging, answering other people’s questions, and arguing), and participate in decision-making. Competence refers to the “ability of the process to reach the best decision possible given what was reasonably knowable under the present conditions”, and this requires preconditions of access to *true* information and its interpretation and use of the best available procedures for knowledge selection, eliminating statements that are often “unreliable (such as hearsay)”, “inaccurate”, or “prejudiced” (p. 568 – 571). To put it differently, a competent process is one that “pursues mutual understandings before agreement and that explicitly decides how disputes will be resolved well before the actual differences arise” (p. 571).

Roew and Frewer (1998) responded to a general lack of empirical consideration of the quality of various public participation procedures and presented two types of theoretical criteria essential for effective participation: acceptance criteria – “which concern features of a method that make it acceptable to the wider public” – and process criteria – “which concern features of the process that are liable to ensure that it takes place in an effective manner” (p. 3). For example, public hearings, operationalized by Rowe and Frewer (2000) as an open forum entailing agencies presenting regarding plans and policies and public voicing opinions without bearing upon decision-making, were found to score low on representativeness of participants; generally low on whether participation process is conducted in an independent, unbiased way; variable on whether publics are involved as early as possible in the process; moderate on the “genuine” impact of

participation outcome on the policy decision-making. In addition to these “acceptance criteria”, public hearings were also evaluated against “process criteria”. Public hearings, for example, lacked cost-effectiveness. Because each method of participation² with its own dynamics idiosyncrasies and design particularities suffers from its own drawbacks, Rowe and Frewer (2000) suggested that the most appropriate techniques for public participation are likely to be “hybrids of more traditional methods” (p. 24).

Previous research undertakings on the criteria to evaluate participation point out the intricacies involved in institutionalizing public participation, and some researchers proffer that the designing of public participation need not only consider the technicalities of the institutions but also the trust and relationships between the citizens and government administrators (Wang & Wart, 2007). Only when the general public perceive ethical integrity in governmental administrators and business communities during participation and when public participation translate to real improvements in public services can public participation enhance public trust in both governmental agencies and business entities; participation without subsequent responses to the issues raised during participation may deepen the lack of trust between governmental officials and the citizens (Halvorsen, 2003).

With public participation theorized and criteria for evaluating quality of participation elucidated a natural question then is, “Is public participation an indispensable instrument in the decision-making process?”

Argument for enhanced participation assumes that a politically-engaged general public is better than a passive one (King, Feltey & Susel, 1998). Public participation processes provide education opportunities for both the general public – who, through being more socially, politically, and scientifically informed, may yield better policy decisions – and government administrators –who, through regular contact with citizens, may be in a better position to formulate policies that are “realistically grounded in citizen preferences”. Otherwise powerless citizens may through participating be empowered to become political players, who interact with other groups in society, make their voices heard by decision-makers, and, in turn, persuade these decision-makers. Furthermore, public participation may ensure that the general public are more “sympathetic evaluators” of the complex decision-making processes and tough decisions to be made by government administrators, and the “improved support” from the general public may ensure better compliance of the made policies (Irvin & Stansbury, 2004).

Public participation is not without its critics. Grant (1994) asserts that public participation involves high cost and lacks efficiency, and individuals from various social and economic strata may not be equally represented. One of the reasons for differentiated participation among social and economic strata is the social and economic environments to which individuals belong. To the extent that people’s main priorities are to provide for their family rather than to “attend meetings or spending hours visiting government offices” as a result of poverty, individuals from low social and economic strata participate to a lesser degree than their counterparts from high social and economic strata. Poverty-stricken individuals may also be more vulnerable to bribes from politicians who wish to alter the decision-making process to yield outcomes to the latter’s advantages (Russell & Vidler, 2000, p. 79 – 80).

It appears, then, that public participation has become a crucial site of struggle between the economically powerful actors and the general public, as it is in this sphere a plurality of governmental bodies, private and economically powerful actors, and the general public may all vie for a say as to what form of public participation entails maximum interests for themselves. Therefore, the current research, informed by the aforementioned studies and particularly

² Public participation methods examined in the study are referenda, public hearings, public opinion surveys, negotiated rule making, consensus conference, citizens’ jury, citizen/public advisory committee, and focused groups.

Arnstein's conceptualization of public participation, recognizes the presence and importance of power struggle in the sphere of public participation and examines who hold the power and how they exert power to constrain the nature and extent of public participation by the general public in the negotiating and contesting of interest in general and in the environmental impact assessment review process of the Tseng-Wen Reservoir Transbasin Diversion Project in particular. In terms of power, I adopt Steven Lukes' (1974, 2004) conceptualizations and theories, which are reviewed in the next section.

2.3. Theorizing Power: Definitions and Mechanisms

"The question is," said Alice, "whether you *can* make a word mean so many different things." "The question is," said Humpty Dumpty, "which is to be master – that's all."

Lewis Carroll, 1872, Alice in Wonderland

We rediscover bureaucracy and politics and racism and selfishness until we are numb, if not cynical; but we need, now more than ever, along with the acknowledgement of political viciousness, corporate greed, systematic impoverishment and institutional racism, to articulate – more and less publically, depending on the setting – the searching analysis of how to do better, pragmatically and critically, really, in a world of power.

Forester, 1999

Steven Lukes (1974, 2004) conceptualized power as having three dimensions: overt (first-dimensional power), covert (second-dimensional power) and latent (third-dimensional power). In the following subsections, I will define each of the three "faces" of power and describe the mechanisms through which their influences are exerted.

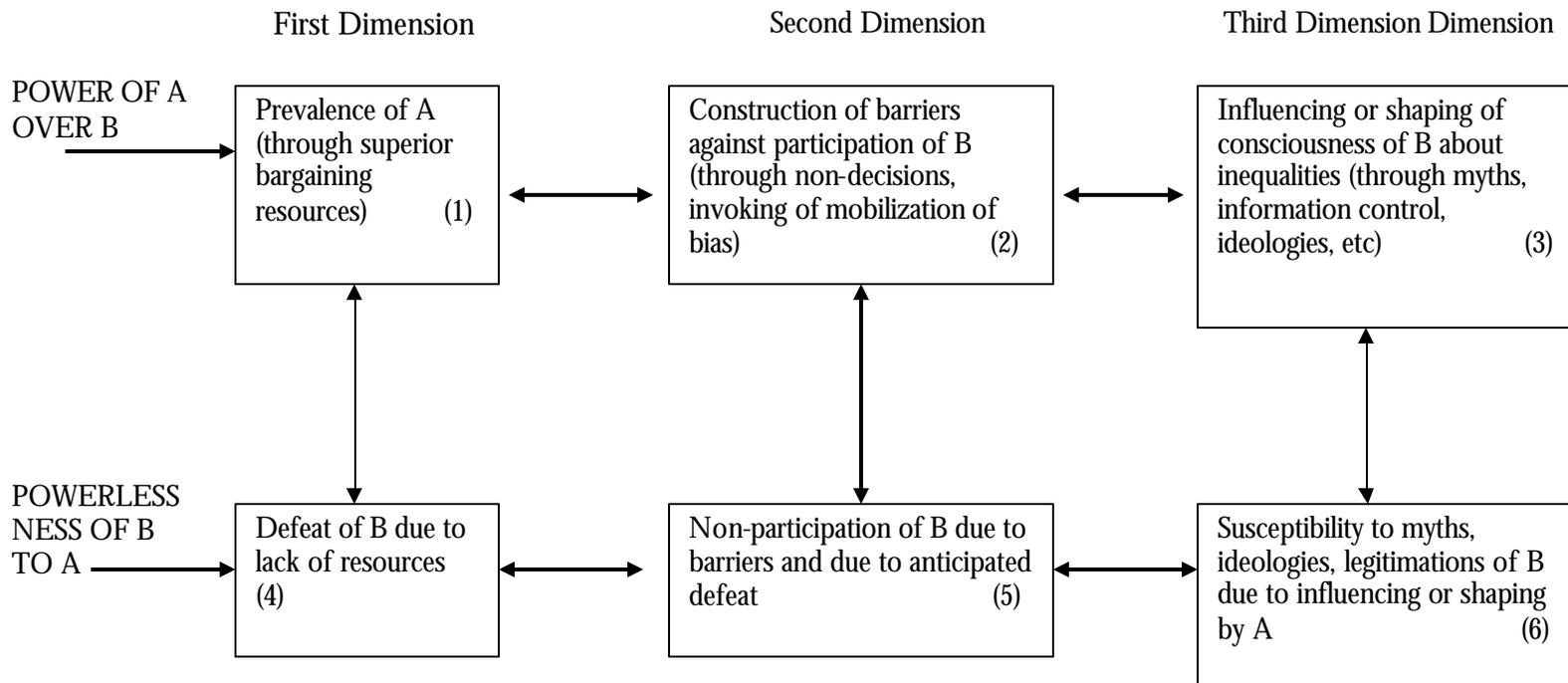


Figure 1. A relation between power and powerlessness.
 Source: Gaventa, 1980, p. 21

2.3.1. First dimensional power

The first dimensional view of power is generally defined as “A [the relatively powerful] has power over B [the relatively powerless] to the extent that he can get B to do something that B would not otherwise do” (Dahl, 1957: 203) and understood as “the use of superior resources (by A: the relatively powerful) to reward or punish behavior of those with fewer resources (B: the relatively powerless)” (Culley & Hughey, 2008). And because A possesses more resources, such as more money and authority, A can exercise power to prevail in the negotiation of key issues by wielding these resources to overtly coerce B to do something that B would not otherwise do for A (Dahl, 1957).

One-dimensional power approach focuses on actual, observable behaviors about which two assumptions are made. First, the relatively powerless are assumed to recognize their grievances and are able to act upon them. Second, “participation is assumed to occur within decision-making arenas, which are in turn assumed to be open to virtually any organized group” (Gaventa, 1980: 5). Therefore, behaviors and overt conflicts, according to this view, are the two key units of interests whose presence indicates the exercise of power, and its absence the lack thereof (Lukes, 2004). Within the one-dimensional approach, non-participation or inaction is not a political problem. Indeed, Dahl argued that for those who did not act upon grievance, lack of political actions merely suggests the greater attraction of other activities such as “working at his job, earning more money, taking out insurance, joining a club, planning a vocation, moving to another neighborhood or city, or coping with an uncertain future in manifold other ways” than engaging in political activities; they are not, “by nature”, political individuals (Dahl, 1961, p. 225).

Polsby (1963) similarly argues that identifying “who prevails in decision-making seems the best way to determine which individuals and group have ‘more’ power in social life, because direct conflict between actors presents a situation most closely approximating an experimental test of their capacities to affect outcomes”. Therefore, first-dimensional power is direct in its exertion and is full-view in scope. In his seminal research, Dahl (1961) empirically explored the nature and dynamics of overt power relation between various stakeholders, both public and private sector, organizations and individuals, in different policy issues in New Haven, Connecticut, USA. Specifically, the relative influences of these stakeholders in the power structure were operationalized by these stakeholders’ strength and success in making decisions and/or vetoing plans proposed by others.

The first dimensional power wields its influence through the following mechanisms. As depicted in Figure 1, A (individuals, organizations or classes) can exert power over B in decision-making through superior bargaining resources, including obtaining electoral votes, offering the incentives of employment opportunities to B, political influences and lobbies in the political systems (overtly used to oppress rebellions, for example), threatening those who rise against A, and the like (Box 1: all “Boxes” in Chapter 2.2 all refer to Figure 1). The power process is dialectical between A and B. As A obtains more bargaining resources by their already superior bargaining ability, B suffers further from this power inequalities because of B’s lack of resources (Box 4).

2.3.2. Second dimensional power

Gaventa (1980) and Lukes (2004), however, argues against this one-dimensional approach to power. They claimed that, by restricting power process in observable conflicts, political actions researchers erroneously assumed that a lack of participating behaviors, or inaction, reflects real consensus that is free of power influence, and ignored the possibility that nonparticipation may

be a result of power itself (for a review, see Hayward, 1998). Scholars thus put forth a second-dimensional power to emphasize that “power is exercised not just upon participants within the decision-making process but also towards the exclusion of certain participants and issues altogether” (Gaventa, 1980: 9).

In an attempt to empirically validate the concept of two-dimensional power approach, Matthew Crenson (1971) observed that political actions sprung up towards industries responsible for air pollutions in East Chicago but not in Gary, Indiana, both of these American cities shared the problem of air pollution, and argued that “[the reputation for power] could have enabled U.S. Steel to prevent political action without taking action itself, and may have been responsible for the political retardation of Gary’s air pollution issue” (p. 80).

Or, Parenti (1970), in his study of ghetto people, all of them blacks, in Newark, USA found that a plurality of actors and interests representing the higher-class strata – the City Council, the political machines, the courts – “displayed a remarkable capacity to move in the same direction against some rather modest lower-class claims” (p. 519). He also found that for ghetto residents some laws, such as those “dealing with the collection of rents, the eviction of tenants, and the protection of property” (p. 512) were stringently upheld while other laws, such as those “dealing with flagrant violations of building and safety codes and the protection of people” (p. 512) were unaccountably unenforceable. These observations were formative to the larger story that, he adds, “one of the most important aspects of power is not to prevail in a struggle but to pre-determine the agenda of struggle – to determine whether certain questions ever reach the competition stage” (p. 521).

One cannot, therefore, comfortably conclude that the quiescence (the “un-politics”) of a deprived group is not a political issue, and that the political inaction and non-participation are reflective of population’s real consensus or indifference. Indeed, Schattschneider (1960) wrote, “absenteeism reflects the suppression of the options and alternative that reflect the needs of the nonparticipants ... whoever decides what the game is about also decides who gets in the game” (pp. 105). Or put more succinctly by Bachrach & Baratz (1962), power determines “who gets what, when and how and who gets left out and how” (p. 105). In this view, the locus of focus is on “suppressed issue” (Frey, 1971) or “non-decision making” (Lukes, 2004). (Frey criticized “non-decision” as poor labeling, for political issues that would otherwise emerge had not been for power, are actually suppressed, hence the more accurate term “suppressed issue”.)

Second dimensional power wields its influence through the following mechanisms. Second-dimensional power prevents certain political issues from arising by mobilizing biases, defined as:

A set of predominant values, beliefs, rituals, and institutional procedures (“rules of the game”) that operate systematically and consistently to the benefit of certain persons and groups at the expense of others. Those who benefit are placed in a preferred position to defend and promote their vested interests (Bachrach & Baratz, 1970: 43, see also Schattschneider, 1960).

Mobilization of bias may be involved in decision-making, shaping and reinforcing “social and political values and institutional practices”, thereby limiting the scope of public consideration of issues to only those that are inconsequential to the power-holders (Bachrach & Baratz, 1962: 7). Mobilization of bias, argue Bachrach and Baratz (1970), is sustained through “suppressed decision” or “non-decision”, defined as:

a decision that results in suppression or thwarting of a latent or manifest challenge to the values of interests of the decision maker. To be more nearly explicit, nondecision-making is a means by which demands for change in the existing allocation of benefits and privileges in the community can be suffocated before they are voiced, or kept covert; or killed before they

gain access to the relevant decision-making arena; or, failing all of these things, maimed or destroyed in the decision-implementing stage of the policy process (p. 44).

Box 2 indicate that mechanisms of non-decision making include force, threat of sanction “ranging from intimidation...to co-optation”, invocation of an already existing bias – a norm, precedent, rule, procedure or label (e.g. “troublemaker”) – in the political system, mobilization of biases through new barriers of any sort (procedure barrier, for example) or new symbols (Bachrach & Baratz, 1970; Gaventa, 1980). Furthermore, second-dimensional power can also reinforce the status quo by instilling in people the fear that “the anticipated costs of deviation from established (and often imposed) norms are not balanced by anticipated benefits” (Adams, 1990: 380), even if the powerless are discontent about their deprivation. Indeed, Crenson (1971) held that “this power need not be exercised in order to be effective” (p. 177); “*perceived* party influence” (p. 143, emphasis added), even in the absence of actual power exertion, can prevent issues from being politicized.

Dialectically, Box 5 illustrates that the power relation is further maintained when B fails to challenge A because B a) is prevented from doing so; b) suffers from powerlessness, “extensive fatalism, self-deprecation, or undue apathy about one’s situation” due to anticipated defeat (Gaventa, 1980: 17); or c) is fearful of the reaction of A to a given course of conduct (Lukes, 2004, 1980).

A comparison with first-dimension of power may further clarify the concept of second-dimension of power. In contrast to the empirical approach to pluralist view of power focusing on *overtly* observable conflicts and mobilization of political issues that “commands the attention of a significant segment of the political stratum” (Dahl, 1961: 92), empirical verification of the second-dimensional power, as Bachrach and Baratz (1962) thus argued, involves additionally observing *covertly* observable conflicts by identifying political process through which the deprived are excluded from participation.

A comparison between studies by Dahl (1961) and in Crenson’s (1971) reifies these theoretical abstractions. In Dahl’s study, different groups and individuals proposed alternatives of, for example, urban redevelopment and competed for the adoption of proposal of their own devising. Here the power struggle between participants is immediately made observable by participants’ actual behaviors. In stark contrast, the steel industries in Crenson’s research undertaking never explicitly and blatantly oppressed the politicizing of issue of air pollution; what successful limited the penetrability of the issue was the perceived influence and consequently the anticipated opposition of steel industries by the local political actors (see for example p. 116).

Despite this conceptual difference, Bachrach and Baratz shared with Dahl the emphasis on actual, observable conflicts, overt or covert, which led them to argued that “if there is no conflict, overt or covert, the presumption must be that there is consensus on the prevailing allocation of values, in which case non-decision making is not possible” (pp. 49). Lukes (2004) maintained that two-dimensional conceptualization still fell short of comprehensively describing power process. And it is the “the most effective and insidious use of power” that “prevent[s] [both overt and covert] conflict[s] from arising in the first place” (Lukes, 1974: 20) that I now turn to.

2.3.3. Third dimensional power

Despite its conceptual contribution, the concept of two-dimensional power doesn’t consider the “full range of the possibilities by which power may intervene in the issue-raising process”, and it is this conceptual shortcoming that the concept of the third-dimensional power sought to address (Gaventa, 1980: 10). The third-dimensional approach criticizes the overly behavioral

emphases of the first- and second-dimensional views of power. Unlike overt and covert power, third face of power works by “influencing, shaping or determining [the wants of the dominated]” (Lukes, 1974: 23; see also Connelly & Smith, 2003). Third-dimensional power is therefore an ideological procrustean bed. It exerts its influence by shaping people’s perceptions, cognitions, preferences, and conceptions of the issues altogether “in such a way that they accept their role in the existing order of things, either in such a way that they can see or imagine no alternatives to it, or because they value it as divinely ordained and beneficial” (Lukes, 1974: 24; see also Gaventa, 1980). Indeed, Lukes (2004) warned, “to assume that the absence of grievance equals genuine consensus is simply to rule out the possibility of false or manipulated consensus by definitional fiat” (p. 24).

Latent power can be wielded via a myriad of mechanisms. A, the relatively powerful, can wield power over B, the relatively powerless, using “social myths, language, symbols”, “control of information”, “mass media”, “process of socialization”, and other means “by which social legitimations are developed around the dominant, and instilled as beliefs or roles in the dominated”, serving to get the dominated to “act and believe in a manner in which [the dominated] otherwise might not” (Gaventa, 1980: 15 – 16) (Box 3). The powerlessness of B to A also reinforces power inequalities and maintains the status quo; in situation of continuous powerlessness of B, B may be more susceptible to the myths or ideologies that A constructs purposively to maintain power inequalities (Box 6).

Methodologically, there are several possibilities of the means through which third-dimensional power can shape the perceptions of the relatively powerless:

Not only, as in the two-dimensional approach, might grievances be excluded from entering the political process, but they might be precluded from consideration altogether. Or, B, the relatively powerless, may recognize grievances against A, the relatively powerful, but desist from challenge because B’s conceptions of self, group, or class may be such as to make actions against A seem inappropriate. Or, B may recognize grievances, be willing to act upon them, but not recognize A as the responsible agent towards which actions should be directed – e.g. because of the mystifications or legitimations which surround A. Or, B may recognize grievances against A and be willing to act, but may not through viewing the order as immutable or through lacking conceptions of possible alternatives. Or, B may act, but do so on the basis of misconceived grievances, against the wrong target, or through an ineffective strategy. Any or all of these possibilities may serve the same purpose of protecting A’s interests owing to B’s shaped conceptions of potential conflict, to B’s detriment (Gaventa, 1980: 20).

Another methodological note refers to the suggestion that there are two levels of third-dimensional power at work. First, the economically and politically powerful actors can directly quell opposition movement by exercising third-dimensional power to shape opposition movement members’ conceptions and perceptions of the issues. The powerful aim to persuade, so to speak, those who have already participated in opposition movement to stop participating. On another level, the powerful can utilize third-dimensional power to indirectly quell opposition movement by reducing the numbers of peoples that opposition movement can potentially mobilize. To do this, the powerful use mechanisms such as creation of social myths and control of information to distort the perceptions of individuals who are not yet members of opposition movement but whom opposition movement can potentially recruit. In this instance, the target of third-dimensional power is not opposition movement, instead it is those who are not yet being mobilized that the third-dimensional power attempts to influence.

The validity of this conceptualization and the influence of latent power have been empirically

supported. Gaventa (1980) noted that Clear Fork Valley in central Appalachia, USA, a coal mining area, was a coal colony owned by and operated for the benefits of its London owners, resulting in tremendous inequalities in the community. These inequalities were greeted with quiescence of the community members who were mostly miners, and the formation and maintenance of quiescence was partly attributed to mechanisms of third-dimensional power. That is, trying to bring rank and control to the United Mine Workers of America (UMWA) that had become increasingly dictatorial and corrupted, a reform candidate, Joseph Yablonski, competed with the incumbent president. Yablonski was subsequently murdered by the incumbent president along with several others; however, this incident was not followed by rank and file outcry and dissent. Why? Elites constructed myths spread to the UMWA's members via speeches, letters and union journal. Myths, that is, such as that "Yablonski was financed by coal operators and rich people"; that Yablonski was a "fink" hired to "incite others to actions that will make them liable to punishment"; that "Yablonski would take away miners' pensions"; and Yablonski was one of the "outsiders' and 'radicals' seeking to 'destroy our union'" (p. 195 – 199). Obviously, these myths worked.

In another study, Nash and Kirsch (1988) demonstrated the General Electric obfuscated and controlled rhetoric about the danger of polychlorinated biphenyls (more commonly known as PCB, which is used, for example, as a fire-resistant insulating agent in the production of power transformers) to the effect of protracted governmental action banning the use of PCB for environmental reasons. In the context of the current research, Nash and Kirsch's (1988) study suggests the possibility that actors with economic and political influences and power may present through rhetoric the development project as the *only* thing that could boost the local as well as national economy. As a result, alternatives, so the economically and politically powerful actors claim, are not conceivable.

2.3.4. Systemic power

In researching for the current study, I have also observed a phenomenon that decisions made by government officials over the long term seem to be systemic along the class divide, that is, government officials' decision over the long haul seem to favor higher-class interests and disfavor lower-class ones. The concept of "systemic power" proposed by Clarence Stone (1980) sheds some light on this phenomenon, suggesting that this systemic pattern should be treated in power terms.

Higher-class individuals' advantages can be the results of using forces in direct conflicts (first-dimensional power), of using mobilizations of biases and non-decisional making in covert conflicts (second-dimensional power), and/or of manipulating ideologies and misrepresenting information to prevent oppositions of the disadvantaged from arising (third-dimensional power). But all these three dimensions of power entail intentions of the advantaged to exert power over the powerless to achieve certain aims. Systemic power calls attention to the situations where social, economic, and political hierarchies confer systemic advantages to higher-class interests while confer systemic disadvantages to lower-class interests – that is, government officials "are predisposed to accommodate some interests while resisting others" (Stone, 1980, p. 989). Systemic power is therefore an argument about behaviors of government officials whose autonomy in decision-making is constrained by the broad, social context of a highly stratified socioeconomic nature in which government officials operate. Government officials confer advantages to higher-class individuals because government officials consider higher-class individuals' socioeconomic positions are valuable instruments and mechanisms through which government officials can achieve their personal goals such as career success.

Systemic power is not only intergroup – “the larger socioeconomic system [is] an element of the power relationships among groups” – but also situational, which has a twofold sense: 1) higher-class individuals does not intentionally and consciously create a power relation in which they intentionally and consciously exercise their power over the powerless to achieve something; instead, government officials are motivated by the socioeconomic context and therefore are predisposed to accommodate higher-class individuals, and 2) higher-class individuals need not be aware of the consequences of their advantaged position in the socioeconomic system (Stone, 1980, p. 980). Indeed, Stone remarks that:

Robert Dahl observes that “elected leaders keep the real or imagined preferences of constituents constantly in mind in deciding what policies to adopt or reject”. In this latter instance especially, it is not necessary that the passive “actor” intend that its preferences be taken into account or even be conscious that a power relationship exists (Stone, 1980, p. 979)

Stone (1980) differentiated three kinds of socioeconomic inequalities that function as systemic power to precondition government officials’ decision-making calculus: economic position, associational position, and social position and life-style. More specifically, individuals are distributed in the socioeconomic system in such a way that the upper-class individuals possess great economic resources and the lower-class individuals are predominately economic dependent. This distribution confers the upper-class individuals systemic advantages to the extent that public officials favor the interests of these individuals because by associating with them, who possess major economic enterprises, public officials are able to garner economic resources from the friendly ties, whereas there is little economic resources to be gained by associating with lower-class individuals who possess relatively insignificant economic resources.

Furthermore, associational position of the upper-class individuals symbolizes their great command of resources of major organizations and enterprises, and public officials, by courting favors of these upper-class individuals, are able to take advantages of this mobilization of resources for personal goal attainments.

And social position and life-style refers to the fact that individuals from the upper class are well-respected and perceived to have greater potentials to contribute to the well-being of their communities. In contrast, members of the lower class are considered to have limited or no potentials for social contributions and they are therefore less esteemed. Consequently, public officials tend to accommodate upper-class interests because upper-class individuals’ greater potentials for contributing to well-being of their communities are instrumental to government officials’ political, personal successes.

As such, systemic power involves a relationship among various classes and government officials with government officials as the focal point. In this power relation, higher-class individuals do not intentionally and consciously exert power over their lower-class counterparts to achieve certain aims; systemic power relation is characterized by a situation where government officials favor some interests at the expense of other interests, and this pattern of behaviors is motivated by elements of socioeconomic status that confers advantages to some and disadvantages to others. Indeed,

there is a natural tendency for public officials to form a governing alliance with business and other upper-strata interests; these interests therefore enjoy easy access and a ready reception for requests for action and cooperation (Stone, 1982, p. 280)

Using the concept of systemic power, I will illustrate in Chapter 5.5 that the broad, social context of a highly stratified socioeconomic nature predisposed government officials to favor and

accommodate business interests, which, relative to non-business interests, would be more instrumental to officials' goals such as career success. Systemic power relation also involved higher-class Han Taiwanese (*i.e.*, the Anti-Meinung-Reservoir Movement and the Anti-Machia-Reservoir Movement) and lower-class indigenous peoples (*i.e.*, the movement against the Tseng-Wen Reservoir Transbasin Diversion Project).

2.4. The Politics of Pro-Growth Regime and Clientelism

The study of public participation in the negotiating and contesting of interest in general and in the environmental impact assessment review process of the Tseng-Wen Reservoir Transbasin Diversion Project in particular can be situated within the politics of pro-growth regime and clientelism. Insofar as the political and economic advantages of the pro-growth regime and clientele networks confer them the abilities to predetermine the outcomes of collaborative politics, or likewise, the subordination status of the non-elites embodies certain structural obstacles to public participation, the idea of pro-growth regime and its constitutive clientele networks is highly relevant to my study.

Individuals of similar interests often organize in pursuit of a common goal, hence forming a "regime" – a network of informal or formal political and economic arrangement (Stone, 1989, 2006; Tang & Tang, 2004). In fact, a major theme in writings about urban politics is the discussion on development coalitions or regimes typically consisted of ruling elites and local businesses sharing similar (economic) objectives (Hunter, 1953; Molotch, 1976; Stone, 1989; Tang & Tang, 2004; Peterson, 1981). Despite the overarching thematic similarity, previous writings differed in the scalar context in which the development coalitions were situated: Peterson focused on *macro*-institutional context of US federalism, and Stone (1989), Molotch (1976), Tang and Tang (2004) turned their attentions to the political economic dynamics of development regimes within *local* society. The overarching contribution of these works is the recognition of the participation by the political and economic interests in directing the way in which decisions are made to realize the shared interests, which, in turn, strengthens and further structurally stabilizes the development regime. Molotch (1976) with his "growth machine" thesis calls attentions to the internal dynamics of urban politics: "place entrepreneurs have an interest in maximizing the exchange value of urban land" so that they "coalesce as 'growth coalitions' and seek to mobilize powers of local government in order to structure an environment conducive to growth" (cited in Wood, 1999, p. 165; cf. "urban regime" thesis in Stone, 1988). Stone (1989), for example, in his analysis of the entrepreneurial regime in Atlanta, Georgia found remarkable sustainability of symbiosis between the white business elites and the (mostly upper) middle-class blacks; working through the city hall, this alliance "governed" the city and its development to collective, shared interests.

Furthermore, the nature and dynamics of development coalitions may vary across countries of different ideological values, culture, ideations and governance structure (Dowding, 2001; see Holman [2007] for a case study of an UK city). Development regime, as Logan and Molotch (1987: 149) proffered, may confer greater benefits to its constituents in the U.S. than in other countries due to "[the U.S.'] local government system being highly fragmented into a large number of jurisdictions, the substantial planning controls of urban authorities, a largely depoliticized local bureaucracy, and the heavy reliance of local government on taxes raised locally on both business and households" (Dowding, 2001: 13). And, in stark contrast to the U.S. cases, development formations in Europe often are not led by business elites but by local politicians and bureaucratic (Dowding, 2001).

Works have recently emerged that also looked at how various geographical, institutional and socioeconomic variables may give rise to types of urban regime that may lead governing

arrangement away from exclusively focusing on economic development to concerning with pro-environment issues. Yet, the hegemony of pro-growth coalitions and regimes proved to be recalcitrant, and remains a fundamental challenge to environmental governance (Tang & Tang, 2004). Also, the political constraints posed by the hegemonic pro-growth regimes ultimately dampen the efforts of political strategies of public participation in environmental issues (Tang & Tang, 2004).

These political constraints are even more powerful in non-Western countries (Lim & Tang, 2002) where clientelism – a resource exchange system of pecking order that is voluntary (Garney, 1989; Wu, 2001) or coercive (Wang & Kurzman, 2007) in practice – dominates governance (Diamond, 1999). Stated thus, the politics of public participation need to be contextualized by referring to the politics of clientelism, for clientelism shapes most political processes (Garney, 1989). Taiwan is no exception (Tang & Tang, 2004).

Wu (2001) mentioned that “of the twenty one counties and cities in Taiwan, sixteen have factional networks”, where factions are understood as groups based on patron-client relationships, or clientelism. Heredia (1997: 4) defines clientelism as an exchange system based on “a complex of rules and practices for the organization, representation, and control of the demands and interests of society; these relationships are based on political subordination in exchange for the discretionary granting of available public resources and services.” Simply put, the patrons in this relationship provide protection, economic and other opportunities in exchange for loyalty, labor, gifts, deference, and political favors from the clients (Boyle, 1998). For Landé (1977), this patron-client relationships develop between two parties unequal in power, status, influence, and wealth, and the exchange between resources desired by each parties is based on a voluntary engagement (Wu, 2001). Indeed, Carney (1989) maintains that each party in the patron-client relationship does not view their relationships as zero-sum games wherein one’s gain piggybacks another’s loss; instead, patrons and clients alike share the view of mutual gains in the network, so much so that clients exhibit affectivity, affinity and loyalty to the patrons. Moreover, the patron-client relationships are also defined by reciprocity in that both members give and take. In this sense, both members give what they bring to the dyad and take what they need. Moreover, compliance is probably the most defining feature in this dyadic relationship: patrons expect compliance from clients in matters and issues that the patrons hold most dear; clients expect the patrons to comply to a certain degree to the needs of the clients.

In their discussion of clientelism, Wu (2001) and Garney (1989) have emphasized the voluntary nature of the dyadic relationships, a conceptualization contrasting that of other researchers. For example, Wang and Kurzman (2007), drawing from previous research, summarized three types of “appeals” that patron make of the clients: material, normative, and coercive. One of the mechanisms of political clientelism is the material resources that patrons promise to the clients. By ensuring the political growth of the patrons through clients’ political support, clients effectively guarantee economic (and political) resources for the patrons, hence for the clients themselves as well. Normative appeal emphasizes the sentiments of “loyalty, friendship, obligation, affection, trust, hospitality, and generosity” (Wu, 2001, p. 227) held by clients of the patrons. Patrons want clients to feel like “one of the family”. The distinction between the conceptualization of clientelism between Wu (2001) and Garney (1989), and Wang and Kurzman (2007) lays in the coercive appeal: when material and normative appeals fail to mobilize the clients, patrons will resort the coercion for maintaining the dyadic patron-client relationships (Wang and Kurzman, 2007)

Tang and Tang (2004) using a case in Taiwan illustrated the politics of clientele network in the context of environmental impact assessment by detailing the debates about gravel extraction and its impact on nature and wilderness between the “growth machine” (a patron-client relationships consisted of a gravel extraction company and its extensive networks with local

politicians) and conservation activists and local residents. Although the extraction company did not legally violate the Environmental Impact Assessment Act, it cleverly took advantage of technical loopholes by applying for separate permits covering less than 5 ha each (the original Environmental Impact Assessment Act only required evaluation for project spanning more than 5 ha). The hegemony of a local, place-bound clientele network influenced government's decision-making to the result that the local government failed to guard against this manipulation of the Environmental Impact Assessment Act. And central government was no less immune to clientele interests. Significantly, the Environmental Protection Administration failed to redress this technical loophole until later when the villagers demanded it; nevertheless, the ordinance was amended on a nonretroactive basis, effectively exempting the on-going development project that was the locus of debate (Tang & Tang, 2004). What amounted to a cosmetic amendment points to the political significance and muscles of the patron-client relationships. Tang and Tang's study (2004) suggests the possibility that a plurality of governmental bodies, private and economically and politically powerful actors, and the general public may all vie for a say as to what form of public participation entails maximum interests for themselves.

Drawing on the concept of pro-growth regime and clientelism, I will identify the constitutive parties in the prevailing power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project and, in some instances, how clientelism and factions further strengthen this power structure. I will also examine how this power structure shaped the nature and extent of public participation by the non-elites in the negotiating and contesting of interests in general and in the environmental impact assessment review in particular.

2.5. The Politics of Paternalism

Paternalism refer to the relative place in the hierarchy between females and males and females' status vis-à-vis males, undermining women's access to public participation. This despite the importance of women's access to process which serves to further sustainability. The 1992 United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, recognized that women's participation is formative to the vision of sustainability. In the Preamble to the Rio Declaration on Environment and Development (commonly known as Agenda 21), principle 20 states that "Women have a vital role in environmental management and development. Their participation is therefore essential to achieve sustainable development" (United Nations, 1992). To achieve this, Agenda 21 states that countries should "consider developing and issuing by the year 2000 a strategy of change necessary to eliminate constitutional, legal, administrative, cultural, behavioral, social and economic obstacles to women's participation in sustainable development and in public life" (United Nations, 1992, Vol. 3, p. 5).

Although women are recognized as having a significant role in achieving sustainability, this seductive rhetoric does not automatically translate to social reality. Indeed, as Seager remarked,

this resistance [to women's access to the process of public participation] is patently based in sexist assessment of appropriate roles for women; for many men, the notion of a woman activist is a oxymoron. Women activists are stepping outside the bounds of sanctioned feminine behavior, and the techniques which men invoke to put women back in their place are often entirely based on sexist "policing" – there can hardly be a woman environmental activist in the world, for example, who has not been called a "hysterical housewife". It is clear that when women walk out of their homes to protest in a planned clear-cutting scheme, toxic-waste dump, or highway through their community, their gender and sex identity goes with them – in a way that is not true for men (1993, p. 271).

Public participation of women is frowned upon also for the reason that their energy and time are siphoned off away from their, in Helen MacDonald's term, "home duties":

It is a concern for the family and community that catapults women into action in the first place, but in a pragmatic sense, home duties may become secondary as women become more active. Children scrounge for clean clothes; mealtimes are irregular; the food is cold; the telephone never stops ringing; every tabletop in the house is covered with documents, briefs, newspapers and magazines, and an old clunker of a typewriter sits besides last week's unfolded laundry (1994, p. 23).

Kristin Warren (1992) in her master thesis entitled *Role-Making and Coping Strategies among Women in Timber-Dependent Communities* also observed similar phenomenon as shown by the experience of one of her interviewees: "I have backed off. I got involved in [political activism] for my family, and if I am going to ruin my family in the process of doing this then I need to back off a bit and decide what is a priority for me" (p. 31, cited in Avis, 1992).

Where women are not completely prevented from participating, women's voices tend to be devalued. Why? Although they asked this question in the context of forestry projects, Fortmann and Rocheleau's (1984) insights are a useful heuristic to understanding the barriers to public participation by women in the environmental impact assessment. Despite their traditionally important roles in agricultural production and in the use and management of trees, women, for the most part, are being excluded from formal involvement, a phenomenon that can be understood from the perspective of four myths about the roles and status of women. Myths have it that women are *just* housewives; that forest products are the domain of men who are more knowledgeable in environmental issues because of their frequent use of trees; that men are head of households, hence assuming the role of "heading"; and that women are passive community members who are not expected to participate in the sphere of public influence and public action.

Mindful of paternalistic nature of public participation, I also sought to examine the nature and extent of female participation in Chapter 5.6.

3. Environmental Impact Assessment in Taiwan

In this section I will briefly discuss the development of Environmental Impact Assessment (EIA) in Taiwan. Before engaging in this discussion, a brief introduction to the development of the Environmental Protection Agency (EPA) in Taiwan is necessary to put the discussion of EIA in a historical context.

In March 1971, the Department of Health, Executive Yuan (literally, the “Executive Court” and it is the executive branch of Taiwan central government, also see Footnote 1), set up the Environmental Health Division in charge of “the management and monitoring of garbage and sewage disposal in public health facilities, public space, and food processing plants; the use of pesticides; studies, guidance, and supervision of air, water and noise pollution control” (Anonym, 2009b). In 1979, the Executive Yuan passed the EIA Act to comprehensively plan a system of environmental protection administration. The Environmental Health Division was subsequently upgraded as the Environmental Protection Bureau in 1982. In 1987, the Environmental Protection Bureau was upgraded as the Environmental Protection Administration, operated under the jurisdiction of the Executive Yuan. The Environmental Protection Administration has seven departments: Comprehensive Planning, Air Quality Protection and Noise Control, Water Quality Protection, Waste Management, Environmental Sanitation and Toxic Substance Management, Supervision Evaluation and Dispute Resolution, Environmental Monitoring and Information Management (Anonym, 2009b).

3.1. A Brief History of the Environmental Impact Assessment Development

The idea of environmental impact assessment (EIA) first appeared in the National Environmental Protection Act (NEPA) of 1969 of the USA. NEPA was enacted to, *inter alia*, “to promote efforts which will prevent or eliminate damage to the environment and biosphere” (Section 2) and to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations” (Section 101(b)). However, Caldwell (1998) noted that the policy in and of itself was not sufficient: “It was necessary in realizing national environmental policy objectives to lay unequivocal mandatory requirements on the Federal bureaucracies whose inbred attitudes were resistant to the new environmental objects” (p. 6). Mindful of this, NEPA requires that “all agencies of the Federal Government shall ... include in every recommendation for major Federal actions significantly affecting the quality of the human environment, a detailed statement on ... the environment impact of the proposed action” (Section 102(2)(c)). From this above statement can be seen the idea of EIA.

In Taiwan, the Environmental Protection Bureau – the major government department responsible for environmental protection before the Environmental Protection Bureau was upgraded to form the Environmental Protection Administration as a cabinet-level agency in 1987 – was responsible for developing an EIA system. After several trial projects, the Environmental Protection Bureau proposed the first draft of the EIA Act to the Executive Yuan in 1983 (Tang & Tang, 2000). However, the Executive Yuan overruled the institutionalization of the EIA, citing as reasons the lack of experiences and expertise in EIA (Chang, 2004); and the Council for Economic Planning and Development – a powerful government body responsible for coordinating various ministries to promote economic development – also overruled the proposal of the EIA for the reason that EIA might be at odds with the “ultimate national goal of economic development” (Tang & Tang, 2000, p. 85). Although the first draft of the EIA Act was rejected, the Executive Yuan asked the Environmental Protection Bureau to draft what would become the “Five-Year Plan for Promoting Environmental Impact Assessment”, which was promulgated in 1985, in which fourteen cases were selected to demonstrate the practice of the EIA (Chang, 2004; Liu, 1996; Tang & Tang, 2000, p. 39).

The Environmental Protection Bureau was upgraded to form the Environmental Protection Administration in August, 1987. After the lifting of the Marshall Law on July 17, 1987, the authoritarian rule of Kuomintang was facing challenges from the growing civil society and oppositionally political parties. And the civil discontent of growing strength also confronted the severely environmental detriments of Taiwan. As a result of this civil discontent, the Environmental Protection Administration proposed to the Executive Yuan a revised draft of the EIA Act, and the Executive Yuan subsequently presented a final version to the Legislative Yuan in 1990 for review. However, the Legislative Yuan was still reviewing this final draft when the “Five-Year Plan for Promoting Environmental Impact Assessment” expired on October, 1990. Because the Environmental Protection Administration deemed necessary the practice of EIA, it promulgated on April, 1991, the “Follow-up Plan for Promoting Environmental Impact Assessment”, to continue the practice of EIA. Furthermore, to avoid confusion in transitioning between and to ease articulation between two EIA systems, the “Follow-up Plan for Promoting Environmental Impact Assessment” primarily modeled after the EIA draft submitted to the Legislative Yuan and was revised synchronously according to the changes made to the EIA draft during the review process (Chang, 2004).

Different from its predecessor, the “Follow-up Plan for Promoting Environmental Impact Assessment”, instead of choosing trial projects, required all large-scale projects to undergo the EIA review before permits and licenses could be granted to the project proponents (Tang & Tang, 2000). Procedurally, the “Follow-up Plan for Promoting Environmental Impact Assessment” established the mechanism of two-phase review process that was also adopted in the EIA Act. In terms of public participation, the “Follow-up Plan for Promoting Environmental Impact Assessment” required the holding of “public explanation meeting”, “scoping”, and “on-site inspection and hearing³” (Box 8, 9, and 11, respectively, Figure 2) (Chang, 2004).

The draft EIA submitted to the Legislative Yuan in 1990 triggered heated debates between pro-business interests and various environmental groups and underwent substantial revisions after intense lobbying efforts by both camps (Tang & Tang, 2000; Tang, Tang & Lo, 2005). The debates surrounded around the roles of the Environmental Protection Administration in the EIA process: the submitted EIA draft, consistent with pro-business interests’ and government officials’ views about the role of Environmental Protection Administration in the EIA process, modeled after the US EIA system in which Environmental Protection Administration had a minimum role, which provided only consultation and technical assistance to project proponents and other administrative agencies responsible for economic development, and the approval of development projects should be collaboratively made by representatives from several governmental ministries using multidimensional consultations (Tang, Tang & Lo, 2005). Environmental groups, however, strongly criticized the draft EIA Act submitted to the Legislative Yuan and argued that, under this framework, the EIA would eventually turn into mere formalism because of Environmental Protection Administration’s inferior rank in the cabinet (its head had a more junior status than other cabinet ministers) and its relatively small size (Tang & Tang, 2000). Given this organizational arrangement, the Environmental Protection Administration officials would find it hard to override the dominating views of other cabinet ministers during the “collaborative” review. Furthermore, environmental groups argued that the US EIA system was not applicable to Taiwan because

unlike the U.S., Taiwan doesn’t have an active judicial system to review administrative decisions or convenient legal channels for citizens to challenge procedural injustice in

³ It bears noting that, before the third revision to the EIA Act in 2003, it required a “hearing” to be held; a subsequent revision to the EIA Act changed the required “hearing” to “public hearing”. For further details on the distinction between a “hearing” and a “public hearing”, please see Chapter 3.3.

applying regulations. Taiwan also does not have a highly credible referee like the Council on Environmental Quality to supervise the review process for EIA and to mediate among conflicting interests in development projects (Tang & Tang, 2000, p. 86).

Environmental groups lobbied intensively to push their recommendations. For example, the Taiwan Environmental Protection Union persuaded many legislators from the Democratic Progressive Party, the major political party oppositional to the then one-party authoritarian rule, the Kuomintang, to present in legislative meetings the *civil* version of EIA Act, a strategic act meant to highlight the problematic issues of the *official* version of EIA Act (the one submitted to the Legislative Yuan for review). Eventually, the growing civil society and environmental groups won the legislative battle so that the Environmental Protection Administration had (and has) a central role in the EIA process. And, different from the original proposal of reviewing development projects collaboratively with representatives from several governmental ministries using multidimensional consultations, the Environmental Protection Administration must convene an independent board to review all development projects for which there is concern of adverse impact on the environment. Significantly, the EIA Act conferred the Environmental Protection Administration the power to veto development projects if the EIA review concluded the projects as environmentally infeasible – procedurally, this is the distinguishing feature of Taiwan’s EIA system from its counterparts in other countries. However, as a result of lobbying by the business interests, a proviso was attached to this vetoing power: “the developer may submit an alternate plan [Box 7 of Figure 2] to the competent authority for a new review” (Article 14 of EIA Act) (Chang, 2004).

Subsequent to the enactment of the EIA Act in 1994, several supplementary regulations have been promulgated, for example, the “Environmental Impact Assessment Act Enforcement Rules” in 1995; the “Standards for Determining Specific Items and Scope of Environmental Impact Assessment for Development Activities” in 1995; the “Fee Standards for Environmental Impact Assessment Review” in 1995; and the “Regulations Governing Government Policies on Environmental Impact Assessment” in 2000 (Su, 2008).

3.2. The Organizational Structure and Review Procedure

The EIA Act of Taiwan stipulates that: “‘Environmental impact assessment’ means an environmental management plan based on scientific, objective and comprehensive surveys, forecasting, analyses and evaluations conducted prior to project implementation in order to determine the degree and scope of the potential impact of development activity or government policy on the environment (including the living environment, natural environment and social environment), economy, culture and ecology, and the public explanation and review of such a plan”. Of note is that the EIA Act recognizes, quite comprehensively, a plurality of environments which development projects bear upon – living, natural, social, economic, cultural and ecological environments. And, in addition to ensuring that environmental management plans of development projects would be implemented by the project proponents, one of the most significant and ambitious functions of the EIA in Taiwan is its authority to veto development projects that may pose irreversible, significant environmental degradations (this function is explicitly stated in Article 14 of the EIA Act).

Original 32 articles of the EIA Act were promulgated by presidential order on December 30, 1994 (Anonym, 2009b). As stipulated by the EIA Act, EIA shall be conducted for the following development activities for which there is concern of adverse impact on the environment:

- 1) the establishment of a factory or the development of an industrial park; 2) the development

of a road, railway, mass rapid transit system, harbor or airport; 3) the extraction of earth and gravel or the exploration and extraction of minerals; 4) the development of water storage, water supply, flood control or water drainage projects; 5) the development or use of land for agriculture, forestry, fisheries or livestock; 6) the development of recreational areas, scenic areas, golf courses or sports fields; 7) the development of cultural, educational or medical facilities; 8) The construction of new municipal districts, construction of tall buildings or renovation of old municipal districts; 9) the construction of environmental protection projects; 10) the development of nuclear energy or other forms of energy or the construction of radioactive nuclear waste storage or processing facilities; and 11) those other activities officially announced by the central competent authority (Article 5).

As depicted in Figure 2, EIA review includes first (Box 1 – Box 6) and second phase (Box 8 – Box 13) (Article 4 of the EIA Act).

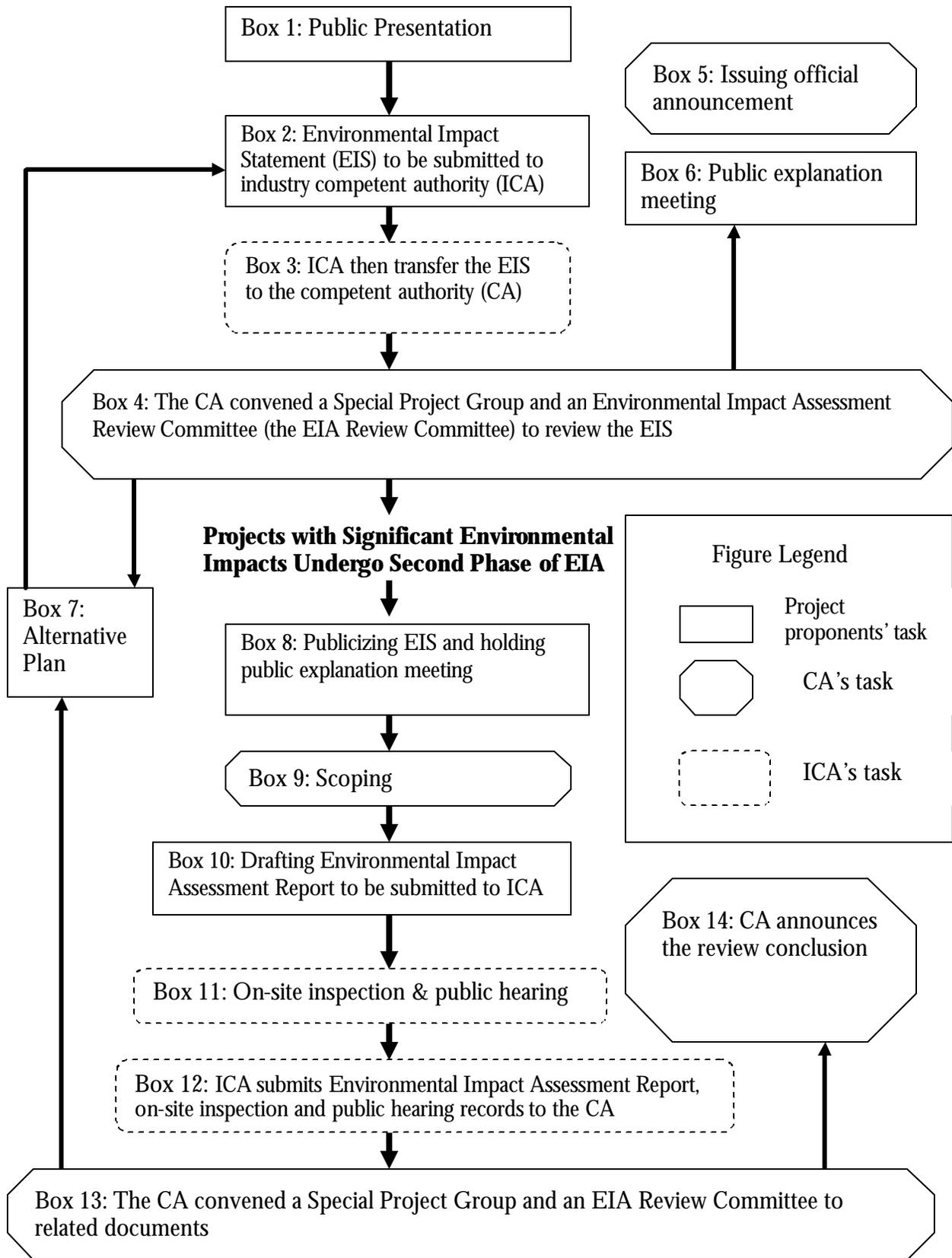


Figure 2. Environmental Impact Assessment Review Process

3.2.1. First phase of the Environmental Impact Assessment

To compensate for the lack of requirement for public participation during the first phase of the EIA in the original EIA Act, the EPA enacted an Executive Order in December 22, 2004, which stipulates that project proponents shall invite local residents or any other relevant stakeholders to a public presentation for voicing their opinions, and the development proponents shall incorporate to the environmental impact statement how the public meeting was held and responses to the opinions of the attendees (Box 1: All the “Boxes” mentioned in this chapter refer to Figure 2).

For the aforementioned eleven development activities for which EIA are required, the project proponent shall conduct a first phase of EIA and prepare an environmental impact statement to be submitted to the industry competent authority (Box 2). The project proponent usually hires a third-party environmental consulting company of for-profit nature to prepare the environmental impact statement (Su, 2008). The industry competent authority, as stipulated by Article 7 of the EIA Act, then transfers the statement to the competent authority⁴ for review (Box 3).

Upon receiving the environmental impact statement, the component authority convenes a Special Project Group whose members may vary between development projects to preliminarily review the development project. The decision made by the Special Project Group is then submitted to the EIA Review Committee, convened also by the component authority (Box 4), for final review. How are the members for these two bodies chosen?

The EIA Review Committee is consisted of 21 individuals, who include the Minister and the Deputy Minister of the Environmental Protection Administration, the Deputy Minister of the Research, Development and the Evaluation Commission, the Deputy Minister of the National Science Council, the Deputy Minister of the Council of Agriculture, the Deputy Minister of the Council for Economic Planning and Development, and the Deputy Minister of the Public Construction Commission, and 14 experts and scholars chosen by the Environmental Impact Assessment Committee Member Selection Panel (Article 4 of the Environmental Impact Assessment Review Committee Organizational Rules).

The convener of the Special Project Group is appointed by the Minister of the Environmental Protection Administration, and its members, whom are chosen by the convener, can consist of the EIA Review Committee members and/or other experts and scholars (Article 3 of the Environmental Impact Assessment Review Committee Special Project Group Rules). The number of the Special Project Group members depends on the nature of the development projects. For “General Development Projects”, the Special Project Group may have from five to nine members (Article 7 of the Environmental Impact Assessment Review Committee Organizational Rules); for all other development projects, the Special Project Group may have from eight to fourteen members (Article 3 of the Environmental Impact Assessment Review Committee Special Project Group Rules; see also Shu, 2009, p. 87 – 90; Su, 2008, p. 60 – 62).

It bears noting that no regulation exists to dictate how the decision reached by the Special Project Group should bear upon the decision made by the EIA Review Committee: it is completely to the discretion of the latter. Furthermore, the EIA Act doesn't stipulate the decision rule (e.g., simple majority), and the EIA Review Committee members usually come to an agreement among themselves regarding the decision rule. Shu Kuan Ron, one of the Sixth EIA Review Committee members, mentioned that the decision rule used in the Sixth EIA Review Committee was simple majority.

⁴ Article 2 of the EIA Act stipulates that: “The competent authority referred to in this Act means the Environmental Protection Administration, Executive Yuan, at the central government level; the municipal government in special municipalities; and the county or city government in counties or cities” (Anonym, 2009a).

The review process shall conclude within fifty days, and can be extended for another fifty days under special circumstances. Upon completing the review, the competent authority shall issue an official announcement (Box 5), and shall notify the industry competent authority and project proponent. If the Environmental Impact Assessment Review Committee concludes that the second phase of EIA is not required, the project proponent shall hold a public explanation meeting to inform the general public of the development project in question (Box 6). On the other hand, if the EIA Review Committee vetoes the development project, the project proponent may submit an alternative plan to the competent authority for a new review (Box 7) (Article 14 of the EIA Act).

3.2.2. Second phase of the Environmental Impact Assessment

If the EIA Review Committee concludes that the proposed development project shall undergo the second phase of the EIA due to concern of a “significant impact on the environment”, the project proponent shall “distribute the environmental impact statement to relevant agencies”; “display or post the environmental impact statement at an appropriate location near the development site; this period may not be less than thirty days”; “publish in newspapers the name of the developer [i.e., project proponent], the development site and the location where the review conclusion and the environmental impact statement are displayed or posted” (Box 8). And the project proponent “shall hold a public explanation meeting after the expiration of the period for displaying or posting [the environmental impact statement]” (Box 8) (Article 8 of the EIA Act). The purpose of the public explanation meeting is for project proponent to inform the local residents and any other relevant stakeholders the details of the development plans and also for local residents and other stakeholders to pose any questions related to the development project.

After the public explanation meeting, the competent authority shall define the scope of assessment together with the EIA Review Committee members, scholars, experts, industry competent authority, representatives of local residents, relevant agencies, and other groups (Box 9). This “scoping” process includes the following matters as stipulated in the Article 10 of the EIA Act: 1) “The confirmation of a feasible alternate plan”; 2) “the confirmation of items for which environmental impact assessments are required to be conducted; determination of survey, forecasting, analysis and evaluation methods”; and 3) “other matters related to the implementation of the environmental impact assessment”.

Then, the development proponent will prepare a draft of an environmental impact assessment report, taking into account of the opinions of the participants in the scoping process, and submit the environment impact assessment report to the industry competent authority (Box 10). Within 30 days after receipt of the draft of the environmental impact assessment report, the industry competent authority shall conduct an on-site inspection and hold a public hearing which competent authority, members of the EIA Review Committee, experts, local residents and other relevant stakeholders can attend (Article 12 of the EIA Act) (Box 11). And industry competent authority shall hold the public hearing in the development project site (Article 26 of the Environmental Impact Assessment Act Enforcement Rule).

After the on-site inspection and public hearing, the industry competent authority will submit the draft of environmental impact assessment report, on-site inspection, and public hearing records to the competent authority for review (Box 12). Then the competent authority shall submit the environmental impact assessment report to Special Project Group for review (Box 13). The Special Project Group is convened the same way as it is convened during the first phase of the EIA. The decision made by the Special Project Group is then submitted to the EIA Review Committee, convened also by the component authority (Box 13). Upon authorization of the

proposed project, the “environmental impact assessment report and a summary of the review conclusion shall be officially announced and published in the official register of the competent authority” (Article 13 of the EIA Act) (Box 14).

3.2.3. Environmental Impact Assessment Review Committee: Term and selection criteria

The term for the EIA Committee members is two years, and experts and scholars may not account for less than two-third of the total number of the committee members. A modification to the EIA Act in June, 2001, states the criteria for the EIA Review Committee members: 1) technicians who possess expertise of EIA or relevant fields for five years or more; 2) associate professor or higher of universities or equivalent educational institutions in Taiwan; 3) having the experiences of being managers of government-recognized environmental organizations for three years or more; 4) having the experiences of being the EIA Review Committee members in any of the municipal, city, or county governments for two years or more; 5) researchers in academic institutions who have the experiences of conducting research related to EIA; or 6) individuals who have other expertise with the approval of the Environmental Impact Assessment Committee Member Selection Panel, which is responsible for selecting the EIA Review Committee members (Su, 2008, p. 56).

3.3. The Institutionalization of Public Participation in the Environmental Impact Assessment Act

In terms of opportunities for public participation during the EIA process, possible channels include the followings (see also Su, 2008):

- Public presentation (Box 1): According to an Executive Order enacted in December 22nd, 2004, project proponents shall invite local residents or any other relevant stakeholders to a public presentation to voice their opinions concerning the development project in question, and the project proponents shall incorporate to the environmental impact statement how the public meeting is held and opinions of the attendees.
- Special Project Group meeting (Box 4 and Box 13): The Environmental Protection Administration can invite stakeholders, including representatives from organizations and individuals, to attend the meeting where they can express their opinions (Article 4 of the Environmental Impact Assessment Review Committee Special Project Group Rules). Additionally, representatives of organizations, local residents, and others who are not invited but wish to attend the meeting can do so. They are also allowed to express their opinions in the meeting⁵ (Article 5 of the Article 4 of the Environmental Impact Assessment Review Committee Special Project Group Rules).

⁵ However, public participation in this channel is restricted when the Regulations on Auditing in the Environmental Impact Assessment Review (available at: <http://ivy5.epa.gov.tw/epalaw/>) (the Regulations) was enacted and promulgated on February 17, 2009. According to the regulations, no more than two representatives from the same organization or township can attend the meeting, and the total number of people attending the meeting can be no more than 20. These restrictions don't apply to attendees who are invited by the Environmental Protection Administration. In terms of expressing opinions in the meeting, attendees may do so orally during first meeting. During subsequent meetings, they may express their

- EIA Review Committee meeting (Box 4 and Box 13): At this stage, the general public are allowed to observe the review meeting, but they may not voice any opinions (Su, 2008, p. 57).
- Public explanation meeting during first phase of the EIA (Box 6): As mentioned above, if the EIA Review Committee concludes that the second phase of the EIA is not required for the development project in question, the project proponent shall hold a public explanation meeting. However, this meeting is held *after* the approval of the proposed development project and solely for the purpose of informing the general public of the development plans. Therefore, the opinions of the general public do not affect the outcome of the EIA reviews.
- Public explanation meeting during second phase of the EIA (Box 8): As mentioned in Chapter 3.2.2., after publicizing the environmental impact statement, the project proponent shall hold a public explanation meeting. The purpose of the public explanation meeting is for project proponent to inform the local residents and any other relevant stakeholders the details of the development plans and also for local residents and other stakeholders to pose any questions related to the development project. Those who have opinions regarding the explanations of the development proponent shall officially submit their opinions in writing to the project proponents within fifteen days after the public explanation meeting (Article 9 of the EIA Act).
- Scoping (Box 9): In preparing an environmental impact assessment report to be submitted to the industry competent authority, the project proponent needs to take into account of the opinions of the participants in the scoping process (Article 11, Environmental Impact Assessment Act) by compiling item-by-item explanations of the opinions, describing “circumstances concerning the acceptance of opinions and reasons for not accepting opinions”, and detailing the revisions of the environmental impact assessment reports according to the opinions (Article 23 of the Environmental Impact Assessment Enforcement Rules).
- On-site inspection and public hearing (Box 11): The general public, in addition to competent authority, members of the Environmental Impact Assessment Review Committee, other relevant agencies, experts, scholars, groups, and local residents, can participate in the on-site inspection and public hearing, which shall be held by the industry competent authority within thirty days after receipt of the draft environmental impact assessment report. Then “records of the on-site inspection and public hearing shall be maintained and submitted to the competent authority within thirty days after the on-site inspection and public hearing” (Article 12 of the EIA Act). Specifically, the industry competent authority should collect “a wide range of opinions from the competent authority, members of the EIA Review Committee, relevant agencies, experts and scholars, groups, and local residents in order to facilitate future review meetings of the committee” (Article 24-1, Environmental Impact Assessment Enforcement Rules).

opinions only by writing. The Regulations has received wide criticisms, for it is a gesture on the part of the Environmental Protection Administration that mocks democracy and the spirit of public participation.

It should be noted that before a revision to the EIA Act in 2003, industry competent authority was required to hold a “hearing”. This revision changed the required “hearing” to “public hearing” (Wang, 2006; Lin, 2006, p. 123). “Hearing” and “public hearing” are different in terms of meaning, the conditions under which it can be invoked and who has the authority to invoke it, who can participate, the procedure, and the legal stance.

First, “hearing” in the context of the Administrative Procedure Act of Taiwan literally means listening to different individuals’ opinions and oppositions (“a man’s defense must always be fairly heard”). However, there is no formal definition in the Administrative Procedure Act, which only asserts that “hearing” is based on the principle of full transparency of the entire procedure (Article 59 of Administrative Procedure Act), except when full or partial transparency may result in harms to the involved parties or public interests. On the other hand, “public hearing”, referred to in Article 12 and Article 13 the Environmental Impact Assessment Act, is defined as “the collection by the industry competent authority of a wide range of opinions from the competent authority, members of the Environmental Impact Assessment Review Committee, relevant agencies, experts and scholars, groups, and local residents in order to facilitate future review meetings of the committee” (Environmental Impact Assessment Enforcement Rules, Article 14-1).

Second, the procedure of “hearing” can be invoked when any regulation explicitly requires “hearing” be held or when administrative agencies deem it necessary to hold a “hearing” (Article 107 of the Administrative Procedure Act). The administrative agency that stipulates the regulations that explicitly require hearing be held has the authority to hold a hearing (Article 155 of Administrative Procedure Act). In contrast, according to the Environmental Impact Assessment Act, the industry competent authority is responsible for holding the “public hearing”: “The industry competent authority shall, in conjunction with the competent authority, members of the Committee and other relevant agencies, invite together experts, scholars, groups and local residents to conduct an on-site inspection and hold a public hearing within thirty days after receipt of the draft environmental impact assessment report; records of the on-site inspection and public hearing shall be maintained and submitted to the competent authority within thirty days after the on-site inspection and public hearing” (Article 12 of Environmental Impact Assessment Act).

Those who can participate in “hearing” include the host, who is either the minister of the administrative agency holding the “hearing” or someone who is appointed by the minister and a lawyer, relevant experts, or others who are familiar with the legal system (Article 57 of Administrative Procedure Act). The host shall be fair and neutral (Article 62 of Administrative Procedure Act). For “public hearing”, on the other hand, participants may include industry competent authority, competent authority, members of the Environmental Impact Assessment Review Committee, other relevant agencies, experts, scholars, groups, and local residents (Article 12, EIA Act).

To protect the rights of citizens, to enlarge the scope of public participation, and to maintain objectivity of the entire process, “hearing” shall be conducted by honoring full transparency, except when full or partial transparency may result in harms to the involved parties or public interests (Article 59 of Administrative Procedure Act). “Hearing” also offers the possibility for cross-examinations among participated parties in that any participated party can express his/her views, present evidences, and, with the permission of the host, cross-examine other participated parties – this suggests that those who are cross-examined have the obligations to respond summarily to the questions posed to them (Article 61 of Administrative Procedure Act). In contrast, “public hearing” stipulated in the Environmental Impact Assessment Act doesn’t explain how “public hearing” should be conducted, leaving it to be interpreted by the industry

competent authority. This creates a legal loophole which the industry competent authority can take advantage to hold the public hearing in a non-stringent and non-accountable way.

The most significant difference between “hearing” and “public hearing” is that hearing has legal stance, while public hearing doesn’t. Specifically, administrative agencies must consider all the opinions expressed in the hearing in their decision-making (Article 108 of Administrative Procedure Act). In stark contrast, the Environmental Impact Assessment Act only requires records of the public hearing be maintained and submitted to the competent authority for review (Article 12 of EIA Act); it does *not* require the competent authority to consider the outcomes of the “public hearing”. Significantly, it is entirely possible that the opinions and accusations voiced by the participants in the “public hearing” are selectively taken into account or are altogether ignored. Seen in this light, “public hearing” is legally reduced to a forum where the public’s “voice”, but are not necessarily “listened to”.

In sum, the opinions of the general public are respected and accounted for to a greater extent in “hearing” than in “public hearing” insofar as they are more likely to be heard and responded to both during the “hearing” process and the decision-making process by the competent authority.

4. The Case of the Tseng-Wen Reservoir Transbasin Diversion Project

Taiwan is a geologically young island and

located at an active mountain belt created by the oblique collision between the northern Luzon arc and the Asian continental margin in which fissures, joints, beddings, and even faults prevail in most of mountainous areas (Yang, 2008, p. III).

With the growth of industry and commerce has come a graduate increase of public water demand and needs for new water supplies to meet the demand. Although Taiwan receives much precipitation (~ 2,500 mm/year), most precipitation becomes runoff and drains into the ocean within a very short distance due to Taiwan's "significant topographical relief and unevenly distributed rainfall" (Yang, Lee, Kung, & Yeh, 2009, p. 39). The Tseng-Wen Reservoir Transbasin Diversion Project proposed in 1995 by the Water Resource Agency under the auspice of the Ministry of Economic Affairs is among the many reservoirs and water diversion tunnels that have been constructed in Taiwan to balance the seasonal variations of rainfall. When the project is completed, the Water Resources Agency estimated that an additional of approximately 640,000 m³ of water daily can be supplied to southern Taiwan (G.T. International, 1999; Yang et al., 2009).

The Tseng-Wen Reservoir Transbasin Diversion Project is proposed to be located in southern Taiwan, and it is divided into eastern – 9.6 km long and crosses the Laonong Creek and Chis han Creek watersheds – and western sections – 4.4 km long and crosses the Chi-Shan Creek and Tsao-Lan Creek watersheds (Environmental Impact Assessment Report, 2003). Therefore, this project includes a water tunnel that diverts water from the Laonong Creek, a tributary of the Kao-Ping River, to the Tseng-Wen Reservoir, the largest reservoir in Taiwan and can store 708 million m³ (Figure 3). The stratum and geological structure the tunnel passes through include

Miocene sedimentary rock with layers of sandstone or shale or their alternation. Among the many geological structures the tunnel crosses, the major structures consists of a series of parallel easterly inclined thrust faults and folds, which often form located fractured zones, including geological structures such as the Laonong Fault, Gao-Jhong Fault, Lao-Ren Creek Anticline, Lao-Ren Creek Syncline, Chi-Shan Fault, Xiao-Lin Syncline, Ping-Xi Fault and Biao-Hu Fault (Yang *et al.*, 2009, p. 45).

For a cross-section diagram of the geology along the tunnel axis, see Figure 4. To historically contextualize the analysis of power dynamics surrounding this development project, I will present in the following paragraphs a brief timeline starting from the inception of the project to the end of the environmental impact assessment review process. The story begins with the Meinung Reservoir.

The Meinung Reservoir was proposed by the Ministry of Economic Affairs at the 1980s and the plan was finalized in 1992, and this development project was furiously opposed by local residents along with environmental organizations, marking the first anti-dam movement in Taiwan (Zheng, 1999). As a result of the powerful opposition movement, the Tseng-Wen Reservoir Transbasin Diversion Project was proposed in 1995 by Water Resources Agency as an alternative.

The Special Project Group convened for the first time and for the second time to review the Tseng-Wen Reservoir Transbasin Diversion Project on November 1, 1996, and July 2, 1999, respectively (Box 4, Figure 2). The Special Project Group recommended to the Environmental Impact Assessment Review Committee that the Tseng-Wen Reservoir Transbasin Diversion

Project should undergo the second phase of environmental impact assessment. The Environmental Impact Assessment Review Committee convened on July 8, 1999, and adopted the Special Project Group's conclusion (Box 4, Figure 2).

The Water Resource Bureau held a public explanation meeting (Box 8, Figure 2), which is required for all development projects undergoing second phase of the environmental impact assessment review, at March 7, 2000, at Taoyuan Township Administration's office. It is worth noting that public explanation meeting is for project proponent to inform the local residents and any other relevant stakeholders the details of the development and also for local residents and other stakeholders to pose any questions related to the development projects. However, the project proponent is not required to respond to these questions. As such, the concerns expressed and questions asked by the attendees of the public explanation meetings were only noted on the environmental impact assessment report but not taken into account in any way by the project proponents.

To confirm items for which environmental impact assessment are required to be conducted and to determine survey, forecasting, analysis, and evaluation methods, the first and second scoping meeting was held on May 30, 2000, and on August 25, 2000, respectively (Box 9, Figure 2).

On-site inspections for Chi-Shan Creek were held on July 11 and July 25, 2001; for Tsao-Lan Creek, July 25, 2001; for Laonong Creek, July 26, 2001. Then, hearing was held on July 26, 2001 (Box 11, Figure 2).

Then, the Special Project Group convened for the first time and for the second time on March 12 and May 20, 2002, respectively (Box 13, Figure 2). The Environmental Impact Assessment Review Committee met on June, 2002, and approved the Tseng-Wen Reservoir Transbasin Diversion Project (Box 13, Figure 2).

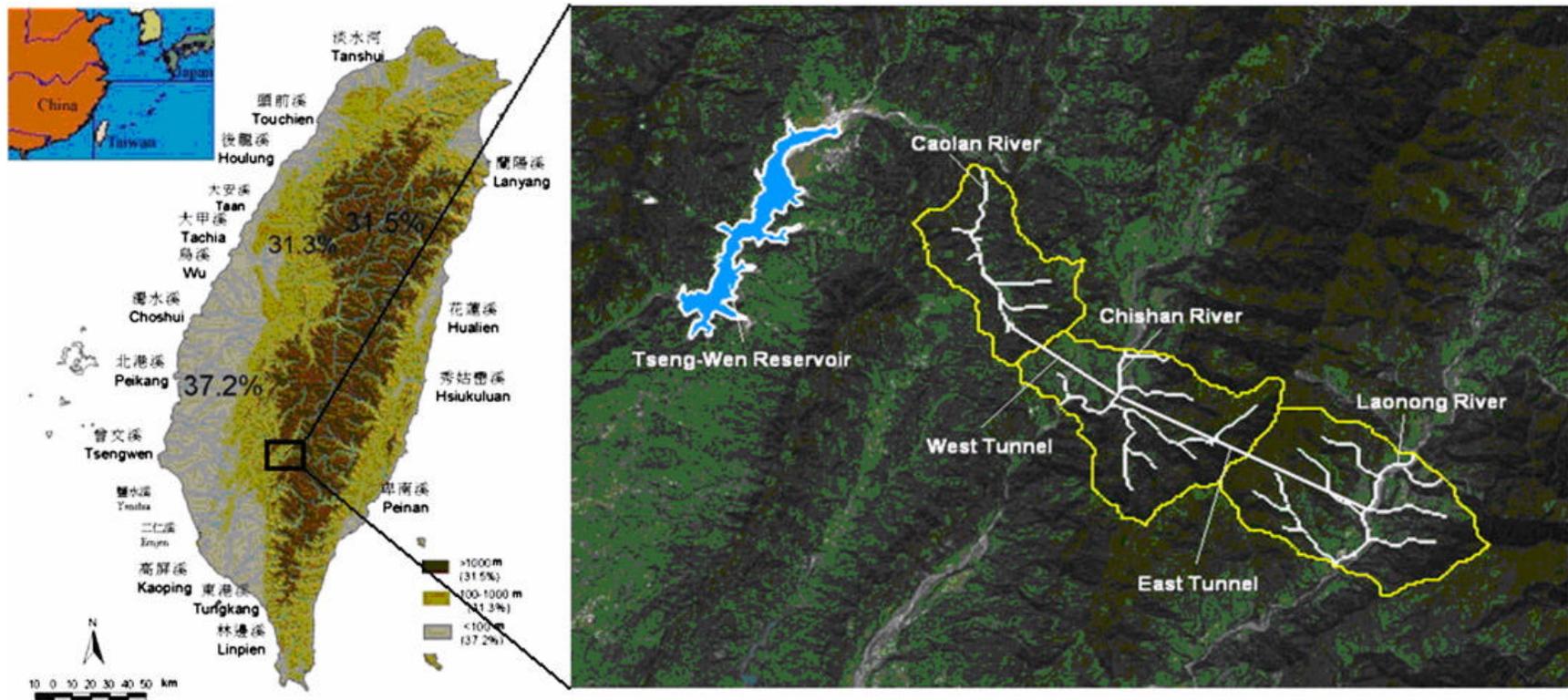


Figure 3. Geographical Location of the Study Area
 Source: Yang *et al.*, 2009

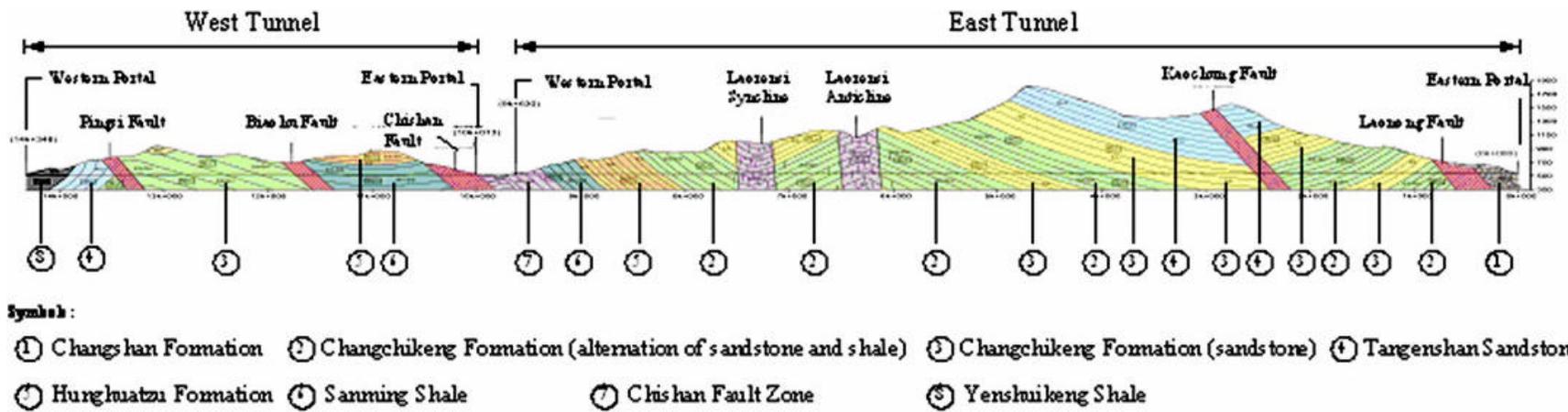


Figure 4. Cross-Section Diagram of the Geology along the Tunnel Axis
 Source: Yang *et al.*, 2009

5. Power Structure Surrounding the Tseng-Wen Reservoir Transbasin Diversion Project

The proposal of the Tseng-Wen Reservoir Transbasin Diversion Project was confronted by local oppositions. However, a general observation is that the opposition movement was ultimately unsuccessful in blocking the development of this development project. Why did the militant actions of local oppositions not translate itself into widespread, national solidarity? What had happened? Devices of power within the various dimensions of power emanating from the prevailing power structure provide insights into what happened.

5.1. Water Resources Agency: the Tseng-Wen Reservoir Transbasin Diversion Project as an established policy

The Tseng-Wen Reservoir Transbasin Diversion Project was an established policy that had to be implemented, as Water Resources Agency explicitly stated to the public (Interviewee I), mainly because the high water requirement of the Bin-nan Industrial Complex that was proposed in 1993 and would locate on the southwestern coast of Taiwan (Interviewee H). The Bin-nan Industrial Complex would consist of a petrochemical plant, steel mill, and an industrial port. The project has been highly controversial from the very beginning and attracted significant opposition in Taiwan and overseas “in large part because it would impact wintering habitat for half the world’s population of the black-faced spoonbill (*Platylea minor*) and would reduce the area of the existing lagoon that supports an important coastal fishery” (Kondolf & Hou, 1998; see also Shieh & Su, 2006). Above all, the Bin-nan Industrial Complex would consume a significant amount remaining available fresh water in southern Taiwan (Shieh & Su, 2006). The state’s accommodating attitude toward the Bin-nan Industrial Complex reflects its relationship with Taiwan’s petrochemical industry.

Petrochemical industry is the industry with the most highly balanced vertical integration, and its value of productivity comprises of one third of that of Taiwan’s industries – its economic and political importance are obvious (Wang, 1996). I argue below that the political and economic importance of the petrochemical industry largely explain state’s friendliness and accommodation toward the Bin-nan Industrial Complex, and securing future water sources, including the proposed Tseng-Wen Transbasin Diversion Project, was one of the mollycoddling gestures shown by the state. By implication, public participation in the decision-making of the Tseng-Wen Reservoir Transbasin Diversion Project was constantly pitted against and constrained by state’s predetermined attitude.

A brief history about the development of the petrochemical industry in Taiwan is needed to appreciate the extent of its influence on the state and understand why it has been influential.

The state and the formation of the petrochemical industry (1950 – 1980)

Taiwan’s main development strategy during the 1950s was import substitution industrialization to reduce its foreign dependency through the local production of industrialized products of textiles, fertilizers, and processed agricultural products. During this decade, the state had high political autonomy because the Kuomintang ruled a nation with a vulnerable society wherein no organization or class had had sufficient power to challenge the state.

After 1960, Taiwan’s main development strategy switched to export-oriented industrialization, or industrializing through exporting goods for which the nation has a comparative advantage, by producing simple processed industrial products. The growth of the production of textile and other industrial products naturally led to a higher demand for petrochemical raw materials, thus establishing the foundation for backward integration (i.e.,

acquiring ownership of supply chains to reduce production costs) that was to happen later. Although the First Naphtha Cracker, the first (state-owned) plant producing ethylene, wouldn't be developed and operate until 1968 and before then state had no established policy of developing petrochemical industry, private capital pioneered to invest in this industry (Wang, 1996).

In 1968, the First Naphtha Cracker was established, which ushered in a new era for Taiwan's petrochemical industry. However, the state's development policy focused on developing the midstream industries by developing the petrochemical industry merely for the purpose of providing raw materials for the former industries – the extension of the import substitution industrialization policy – and by importing production techniques through collaborating with international capitals. The state had not considered the petrochemical industry as one of strategic industry that required overall development (Wang, 1996).

The petrochemical industry became a strategic industry after 1970s. In 1972 the Kuomintang under the policy directive of Chiang Ching-kuo, the Prime Minister (head of the Executive Yuan, the executive branch of Taiwan), initiated the Ten Major Construction Projects (the national infrastructure projects during the 1970s) to strengthen economic foundation and to integrate backwardly economic system. Because the downstream petrochemical processed industry with a large market had already become at this time the cornerstone of economic development, investing in the capital-intensive petrochemical industry would translate to significant inter-industry linkage effects. As a result, the state progressively pushed the backward integration of petrochemical industry, which was one of the Ten Major Construction Projects. It was then the petrochemical industry became a strategic industry. Indeed, Chiang Ching-kuo, the then Prime Minister, stated on December, 1975, that “Taiwan will become a country with heavy chemical industry with the completion of the Ten Major Construction Projects”, proclaiming the import of the heavy chemical industry in the Ten Major Construction Projects (Wang, 1996, p. 100).

The Kuomintang fostered the petrochemical industry during this period through three main ways. First, The Kuomintang developed the Second and the Third Naphtha Crackers, which provided raw materials for midstream firms in Taiwan. Meanwhile, the Kuomintang progressively organized the midstream firms. So as a second way of fostering the petrochemical industry the state actively sought out owners of the midstream industries who were willing to contract the upstream providers so as to secure markets for the raw materials produced by the Second and the Third Naphtha Crackers. However, private capital lack interests in participating, the state- and Kuomintang-owned capital often had to play substituting role. Third, the state erected layers of protection to foster the petrochemical industry, for example, by passing policies to limit imports of petrochemical raw materials, mandating downstream firms to source raw materials nationally, and erecting high tariffs.

As a result, state- and Kuomintang-owned capital comprised a large proportion of the petrochemical industry; and private capital that had nurtured by the state developed significantly, which exerted its influences politically when the state's development policy was again transforming during the 1980s (Wang, 1996; Lo, 1998).

The transformation of the development policy and the capital of petrochemical industry (1980 – 1985)

Because Taiwan's economic development relied on a large part on exporting simple processed industrial products, whose survival hinged on low cost of production, Taiwan witnessed a economically developmental impasse at the end of the 1970s when the two oil crises occurred in the 1970s, which inevitably increased the cost of raw materials for the simple processed industrial products. This uncomfortably exposed the problem of treating petrochemical

industry as a strategic one to develop economy. Taiwan thus headed for a new direction of developing the strategic industry. Sun Yun-suan, the then Prime Minister from 1978 – 1984, adopted Bela Balassa's recommendation that Taiwan as a country did not produce oil should develop high value-added manufacturing industries instead of petrochemical industry. So the Executive Yuan promulgated in March, 1981, that the petrochemical industry should not be further expanded and that the expansion of upstream was limited to establishing factories in foreign countries.

As a result, information technology, electronics, and car industries replaced the petrochemical industry as the strategic industries in Taiwan after 1982, and the state progressively pushed the establishment of the Hsinchu Science-Based Industrial Park, the first science park in Taiwan.

At the same time when Taiwan was developing a new strategic industry, its petrochemical industry was facing international competition, especially from the American petrochemical industry. Compelled by the economic downturn it had been undergoing, the American petrochemical industry massively exported raw materials produced to countries including Taiwan, and the costs of the raw materials exported from the U.S.A were cheaper than that of those nationally produced, driving downstream firms to source raw materials internationally, thus threatening midstream raw-material providers: the interests of the midstream and downstream industries were conflicting with each other, and both parties exerted pressure on the state to protect their own interests via lobbying and petitioning (Wang, 1996; Lo, 1998).

To resolve the conflict, starting 1980, the CPC Corporation, Taiwan, a state-owned petrochemical upstream company, subsidized midstream firms to reduce the costs of raw materials for downstream firms while the state asked the downstream firms to source nationally. However, the unexpected result was that the midstream, not the downstream, firms were benefited (Chen, 1986). This was so partly because the CPC Corporation, Taiwan, while subsidizing the midstream firms, did not ask them to lower their price of petrochemical raw materials, resulting in the monopoly by and expansion of the midstream firms.

The expanding capital of the petrochemical industry had its own logic and didn't approve of the state's policy of developing high value-added manufacturing industries. Although Sun Yun-suan, the then Prime Minister from 1978 – 1984, clearly forbid the further development of the petrochemical industry, the capitalist logic of the petrochemical industry was to continuously expand its productivity to lower production cost and be competitive. And the state exhibited an internal paradox with respect to state's policy of developing high value-added manufacturing industries, and the role of the petrochemical industry in state's developmental policy was still unclear. However, in May, 1984, the incumbent Prime Minister, Sun Yun-suan, had a stroke and the new Prime Minister (from 1984 – 1989), Yu Kuo-hwa, took office. He started to reevaluate the development of petrochemical industry and finally decided to foster the petrochemical industry by making it the strategic industry again (Lin, 2002)

The bearing of the petrochemical industry on the state's decision-making (1985 – present)

Capitalists, including those in the petrochemical industry, for the first time made inroad into Taiwan's administrative system in 1985 and gradually became influential in the policy and political decision-making. This was inextricably related to the transformation of macro economic policy and of petrochemical policy.

The transformation of Taiwan's macro economic policy was triggered by the political crisis of the Kuomintang and the economic crises of Taiwan starting 1980. The political crisis of the Kuomintang in early 1980s manifested itself in Kuomintang's inability to deal with the opposition movements' pressure and demand for more democracy in Taiwan. Although the

political opposition movements were oppressed by the state in 1979, they were gaining popular recognition and identity in the 1980s, constantly exerting pressure on the legitimacy of the Kuomintang regime (Wang, 1996). Furthermore, Taiwan's social movement was taking shape at the same time; for example, Taiwan's environmental movements started with grassroots protests by victims of environmental pollutions in the 1980s (Tang, 2003). Political crises directly and indirectly translated to economic crises.

Economically, Taiwan's economy with its heavy reliance on exporting simple processed industrial products witnessed an economically developmental impasse at the end of the 1970s, largely due to competition from Southeast Asian countries and China with lower cost of production relative to Taiwan. In response to this, the state shifted the industrialization policy so that information technology, electronics, and car industries replaced the petrochemical industry as the strategic industries in Taiwan after 1982, as previously mentioned. In addition to the successful establishment of the Hsinchu Science-Based Industrial Park, the plan for establishing intensive networks of car manufacturing factories was also successfully implemented. So was the plan for information technology. During this time, however, the state machine's autonomy was beginning to face pressures and challenges from private capitals; but the biggest challenge wasn't this kind of direct pressure, but the pressure of "low investor willingness" (Wang, 1996, p. 69).

Liu (1988) maintained that low investment was not economic, but an epiphenomenon of political instability in Taiwan during that time, as illustrated above – a problem of "confidence crisis", dubbed by the media and scholar. To restore confidence, the state underwent what Gramsci called a "passive revolution" (1971) in terms of its macro economic policy.

Gramsci (1971) used the concept of passive revolution to depict that ruling class, under structural and oppositional movements' pressure, changes its ruling methods and transform the state's composition, essentially expanding the hegemony of the state by absorbing new popular elements into state's administrative system. The Industrial Development Advisory Council, established in 1985, was an example of such "absorption". The Industrial Development Advisory Council's mission was to "function as a platform for communication through which plans that meet the realistic needs of state's economy can be formulated" (1986). It was hoped that investors, being able to express their opinions inside the system, would regain their confidence in Taiwan's political environment whose stability is instrumental to stable economic environment (Wang, 1996). With this council came the first opportunity and channel for capitalists to directly communicate with the central government inside the political system and to thereby influence policy decision-making (Shu, 1993: 70). And capitalists of petrochemical industry played an important role inside the Industrial Development Advisory Council. Petrochemical industry was once again a strategic industry in Taiwan after 1985 (Wang, 1996).

Of relevance to the present discussion is the Bin-nan Industrial Complex. The Bin-nan Industrial Complex would consist of a petrochemical plant, a steel mill, and an industrial port (a joint development between Tuntex Corporation and Yieh-lung Corporation). The proposed petrochemical plant would produce propylene, polyethylene terephthalate, ethylene, butadiene, and other petrochemical products – the plant would occupy 893 ha. The Compact Integrated Steel Mill was anticipated to produce over seven million tons of steel and would occupy 845 ha. And the industrial port would occupy 921 ha (Great East Asia Petrochemical Co. et al. 1997).

Not only was the proposed Bin-nan Industrial Complex significant in size, but also in its political muscle.

The state showed support for the Bin-nan Industrial Complex in terms of industrial policy, financial support, and ensuring the approval of the environmental impact assessment despite several outright violations of the Environmental Impact Assessment Act and controversies surrounding various aspects of the environmental impact assessment review process (Lin, 2002;

Shieh & Su, 2006; Yu, 1997). Policy-wise, the Ministry of Economic Affairs included the Bin-nan Industrial Complex in the “Important Plans of Large Investment Projects by Private Capital” at the end of July, 1993. In fact, “the state not only acknowledged the economic importance of the Bin-nan Industrial Complex ... but also progressively removed the obstacles facing this large investment project” (Yu, 1997: 76).

In terms of financial support, the Bank of Communications⁶, a state-owned bank, later approved the Yieh-lung’s application for syndicated loans⁷ led by the Bank of Communications (Yu, 1997: 50 – 51). The Bank of Communications, *i.e.*, the state, would bear the largest share of the syndicated loans, showing the extent of state’s support to the Bin-nan Industrial Complex. Specifically, the total investment amount was NT\$ 437.7 billion (~ US\$ 13.6 billion). Of this total investment amount, Yieh-lung was responsible for NT\$ 114.1 billion (~ 3.5 billion US dollars), and the syndicated loans would finance 68% of this amount, *i.e.*, NT\$ 75.3 billion (~US\$ 2.3 billion). Of the 75.3 billion Taiwan dollars, Bank of Communications would provide a loan with the amount of NT\$ 24.3 billion (~US\$ 0.8 billion), translating to 32.3% of the total amount of the syndicated loans and 90% of the net worth of Bank of Communications (Pan, 1997, p. 60). The state’s financial support was obvious.

The state also showed its support by trying to seek sufficient water, against all odds, for the Bin-nan Industrial Complex whose environmental implications arguably include, *inter alia*, impact on wintering habitat for half the world’s population of the black-faced spoonbill (*Platylea minor*) and the reduction of the area of the existing lagoon that supports an important coastal fishery. Above all, another disturbing feature of the Bin-nan Industrial Complex is its high water consumption. The plant would require approximately 117 million m³ of water annually (Great East Asia Petrochemical Co. et al. 1997). Where would the water for the Bin-nan Industrial Complex come from? The Water Resources Agency stated in the “A Brief Report of the Water Provision for the Bin-nan Industrial Complex” that the water supply for the complex would partly come from appropriating *excess* agricultural water (1996, 1997; see also Great East Asia Petrochemical Co. et al. 1997). The discussion of Water Resources Agency’s plan to appropriate agricultural water for the Bin-nan Industrial Complex is relevant to the thesis of my discussion to the extent that it shows the fact that the Water Resources Agency would go as far as to manufacture a myth that agriculture in Taiwan had had more water than it needed.

But the truth is that agriculture in Taiwan had not had enough water at least since 1991 according to a statistics released in 1995 by the Water Resources Agency. Data showed that available water for agriculture in general and for irrigation in particular had been decreasing since 1991 primarily because of drought and appropriation of agricultural water for household uses. For example, actual water availability for agriculture had been under 70% of the proposed water requirement for Chiayi County and Tainan County (two counties in southern Taiwan) since 1992 (Water Resources Agency, 1995). Appropriating agricultural water to the Bin-nan Industrial Complex would only exacerbate the problem. Thus, Water Resource Agency

⁶ When China was finally united after the North Expedition, the Government appointed the Bank of Communications as the corporate bank. When the Second Sino-Japanese started, the Chinese Nationalist issued “The Integrity Act of Financial Institution of the Central Government” on September 8, 1939, mandating the Central Bank, Bank of China, Bank of Communications, and the Farmer Bank of China to establish a joint office, the “Office of Four Banks”. When the Central Government retreated to Taiwan in 1949, Bank of Communications, among others, lost most of their properties, and only few oversea branches were in operation. In 1960 Bank of Communications was reestablished in Taipei, Taiwan (Ministry of Finance, Taiwan, available at:

<http://www.mof.gov.tw/museum/lp.asp?ctNode=42&CtUnit=15&BaseDSD=18&mp=1>)

⁷ A banking group formed by more than two banks to provide a source of funds to the borrower.

obviously maintained that the Bin-nan Industrial Complex's appetite for water was to be satiated, even at the expense of agriculture.

Let's move our perspective back to the Tseng-Wen Reservoir Transbasin Diversion Project. The Water Resources Agency also stated in the "A Brief Report of the Water Provision for the Bin-nan Industrial Complex" (1996, 1997) that (in addition to appropriation of agricultural water) the Tseng-Wen Reservoir and Nanhua Reservoir would fulfill the short-range water use and that Tseng-Wen Reservoir Transbasin Diversion Project and Yufeng Weir⁸ would fulfill the long-range water use – "overall, the water supply program seems optimistic, and there will be enough water supply even after 2011". However, the then Prime Minister (1997 – 2000), Wang-chang Siew, among others, questioned Water Resource Agency's assessment of water supply program (Shieh & Su, 2006). Incidentally, on June 14, 1998, one day before "The Third Special Project Group Meeting of the Second Phase of the Environmental Impact Assessment for the Bin-nan Industrial Complex Development Plan", the Water Resources Agency released a modified water supply program: short-range water use would still be fulfilled by the Tseng-Wen Reservoir and Nanhua Reservoir; the long-range water use would instead draw from the Tseng-Wen Reservoir Transbasin Diversion Project and the Meinung Reservoir.

On June 15, 1998, the Environmental Protection Administration held the "The Third Special Project Group Meeting of the Second Phase of the Environmental Impact Assessment for the Bin-nan Industrial Complex Development Plan" to specifically review the proposed water supply program for the Bin-nan Industrial Complex (Shieh & Su, 2006). Because the Water Resources Agency considered the Meinung Reservoir as one source of water supply, this meeting was not without protest (see Chapter 5.5 for the controversies surrounding the Meinung Reservoir plan). And during the meeting, several Environmental Impact Assessment Review Committee members, scholars, and others who attended the meeting strongly questioned the water supply program released by the Water Resources Agency. As a result, the conclusion of the meeting stated that:

the water supply program proposed by the Water Resources Agency is inhered with uncertainty, such as that of timelines, scopes, and potential risks of the developments of the water sources, hence further review and consideration are required (Environmental Protection Administration, 1998)

Therefore, another meeting was held on January 29, 1999, by the Special Project Group of the Second Phase of the Environmental Impact Assessment for the Bin-nan Industrial Complex Development Plan. The uncertainty of the Meinung Reservoir and the Tseng-Wen Reservoir Transbasin Diversion Project, the sources of the Complex's long-range water use, remained:

The existing and constructing sources of water supply can only supply sufficient water for urban and industrial use in southern Taiwan until 2006. The amount of available water after 2006 and the developments of the Meinung Reservoir and the Tseng-Wen Reservoir Transbasin Diversion Project are still inhered with significant uncertainty [because of resistance from the local residents and environmental organizations] (Environmental Protection Administration, 1999).

As I will illustrate in Chapter 5.5, although both the Meinung Reservoir and the Tseng-Wen Reservoir Transbasin Diversion Project faced resistances, the latter was more politically feasible than the former. Therefore, oppositions against the latter would be more easily squelched than

⁸ All but the Tseng-Wen Reservoir Transbasin Diversion Project, whose proposal and feasibility still under heated debate, were already in operation at that time.

the oppositions against the former. To resolve the uncertainty surrounding the Tseng-Wen Reservoir Transbasin Diversion Project, the Water Resources Agency sought to remove these resistances through utilizing various methods.

A second-dimensional power refers to the non-decision making, which are

means by which demands for change in the existing allocation of benefits and privileges in the community can be suffocated before they are voiced, or kept covert; or killed before they gain access to the relevant decision-making arena; or, failing all of these things, maimed or destroyed in the decision-implementing stage of the policy process (Bachrach and Baratz, 1970, p. 44).

A second-dimensional power analysis reveals that the project proponent, that is, the Water Resources Agency, sought to isolate and confine the conflicts. An attempt to isolate the conflict sought to minimize knowledge of the extent of the conflict and of its support inside and outside the locality. Recall that the construction sites of the Tseng-Wen Reservoir Transbasin Diversion Project are in Taoyuan Township, Sanming Township, and Daipool Township, and the construction in Taoyuan Township started first. To isolate these three townships so as to prevent them from mobilizing collaboratively Water Resources Agency held the public participation meetings required by the environmental impact assessment (public presentation, on-site inspection, scoping, and hearing) with the exception of on-site inspection of the Chishan River (located in Sanming Township) only in Taoyuan Township so that only residents in Taoyuan Township would be aware of these meetings and of the project itself. In fact, when I asked Interviewee B, who has been a local resident in Sanming Township, if he and others in the opposition movement of Sanming Township knew that the Tseng-Wen Reservoir Transbasin Diversion Project was undergoing the environmental impact assessment and that the Water Resources Agency provided several channels for public participation, he responded:

Not at all (Interviewee B).

No one in the opposition movement of Sanming Township participated in the environmental impact assessment review process (except that few local residents from Sanming Township participated in the on-site inspection of the Chishan River, which is located in Sanming Township). Although some of these meetings were attended by representatives of the Sanming Township Office, these individuals belonged to the same local faction of the Sanming Township Mayors, who have always supported the Tseng-Wen Reservoir Transbasin Diversion Project (Interviewee A; Interviewee B). As a result, their attendances functioned as rubber stamps and were only cosmetic. I will elaborate in Chapter 5.2 how the Sanming Township Office was one crucial constituent in power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project.

Not only were the people in Sanming Township oblivious to the environmental impact assessment of the project, but also to the project itself until the opposition movement in Taoyuan Township approached those in Mingchu Village, the Village of Sanming Township that is closest to the construction site of the Tseng-Wen Reservoir Transbasin Diversion Project (Interviewee B). Then, to confine the issue to prevent mobilization of the entire Sanming Township, the Water Resources Agency then reasoned that this development project was relevant only to Mingchu Village because it was the only Village of Sanming Township that would be impacted by the project:

the Water Resources Agency framed the issues surrounding the Tseng-Wen Reservoir Transbasin Diversion Project as relevant only to the owners of lands to be [voluntarily or involuntarily] acquired, effectively rendering the issue irrelevant to both people inside Mingchu Village who did not own lands to be acquired and people outside Mingchu Village. For example, representatives from the Water Resources Agency undermined the legitimacy of opposing opinions by stating that we, who didn't own lands to be acquired or didn't reside in Mingchu Village, were protesting against the project only because we were jealous of compensations for land acquisition land owners would obtain (Interviewee A).

The intention of the Water Resources Agency in framing the issue thus was obviously to contain the publicity of the issue and to consequently limit the human resources that could be mobilized by the opposition movement. It worked. Only residents in Mingchu Village knew about and mobilized against this large-scale project first:

When the people in Mingchu Village approached us in Mingchuan Village [the Village of Sanming Township that is further away from the construction site of the project] was the first time we learned about the Tseng-Wen Reservoir Transbasin Diversion Project. Why? Because the Water Resources Agency reasoned that since the construction would only take place in Mingchu Village, those of us in the Mingchuan Village did not need to be informed! (Interviewee B)

However, to honor the spirit of the democracy, the Water Resources Agency shouldn't be the one that decided whose business the issue was. Since the impact on environment may be systematic, all stakeholders, that is, the general public, would have right to be informed. The residents of the Mingchuan Village included. To counter this narrow framing of the issue, Interviewee A and Interviewee B, along with others in the opposition movement, organized the Sanming Township People's Association to widen the relevance of the transbasin diversion project and to elevate the height of the opposition movement to include everyone in Sanming Township by mobilizing them through public gatherings, information meetings, presentations, and passing out fliers (Interviewee A; Interviewee B).

A second-dimensional power analysis also reveals that the Water Resources Agency used its resources to create phony surveys showing that the local residents were supportive of this development project. Interviewee C provided an example of how this was done:

I remember during one of the disasters caused by windstorm, representatives from the Water Resources Agency, saying that it was their way of providing disaster relief, were handing out fishes in the community, and they told people that these fishes were free to grab as long as they signed their names on a "roster sheet". They didn't tell people that it was a survey tabulating the number of local residents who supported the Tseng-Wen Reservoir Transbasin Diversion Project. Oblivious to this scheme of the Water Resources Agency, people of course would sign their names on the so-called "roster sheet", which effectively expressed their supports to the development project. They [representatives from the Water Resources Agency] really would resort to any means necessary! That's how they were able to obtain survey results that showed a high public support for the project! (Interviewee C)

In doing so, the Water Resources Agency successfully organized out (potential) grievances of the local residents out of the conflict arena and dismissed them as non-issues. The Water Resources Agency also utilized its economic resources brought to the bargaining table to suppress oppositions by courting favors of opinion leaders in the community, as Interviewee C, himself

also a pastor in addition to being a leader of the opposition movement, recalled:

They [representatives of the Water Resources Agency] gave high-end wines, among other stuffs, to pastors and other opinion leaders in the community [Tayuan Township] as “gifts”, and I learned later that there was also money inside the wrapping boxes. I myself also received some of these “gifts”, which I returned to them without opening the boxes. (Interviewee C)

Simply put, in a close-knit community where personal relationships were of collective nature, these opinion leaders were bribed because their opinions were influential in persuading community residents to think in certain ways, about certain things.

Another mechanism through which the Water Resources Agency utilized a second dimensional power was to squelch the threat of opposition by ignoring their opinions altogether:

Last year [2004] the Water Resources Agency, swollen with arrogance, placed the boundary markers on private lands without seeking the consents of the owners first (would the Water Resources Agency be this daring on Han Chinese’s lands?). This triggered the second large-scale protest against the Tseng-Wen Reservoir Transbasin Diversion Project (Da-Hui, 2005).

This device of power is of second-dimensional in that the Water Resources Agency intended to exclude certain grievances out of the conflict arena as non-issues. This violation to property rights, explicitly stated in the Article 15 of the Constitution of Taiwan⁹ (Interviewee A), received protest by the local residents in Sanming Township. The Water Resources Agency tried to break the protest by holding a public presentation with respect to land acquisition. But in the public presentation,

[without even opening a two-way communication], the representatives of the Water Resources Agency stated that the Tseng-Wen Reservoir Transbasin Diversion Project was an established policy that had to proceed, and told the land owners to sign off on the necessary documents to complete the procedure of land transfer (Da-Hui, 2005).

Water Resources Agency, with the superior political resources and access to information that it brought to the bargaining game and the dexterity with which these resources could be wielded in this game through political experience and organizational strength, was able to make the claim, “the Tseng-Wen Reservoir Transbasin Diversion Project was an established policy that has to proceed”, appeared believable, hence effectively threatening these land owners. These owners were erroneously told that if they sign off on the land transfer documents, they would get a significant amount of compensation; otherwise, their lands would be involuntarily acquired without any compensation.

The Water Resources Agency’s ability to sugarcoat its authoritarianism can also be witnessed in one of the information meetings that it held. It held information meetings not to open dialogue with the local residents, but simply to inform them of its plans to create the false impression that the general public have been “consulted”, which allowed it to proclaim, “Look! Public participation has been achieved!”. Every time when the members of the opposition movement participated in these information meetings, they always angrily left the meetings. Seeing them

⁹ Article 15 stipulates “the right of existence, the right to work and the right of property shall be guaranteed to the people”. Available at: http://www.president.gov.tw/en/prog/news_release/document_content.php?id=1105498686&pre_id=1105498701&g_category_number=409&category_number_2=373&layer=on&sub_category=455

angry, the representatives of the Water Resources Agency would ridicule them by saying that, “See, we tried to communicate with you guys, but you guys just wouldn’t listen”. But

with how the meetings were held, of course we didn’t want to listen to what they had to say. They just told us that they wanted to proceed on their own terms with the Tseng-Wen Reservoir Transbasin Diversion Project. They would not allow for any modifications suggested by us to the project of their own devising and designing (Interviewee C).

These governmental officials and private interests could not communicate and they would not listen. They failed to see that many tribes of indigenous peoples were home to thinking people, with memories of past rivers and mountains and ideas for the future.

I also found that the Water Resources Agency utilized various means of third-dimensional power, which has contributed to the development of the transbasin diversion project. The Sanming Township’s Reserved Land Rights Review Committee was one of the targets on which third-dimensional power was exercised. Briefly, the approval of the Reserved Land Rights Review Committee is needed before lands reserved for indigenous peoples can be used for any purpose – the committee grants the usage right of reserved lands. As such, this land committee could have played a crucial role in blocking the development of the transbasin diversion project, making itself a significant object of prevailing power. In response to the land committee’s importance, the Water Resources Agency utilized the third dimension of power by creating various myths to control land committee members’ perceptions of emerging conflicts – which is why the Reserved Land Rights Review Committee in Sanming Township granted the usage rights of the lands to be used for the Tseng-Wen Reservoir Transbasin Diversion Project:

we questioned one of the committee members why they approved, and he told us that the Water Resources Agency made tempting promises in exchange for their approval. First, the land owners of the acquired lands would get NT\$ 4 million [~ US\$ 123,380] regardless of the size and condition of their lands. [The Reserved Land Rights Review Committee member was told that] if [the Reserved Land Rights Review Committee] doesn’t consent, lands would still be involuntarily acquired anyway, and land owners would get nothing. Second, the water and electronic fee, education fee for the children, etc, would be completely waived for Sanming Township if the Reserved Land Rights Review Committee approves. Water Resources Agency also told the committee member, “don’t be the sinner of Sanming Township. If you don’t approve the lands to be used for the Tseng-Wen Reservoir Transbasin Diversion Project, you are essentially denying the residents in Sanming Township the welfares promised to them” (Interviewee A).

None of these checks cashed (Interviewee A). This was not the first time the Water Resources Agency tricked its way to where it had desired. When Interviewee B talked to those who participated in the opposition movement against another development project by the Water Resources Agency, he learned that the Water Resources Agency used similar trickery to acquire lands (Interviewee B). This device of power is third-dimensional in that it served to control the Reserved Land Rights Review Committee members’ perceptions of the issue.

A more fundamental problem disclosed by this incident is that the Water Resources Agency didn’t proceed legally with land acquisition. The Regulation on Land Acquisition states that the compensation should accord to the promulgated price of the land in question, thus necessarily varying by “size and condition” (Article 32). That the legal compensation would be uniformly NT\$ 4 million [~ US\$ 123,380] was improbable. Therefore, the Water Resources Agency attempted to “buy”, not “acquire”, the lands in question; in doing so, the Water Resources

Agency didn't follow the normal procedure of land acquisition. Simply put, the Water Resources Agency illegally "acquired" those lands (Interviewee E).

Another mechanism of third-dimensional power utilized by the Water Resources Agency was to spread rumor in the community of Taoyuan Township to contain the extent of potential challenge to the prevailing power structure – and this, I argue, has contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project. One example of this mechanism of third-dimensional power exertion is that Interviewee C heard unfounded rumors spread by the Water Resources Agency that he received commissions under the table for covertly pushing the Tseng-Wen Reservoir Transbasin Diversion Project (Interviewee C). The intent of spreading such rumors was to shape other local residents' perceptions of the substances of the opposition movement in a certain way so as to reduce the number of individuals that could potentially be mobilized by dividing local residents in the community.

In sum, it is obvious that the Water Resources Agency considered this transbasin diversion project as an established policy, which compelled the Water Resources Agency to squelch the potential and emerging oppositions using any means necessary. The inevitability of the Tseng-Wen Reservoir Transbasin Diversion Project also compelled the Water Resources Agency to sign the construction contract with the contractors on December 27, 2004, which allowed the contractors to start construction on January 1, 2005 – but the Legislative Yuan did not adopt the budget until the end of January, 2006 (Interviewee H).

In the following, I will illustrate how the Township Office constitutes a central node in the power structure.

5.2. Township Office

5.2.1. Political manipulation by the Township Office

Individuals of similar interests often organize in pursuit of a common goal, hence forming a "regime" – a network of informal or formal political and economic arrangement (Stone, 1989, 2006; Tang & Tang, 2004). In fact, a major theme in writings about urban politics is the discussion on development coalitions or regimes typically consisted of ruling elites and local businesses sharing similar (economic) objectives (Hunter, 1953; Molotch, 1976; Stone, 1989; Tang & Tang, 2004; Peterson, 1981).). And political constraints posed by the hegemonic pro-growth regimes ultimately dampen the efforts of political strategies of public participation in environmental issues (Tang & Tang, 2004). These political constraints are even more powerful in non-Western countries (Lim & Tang, 2002) where clientelism – a resource exchange system of pecking order that is voluntary (Garney, 1989; Wu, 2001) or coercive (Wang & Kurzman, 2007) in practice – dominates governance (Diamond, 1999).

Wu (2001) mentioned that "of the twenty one counties and cities in Taiwan, sixteen have factional networks", where factions are understood as groups based on patron-client relationships, or clientelism. For Landé (1977), the relationships among members of the local factions are based on rudimentary social relationships, and their interactions are encompassing, informal. The feature of the interaction dynamics among faction members is characteristically functional – the purpose of their interactions is to satisfy individual, not collective, interests.

Because each local faction has its competitors during the course of pursuing its own political-economic interests, the social relationships surrounding a local faction, above and beyond the relational dynamics within a local faction, influence the faction members' attitude toward the Tseng-Wen Reservoir Transbasin Diversion Project (Interviewee B; Interviewee F). That local faction is significantly determinant of Sanming Township's political map of groups for and against the Tseng-Wen Reservoir Transbasin Diversion Project was observed by Interviewee B,

a core member of Sanming Township People's Association:

The politics of local faction is extreme in Sanming Township. Those who don't belong to my faction are unconditionally considered as our enemies. So if I am against the Tseng-Wen Reservoir Transbasin Diversion Project and if you are not a member of my faction, your position would be one that is for this project, although you personally know that the project would post great detriment to your hometown. You'd irrationally support the project just for the sake of taking a position different than mine (Interviewee B).

And individuals from the opposition movement in Sanming Township have observed that, in Sanming Township, Lin Kao-chau, Township Mayor from 1998 to 2001, and Ko Ming-de, Township Mayor from 2001 to present, have always supported the Tseng-Wen Reservoir Transbasin Diversion Project (Interviewee A; Interviewee B; Interviewee C). To squelch the opposition movement, individuals from Sanming Township Office, which is a field where the Township Mayors reproduce and consolidate their own factions, was observed to utilize two means. First, they spread hurtful rumors against members of the opposition movement. Second, to counter the effects of the actions taken by the opposition movement against the project, the Township Mayor's cousin founded the "Association for Promoting the Tseng-Wen Reservoir Transbasin Diversion Project" whose members are families of the staffs from the Township Office (Interviewee A; Interviewee B).

Additionally, as I will discuss in the following two sections, regulations have also provided the individuals with economic and political power and influences with opportunities to garner special benefits through the reproduction of local factions; to undermine the collective consciousness of the opposition movement the powerholders in the Township Office must discipline and tame individuals holding opposing opinions. What results is the further eroding of democracy in the Township Office.

5.2.2. Reserved Land Rights Review Committee: reproduction of Township Mayor's faction

Many researchers have pointed out that local factions consolidate the sources of their power by privatizing public goods of local nature, and by using the power of formal institutions they take advantage of people's reliance on specialized political relationships in exchange for illegal profits (including profits generated from construction projects) for their own factions, hence structuring deeper, wider patron-client relationships (Wang, 1996, Chen, 2004). One of these formal institutions is the Reserved Land Rights Review Committee, indeed, as many have observed, it often become a field where the Township Mayor reproduces his/her own factions to profit from the lands reserved for indigenous people and thereby divides the spoils among the members of his/her own factions (Chen, 1998; Gee, 2000).

Let's first see how regulations on development and management of the lands reserved for indigenous people make possible the reproduction of Township Mayor's faction. Section 6 of the Regulations on Development and Management of the Lands Reserved for Indigenous People¹⁰ states that:

The township / city / district office located in the lands reserved for indigenous people shall create a Reserved Land Rights Review Committee to take charge of the following matters:

¹⁰ Available at: <http://db.lawbank.com.tw/Eng/FLAW/FLAWDAT0201.asp>

1. To investigate, arbitrate and handle the disputes on the land rights of the lands reserved for indigenous people.
2. To examine the applications for allocation, withdrawal, transfer of ownership, uncompensated use, or use by government departments or schools of the lands reserved for indigenous people.
3. To perform negotiation on the compensation for reallocation of the lands reserved for indigenous people.
4. To examine the applications for leasing the lands reserved for indigenous people.

According to Section 23 of the same regulation, Water Resources Agency, the competent authority for the Tseng-Wen Reservoir Transbasin Diversion Project, should apply to the Reserved Land Rights Review Committee for using the reserved lands. Therefore, the approval of the Reserved Land Rights Review Committee was, by law, required before the project could proceed.

Article 3 of the Fundamentals for Establishing the Reserved Land Rights Review Committee states that Township Mayor nominates and appoints the members of the committee, which consists of eight to ten individuals. Formulating the rule of the game this way probabilistically creates a patron-client relationship among the Township Mayor and the committee members. Heredia (1997: 4) defines clientelism as an exchange system based on “a complex of rules and practices for the organization, representation, and control of the demands and interests of society; these relationships are based on political subordination in exchange for the discretionary granting of available public resources and services.” Simply put, the patrons in this relationship provide protection, economic and other opportunities in exchange for loyalty, labor, gifts, deference, and political favors from the clients (Boyle, 1998). So the Township Mayor can reproduce his/her factions by handpicking like-minded individuals or those whom he/she could control or influence to the Reserved Land Rights Review Committee, and those appointed to the committee are expected to return political favors to the Township Mayor by voting affirmatively on applications for lands from which the Township Mayor can profit by getting a “commission” from the project budget – a phenomenon that has been observed by researchers (Chen, 1998; Gee, 2000).

The political economy of the Tseng-Wen Reservoir Transbasin Diversion Project was no exception to this phenomenon. As previously mentioned, Sanming Township Mayors have been observed to be supportive of the project; it is also widely known that the members of the Reserved Land Rights Review Committee have always been members of the Township Mayors’ factions (Interviewee B). As a result, in addition to Water Resources Agency’s exercising of third-dimensional power manifested through creating empty promises of welfares (as illustrated in Chapter 5.1.), the Sanming Township Mayor’s ability to manipulate the Reserved Land Rights Review Committee, made possible by regulations, also contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project.

Similarly, when Chen Chuan-sheng was the Taoyuan Township Mayor (from 2002 to 2004), he also manipulated the Reserved Land Rights Review Committee to his advantages by utilizing a second-dimensional power by convening meetings which he only invited committee members that shared the same opinions as he did. And he stated on the meeting minutes that those who didn’t attend the meetings, *i.e.*, those who held opposing opinions, also approved of the land allocations for the Tseng-Wen Reservoir Transbasin Diversion Project – grievances were excluded from conflict arenas and organized out as non-issues (Interviewee C).

5.2.3. The disciplining of oppositions

Because special interests feed the patron-client relationships among the factions, faction members are necessarily few: the more the number of members among whom the spoils are divided, the less the special interests each member gets. To minimize the threats to their ruling authority, factions have to develop various means of alienating dissenters and courting favors of supporters to discipline those who worked in the Township Office and the local residents.

A first-dimensional power analysis suggests that the Sanming Township Mayor indeed brought political resources, jobs, to the bargaining game to discipline oppositions, and he wielded these resources well. Interviewee A observed that

many who worked in the [Sanming] Township Office received bad evaluations for their civil service performance appraisals [which is the basis for job and salary promotion] because their relatives were members of the opposition movement. Eventually those who had relatives working at the Township Office stopped participating because they didn't want their relatives to suffer because of their participation; but when they ran into me occasionally, they would still discuss about the Tseng-Wen Reservoir Transbasin Diversion Project with me. I was understanding and empathetic of their decisions of withdrawing from the opposition movement (Interviewee A).

And Sanming Township Mayor's power extended to schools. Interviewee B observed that

there were teachers who would discuss with the students about the Tseng-Wen Reservoir Transbasin Diversion Project from biological and ecological perspectives. But the teachers never expressed their own opinions regarding whether the Tseng-Wen Reservoir Transbasin Diversion Project should be implemented. They just shared with the students the biological and ecological ins and outs of the project. For example, my wife, a teacher in the Sanming Junior High School, engaged in similar discussions with her students. But when the Township Mayor somehow found out about this, he admonished the school principal to prevent similar behaviors from happening again. The school principal, himself afraid of troubles, then admonished my wife for it. The Township Mayor had lots of "sources" in schools, and he also had a large faction: that's why he found out my wife's "behaviors" (Interviewee B).

Regardless of Sanming Township Mayor's intention for discouraging the discussion of the Tseng-Wen Reservoir Transbasin Diversion Project in schools, it would undoubtedly limit the dissemination of informed information about the project among students and possibly parents. Less opposition, of course, would emerge.

Second-dimensional power can reinforce the status quo by instilling in people the fear that "the anticipated costs of deviation from established (and often imposed) norms are not balanced by anticipated benefits" (Adams, 1990: 380). Interviewee B's observation echoes this point:

A friend of mine was actively participating in the Sanming Township People's Association to oppose against the Tseng-Wen Reservoir Transbasin Diversion Project. At that time he was working in the Financial and Development Division of the Sanming Township Office, and his employment status in the Township Office would enable him to get subsidies of larger amount for his bed-and-breakfast business. However, participating in the opposition movement might cost him his job since he was only a substitute clerk [which, unlike regular public service clerks, is not a permanent position. Township Mayor can "legitimately" fire substitute clerk via a myriad of ways, whereas permanent staffs can only be rendered unemployable when he/she is disfranchised]. Therefore, his mom, afraid of consequences of

his son's participation [in the opposition movement], called me one day to ask me not to invite him to participate any more (Interviewee B).

Other mechanisms through which the Township Mayor worked the second-dimension power was to squelch the threat of opposition movement by 1) ignoring their opinions altogether to the effect of killing the voices of the opposition movement before they gain access to the relevant decision-making arena; and by 2) limiting the relevance of the issue to encourage non-participation of the general public by undermining the legitimacy of participation of those to whom the issue is irrelevant.

To see how the opinions of the opposition movement were ignored, we need to move our view to Taipei, Taiwan:

Interviewee B: We went to the Executive Yuan [in Taipei, Taiwan] and gathered in front of it to demonstrate in 2006. Someone representing the Executive Yuan came out and said to us, "well, you guys [in Sanming Township] have already approved of the project".

William: What made him say that?

Interviewee B: Because the Township Office gave the Executive Yuan records and meeting minutes of 26 public explanation "meetings" where no one from the opposition movement attended.

William: Did these meetings actually take place?

Interviewee B: We don't know. As far as I know, no one who opposed the project knew of these meetings. It all has to do with politics: the Township Mayor could have convened a secret public explanation meeting and only invited members of his own factions, which easily totaled more than 40 people.

This provides a classic study of agenda control such that the Sanming Township Mayor had control over participants. Although only individuals from the same faction attended these meetings, to the central government, they were still local residents and insofar as they signed their names on the roster sheets of the meetings and expressed their approvals on the petitions, the central government would have legitimacy in claiming that they have already obtained local residents' consents.

Similarly, Tauyuan Township Mayors also stifled the voices of the dissents by ignoring them. Specifically, Interviewee D, who was the Tauyuan Township Mayor for two terms (eight years), recalled that

Unlike in Sanming Township, in Tauyuan Township you wouldn't observe a distinguishable faction that was supportive of the Tseng-Wen Reservoir Transbasin Diversion Project. Instead, opposing voices dominated there. Although people who supported the project didn't proclaim their supports, they had clever approaches to covertly push for the project. For example, Chen Chuan-sheng was the Township Mayor from 2002 to 2004 when he deceased, and his wife was then elected to take his place from 2004 to 2005; both of them supported the project. They pushed for the project administratively by communicating to all relevant governmental bodies the impression that a majority of the local residents [of Tauyuan Township] approved of the project. Although opposition had already emerged at that time,

they both were the ones who had ultimate authority over the administrative function of Taoyuan Township [which is the medium between central government and the local residents,] and they could simply ignore the opposing opinions (Interviewee D).

Interviewee C also observed similarly.

It is a show where the economically and politically powerful actors performed their monologues, effortlessly uttering their approval for a development project that the state holds most dear, whereas the dissenters weren't invited, hence missing their opportunity to talk back. Although acquiescence is fabricated, the state had gained "public opinions" to "democratically" proceed with the project.

Let's then see how the relevance of the issue was limited:

The [Sanming] Township Mayor's faction members said to us, "why are you guys protesting since the Tseng-Wen Reservoir Transbasin Diversion Project doesn't locate on your lands?!" But I always communicated to the local residents, "This is not a personal issue, but a social one. If I am your neighbor and I store bombs in my house, will you not be scared? Will you not react against this?" Even if the state wants to build on state-own lands that happen to be next to my house something that I perceive to be unsafe, I certainly have the right to voice my opposition and act upon it (Interviewee A).

Obviously Township Mayor's faction members tried to frame the issue as one that concerned only the landowners whose lands on which the project would be constructed, sending out the message, "not your land, not your business".

And a third-dimensional power analysis shows that the Sanming Township Mayor wielded latent power via making economic myths by which economic legitimacy was developed around the dominant and instilled as beliefs in the dominated, serving to get the dominated to act and believe in a manner in which the dominated otherwise might not. Economic myths, that is, like the prospects of jobs:

One of the [Sanming] Township Mayor's more covert ways of operating his propaganda was to mobilize his own peoples and spread the rumor by word of mouth: 'the [Tseng-Wen Reservoir Transbasin Diversion Project] is great [in terms of economic promises], and it also comes with many compensations for the local residents. And the construction of the project would require at least 2,000 workers, and that means lots of job opportunities for the local residents'. But I thought to myself, 'it's not like we are still in the 1980s when construction depended primarily on manpower!' The rumor also has it that once extra-local workers come in, the local restaurants would be greatly benefited. But when the construction began, machines, not workers, did the job! Only a few workers were required! (Interviewee B)

This is an example of third-dimensional power exercise by the Township Mayor and his faction because the local residents' conceptions of the issue were shaped in a way that once they believed in these myths, powerholders gained supports from these believers and these believers were made to do something they wouldn't otherwise do.

Shattered myths need ways to salvage the consequences. Other nodes connecting the power structure came in to salvage:

William: Did you observe people protesting more furiously against the Tseng-Wen Reservoir Transbasin Diversion Project once the promises of jobs proved to be empty?

Interviewee B: The contractors would let these people work for them for a couple of months and then try to kick them out. These people acquiesced because they'd already garnered their own shares of benefits.

5.3. Kaohsiung County Government and the Council of Indigenous Peoples: Non-decision making

5.3.1. Violation of the Indigenous Peoples Basic Law

A Basic Law is a law given to have constitutional power and effect. For example, West Germany used the term “basic law” (*Grundgesetz*) in lieu of “constitution” to indicate that the basic law was provisional until the ultimate reunification of Germany. The Indigenous Peoples Basic Law¹¹ was enacted and promulgated in February 5, 2005, for the “purposes of protecting the fundamental rights of the indigenous peoples in Taiwan, promoting their subsistence and development, and building inter-ethnic relations based on co-existence and prosperity” (The Indigenous Peoples’ Basic Law). The legal hierarchy of the Indigenous Peoples Basic Law, therefore, is equivalent to the Constitution of Taiwan, such that any laws, executive orders, and regulations must not conflict with the spirit and fundamentals of the Indigenous Peoples Basic Law – in the case of conflict, the laws, executive orders, and regulations in questions are automatically rendered invalid (Interviewee E). But examples abound showing that the Indigenous Peoples Basic Law’s declarative nature rings louder than does its substantive meanings. Below I will show how the Kaohsiung County Government and the Council of Indigenous Peoples violated the Indigenous Peoples Basic Law and ignored the warning from Taoyuan Township Office for such violation, showing how second dimension of power in terms of non-decision making was at work.

Section 21 of the Indigenous Peoples Basic Law states:

The government or private party shall consult indigenous peoples, obtain their consent or participation, and share with them benefits generated from land development, resource utilization, ecology conservation and academic researches in indigenous land.

Indigenous land refers to the traditional territories and lands reserved for indigenous people. Section 3 of the Regulations on Development and Management of the Lands Reserved for Indigenous People states that:

In the event that special government purposes shall require the use of state-owned indigenous lands, the authorities concerned (which requires the use of land) should prepare a land use plan and submit it for the evaluation and opinion of the Reserved Land Rights Review Committee and approval of the higher authorities concerned. Legitimate usage, lease, or acquisition should follow.

Because the whole region of Taoyuan Township was reserved for indigenous peoples, the Reserved Land Rights Review Committee of Taoyuan Township had to grant usage right of the lands in question before the construction of the Tseng-Wen Reservoir Transbasin Diversion Project could legally begin.

¹¹ Available at:

http://www.apc.gov.tw/main/docDetail/detail_official.jsp?isSearch=&docid=PA000000001795&linkSelf=231&linkRoot=231&linkParent=231&url=

Both the Reserved Land Rights Review Committee of Taoyuan Township and the Representative Council of Taoyuan Township objected the construction of the Tseng-Wen Reservoir Transbasin Diversion Project on Taoyuan Township (the dates of the meetings that came to this conclusion: 1) Representative Council of Taoyuan Township: February 21, 2005; March 21, 2006. 2) Reserved Land Rights Review Committee: June 28, 2005; January 10, 2007; March 15, 2007).

Despite this, the Kaohsiung County Government illegally sent a letter on December 5, 2006, to the Water Resources Agency with its approval of land allocations. With this approval, the Water Resources Agency and the contractors of the Tseng-Wen Reservoir Transbasin Diversion Project began construction. When the Taoyuan Township Office asked the Water Resources Agency and the contractors to stop the construction, they declined on the ground that the Kaohsiung County Government had already approved their request for land allocations. Therefore, on May 3, 2007, Taoyuan Township Office asked the Kaohsiung County Government to retract its approval and order both the Water Resources Agency and the contractors to restore the construction sites to conditions prior to the construction (Official letter to the Kaohsiung County Government from Taoyuan Township Office, May 3, 2007).

On the same day, Taoyuan Township Office also sent another letter to the Council of Indigenous Peoples, accusing that the Council of Indigenous Peoples, despite its refusal of land allocation announced on October 12, 2006, subsequently sent another letter with its approval to the Water Resources Agency and the contractors without informing the Taoyuan Township Office. In the letter, the Taoyuan Township Office asked rhetorically, "How would the contractors dare to flagrantly proceed with the construction of the Tseng-Wen Reservoir Transbasin Diversion Project without the consent from Yours Sincerely [the Council of Indigenous Peoples]?" (Official letter to the Council of Indigenous Peoples from Taoyuan Township Office, May 3, 2007).

The accusation proved to be correct. The Council of Indigenous Peoples did illegally approve to allocate lands reserved for indigenous peoples for the construction of the Tseng-Wen Reservoir Transbasin Diversion Project despite the refusal of the Reserved Land Rights Review Committee. Therefore, the Taoyuan Township Office sent another letter to the Council of Indigenous Peoples on July 30, 2007, to ask the latter party to retract its approval (official letter to the Council of Indigenous Peoples from Taoyuan Township Office, July 30, 2007).

What were the replies of the Kaohsiung County Government and the Council of Indigenous Peoples? Neither party replied. So on December, 2007, the Taoyuan Township Office petitioned to the Executive Yuan regarding the infractions of the Indigenous Peoples Basic Law by and inactions of these two aforementioned parties (Petitions to the Executive Yuan, December, 2007).

A second-dimensional power analysis suggests that if the power of the obligarchy in the power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project to contain the issue was thus the key to the outcome of the conflict, equally important were the non-decisions founded simply in the inertia of the Kaohsiung County Government and the Council of Indigenous Peoples. Indeed, the case is remarkably clear-cut: the construction of the Tseng-Wen Reservoir Transbasin Diversion Project on Taoyuan Township was clearly illegal, and if either the Kaohsiung County Government or the Council of Indigenous Peoples had decided to uphold the Indigenous Peoples Basic Law and the Regulations on Development and Management of the Lands Reserved for Indigenous People, the project could have easily been stopped altogether.

But they didn't take any action. The project thus continued¹².

5.3.2. The consequences of violating the Indigenous Peoples Basic Law?

This case highlights a more fundamental problem with the Indigenous Peoples Basic Law: it only has regulations on what constitute in/appropriate behaviors, but lacks stipulation on what consequences shall follow with the violation of behavioral regulations.

There are two core components to a given law. First, the law shall specify what behaviors and acts constitute offence under it. Second, it shall also stipulate what penalty is appropriate for offence of those regulated behaviors, which is often included in the enforcement act of a particular law (Interviewee E).

As mentioned above, the Indigenous Peoples Basic Law was enacted and promulgated in February 5, 2005; it also required that all relevant supplementary regulations, including regulation of appropriate penalty for offence, be specified or amended within three years by the Council of Indigenous Peoples – the component authority of the Indigenous Peoples Basic Law. Until today, the Council of Indigenous Peoples still hasn't completed specifying or amending the supplementary regulations. Why?

During my participation in the plans for rebuilding home for people affected by Typhoon Morakot, I asked a lawyer from the Legal Aid Foundation (funded according to the Legal Aid Act promulgated by the President on January 7, 2004, to help socially and financially disadvantaged groups, which include labor, women, children, and indigenous people, in “upholding their constitutionally protected rights to access the court system”¹³) about her interpretation of the lack of supplementary legislation of the Indigenous Peoples Basic Law. She didn't think it was the case that the Council of Indigenous Peoples had attempted to take actions, but encountered resistance too powerful that resulted in the lack of outcomes. Rather, the situation reflected the non-decision making of the Council of Indigenous Peoples

This fatal flaw to the Indigenous Peoples Basic Law provides this basic law with judicial tooth that don't bite. So although the Tauyuan Township Office petitioned to the Executive Yuan regarding the infractions of the Indigenous Peoples Basic Law by and inactions of the Kaohsiung County Government and the Council of Indigenous Peoples, it was legally unclear what penalty the judicial system could have imposed on these two parties (Interviewee E).

¹² It is possible that the Kaohsiung County Government and the Council of Indigenous Peoples granted usage right of the lands reserved for the indigenous peoples because they thought they were acting in accordance to their cost-benefit analysis, *i.e.* in the best interests of the local residents of Tauyuan Township. It could be the case that both government parties had negotiated with the Water Resources Agency and obtained compensations for the local residents if they granted land usage rights. If this was (or were) the case, the Kaohsiung County Government's and the Council of Indigenous Peoples' approvals for land usage were still illegal and undemocratic and reflect a form of power. This is so because relevant regulations state that local indigenous peoples should be consulted; when the Reserved Land Rights Review Committee of Tauyuan Township and the Representative Council of Tauyuan Township both had objected to the transbasin diversion project, neither the Kaohsiung County Government nor the Council of Indigenous Peoples had legal position to grant the usage rights. And their approvals would not have been democratic. But I don't think this was likely the case because when the Tauyuan Township Office asked these two governmental parties to retract their approvals, no responses or explanations were offered; these two government parties simply didn't respond. I thank an attendee in my thesis presentation for discussion of this point.

¹³ For more information about this organization, see: <http://www.laf.org.tw/en/intro/index.php>

5.4. Contractor

Not only did the opposition movement face oppression from the governmental bodies, but also from confrontations with the contractors of the tunnel construction, who used threats of lawsuits, as both first- and second-dimensional power analysis reveals. The contractors used civil and criminal lawsuits to intimidate and oppress the opposition movement. I relied on interviews with my informants and all the documents regarding these two lawsuits (including official letters from the courts, police transcripts, Contract of the tunnel construction of the Tseng-Wen Reservoir Transbasin Diversion Project, court records ... etc) available to Interviewee E, one of the lawyers representing the members of the opposition movement who were sued by the contractors.

On June 24, 2006, Lin Ming Jay, a resident in Sanming Township, spotted an on-going construction near his residence, and went to the construction site along with five others, some of whom including Lin Ming Jay had been involved in the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project, to find out what's going on. Seeing no construction notice or construction approval posted anywhere, Lin Ming Jay reasonably assumed it was illegal logging and called the police, who took everyone present (one construction worker, the Construction Site Supervisor, and the Planning Supervisor) and the aforementioned six local residents in Sanming Township back to the police station to take statements (Police Transcript, Sanming Township Police Station, June 24, 2006).

On September 7, 2006, Lin Yeh Shuan Chuan, a resident in Sanming Township, unaware that her land had been involuntarily acquired on December 20, 2005, reported to the police that the construction of the Tseng-Wen Reservoir Transbasin Diversion Project was illegally taking place on her land (Police Transcript, Sanming Township Police Station, September 7, 2006). The police took the only four construction worker along with Lin Yeh Shuan Chuan to the police station to take statements.

Both Lin Ming Jay and Lin Yeh Shuan Chuan reasonably suspected what they saw as illegal and legitimately called the police. They claimed they didn't use any force to stop the tunnel constructions. But the contractors wrongly, as will be seen later, retold the two incidents in a very different way that took advantages of the incidents to opportunistically squelch the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project. Let's hear the contractors' versions of the stories.

On November, 9, 2006, the contractors of tunnel construction of the Tseng-Wen Reservoir Transbasin Diversion Project, Ta Chen Construction & Engineering Corp. and Nishimatsu Construction Corp., filed a civil lawsuit against the aforementioned seven local residents, some of whom were members of the opposition movement. The contractors claimed that, on June 24, 2006

six people including Lin Ming Jay used forces to prevent the construction worker from carrying out his tasks, attempting to stop the tunnel construction of the Tseng-Wen Reservoir Transbasin Diversion Project, and defamed the plaintiffs [Ta Chen Construction & Engineering Corp. and Nishimatsu Construction Corp.] with accusation of illegal logging. And because the construction worker was taken to the police station for questioning, the construction of the tunnels was delayed by one full day (Civil Crime Indictment).

The contract of the tunnel construction stipulated the penalty of daily delay was daily management cost + 1 / 1000 of the total tunnel construction cost. Specifically, the daily management cost was NT\$ 97,264 / day (~ US\$ 3,018 / day) and the daily cost of delay was NT\$ 5,980,000 / day (~ US\$ 184,390 / day) (Civil Crime Indictment; Contract of the Tunnel

Construction of the Tseng-Wen Reservoir Transbasin Diversion Project, 2004). The plaintiffs claimed that these two costs incurred as a result of defendants' actions, the former, therefore, held the latter responsible for this cost of delay.

Similarly, they also claimed that, on September, 7, 2006

Lin Yeh Shuan Chuan used identical tactic of defaming the plaintiffs [Ta Chen Construction & Engineering Corp. and Nishimatsu Construction Corp.] with accusation of illegal logging so that the construction workers were taken to the police station for questioning. The construction of the tunnels was delayed by one full day (Civil Crime Indictment).

Thus, the contractors held Lin Yeh Shuan Chuan liable for the daily cost of delay identical to the aforementioned amount.

As a result, in addition to the claim that the seven defendants' use of force and wrongful accusation of illegal logging cost them two-day cost of delay (thus the aforementioned civil lawsuit), the plaintiffs also accused the defendants of violating their freedom as citizens and doing injury to their reputations by an act of making false and injurious statements. Consequently the contractors also filed a criminal lawsuit against the same seven people by accusing them of preventing the former from exercising their rights (Article 304 of the Criminal Law of Taiwan¹⁴) and of slandering (Article 169 of the Criminal Law of Taiwan) (the Statement of Not to Prosecute, the Taiwan Kaohsiung District Court prosecutor, May 11, 2007).

Both lawsuits eventually proved to be empty threats, and because the contractors (Ta Chen Construction & Engineering Corp. and Nishimatsu Construction Corp.) had accused the local residents of something that they knew the local residents didn't commit, the contractors themselves had committed criminal act of slandering (although this was not legally pursued further). The contract of tunnel construction explicitly stated that any incidents outside the control of the contractor would not incur cost of delay (Contract of the Tunnel Construction of the Tseng-Wen Reservoir Transbasin Diversion Project, 2004). Surely the contractors were aware of this. Thus, knowing they didn't have a case, the contractors dropped the civil lawsuit on June 22, 2007 – the intention of the contractors was to quell the opposition movement by threatening the protestors with the prospect of monetary fines of a significant amount. Why else would the contractors file a lawsuit against members of the opposition movement for a false crime if not to threaten them?

Similarly, the criminal lawsuit was also to quell the opposition movement because the contractors clearly knew what they were claiming were false accusations. And after reviewing available evidence, the prosecutor decided not to prosecute the defendants regarding the criminal lawsuit (the Statement of Not to Prosecute, the Taiwan Kaohsiung District Court prosecutor, May 11, 2007). Specifically, the construction worker and the Construction Site Supervisor present on the construction site on June 24, 2006, testified to the criminal law prosecutor that Lin Ming Jay and five others who accompanied him to the construction site didn't use any force to stop the construction – contrary to the claim by the Planning Supervisor. My interviews with Interviewee E, one of the lawyers representing the defendants, and two of the defendants themselves also confirmed this eyewitness testimony (Interviewee A; Interviewee B; Interviewee E). Second, a CD provided by the contractors that recorded the construction revealed that the defendants only stood by the construction site as observers. Thus the defendants didn't use force to prevent the contractors and the construction worker from exercising their rights. Nor did the defendants slander the contractors. That is, evidence supported Lin Yeh Shuan Chuan's claim

¹⁴ Criminal Law of Taiwan (in Mandarin Chinese, not available in English):
<http://db.lawbank.com.tw/FLAW/FLAWDAT0201.asp>

that she didn't know her land had been involuntarily acquired by the state. And since contractors failed to post any construction notice near the construction site and the Tseng-Wen Reservoir Transbasin Diversion Project was a large-scale project, when the defendants saw only one construction excavator and a couple of workers on the construction site, they logically didn't think it was the Tseng-Wen Reservoir Transbasin Diversion Project. Illegal logging was a reasonable assumption (Interviewee A; Interviewee E; the Statement of Not to Prosecute, the Taiwan Kaohsiung District Court prosecutor, May 11, 2007).

Like the civil lawsuit, the criminal lawsuit was unquestionably frivolous – both were neither grounded in fact nor warranted by law or otherwise brought in good faith, and both were for an improper purpose of squelching the opposition movement.

Inside the courtroom, the opposition movement confronted yet another source of power: the unfair and treatment by the presiding judge of the civil courtroom. Few examples illustrate this. Because the defendants, indigenous peoples of *Bunun* tribe, were more fluent in their mother tongue than in Mandarin Chinese, and two of them didn't understand Mandarin Chinese at all, Interviewee E requested to the presiding judge of the civil courtroom for a translator:

Interviewee E: The presiding judge denied my request and said, "I will find one when I deem necessary". But he never deemed it "necessary" to find one; it was obvious that he didn't intend to find a translator for the defendants to start with. It wasn't like I only requested once or it was an unreasonable request: I requested twice and two out of the seven defendants didn't even understand Mandarin Chinese! What else but blatant discrimination would this reflect?! As a protest to this discrimination, even those who understood Mandarin Chinese purposely replied in their mother tongue in response to the presiding judge's questions.

William: Don't we have the Draft National Language Equality Act that includes indigenous languages as official languages in Taiwan? I suspect it would be judicially mandatory for the presiding judge to find you guys a translator.

Interviewee E: Don't believe in those! They are just "templates", only to showcase the gestures of the state! The state never respects these things! See, I requested two times for a translator, and the presiding judge just blatantly ignored the requests!

William: Without a translator, how did the two defendants who didn't understand Mandarin Chinese communicate with the presiding judge and answer his questions?

Interviewee E: The presiding judge just didn't communicate directly with them. Because I was the authorized agent for the defendants, he would direct the questions to me instead. And when I said I didn't speak the language of *Bunun*, he would make insulting remarks such as, "You don't understand *Bunun*?! What kind of authorized agent are you?!"

Interviewee A, one of the defendants, also recalled the rudeness of this presiding judge:

because we [the defendants] communicate more fluently and express our opinions more precisely in our mother tongue, we asked to answer the questions posed by the presiding judge and the lawyers of the plaintiffs in our mother tongue. In response to our request, he

said, unhappily, “can you not understand Mandarin Chinese?!” (Interviewee A).

The favorable attitude of the presiding judge to the contractors was not limited to this incident. A lawyer needs as many bits and pieces of relevant information as possible to defend his or her clients, thus Interviewee E officially requested from the contractors the contract of the tunnel construction of the Tseng-Wen Reservoir Transbasin Diversion Project in its entirety. However, the plaintiffs’ lawyer only provided him a few pages of contracted parties’ obligations and penalty regulations:

There must be much more to the contract of a project that worth billions of dollars besides a few pages of obligations and penalty regulations. I needed other information such as timelines of the construction, project construction details ... etc to make an informed decision as to how I should argue for the case. Thus I asked the presiding judge to order the plaintiff to provide me the contract in its entirety, he simply said, “That’s not necessary for the case”. The reason why the plaintiff’s judge only gave me a few pages of contract was, of course, to provide me with minimal information so that I knew as little information about the project as possible, which made it that much harder for me to know what to argue (Interviewee E).

Because the plaintiffs accused the defendants of causing them a total of NT\$ 12,152,528¹⁵ (US\$ 375,711) as penalty for delaying the construction for two days, the presiding judge asked in writing the licensor, the Water Resources Agency, whether the plaintiffs were indeed liable for the cost of delay. The Water Resources Agency replied that the “delay caused by worker strike, labor dispute, protest by the general public, or any other events *outside the control of the contractors* would not incur cost of delay according to Article 19 of the contract” (emphasis added, Official letter from the Water Resources Agency to the Taiwan Kaohsiung District Court, February 12, 2007; Contract of the Tunnel Construction of the Tseng-Wen Reservoir Transbasin Diversion Project, 2004). Any unbiased judge would then rule in favor of the defendants with this piece of hard evidence (Interviewee E); however, the presiding judge, seemed determined to indict the defendants, sent another letter in reply to the first letter from the Water Resources Agency. The second letter reads:

Yours Sincerely mentioned in previous letter that delay caused by worker strike, labor dispute, protest by the general public, or any other events outside the control of the contractors, *i.e.*, the plaintiffs, would not incur cost of delay. However, what has happened in this case is that the defendants wrongfully accused the plaintiffs of illegal logging, which resulted in the latter party being taken back to the police station for questioning, hence resulted in work stoppage for two days. Yours Sincerely should consider whether this qualifies as one of the aforementioned factors that does not incur cost of delay (Official letter from the Taiwan Kaohsiung District Court to the Water Resources Agency, March 16, 2007).

The presiding judge had exerted his power over the defendants in the decision-making through superior bargaining resources, which, in this case, is his discretion of not interpreting the evidence rationally so as to rule in favor of the defendants. That is, the contract of the tunnel construction of the Tseng-Wen Reservoir Transbasin Diversion Project never defined “protest by the general public”, therefore the presiding judge resorted to technicality in attempting to indict

¹⁵ This amount is calculated as follow: (NT\$ 5,980,000 cost of delay + NT\$ 97,264 daily management cost) × 2 days

or intimidate the defendants. And even if the aforementioned two incidents didn't qualify as a "protest by the general public", they would certainly have been events "outside the control of the contractors". Either way, the contractors would not have been liable for the cost of delay according to the contract. And upon reviewing the Contract of the Tunnel Construction of the Tseng-Wen Reservoir Transbasin Diversion Project (2004), I didn't think the first letter from the Water Resources Agency to the presiding judge contained any ambiguity that would compel the presiding judge to send another letter requesting for "clarification". Nor did Interviewee E (Interviewee E).

Evidently the experiences of these seven people had some effect on breaking the opposition movement (Interviewee A; Interviewee B; Interviewee E). Indeed, Interviewee E, defendants' lawyer, told me that the some defendants stopped participating in the opposition movement because of this lawsuit (Interviewee E). Interviewee A, who was also one of the defendants, confirmed this general observation (Interviewee A). How did these experiences break the opposition movement?

A first-dimensional power analysis must examine the political resources – time, energy, and money to hire lawyers – that each party could bring to the bargaining game. The two lawsuits didn't have any legal effect on the opposition movement; but the original intention wasn't so much to actually prosecute members of the opposition movement as to quell the rebellion by the fatiguing process and threats of legal lawsuit and the threat of fines – all of which were more inconvenient and sounded more atrociously intimidating to individuals from the economically and socially low strata than to their counterparts from the high-strata. One incident vividly illustrates the psychological effect of the lawsuits: After the plaintiffs dropped the civil lawsuit, environmental organizations along with the defendants held a press conference in front of the court to publicize the incident; as one of the defendants was recalling her experiences to the press, she suddenly felt weak in the knees and collapsed to the ground, and her whole body was shaking (Interviewee H).

Because the defendants' residences, located on a mountain, were at least three-hour-driving-distance away from the courtrooms, appearing in court each time would mean six hours of driving, round trip, and a few hours of attending each court session (Interviewee A; Interviewee E). The civil lawsuits underwent three trials before the plaintiffs dropped the lawsuit. As for the criminal lawsuits, I couldn't find information regarding the trial dates from the documents that I obtained. However, Interviewee E, couldn't recall the exact trial dates and had not relevant information at hand, asserted that the criminal lawsuit underwent at least three trials. Thus attending court sessions had required a significant amount of time and energy. Interviewee B recalled:

that was indeed a fatiguing experience. Six months of attending court sessions! Wow! It was really tiring (Interviewee B).

Fortunately, Interviewee E, himself was once the president of the Kaohsiung Green Association and an active member of environmental movement, volunteered to defend for the defendants. But the point is to argue that the contractors wouldn't have to worry about whether they could afford a lawyer who would be completely devoted to the case, but the defendants would have to worry about whether they could find a lawyer who would be empathetic of their participation in the opposition movement against a project whose myth of great economic prosperity had been meticulously constructed and of their social and economic status.

While the above mechanisms of power involve identifiable actions which introduced road blocks to the mobilizing and organizing of the opposition movement, there might be other processes of non-decision making power which were not so explicitly observable, as a second-

dimensional power analysis suggests. The first mechanism refers to contractors' reshaping or strengthening the mobilization of bias through "the establishment of new barriers or new symbols against the challengers' effort to widen the scope of the conflict" (Gaventa, 1980, p. 15). That is, I argue that the two incidents pointed to an illegal action of the contractors, but they preempted the possibility of lawsuits launched by the opposition movement against their wrongdoings by shifting the legal burden to the opposition movement. Specifically, on March 14, 2006, the Water Resources Agency and Taoyuan Township Office signed an *official* agreement that said:

The negotiation regarding the Tseng-Wen Reservoir Transbasin Diversion Project came to the following decisions:

1. Immediate work stoppage.
2. Removal of all machines and workers from the construction sites. Consultation with and consideration of the local opinions will be conducted within three months. Then further negotiation will be conducted. Another agreement will be drafted and signed.

Until another agreement was drafted and signed, the contractors did not have firm legal ground to resume construction. But the contractors resumed construction on June 24, 2006, as spotted by the defendants, before another agreement was drafted and signed. This was not unquestionably legal. (The contractors might have been fully aware of their shaky legal ground in resuming construction as they didn't [dare to] post construction notice anywhere.) Thus the contractors and/or the Water Resources Agency might be liable for a legal lawsuit for violating the official agreement signed between the Water Resources Agency and Taoyuan Township Office. This might have provided the opposition movement an opportunity to widen the scope of the conflict. By preemptively and wrongfully accusing the opposition movement for fabricated crimes, the contractors had successfully blocked this opportunity by diverting attention away from their trespassing of the legal boundary by creating a new barrier – the hassles, inconveniences, and threats of lawsuits and monetary fines.

The second process of second-dimensional power that I have identified refers to the "rule of anticipated reactions", "situations where B, confronted by A who has greater power resources decides not to make a demand upon A, for fear that the latter will invoke sanctions against him" (Bachrach & Baratz, 1970, p. 42 – 46). Specifically, the publicity of the lawsuits and the treatment by the presiding judge of the civil courtroom would have instilled in the defendants *and* other individuals the anticipated expectation that opposing the Tseng-Wen Reservoir Transbasin Diversion Project would be made victims of the cruelty of the powerful. Gradually, this anticipated fear raised by the socially the economically privileged and by the power relation between the state and the opposition movement was like an ideological phantom, especially fatal to opposition movement against a large-scale project with an impeccable power structure like the Tseng-Wen Reservoir Transbasin Diversion Project. Such an opposition movement would require a significant extent of mobilization of resources, thus requiring collaborations among many actors, local and extra-local residents alike. But this ideological phantom would constantly creep into opposing and potentially opposing individuals, breeding internal contradictions among them and casting doubts regarding the prospect of the opposition movement. Appreciating how the whole experience would have repercussion to the mobilizing ability and strength of the opposition movement is thus not difficult.

5.5. Systemic power at work: the Tseng-Wen Reservoir Transbasin Diversion Project as an alternative to the Meinung Reservoir and the Machia Reservoir

Systemic power involves a relationship among various classes and government officials with government officials as the focal point. In this power relation, higher-class individuals do not intentionally and consciously exert power over their lower-class counterparts to achieve certain aims; systemic power relation is characterized by a situation where government officials over the long haul favor higher-class interests at the expense of lower-class ones, and this pattern of behaviors is motivated by elements of socioeconomic status that confers advantages to some and disadvantages to others.

Using the conceptual lens of systemic power, I argue that the way in which the agenda for the Tseng-Wen Reservoir Transbasin Diversion Project was set can be better understood in a historical context where the plans of Meinung Reservoir and of Machia Reservoir were vetoed and replaced by the Tseng-Wen Reservoir Transbasin Diversion Project. I argue that the socioeconomic class system should be treated as a source of power in that the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project – consisted of indigenous peoples – suffered as a result of their inferior position in the broad socioeconomic system.

Because a historical perspective is theoretically instrumental to revealing how systemic power shaped the agenda for the Tseng-Wen Reservoir Transbasin Diversion Project, I will chronologically document the Anti-Meinung-Reservoir Movement and the Anti-Machia-Reservoir Movement that led up to the agenda of the transbasin diversion project in question.

Economic and political resources possessed by major business enterprises and elites predispose government officials to accommodate business interests, and because policy room is limited and there is competition for the available space, government officials are motivated to resist the interests of the non-business-elites masses who possess fewer economic and political resources than business elites. As I have remarked in Chapter 5.1, the Kuomintang, compelled by political instability in Taiwan during the 1980s, adopted what Gramsci called a “passive revolution” by changing its ruling methods and transforming the state’s composition, essentially expanding the hegemony of the state by absorbing new popular elements into state’s administrative system. The Industrial Development Advisory Council, established in 1985, was an example of such “absorption”. With this council came the first opportunity and channel for capitalists to directly communicate with the central government inside the political system and to thereby influence policy decision-making (Shu, 1993, p. 70). And capitalists of the petrochemical industry played an important role inside the Industrial Development Advisory Council. In fact, petrochemical industry has been a strategic industry in Taiwan since 1985 (Wang, 1996). And petrochemical industry is the industry with the most highly balanced vertical integration, and its value of productivity comprises of one third of that of Taiwan’s industries – its economic and political importance are obvious (Wang, 1996). Thus, government agencies, especially Water Resources Agency, were determined to source water for industries, particularly the petrochemical industry, in southern Taiwan. The tendency for government officials to accommodate business interests at the expense of the general public can be the consequence of direct pressure or other forms of lobbying behaviors exercised by these business elites, but I argue that one source of that tendency is systemic power which predisposed government officials to favor the interests of business class with superior position in the larger socioeconomic system.

The agenda for sourcing water to fulfill southern Taiwan’s industrial water usage was therefore set, and the Meinung Reservoir, whose plan was finalized in 1992, was the product, which the general public wasn’t aware of until it was publicized by the new media. The proposed Meinung Reservoir would locate in the Yellow Butterfly Valley, 1.5 km from the Kuanlin

District, one of the Districts in Meinung Township. This raised, *inter alia*, two main, immediate concerns.

First, the proposed Meinung Reservoir would flood the entire Yellow Butterfly Valley, where the Shuangsi Tropical Viviparous Forest is located. The reserve, 7.56 hectares in size, was established in 1935 by the Japanese colonial authorities, who imported and nurtured plant and tree species from different parts of Asia, Australia, and South America to learn which plant and tree species were suitable to Taiwan's natural environment. Ninety six different tree species not native to Taiwan have grown in the forest; 28 are found only in this forest reserve; 11 are represented by a single specimen. The value of this forest reserve is significant. Second, the proposed reservoir would locate too close to where local residents resided, posing potential disasters for human lives.

In addition, local residents in Meinung Township were never informed of the details of this large-scale development plan. Neither were they ever consulted during this project's planning process. Not only were the details of this development project unbeknown to the local residents, but also to the local government. Local residents interpreted this as a mockery to democracy by and a lack of accountability of the central government. As a result, the members of the 7th Workshop Group¹⁶, originally established for the purpose of promoting the culture of Meinung Township, deemed unfair the entire process of central government's planning and finalizing of the proposed Meinung Reservoir, and demanded the central government to release the details of this development plan.

And the Representative Council of the Meinung Township reached a consensus in January 7th, 1993, that the Meinung Township opposed the Meinung Reservoir. The proposed Meinung Reservoir witnessed not only strong social and political resistance from the local residents but also heated debates among politicians during the budget review process in the Legislative Yuan. Because of the controversies surrounding this development project and after intensive lobbying and fierce protesting, the budget for the Meinung Reservoir was deleted in 1993 (Chang, 2000, p. 33 – 34; New Home Magazine, 2000).

As an alternative, Water Resources Agency proposed in 1993 the Machia Reservoir whose catchment area was populated by indigenous people, who had (and have) had a long history of receiving oppression and unfair bureaucratic treatments. Most importantly, indigenous peoples have generally occupied the lower strata on the socioeconomic spectrum relative to their Han Taiwanese counterparts (New Home Magazine, 2000; Interviewee D). As a result, government officials were predisposed to favor Han Taiwanese's' interests and disfavor indigenous people's interests by replacing the Meinung Reservoir plan with the Machia Reservoir plan.

Recall that an element of systemic power refers to the idea that upper-class individuals did not intentionally and consciously exercise their power over their lower-class counterparts to achieve certain goals. But actions can be politically relevant without the actors intending their efforts to affect something "as abstract but important as systemic constraints" (Stone, 1982, p.

¹⁶ Tobacco farming was a source of significant income for Meinung tobacco farmers before Taiwan and the USA signed the "Taiwan Beer, Wine And Cigarettes Agreement" that went into effect in 1987. Working days required for a planting season of tobacco farming are three times more that of rice – 789 days / season. Thus, tobacco farmers in Meinung followed the system of "labor exchange" by organizing a "workshop" consisted of six to seven households, and each household appropriated two people. A workshop therefore consisted of 12 or 14 people. A workshop would help household A with harvesting the tobacco on Monday, and help household B on Tuesday and so on. Then the workshop would help household A on the next Monday with harvesting the tobacco that had not been harvested, and help household B on Tuesday and so on (http://meinong.kccc.gov.tw/04tobacco/04tobacco_e.asp). The 7th Workshop Group was so named because the households where these members were from belonged to the 7th Workshop.

287). Indeed, individuals and organizations opposing the proposed Meinung Reservoir certainly didn't intend their anti-reservoir movement to have the consequence of the Machia Reservoir being proposed as an alternative. In fact, the Meinung People's Association, along with the Anti-Reservoir Alliance, was an association established to executive the Anti-Meinung-Reservoir Movement, and it promulgated a manifesto stating 11 reasons for opposing the Meinung Reservoir, stating that, for example, "the problem of Kaoping River [main source of water in southern Taiwan] was not one of water shortage, but one of water quality; renovating the Kaoping River, not constructing the Meinung Reservoir, should be *the* solution" (Meinung People's Association, 1994, cited in Chung, 2003, p. 62).

Steering away from the "not-in-my-backyard" mentality, organizations and individuals involved in the Anti-Meinung-Reservoir Movement played the role of educating and assisting in organizing indigenous people to launch their Anti-Machia-Reservoir Movement (Zhou, 1998). But, lacking social and political resources and because of their lower socioeconomic class relative to Han Taiwanese, the Anti-Machia-Reservoir Movement predominantly led by indigenous people initially stirred neither big nor many political and social ripples. What politically broke the impasse of the Anti-Machia-Reservoir Movement was the proposed Bin-nan Industrial Complex development project that would require 320,000 m³ water / day, inspiring environmental organizations to widen the scope of their discourses by examining water demands among sectors (e.g., household, public service, and industry) in southern Taiwan. Their analyses led them to believe that, contrary to the official claims that it would provide water for southern Taiwan's households and public services, the proposed Machia Reservoir was aimed to provide water for industries in southern Taiwan.

And environmental organizations further discovered that the project site of the Machia Reservoir was located at the source of Pingtung Plain's groundwater recharge. Constructing a reservoir on this area would disastrously affect the hydrological distribution of groundwater – groundwater amounted to 70% of the water used by Pingtung County residents. This finding drastically expanded the scope of the Anti-Machia-Reservoir Movement from mobilizing only indigenous people and environmental organizations to mobilizing the indigenous, environmental organizations, and Han Taiwanese who were residents in Pingtung County. At this point, the opposition movement was no longer confined to only indigenous people, Han Taiwanese were also mobilized. The ethnicity of people mobilized meant the strength of the resistance movement and resources available to it, which motivated the Pingtung County Magistrate to officially announce that the Pingtung County Government opposed the proposed Machia Reservoir (Zhou, 1998).

So, as an alternative to the proposed Machia Reservoir, Water Resources Agency in 1995 proposed the Tseng-Wen Reservoir Transbasin Diversion Project – whose proposed construction sites were also populated by indigenous peoples (China Times, 20/05/1995; Zhou, 1998).

The systemic power relation is one where government officials had to weight the interests of business elites, Han Taiwanese, and indigenous peoples in their decision-making calculus. In making decision, government officials were necessarily most accommodating to the interests of business elites in southern Taiwan because these elites, as compared to the non-elite masses, had greater command of major economic enterprises and of the resources of major organizations so that, by courting favors of these business elites, government officials stood the best chance of benefiting from these resources. These officials had to fulfill industries' water demands. Water Resources Agency thus kept looking for new sources of water provision. And, relative to indigenous peoples who were (and still are) predominately from lower socioeconomic class, Han Taiwanese with their higher position on the socioeconomic spectrum possessed more valuable instruments and mechanisms through which government officials could achieve their personal goals such as career success. What is being observed in this particular instance is not a higher

class exercising over a lower class but rather the government officials accommodating the higher class' and business elites' interests while resisting the lower class' interests and requests.

Although the proposed Meinung Reservoir was facing strong opposition movement, Water Resources Agency, accommodating the interests of business elites, proposed on June 14, 1998, a water provision plan for the Bin-nan Industrial Complex: both the Tseng-Wen Reservoir Transbasin Diversion Project and the Meinung Reservoir would fulfill this Complex's long-range water demand. Mindful of the interests of business elites, Water Resources Agency again brought the proposed Meinung Reservoir on the negotiation table (New Home Magazine, 2000), and the budget for the Meinung Reservoir that was originally deleted in 1993 (as a result of the opposition movement) was finally approved in 1999 (Chang, 2000, p. 45). This was met with another wave of the Anti-Meinung-Reservoir Movement. Let's see what the opposition movement was like.

One former President of the Meinung People's Association observed that

Anti-Meinung-Reservoir Movement was based on the social foundation characterized by a strong sentiment against the Kuomintang (the Democratic Progressive Party didn't have much political or social resources back then). There are several reasons for this strong sentiment. One of which was historical: these were the people who were persecuted during the 228 Incident. [The 228 Incident, began on February 27, 1947, was an anti-Kuomintang uprising in Taiwan and was violently suppressed by the state, marking the beginning of the White Terror period in Taiwan.] Another reason was anger toward bureaucracy. Because the Kuomintang had been the dominant political party for a very long period of time, people who had been unfairly politically treated intuitively translated their anger toward the political systems to anger toward the Kuomintang. As a result, the Anti-Meinung-Reservoir Movement was to a very large extent based on social ground of anti-Kuomintang (Lo, 2008, p. 143).

Because of this strong sentiment against the Kuomintang, the height of the Anti-Meinung-Reservoir Movement was elevated to a point where Meinung Township residents progressively sought to form alliances with the Democratic Progressive Party to utilize political resources to gain political advantages. The extent to which political strategy of alliance was utilized can be evidenced by that one activist involving in the Anti-Meinung-Reservoir Movement, who, albeit her strong sentiment against the Democratic Progressive Party, nonetheless put the larger context before her personal emotion: "I don't have political mysophobia, one should be flexible" (Ho, 2006, p. 268).

A core member of the Meinung Anti-Reservoir Alliance¹⁷ similarly observed that

one of the reasons why the Anti-Meinung-Reservoir Movement was able to recruit that many people was political opportunity. We noticed that places having to do with elections always

¹⁷ The Meinung Anti-Reservoir Alliance was established by former members of the Meinung People's Association. The Meinung People's Association became busy with cultural projects that were sources of income, and some members noticed that the Association could not react promptly to forces supporting the Meinung Reservoir development plan. So they left the Association and formed the Meinung Anti-Reservoir Alliance whose main action strategy was to employ more drastic moves (such as protesting and blocking the roads to Meinung Township) to counterbalance the forces for the Meinung Reservoir. A "division of labor" was then naturally created: the Meinung People's Association employed "softer" strategies (such as publishing articles on local newspapers to educate people with why reservoirs should not be built blindly), something that the members of the Meinung People's Association were adept at (Lo, 2008).

had a significant number of people because those supporting the Kuomintang and those supporting the Democratic Progressive Party were so fiercely rivaling against each other, especially prior to the presidential election in 2000 [which marked a significant point because it was the second presidential election that are voted on by the people, making it possible for the Democratic Progressive Party to be the ruling party]. We sought to ally with those keen on politics to collaboratively oppose the Meinung Reservoir plan proposed by the Kuomintang (Lo, 2008, p. 144).

Given that the Kaohsiung County Magistrate was a member to the Democratic Progressive Party, that the Meinung Reservoir faced great resistance, and that gaining Meinung Township residents' political support on behalf of the Democratic Progressive Party was important for the presidential election in 2000, the Kaohsiung County Magistrate therefore promulgated the County Government's opposition against the proposed Meinung Reservoir.

The Kaohsiung County Magistrate accommodated Han Taiwanese' interests by opposing the proposed Meinung Reservoir. But he resisted indigenous peoples' concerns by going forward with the proposed Tseng-Wen Reservoir Transbasin Diversion Project. He stated his stance very clearly in various meetings of the Kaohsiung County Council.

For example, during the 7th General Meeting of the 14th Term of the Kaohsiung County Council:

Kaohsiung County Councilor: Now that the Meinung Reservoir faces local resistance, so alternatives should be proposed. If you [the County Magistrate] choose to confront the central government [by opposing against the Meinung Reservoir proposed by Water Resources Agency, a central government agency], you should do so responsibly. You should find out what alternatives are possible for the proposed Meinung Reservoir.

Kaohsiung County Magistrate: One of the alternatives for the Meinung Reservoir is the Tseng-Wen Reservoir Transbasin Diversion Project, and Water Resource Agency is going forward with this project (Meeting Minute, June 21, 2001, p. 347).

And during the 8th General Meeting of the 14th Term of the Kaohsiung County Council:

Kaohsiung County Councilor: More than 95% of Taoyuan Township [one of the three Townships located in the development area] opposed the Tseng-Wen Reservoir Transbasin Diversion Project. As a County Magistrate, what do you make of this?

Kaohsiung County Magistrate: The County Government is progressively going forward with this project, and we will *take into account* the local residents' opinions (emphasis added, Meeting Minute, November 7, 2001, p. 318).

Although the Tseng-Wen Reservoir Transbasin Diversion Project had been facing local resistance (United Daily News, 14/08/2000; Interviewee C; Interviewee D), the Kaohsiung County Magistrate merely "took into account" indigenous peoples' opinions. Why? Interviewee D remarked that:

the indigenous peoples in Taiwan haven't had much administrative and political power ... Therefore, the mobilization of the indigenous peoples haven't posed much of a threat to politicians (Interviewee D).

Similarly, Interviewee H asserted that:

the state did take more seriously the opposing opinions of the Anti-Meinung-Reservoir Movement because, as compared to indigenous peoples, Meinung Township residents [Han Taiwanese] were relatively more educated and informed and were more politically associational. (Interviewee H).

The opposition movement led by indigenous peoples against this transbasin diversion project didn't call significant attention to their concerns. Systemic power explains Kaohsiung County Magistrate's differentiated treatments to individuals from different socioeconomic classes, suggesting that durable features of the socioeconomic system conferred advantages on Han Taiwanese while conferred disadvantages on indigenous peoples.

The consequence of the disparity in socioeconomic status between Han Taiwanese and indigenous peoples was also reflected in the attitude of the then Minister of the Ministry of Economic Affairs. The then Minister of the Ministry of Economic Affairs stated that the Tseng-Wen Reservoir Transbasin Diversion Project took priority over the proposed Meinung Reservoir in terms of development timeline, for the former project was smaller-scale than the latter one so that the former one would take lesser time to complete than would the latter one, providing a sooner relieve to the water shortage problem that was on the horizon for southern Taiwan. What's his attitude toward the Meinung Reservoir plan? He stated that "more intensive communication with the Meinung Township residents" was required before the development of the Meinung Reservoir could proceed (China Daily, 21/07/2000).

Here is the paradox in his statement: since the Meinung Reservoir would take longer than the transbasin diversion project to complete (the latter one would take 10 – 15 years to complete [China Daily, 21/07/2000]), the reasonable thing to do would be to proceed with the development of the Meinung Reservoir as soon as possible, preferably as he was speaking. If the water shortage problem was really as bad as it was often presented, wouldn't "more intensive communication with the Meinung Township residents", thus further delay in when the reservoir would be completed, exacerbate the problem? – a move on the government's part that clearly contradicted with the bold move of proceeding with the Tseng-Wen Reservoir Transbasin Diversion Project despite the local residents' fierce opposition. That is, the Anti-Meinung-Reservoir Movement was greeted with state's gesture of "more intensive communication", while the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project didn't seem to call attention to indigenous peoples' concerns.

Finally, because of strong local opposition, the Democratic Progressive Party announced immediately after gaining presidency in 2000 that the proposed Meinung Reservoir would not go forward (Chung, 2003, p. 59). At first blush, government officials' response to opposition movement against the Meinung Reservoir may seem contradictory to what systemic power would predict. That is, systemic power predicts that government officials would accommodate business elites' interests by going forward with the proposed Meinung Reservoir despite the general public's opposition against this project. What's being observed, however, is entirely consistent with systemic power relations where business elites "have only to ask" while those that are not elites have to engage in "protests, voter-registration drives, and other highly visible forms of political action to call attention to their concerns" (Stone, 1980, p. 981). What's being

observed is that business elites didn't seem to engage in "highly visible forms of political actions" to compel government officials to keep looking for sources of water provision for industries in southern Taiwan. What's being observed is that Meinung Township residents had to launch waves of social movements so that their opinions could finally be heeded.

And why did the Anti-Meinung-Reservoir Movement proved to be successful while the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project proved to be futile? In addition to the prevailing power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project (as shown by analyses in Chapter 5 and 6), systemic power is also a factor because government officials heeded more seriously the concerns of Han Taiwanese whereas they resisted indigenous peoples' concerns. Therefore, the larger socioeconomic system had impacts on the predisposition of public officials whose decisions certainly had a class character

5.6. Paternalism

Apart from the objective power dynamics external to the opposition movement that shaped the subjective activities of those who were opposing the transbasin diversion project, one internal contradiction that has also limited the vision of the opposition movement was paternalism. Paternalism refer to the relative place in the hierarchy between females and males and females' status vis-à-vis males, undermining women's access to public participation. First let's see the social atmosphere that reflected paternalism in the community.

A female resident in Sanming Township who didn't participate in the opposition movement, Interviewee F's observation of daily lives in the community reflected that paternalism permeated in their social lives. Indeed, female participations in activities not generally associated with female roles were frowned upon. For example, Interviewee F along with other females founded the "Nüwa¹⁸ Association" at 2001 to empower female by promoting gender equality. Interviewee F recalled that their participations in the Nüwa Association have witnessed from males in the community criticisms reflective of male paternalism. Another example of male paternalism is that during Nüwa Association's involvements in the home rebuilding process after Typhoon Morakot tragedy (see Chapter 1.4.1 for further details), Interviewee F has personally been asked, "You women know what you are doing?" (Interviewee F). Female participation in the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project was thus embedded in this social atmosphere.

Interviewee G, a female activist in the movement against the Tseng-Wen Reservoir Transbasin Diversion Project and was also one of the founding directors of the Nüwa Association, recalled that

men were always the ones who showed their faces in the opposition movement, while women had to stand behind them. But they didn't tell women not to participate in the movement because they needed to mobilize women to make the scale of the opposition movement appear larger ... And when the contractors launched criminal and civil lawsuits against the people in Sanming Township at 2006, I was the medium of communications between the defendants and their representing lawyers. But some males said to me, "why are you as a woman getting yourself involved in this thing?"

From Interviewee's G's remark, we definitely see a clear division of labor in the opposition movement between males and females that mimics the social division in the house: men are

¹⁸ In ancient Chinese mythology Nüwa is a goddess that created mankind and repaired the walls of heaven.

traditionally the decision-makers and the speakers while women are thought by men to play the roles of assisting the decisions made only when asked. Paternalism results in that the opinions and suggestions by females were devalued by males (Interviewee G), and ignoring females' perspectives about the opposition movement, who could often see where and what males couldn't see, constrained the visions of the opposition movement.

In sum, consistent with previous studies (Fortmann & Rocheleau, 1984; MacDonald, 1994; Seager, 1993), labels of females that were different versions of "hysterical housewives" (Seager, 1993), "just housewives" (Fortmann & Rocheleau, 1984), and being responsible only for "home duties" (MacDonald, 1994) were attached to females in this case.

5.7. Powerlessness of potential challengers

Thus far, we have seen that the opposition movement faced layers and layers of powers emanating from various sources. The power dynamics surrounding the Tseng-Wen Reservoir Transbasin Diversion Project acted as road blocks which the opposition movements had to dodge before they could effectively stop this development project. If there existed a sense of powerlessness that may affect the consciousness of potential challengers about grievances, strategies, or possibilities for change, this sense of defeat might just be the last straw.

Recall that one of the processes of two-dimensional power has to do with the "rule of anticipated reactions", a situation where B, the relatively powerless, "confronted by A who had greater power resources decides not to make a demand upon A" because B suffers from a sense of powerlessness that manifests itself as "extensive fatalism, self-deprecation, or undue apathy about one's situation" due to anticipated defeat (Gaventa, 1980: 15 - 17);

Indeed, a second-dimensional power analysis suggests that a sense of powerlessness also contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project and the ultimate failure of the opposition movement. For example, when I asked Interviewee B if they ever tried to recruit new bloods to the opposition movement to enlarge its influence and visibility, Interviewee B thought a sense of powerlessness was one of the difficulties to effective recruitment:

when we tried to mobilize residents in Xiao-Lin Village [which suffered the most casualties from Typhoon Morakot,] in protesting against the Tseng-Wen Reservoir Transbasin Diversion Project, they just laughed at us and said, "How stupid! Why are you protesting? If the government has its mind set on constructing it, then it will be constructed!" (Interviewee B).

And during my interview with Interviewee A, one of the most memorable impressions that I've got from him was his emphasis that a sense of powerlessness has played a big part explaining the acquiescence among some local residents:

of course people know they should voice their opposition, but some people just felt powerless ... And unlike work, whose fruit will come with your effort, the fruit of protest isn't on the horizon to be seen. People also felt helpless about the overall situation, not knowing whether something will come out of [protesting] (Interviewee A).

Although he still expressed a sense of passion in protesting alongside with other members of the opposition movement, Interviewee D shared with me his general observation of the unfortunate reality about indigenous peoples in Taiwan:

I deeply feel that development projects, albeit their environmental detriments, whose construction sites are chosen on lands where indigenous peoples live will not face any significant resistance. Although we [the indigenous peoples] protest, our protest doesn't have influence in decision-making at all ... because we don't have many political and administrative resources (Interviewee D).

5.8. Conclusion

Genuine participation and democracy occur when both sides summon their respective powers to promote their own interests. As this chapter has illustrated, the way in which the Tseng-Wen Reservoir Transbasin Diversion Project was negotiated and contested did not adhere the spirit genuine participation and democracy. The power dynamics depicted so far by no means represent comprehensively the entire story. My interviews with active actors in the opposition movement have provided me with other bits and pieces of evidence illustrating how the central and local governments and private interests arranged their resources to remove obstacles for the transbasin diversion project. For example, when Interviewee D retired mayorship from mayorship, he went to become the director of the Maishan Visitor Center of the Yushan National Park. There he was disciplined for his participation in the opposition movement: his job performance evaluation was given a low mark, and he was asked to write a report stating why he participated in the opposition movement (Interviewee D).

The Ministry of the Legislative Yuan also directly pressured the Kaohsiung County Government Magistrate to cooperate. The Kaohsiung County held a seminar on the Tseng-Wen Reservoir Transbasin Diversion Project in July, 12, 2006. The County Magistrate in the conclusion of the seminar explicitly stated that the discussion in the seminar had convinced him that the project wasn't necessary. But at the end of that year, someone from the Water Resources Agency phoned Interviewee H to tell him that the Ministry of the Legislative Yuan was going to "meet with the County Magistrate to discuss about the Tseng-Wen Reservoir Transbasin Diversion Project":

I still remember the Ministry of the Legislative Yuan and the County Magistrate met on a Wednesday at the end of December, 2006, though I forgot the exact date. Before the meeting, the Kaohsiung County Magistrate strongly and clearly opposed to the project; but after the meeting, he suddenly changed his position. That's why the Kaohsiung County Government sent a letter on December 5, 2006, to the Water Resources Agency with its approval of land allocations. There're lots of ways to obtain the County Magistrate's cooperation. Let me first tell you another instance. On November 12, this year [2009], I attended a meeting that was held by the Water Resources Agency to discuss proposals on water regulation. The Tainan County Magistrate and Director of the Tainan County Water Resources Department also attended the meeting. During coffee break, I asked the Director, 'why didn't you bring up the issue of the Tseng-Wen Reservoir Transbasin Diversion Project?' He responded, 'well, here is the Water Resources Agency's territory'. My point is that even a county Magistrate didn't dare to offend the Water Resources Agency (Interviewee H).

Why? The Tainan County was entitled to around NT\$ 3 billion (~ US\$ 93 million) out of the total budget of NT\$ 80 billion for the Eight-Year Plan of Water Regulation, and because the Water Resources Agency holds the absolute power to dictate when and how it wishes to allocate budget to each county for projects related to water, the Water Resources Agency could legally either allocate the budget to the Tainan County at the first two years or at the last two years of the eight-year period. If the Tainan County got the budget at the last two years of the eight-year

period, all the proposed projects aimed to alleviate water-related disasters would have to wait until the last two years – this certainly would enrage the general public (Interviewee H). The Water Resources Agency could have also threatened the Kaohsiung County Magistrate with this power of budget allocation.

When we trace the power dynamics backward in time, we can see that the permeating quelling power successfully prevented public participation in one of the most powerful tools of environmental governance, that is, the environmental impact assessment review. As previously mentioned, from the perspective of the pro-growth regime, one of the most threatening authorities of the environmental impact assessment is its right to veto a development project. Participation in the form of real participation (that is, moving from “manipulation” to “citizen control” on the map of Arnstein’s conceptualization) translates to real governing of the Tseng-Wen Reservoir Transbasin Diversion Project in which the general public are in full charge of the project and the opposing opinions can freely and democratically negotiate, contests, and finally reify their interests. Therefore, to undermine the effectiveness and governing power of the environmental impact assessment, the powerful had to limit the scope and the extent of public participation. Which they did. How they did it is the subject of the next chapter.

6. Power within the Fields of Public Participation in the Environmental Impact Assessment

Previous chapter illustrates that a plurality of governmental bodies and private interests all worked strategically to render the power relation seemingly impeccable, so that the Tseng-Wen Reservoir Transbasin Diversion Project didn't face significant opposition, and the opposition movement predominantly led by the indigenous peoples was ultimately unsuccessful in blocking the project. Another field that the general public could have participated more aggressively to raise the profile of the project and then challenge it was the environmental impact assessment review process. The general public, mostly local indigenous people, did indeed participate to some extent in the environmental impact assessment. But the nature of the problem was that (as revealed by closer examinations of the meeting minutes of the environmental impact statement, the environmental impact assessment report, and the roster sheets) attendance by the general public in the environmental impact assessment review process was remarkably low (see Table 1); a majority of the participants were Environmental Impact Assessment Review Committees or representatives from environmental bodies. In fact, Table 1 shows that only the First Meeting of the Special Project Group, public explanation meeting during second phase, and on-site inspection (July 25 and 26 morning) were attended by general public, *i.e.*, those who were not the Environmental Impact Assessment Review Committee members or representatives from the governmental bodies. Which forces paved the way for this acquiescence? And more broadly, how did power dynamics shape the nature and extent of public participation in the environmental impact assessment review?

Arnstein (1969) conceptualized public participation as having various levels to emphasize the distinction between public participation as mere formalism, *i.e.* "going through the empty ritual of participation" (p. 216), and having real power to affect the outcome of the process. Mindful of this, a natural question is, "Do attending environmental impact assessment meetings and expressing opinions guarantee a meaningful participation?" If not, what power processes were at work to thwart the potential damages of the opposing opinions? These questions become more significant when one recalls that environmental impact assessment in Taiwan has the power to veto a development project.

Thus, following a macro analysis of the power dynamics surrounding the Tseng-Wen Reservoir Transbasin Diversion Project engaged in previous chapter, I adopt a micro perspective in this chapter to examine how power dynamics shaped the nature and extent of public participation in the environmental impact assessment.

One of the most consistent themes of the interviews that I conducted is the remark that the members of the opposition movement were never informed of the environmental impact assessment of the Tseng-Wen Reservoir Transbasin Diversion Project, hence low participation. Because of this, I didn't observe noticeable, significant exertion of first-dimensional power.

EIA Public Participation Channel	Participated by:
Phase I	
Special Project Group: First Meeting	Kaohsiung Green Association
Special Project Group: Second Meeting	No General Public Participation
Phase II	
Public explanation meeting during Phase II EIA	Individual participants
Scoping: First Meeting	No General Public Participation
Scoping: Second Meeting	No General Public Participation
On-Site Inspection (July 11, 2001)	No General Public Participation
On-Site Inspection (July 25, 2001 Morning)	Local residents of Sanming Township
On-Site Inspection (July 25, 2001, Afternoon)	No General Public Participation
On-Site Inspection (July 26, 2001, Morning)	Tauyuan Township People's Association
Hearing	No General Public Participation
Special Project Group: First Meeting	No General Public Participation
Special Project Group: Second Meeting	No General Public Participation

Table 1. Participations by the General Public in the Environmental Impact Assessment Review of the Tseng-Wen Reservoir Transbasin Diversion Project.

6.1. Second Dimension of Power

The second dimension of power is generally understood as the ability to determine who participates and what is debated in decision-making about key issues. Indeed, “one of the most important aspects of power is not to prevail in a struggle but to pre-determine the agenda of struggle – to determine whether certain questions ever reach the competition stage” (Parenti, 1970, p. 521).

The second dimensional power wields its influence through the following mechanisms. Covert power prevents certain political issues from arising by mobilizing biases, defined as:

A set of predominant values, beliefs, rituals, and institutional procedures (“rules of the game”) that operate systematically and consistently to the benefit of certain persons and groups at the expense of others. Those who benefit are placed in a preferred position to defend and promote their vested interests (Bachrach & Baratz, 1970: 43, see also Schattschneider, 1960).

Mobilization of bias may be involved in decision-making, shaping and reinforcing “social and political values and institutional practices”, thereby limiting the scope of public consideration of issues to only those that are inconsequential to the power-holders (Bachrach & Baratz, 1962: 7). Mobilization of bias, argue Bachrach and Baratz (1970), is sustained through “suppressed decision” or “non-decision”, defined as:

A decision that results in suppression or thwarting of a latent or manifest challenge to the values of interests of the decision maker. To be more nearly explicit, nondecision-making is a means by which demands for change in the existing allocation of benefits and privileges in the community can be suffocated before they are voiced, or kept covert; or killed before they gain access to the relevant decision-making arena; or, failing all of these things, maimed or destroyed in the decision-implementing stage of the policy process (p. 44).

Data sources converged to reveal several examples of how the second dimension was used to influence the environmental impact assessment decision-making process.

6.1.1. Mobilization of biases through administrative and procedural barriers

The lack of dissemination of information regarding the Tseng-Wen Reservoir Transbasin Diversion Project on the part of the Township Office

As I have mentioned in previous chapter, the Township Office is a significant party constituting the power structure surrounding the Tseng-Wen Reservoir Transbasin Diversion Project. It is the medium passing information regarding environmental impact assessment from the central government to the general public. Seen in the light of the regulations on the environmental impact assessment, the Township Office’s role of disseminating relevant information to the general public is undoubtedly important. Specifically, the Environmental Impact Assessment Act stipulates that the project proponent is required to inform only the Township Office by mails, in addition to announcing meeting to the general public by placing announcements on newspaper. However, announcements on newspapers can easily be rendered effectively invisible. For example, in the environmental impact assessment review of a landfill development project, the project proponents (purposely or otherwise) placed the small size of announcement of public hearing in the advertisement section of the newspaper to the effect of being ignored or being hard to be found by the general populace (Wang, 2004, p. 100). But, if the Township Office wishes, it can make sure everyone in its jurisdiction knows about the

environmental impact assessment, for example, by mailing brochures to every household or by convening a township-wide meeting.

My research aimed to extend beyond Wang's study (2004), which examined public participation in the environmental impact assessment from the perspectives of governmental officials, including that of the Township Mayor. Seeing from this perspective, Wang couldn't readily observe the power exertion by the Township Office. Only by interviewing the general public (a bottom-up approach) can researchers discover the lack of dissemination of information on the part of the Township Office as one of the reasons the local residents didn't participate in the environmental impact assessment review process.

The Township Office's important role of disseminating information is illustrated by how the Sanming Township Office figured in the opposition movement, as explained by Interviewee G, a local residents in Sanming Township and who was among the first in Sanming Township to know of the Tseng-Wen Reservoir Transbasin Diversion Project:

I started discussing with Chung Yun-Feng about this project since around 1995 or 1996, but I just couldn't obtain much information concerning this project because these pieces of information were confined by the government. Later I even tried to get more information from Chung Yun-Feng, but even he, the Minister of the Kaohsiung County Water Resources Bureau since 2000, could only get very limited information. He once told me, "Nothing can be done [to stop it]. The central government is determined to execute the project".

Information regarding most of the development projects by the state is only known to the Township Office, but not to the local residents. The Tseng-Wen Reservoir Transbasin Diversion Project is no exception to this rule. ... Regarding the stance of the Sanming Township Office, my observation is that – true, it didn't do its job of disclosing relevant information to the local residents back then. But I don't think it's because the Township Office actively supported this development project; rather, it was a non-action on its part because it faced direct pressure tracing all the way up to the central government to execute the Tseng-Wen Reservoir Transbasin Diversion Project. At one point I confronted Ko Ming-de [Township Mayor since 2002] to ask him to stop the project by all means. He said to me, "I can only tell you that the [Sanming] Township Office has to executive it [the development project]. How am I supposed to stop the project when even the Kaohsiung County Magistrate cannot?" This is Sanming Township Office.

In contrast, I personally observe that Interviewee D¹⁹ when he was the Taoyuan Township Mayor made use of the administrative advantages and resources of the Taoyuan Township Office to actively pushed for the project by, for example, politically manipulating the Reserved Land Rights Review Committee [to get its approval for using the reserved lands]. He reaped lots of "commissions" for his "helps" (Interviewee G).

When I asked Interviewee G whether she tried to organize local residents in Sanming Township to form an opposition movement back when he was engaged in intensive discussion with Chung Yun-Feng regarding this development project, she said she did. In organizing the local residents to actively get involve in making decisions regarding this development project, the biggest difficulty was that she couldn't find much information on this development project. She had a nephew that was in college back then, and they both tried to find out more about this project in vain. Without knowing the details of the project, the local residents in Sanming

¹⁹ He was Taoyuan Township Mayor from 1994 to 2002.

Township had a hard time imagining its personal relevance, making it that much harder for Interviewee G to mobilize them. Also, the project was way beyond the everyday experiences of the local residents, so when she tried to engage with them in conversations about the Tseng-Wen Reservoir Transbasin Diversion Project, their typical response was, “What are you talking about? What’s this thing that you are talking about?” (Interviewee G).

I then asked her about her experiences with the environmental impact assessment of the project by showing her two-A4 long timeline depicting chronologically the dates and locations of each of the environmental impact assessment meetings and explaining her how the general public can participate in each of these meetings.

William: Did you know the Tseng-Wen Reservoir Transbasin Diversion Project would go through the process of environmental impact assessment review?

Interviewee G: I didn’t know, all I knew about this project was, among few other things, it was a transbasin diversion project starting from Taoyuan Township.

As the Township Office plays the central role of disseminating information from other governmental bodies to the local residents, it can decisively let the local residents remain ignorant of the environmental impact assessment. Indeed, my conversation with Interviewee G led me to argue that the Sanming Township Mayors chose to confine information regarding the opportunities of public participation in the environmental impact assessment, which goes a long way to explain the remarkably low participation in the review process by the general public of Sanming Township.

Similar argument also applies to the Taoyuan Township Office. The local residents in Taoyuan Township started to organize to protest against the project when Interviewee D was still the Township Mayor, and the Township Office was the opposition movement’s “biggest enemy” because it wouldn’t release any information concerning the project to the local residents, including meetings held for the local residents to discuss about the project (Interviewee C). The Taoyuan Township Office had also suppressed information regarding public participation opportunities in the environmental impact assessment review (Interviewee C). And we can also see that the Interviewee D, the Taoyuan Township Mayor from 1994 to 2002, was either actively, voluntarily pushing for the project (as Interviewee G has observed) or was under bureaucratic pressure to execute it. Either way, the point is to argue that Interviewee D did not release relevant information to the local residents. Understandably, the opposition movement of Taoyuan Township (the Taoyuan Township People’s Association) participated only in the July 26 onsite inspection.

Locations of the public participation channels explains low participation

I have discussed in Chapter 5.1.1 that the Water Resources Agency used its repressive capacity to isolate and confine the conflicts. An attempt to *isolate* the conflict sought to minimize knowledge of the extent of the conflict and its support both inside and outside the locality. Recall that the construction sites of the Tseng-Wen Reservoir Transbasin Diversion Project are in Taoyuan Township, Sanming Township, and Daipool Township, and the construction in Taoyuan Township started first. To isolate these three townships so as to prevent them from mobilizing collaboratively, Water Resources Agency held the public participation meetings required by the environmental impact assessment (public presentation, on-site inspection, scoping, and hearing) with the exception of on-site inspection of the Chishan River (located in Sanming Township) only in Taoyuan Township so that only residents in Taoyuan Township

would be aware of these meetings and of the project itself. As a result, no one in the opposition movement in Sanming Township participated in the environmental impact assessment review process. Other mechanisms through which power undermined the extent and nature of public participation are also identified.

Time of the public participation channels explains low participation

All these public participation meetings took place in weekdays. And for those meetings for which information were available, they also took place in business hours (G.T. International, 1999, 2003). Regardless of whether this was intentional, the point is to argue that they might have prevented a majority, if not all, of local residents and general public from participating. As such, this should be considered as a form of power.

Despite the inconvenient time of the EIA-required meetings, some did participate. Let's then see how the opinions of those participants were received.

No legal ground exists to require satisfactory resolution of participants' opinions

During the First Meeting of the Special Project Group the Kaohsiung Green Association argued that the Tseng-Wen Reservoir Transbasin Diversion Project would have various dimension of implications. Specifically, the project would negatively impact on the availability of water allocated for agriculture and household, ecological integrity, hydrological distribution, geological condition, culture of indigenous peoples, and the condition of Kaoping River (G.T. International, 2003) – the concerns raised were comprehensive and constituted a formidable attack to the feasibility of the project. The Environmental Impact Assessment Review Committee Special Project Group Rules, however, does not clearly regulate how the opinions of the participants at this stage should be handled or whether the responses to these opinions should be satisfactory and to whom. So the only response to the elaborated and comprehensive concerns by the Kaohsiung Green Association was astonishingly simple:

Thank you [representative of the Kaohsiung Green Association] for your opinions. Investigation and research have previously been conducted regarding the concerns you raised, converging to the conclusion that the Tseng-Wen Reservoir Transbasin Diversion Project is feasible. If residents of impacted regions still have remaining concerns, continuous communications with them will be opened (G.T. International, 2003, Appendix 15, p. 27).

Kaohsiung Green Association's concerns, instead of being elaborately and satisfactorily responded to, were simply brushed aside by referring to investigation and research previously conducted. Question remains that whether previous investigation and research had covered the specific questions raised by the Kaohsiung Green Association. If opposition movement later found out that previous research did not address their concerns, it would be impossible to retroactively question the procedural legitimacy of the First Meeting of the Special Project Group. The Trojan horse would have already entered the gate.

On the mornings of July 25 and 26, 2001, local residents of Sanming Township and Tauyuan Township People's Association, respectively, were protesting on the construction sites. Again, by examining what was not done we see how the powerful was able to establish procedural barrier in mobilizing biases.

Although the meeting minute of the on-site inspection on the morning of July 25, 2001, reflected the participation of the local residents of Sanming Township, their opinions and concerns were not documented or responded to, for they "failed to sign on the roster sheet and

provide opinions in written forms” (G.T. International, 2003, Appendix 15, p. 92). But neither the Environmental Impact Assessment Act nor the Environmental Impact Assessment Enforcement Rules stipulates that the opinions should be submitted in written form. Regulations only require the industry competent authority collect

a wide range of opinions from the competent authority, members of the Environmental Impact Assessment Review Committee, relevant agencies, experts and scholars, groups, and local residents in order to facilitate future review meetings of the committee (Article 24-1, EIA Enforcement Rules).

The opposing opinions of the general public of Sanming Township were purposely ignored. The substances of their protests were not heard; in a sense, their voices were thwarted, resembling quiescence. A second-dimensional power analysis suggests, then, that the substantive quiescence of the local residents of Sanming Township was due to procedural barrier which made the floating of issue and treatment of their opinions difficult or impossible.

Tauyuan Township People’s Association fared better relative to the general public of Sanming Township. They voiced their opinions in a written form, a written manifesto. In the manifesto, they referred to the undemocratic process leading up to and of the decision-making of the Tseng-Wen Reservoir Transbasin Diversion Project such that governmental bodies neither inform nor initiate communication with the local residents. And they surgically suggested that the government bodies should direct their focus away from building reservoirs and developing transbasin diversion to broader issues such as the distribution of water resources, industrial policy, water contamination, reservoir management, and illegal logging. Precisely, their suggestions paralleled my argument in Chapter 6.2.2. that the problem of water resources for southern Taiwan has never been the problem of water shortage; the fundamental problem has been the problem of water quality.

The only response to the comments of the Tauyuan Township People’s Association was “please refer to our responses to the representative of the Council of Indigenous Peoples” (Environmental Impact Assessment Report, Appendix 15, p. 93). But the representative of the Council of Indigenous Peoples asked a completely different set of questions. Clearly, the responses to the comments of the Tauyuan Township People’s Association were ridiculously and unaccountably unsatisfactory because neither the Environmental Impact Assessment Act nor the Environmental Impact Assessment Enforcement Rules stipulates how the opinions of the general public should be handled. Again, the oppositions were procedurally dodged, hence thwarted.

In sum, the awkward result of the mobilization of bias by the powerful is that these grievances against the Tseng-Wen Reservoir Transbasin Diversion Project were organized out of the conflict arena as non-issues; and that those voicing their concerns and oppositions, despite their, in Arnstein’s term, *consultative* participation, were speaking with an accent different than that of the powerful without much communication, argument, and deliberation.

6.1.2. An unfounded trust: “we thought they would object to the project on our behalf ...”

Social movements, including the opposition movement against the Tseng-Wen Reservoir Transbasin Diversion Project, are inevitably imbedded in the hassles of everyday lives or, in the words of Diduck and Sinclair (2002), “complexities and time pressures of modern living”, such as work and social commitments. One mechanism to shape the perception of the opposition movement members was making them believe that their foes were their friends who could be trusted to voice oppositions on their behalf when they are overwhelmed by other social realities. Interviewee D, a core member of the Tauyuan Township People’s Association, recalled:

Members of the opposition movement still had to make a living and fulfill other obligations, we therefore didn't have a lot of free time at our disposal. Because the Taoyuan Township Mayor, Chair of the Representative Council of Taoyuan Township, and one of the County Councilors all stated in their election campaigns that they objected to the Tseng-Wen Reservoir Transbasin Diversion Project, we trusted them to represent us in the [First and Second Meetings of the Special Project Group during second phase of the EIA]. The reason why we didn't participate in these meetings was because we thought they would object to the project on our behalf. Who would have known that they would remain quiescent, which functionally translated to consent! (Interviewee D).

This device of power exercised by the Taoyuan Township Mayor, Chair of the Representative Council of Taoyuan Township, and one of the County Councilors is of the second dimension in that it organized opposition movement's grievances out of the conflict arena.

6.2. Third Dimension of Power

In this chapter, I will illustrate how one of the mechanisms through which third-dimensional power shaped the nature and extent of public participation by shaping the general public's perceptions – both the perceptions of those belonged and did *not* belong to the opposition movement – of the Tseng-Wen Reservoir Transbasin Diversion Project. That is, I will focus on the communication of information – both of what is communicated and how it is done. Although I cannot empirically establish what non-participants actually thought, I argue that evidence for the operation of this device of third-dimensional power provides insights into the low public participation in the environmental impact assessment review process to the extent that information was misrepresented and key information was otherwise held from the general public that might have reflected badly on the Tseng-Wen Reservoir Transbasin Diversion Project or might have raised questions among the public. As a result, economic, environmental, and political legitimations were developed around the Tseng-Wen Reservoir Transbasin Diversion Project, and instilled as beliefs in the general public. Hence, the latent message was that opposition against this development project translated to opposition against an environmentally- and economically-sound solution that would save southern Taiwan from drought. Public participation in the review process was thus discouraged.

I will also illustrate how the mass media and the “virtual supporters” of this transbasin diversion project figured in shaping the nature and extent of public participation in the environmental impact assessment review.

6.2.1. The myth of the Tseng-Wen Reservoir Transbasin Diversion Project

There are many people who possess the quality of diligence, and their confidence and perseverance has enabled them to trim away the peak of a mountain about the Tseng-Wen Creek and use the stones and sands from the mountain peak to build the Tseng-Wen Reservoir, the biggest reservoir in the Far East.

“Tseng-Wen Reservoir”,
Chapter 17 of the textbook on Chinese used in sixth grade

Rivers and creeks in Taiwan are short and fast-running ... therefore, reservoirs are needed to store and regulate water.

The textbook on Chinese used in fourth grade

The whole thing is a machine, a perpetual-motion machine that keeps churning out dams, which the politicians and most westerners are reflexively in favor of, and the whole business is running the country into the ground

Glenn Saunders, chief counsel for the Denver Water Board
(quoted in *Cadillac Desert* by Reisner, 1993)

Another mechanism through which third dimensional power shapes the extent and nature of public participation in the environmental impact assessment was the communication of information – both of what is communicated and how it is done. In this section, I illustrate that the official discourse on the necessity of the Tseng-Wen Reservoir Transbasin Diversion Project was a myth-making by the economically and politically powerful actors. By deconstructing official discourses to show that 1) this development project isn't economically or environmentally feasible; 2) that this transbasin diversion project aimed to fulfill *only* industrial water usage – not household, public, and industrial water usages as reported on its Environmental Impact Statement; 3) that water quality was the fundamental water-related issue that should be addressed in southern Taiwan before considering the implementation of large-scale project, such as transbasin diversion project, that aimed to solve water shortage problem; 4) and that the feasibilities of two alternatives to the transbasin diversion project were undermined or never discussed – I argue that this myth-making process is a product of these powerful actors' power exertion.

Taiwan has had a long history of constructing reservoirs as the main strategy of water conservation. Reasons given for constructing reservoirs by the government agencies responsible for water resources have shown a remarkably consistent theme: reservoirs are constructed for the purpose of fulfilling household and public water demands. However, closer, critical examination taking into account of already-developed sources of water provisions and current household and public water usages uncomfortably disclose that reservoirs are constructed to fulfill water demands of industries (Lee, 2007). Indeed, the publics and environmental organizations analyzed water demands and provisions of southern Taiwan and whereby deconstructed the political economics of the proposed Meinung Reservoir, a topic of heated debate during the 1990s, and then they confronted the government that Meinung Reservoir was solely to fulfill the water demands of industries. Water Resources Agency finally admitted that southern Taiwan would not witness water shortage problem until 2011 were it not for industrial water demands, affirming the suspicion of the general public and environmental organizations (Chang, 2000, p. 64).

With emphasis on reservoir construction as the primary strategy of water resources, government agencies often are blind to alternative strategies, especially those not involving (large-scale) development constructions. For example, water policies, besides building reservoirs, need to consider industrial policies, efficiency of water utilization, recycling of water, and cost of water: these issues are rarely, if ever, acknowledge and addressed by government agencies (Lee, 2007).

This shows the mentalities of bureaucracies, which often fail to consider water usages in relation to larger contexts of industrial and other related governmental policies. Large projects mean large pay-offs for the involved governmental officials and developers alike, preventing smaller-scale alternatives, such as groundwater utilization, from being implemented.

As already mentioned in Chapter 5, since the 1990s the Tseng-Wen Reservoir Transbasin Diversion Project has been officially stated as *the* solution to the water shortage problem in southern Taiwan. Briefly, the Tseng-Wen Reservoir Transbasin Diversion Project was proposed to be located in a mountainous region in southern Taiwan, and the transbasin diversion tunnel is divided into eastern – 9.6 km long and crosses the Laonong Creek and Chishan Creek watersheds – and western sections – 4.4 km long and crosses the Chi-Shan Creek and Tsao-Lan Creek watersheds (Environmental Impact Assessment Report, 2003). Therefore, the diversion project includes a water tunnel that diverts water from the Laonong Creek, a tributary of the Kao-Ping River, to the Tseng-Wen Reservoir, the largest reservoir in Taiwan with a storage capacity of 609 million m³ of water (Figure 3). And when the project is completed, an additional of approximately 640,000 m³ of water daily can be supplied to southern Taiwan (Environmental Impact Statement, 1999; Yang, Lee, Kung, & Yeh, 2009). It should be noted that Tseng-Wen Reservoir does not directly supply water to households, public services, and industries. The water stored in the Tseng-Wen Reservoir is first directed to the Wusanto Reservoir, which then supplies water to households, public services, and industries (see Figure 5).

The economic feasibility of this development project is grounded on the claims that 1) it will supply an additional 640,000 m³ of water daily (G.T. International, 1999, 2003), and 2) the Tseng-Wen Reservoir would survive long enough to realize the long-term economic benefits of the transbasin diversion project. Thus, I deconstruct these two claims and disclose that the estimate of additional water provided by the transbasin diversion project was based on erroneous calculation and that the Tseng-Wen Reservoir suffered from serious sedimentation, casting doubt on the economic feasibility of the project.

Is the Tseng-Wen Reservoir Transbasin Diversion Project economically feasible?

The Environmental Impact Statement and the Environmental Impact Assessment Report of the Tseng-Wen Reservoir Transbasin Diversion Project state that the number “640,000 m³” was taken from a feasibility study conducted by the Water Resource Agency in 1995. How did the Water Resources Agency come up with this number? Using hydrological data of 1959 – 1993, the Water Resources Agency simulated the process of the combined operation of the Laonong Weir, the Tseng-Wen Reservoir, and the Wusanto Reservoir (the Tseng-Wen Reservoir Transbasin Diversion Project) (see Figure 5), and generated that this combined operation would enable the Wusanto Reservoir to provide a total of 3,240,000 m³ of water daily, translating to a total of 1,129,510,000 m³ of water yearly. The combined operation of the Laonong Weir, the Tseng-Wen Reservoir, and the Wusanto Reservoir (that is, *with* the operation of the Tseng-Wen Reservoir Transbasin Diversion Project) would generate an additional 640,000 m³ of water daily than would the combined operation of the Tseng-Wen Reservoir and the Wusanto Reservoir (*without* the operation of the Tseng-Wen Transbasin Diversion Project). Note that the simulation assumed that the volume of water diverted from the Laonong River was 273,530,000 m³ yearly (Su & Shieh, 1997; Water Resources Agency, 1995).

How was 273,530,000 m³ of water / year calculated? The Water Resources Agency (1995) first used each 10-day runoff of the Laonong River to predict the volume of water that could be diverted in 1959. Then the predicted values were averaged to obtain the volume of water that could be diverted for 1959. The same processes were repeated for each year between 1959 and

1993. Finally, all the predicted volumes of divertable water were averaged to obtain 273,530,000 m³ of water / year (Su & Shieh, 1997; Water Resources Agency, 1995).

Simply put, the runoff of the Laonung River from January 1 to January 10 was used to predict the volume of divertable water in 1959. The runoff from January 11 to January 20 was used to predict the volume of divertable in 1959. And the same calculation was repeated for January 21 to January 30 and so on. And all these predicted volumes were averaged to obtain the volume of water that could be diverted for 1959. Same calculation was performed for 1960 ~ 1993.

In theory, the Tseng-Wen Reservoir Transbasin Diversion Project uses the Laonung Weir to divert water from Laonung River to the Tseng-Wen Reservoir, hence increasing the volume of water provided by the Wusanto Reservoir. The claim that this transbasin diversion project will provide an additional 640,000 m³ of water / day – hence the economic feasibility of the project – entirely predicated on whether 273,530,000 m³ of water / year, generated *theoretically* by modeling the averaged runoff of the Laonung River as described above, can *in practice* be diverted. How likely, that is, is it to actually divert 273,530,000 m³ of water per year? Or asked differently, how likely is it to achieve the economic benefit of the Tseng-Wen Reservoir Transbasin Diversion Project?

Su and Shieh (1997) showed that there is only a 20% likelihood that Laonung River will have an averaged yearly runoff = 1,308,230,000 m³ of water. It should be noted that because the yearly runoff of 1,308,230,000 m³ of water is an averaged value, actual runoff of the Laonung River on a particular year may be lower (or higher, for that matter) than this averaged value. When the actual yearly runoff of the Laonung River is lower than this averaged value, the actual water that can be diverted from the Laonung River and the additional volume of water that can be provided by the Tseng-Wen Reservoir Transbasin Diversion Project would necessarily be that much lower than their respectively predicted values, as mentioned above. That is, there is a 80% likelihood that the Tseng-Wen Reservoir Transbasin Diversion Project will provide additional volume of water lower than the predicted 640,000 m³ / year. Thus, the claim of the economic feasibility of the Tseng-Wen Reservoir Transbasin Diversion Project is clearly an exaggeration.

This exaggeration can be viewed from another perspective. Figure 6 shows that yearly runoff of Laonung River follows a generally decreasing trend: between 1963 and 1973, there were 6 years whose runoff exceeding 1,308,230,000 m³; between 1974 and 1983, there were 7 years; between 1984 and 1993, there were only 2 years (Su & Shieh, 1997; Water Resources Agency, 1995). Because the decreasing trend of yearly runoff of Laonung River would likely continue, the runoff of 1,308,230,000 m³ / year overestimates the future runoff, hence overestimating the volume of additional water that could be provided by the Tseng-Wen Reservoir Transbasin Diversion Project (Su & Shieh, 1997). Seen in this light, the economic feasibility of the Tseng-Wen Reservoir Transbasin Diversion Project isn't promising.

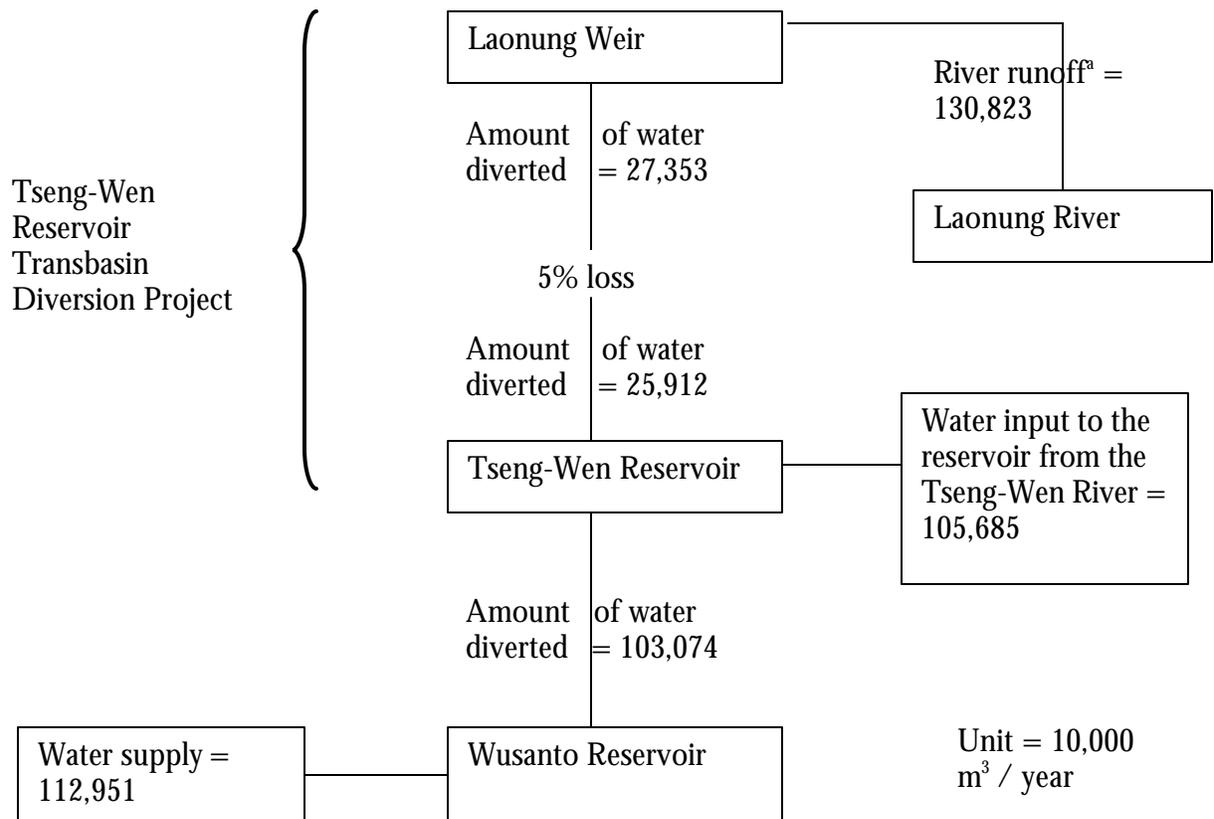


Figure 5. The combined operation of the Laonung Weir, the Tseng-Wen Reservoir and the Wusanto Reservoir.

Source: Shieh & Su, 1997

^a: River runoff includes all the water coming in directly to the hydrological network during rainfall or snowmelt, plus groundwater from the upper aquifers feeding rivers more or less evenly throughout a year (UNESCO, undated)

Note: The process of diverting water from the Tseng-Wen Reservoir to the Wusanto Reservoir involves additional steps, such as water released for hydroelectric generation and water loss during the diversion process. For the sake of conciseness, I have left out these pieces of information from the figure, for they are not relevant to the discussion here.

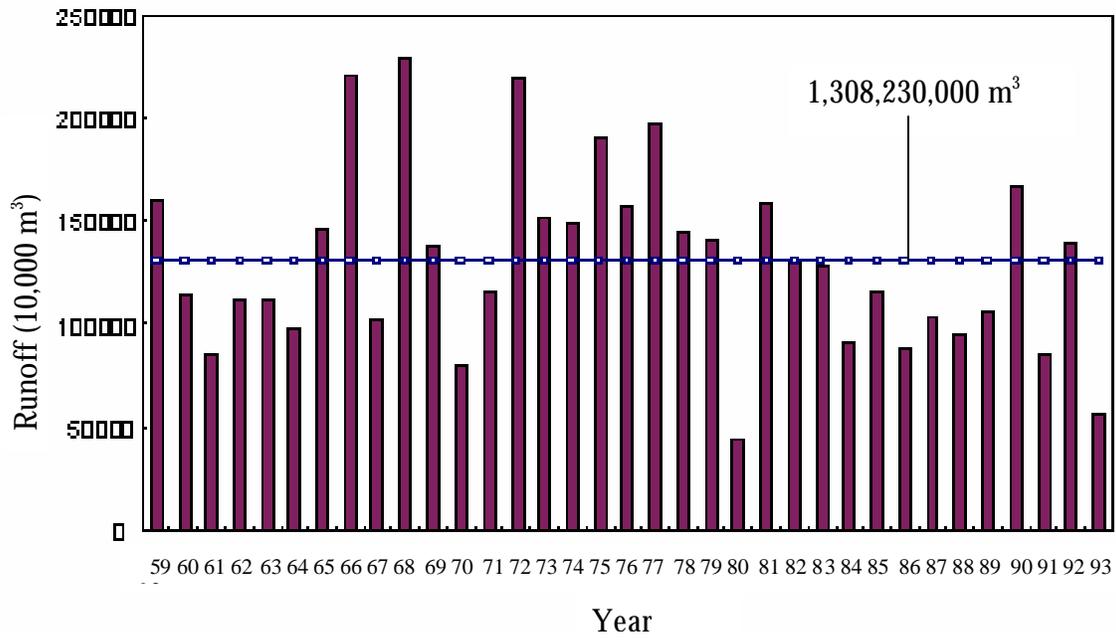


Figure 6. Yearly runoff of the Laonung River
 Source: Shieh & Su, 1997

The economic feasibility of the project can also be examined against the problem of sedimentation at the Tseng-Wen Reservoir. Because of the problems such as, to name a few, poor management of catchment areas, the severity of illegal logging, and poor water and soil conversions, reservoirs in Taiwan has an average lifespan of 50 years (Chang, 2000, p. 71). The Tseng-Wen Reservoir also suffers from serious problem of sedimentation (see Table 3). Table 3 shows that since its operation at 1974 the Tseng-Wen Reservoir at 2000 (when the environmental impact assessment report was drafted) had had an accumulated amount of sediment of 105,458,000 m³ / year, which is about 16.2% of its total storage capacity (= 708,000,000 m³ / year). As stated in the environmental impact statement, the Tseng-Wen Reservoir Transbasin Diversion Project was planned to complete at 2013, 13 years from 2000 – 13 more years means more serious problem of sedimentation and shorter lifespan of the Tseng-Wen Reservoir. This is compounded by the fact that, in terms of geology, Taiwan is a very young and still developing island, and the lands are easily eroded by water; as a result, the sand contents of rivers in Taiwan is the greatest in the world. This fact explains the significant problem of sedimentation of *surface* reservoirs in Taiwan (Chang, 2000, p. 71). Bearing this in mind, we can see that the economic feasibility of the Tseng-Wen Reservoir Transbasin Diversion Project is thus further compromised.

These aforementioned issues weren't acknowledged and addressed in the environmental impact statement or in the environmental impact assessment report. In leaving them unproblematized, the perceptions of the general public were shaped in the way that believed in the economic feasibility of this development project.

The general public could also be manipulated perceptually so as to believe that the project wouldn't introduce much environmental impacts, a subject that I turn to next.

Sedimentation at the Tseng-Wen Reservoir

Year	Amount of Sediment	Accumulated amount of sediment	Year	Amount of Sediment	Accumulated amount of sediment
1975	517	517	1988	2214	52748
1976	13624	14141	1989	5378	58126
1977	5299	19440	1990	10371	68497
1978	3558	22998	1991	2462	70959
1979	2753	25751	1992	2769	73728
1980	2673	28424	1993	1972	75700
1981	2948	31372	1994	5503	81203
1982	9152	40524	1995	1148	82351
1983	2590	43114	1996	888	83239
1984	1923	45037	1997	21205	104444
1985	2413	47450	1998	-3014	101430
1986	1324	48774	1999	2953	104383
1987	1760	50534	2000	1075	105458

Table 3. Sedimentation at the Tseng-Wen Reservoir

Note: Unit = 1,000 m³ / year

Source: Yeh, 2007

Is the Tseng-Wen Reservoir Transbasin Diversion Project environmentally feasible?

The Environmental Impact Assessment Report of the Tseng-Wen Transbasin Diversion Project played down the project's potentially environmental impact. Specifically, the assessment report stated that the volume of water diverted would only be 3.6% of the overall volume of the Kaoping River, hence a *minor* influence on the downstream water flow of the Kaoping River (G.T. International, 2003, p. 6-48). But diversion would take place not in Kaoping River; diversion would take place in Laonung River, a tributary of the Kaoping River. The volume of water diverted was calculated to be 21.8% of the overall water volume of the Laonung River. Therefore, almost ¼ of the overall volume of the Laonung River will be diverted, hence a *major* influence on the Laonung River (Lu, 2006).

The Environmental Impact Assessment Report misrepresented information so that this transbasin diversion project appeared environmentally feasible when the potentially environmental impact was in fact more significant than what's officially be said. Therefore, this project's environmental feasibility was in serious doubt (Lu, 2006).

The project proponent further exerted power to present water shortage for households and public services as a pressing problem in southern Taiwan, lending more political and economic legitimacy to this development project. In the next section, I disclose that water shortage was a problem only for industries in southern Taiwan, a fact underplayed by the project proponent.

Is water shortage the problem?

The purpose of the Tseng-Wen Reservoir Transbasin Diversion Project as stated in its Environmental Impact Statement was to solve the water shortage problem in southern Taiwan. Table 4 was presented in the Environmental Impact Statement to make the point that total water demands would exceed already-developed water sources after 2001 under both the water-conservation and mid-growth scenario (see highlighted sections). Thus, the project's Environmental Impact Statement explicitly stated that southern Taiwan was immediately facing water shortage problem and that this transbasin diversion project would solve this water shortage problem (p. 2-1).

However, Article 18 of the Taiwan's Water Act states that household and other water usages take priority over industrial water usages. Bearing this in mind, we can see that amount of water provision by the already-developed water sources (2.46 million m³) could easily fulfill non-industrial (household + other) water usage under the water-conservation scenario for all predicted years; and under the mid-growth scenario, water sources could fulfill non-industrial (household + other) water usage for all predicted years except for 2021. Seen in this light, it is obvious that the Tseng-Wen Reservoir Transbasin Diversion Project primarily aimed to solve industrial water shortage problem, especially the immediate water shortage problem of the petrochemical industry including the proposed Bin-nan Industrial Complex with significant influence on the state (as illustrated in Chapter 5.1.1).

Simply put, industries, not the entire southern Taiwan, was facing immediate water shortage problem. (And if and when southern Taiwan faces water shortage problem, solutions other than the transbasin diversion project should take priority – solutions such as addressing water quality problem urgently facing southern Taiwan, utilizing groundwater resources, and reducing the rate of water leakage during the routes from water providers to end users [see following sections for elaborations].)

The powerful actors constructed myth of immediate water shortage facing southern Taiwan to widen the scope of the water problem by sending out the message that everyone, not just industry, in southern Taiwan would be facing water shortage problem. Of course, framing the problem as one relevant to everyone and convincing them through meticulously constructed

myths sought to guarantee the general public's majority support for this development project and discouraged public participation to voice oppositions in the EIA review process.

Apart from the fact that the claim of water shortage problem facing southern Taiwan was erroneous, total future water demands as presented in Table 4 were overestimated. As noted in Table 4, the numbers in this table were directly taken from a report, *The Integrated Water Resources Development Plan for Southern Taiwan, Volume 2*, prepared by the Water Resources Agency and published in June, 1998. In predicting, for example, future industrial water demands, the Water Resources Agency used the actual 1995 industrial water demand as the base year and calculated subsequent industrial water demand by assuming a yearly growth rate of 1.7% (p. 4 – 27). However, this estimation method proved to be over-predicting the future industrial water demands. After considering actual water demand after 1995, the modified, improved prediction by the Water Resources Institute of the National Sun Yat-sen University generated predicted water demands that were lower than those predicted by the Water Resources Agency (see Chang, 2000, p. 67).

Another reason Water Resources Agency overestimated future industrial water demand was because some of the proposed industrial zones and factories would not have obtained approval for construction. A staff in the Water Resources Agency stated that

Water usages by industrial zones and factories that are still in the planning and reviewing phases, whose water demands are necessarily predicted, are nonetheless part of the estimation equation when Water Resources Agency conduct prediction of future water usages (interview note, 22/05/2000, quoted in Chang, 2000, p. 85).

However, industrial zones and factories development have required EIA review since 1994, and some of these zones and factories might not have been approved by environmental impact assessment and might not have been granted licenses. As a result, estimation of future water usages that included these EIA-rejected industrial zones and factories would inevitably be over-predicted.

This transbasin diversion project's Environmental Impact Statement was prepared in 1999 – 4 years had elapsed when the actual industrial water demand was calculated in 1995. And some of the proposed industrial zones and factories might not have been granted approval. Thus numbers in Table 4 should not be taken directly from *The Integrated Water Resources Development Plan for Southern Taiwan, Volume 2*. Instead, the project proponent and environmental consultant company who drafted the Environmental Impact Statement should conduct new prediction of future water demand that took into account newest trend of actual water usage.

In sum, closer and critical examination of Table 4 and how water demand was estimated disclose that information in the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project was selectively presented to the general public so as to convince them of the necessity of this transbasin diversion project by shaping their perception regarding water resources.

Table 4. Predicted Daily Water Demand and Provision in Southern Taiwan (Unit: 10,000 m³ / daily)

Year		1996	2001	2006	2011	2016	2021	
Water Demand	Household water usage	Water-conservation scenario	163.1	173.5	184.6	194.1	203.8	213.9
		Mid-growth scenario	163.1	179.5	199.4	216.3	233.8	250.1
	Industrial water usage		76.5	109.5	172.9	204	228.2	255.7
	Others		2.6	5.6	6.6	7.2	7.7	8.3
	Total	Water-conservation scenario	242.2	288.6	364.1	405.3	439.7	477.9
		Mid-growth scenario	242.2	294.4	378.9	427.5	469.1	514.1
Water Provision	Already-developed sources		246	246	246	246	246	246

Source: Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project, p. 4-1

Note: The numbers in this table were based on the study conducted by the Water Resources Agency to calculate predicted water demand and provision (Water Resources Agency, June, 1998)

Note: Mid-growth: household and industrial water usage + water usage of industrial zones currently under development + water usage of industrial zones that have already been approved.

Individuals with economic and political power further exerted power to leave unproblematized the issue of water quality that would further undermine the necessity of the Tseng-Wen Reservoir Transbasin Diversion Project.

The main water resource problem facing southern Taiwan was (and still is) not water shortage, but water quality

During Japanese Colonial Rule (1895 – 1945), large-scale manufacturing factories were developed in southern Taiwan. The major development in the 1960s and 1970s in Taiwan was water-intense industry, and industrial development concentrated in southern Taiwan, resulting in serious pollution of various kinds. Kuomintang government also developed agriculture intensively to promote industry and urban development for the last 50 years. And industry and commerce have witness rapid development in recent years, which drives population to concentrate in urban areas, and with the developments of heavy industries and traffic infrastructures have come both a dramatic transformation of societal and economic development in southern Taiwan and of water resources, piggybacking severe water pollution (Chang, 2000, p. 67). Compounding on this, main sources of pollution for rivers in southern Taiwan during the 1990s were pollutions from animal farms and household and industrial waste water, which most of the time exceeded the assimilative capacity of these rivers (Water Resources Agency, 1998).

The Kaoping River is an indicative example of the extent to which rivers are polluted in southern Taiwan. Kaoping River is a major river in southern Taiwan, flowing through Kaohsiung County and Pingtung County. It has a catchment of around 3,257 km², totaling nearly 1/10 of the total area of Taiwan, and its annual runoff is about 8,450 million m³ (the largest in Taiwan). It has the most kinds of freshwater fishes in Taiwan. Data released by the Environmental Protection Administration at 2000 showed that rapid economic development had imposed a great burden on the Kaoping River, whose pollution status is illustrated by Table 5.

More generally, the Environmental Protection Administration uses dissolved oxygen, biochemical oxygen demand, suspended solids, and ammonia nitrogen as indicators of pollution status for rivers in Taiwan. Data shows that more than half of total river length in southern Taiwan suffers from moderated and heavy pollution. Table 6 illustrates the pollution status of four main rivers in southern Taiwan (Chang, 2000). Additionally, the Water Resources Agency stated in 1996 that downstream of the Kaoping River and the Tung-Kung River suffered from heavy pollution and from seawater intrusion during the dry period, rendering water from these two Rivers unsuitable for drinking (Water Resources Agency, 1998).

Therefore, the problem of water resources facing southern Taiwan had never been one of water shortage. The fundamental problem was one of water quality. What should be urgently grappled was a better management plan for rivers in southern Taiwan, not seeking new water sources. Cleaning up polluted rivers would effortlessly increase volume of water suitable for using, hence solving water shortage problem – if there was ever one. But water quality problem facing southern Taiwan was never discussed in the Environmental Impact Statement because this discussion would undermine the feasibility of the Tseng-Wen Reservoir Transbasin Diversion Project.

Table 5: Kaoping River's Pollution Status	
Main pollution sources and current status of contamination	<p>Upstream: excessive logging, soil erosion, runoff of pesticides into the river.</p>
	<p>Midstream: Household waste water, animal husbandry waste water, and industrial waste water washed into the River. Industrial wastes contaminate river bank and water sources. Illegal dumping of trashes along the river bank. Intercept weirs affect the eco</p>
	<p>Downstream: Fish ponds (aquaculture) withdraw groundwater excessively, resulting in groundwater-related subsidence and seawater intrusion. Industrial waste water washes into the River</p>
Heavy metal contamination	With the exception of Hg, various heavy metal (Cd, Cr, Cu, Pb, Zn) were within the safety limits

Source: Chang, 2000, p. 68

Table 6. Main Rivers in southern Taiwan									
Rivers	Total Length (km)	Non-Polluted		Lightly Polluted		Moderrately Polluted		Heavily Polluted	
		Length	Percentage	Length	Percentage	Length	Percentage	Length	Percentage
Er-Ren River	65.2	3.3	5.1	3.2	4.9	3.2	4.9	55.5	85.1
Kaoping River	170.9	33.9	19.8	33.8	19.8	103.2	60.4	0.0	0.0
Tung-Kung River	46.9	6.4	13.6	6.4	13.6	22.1	47.1	12.0	25.6
Linpien River	42.2	42.2	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Chang, 2000, p. 69

Alternatives to Tseng-Wen Reservoir Transbasin Diversion Project

The EIA Act requires alternatives be presented and their feasibilities discussed in the environmental impact statement. In this section, I will discuss several alternatives with lesser environmental impacts relative to the Tseng-Wen Reservoir Transbasin Diversion Project. They should have been considered and their feasibilities evaluated before proceeding with large-scale development such as transbasin diversion project. In presenting these alternatives and showing how the feasibilities of these alternatives were erroneously undermined, I disclose that economically and politically powerful actors exert their power to confer more economic and political advantages to themselves by reaping profits from large-scale developments, further reinforcing the power inequality.

a. Groundwater withdrawal and recharge

Although groundwater utilization was introduced as an alternative to the Tseng-Wen Reservoir Transbasin Diversion Project on both the Environmental Impact Statement and the Environmental Impact Assessment Report, it is erroneously discussed:

The development and usage of groundwater of the areas in which the Tseng-Wen Reservoir Transbasin Diversion Project is located have almost been saturated, and groundwater of some section has been excessively withdrawn, resulting in deterioration of water quality and groundwater-related subsidence. ... Therefore, utilization of groundwater cannot serve as a feasible alternative to the Tseng-Wen Reservoir Transbasin Diversion Project (Environmental Impact Statement, 1999, p. 5 – 22 & 5 – 23; Environmental Impact Assessment Report, 2003, p. 8 – 4).

The above statement is only partially correct: what was excluded was the fact that ground water can, and should, be recharged to avoid overdraft and groundwater-related subsidence. The omission of relevant discussion on groundwater recharge from both the Environmental Impact Statement and the Environmental Impact Assessment Report was perplexing because the importance of groundwater recharge was recognized by governmental bodies before the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project (1999) was drafted. For example, the Council of Agriculture, Executive Yuan, conducted a study in 1996 titled, “A Study on the Estimation of Groundwater Recharge by Agricultural Irrigation”, which found that

the high cost of surface water resources development and its impacts on the environments of various dimensions have consequently led to a worsening situation with regard to finding new water resources to satisfy this increasing demand. Groundwater, with its low cost, stable quantity, and less pollution, has therefore become increasingly important for future water resource development (Ting, Tsou, & Lu, 2005, p. 339)

Furthermore, C. S. Ting, one of the leading scholars who has been promoting the utilization of groundwater in Taiwan, has been promulgating utilization of groundwater as an alternative to reservoirs and the Tseng-Wen Reservoir Transbasin Diversion Project. Using the Pingtung Plain, located in the southwestern part of Taiwan and adversely affected by water-resources development, Ting, Kerh, and Liao (1998) stated that

over-pumping of the groundwater reservoir, which lowers the hydraulic head in the aquifers, is not only affecting the coastal area negatively but has serious consequences for agriculture

in the whole Pingtung Plain. What will be needed in the near future is an efficient management of the groundwater resources. In order to determine the safe yield of the aquifer underlying the Pingtung Plain, a reliable estimate of groundwater recharge is needed (p. 283).

And Pingtung Plain is considered to be an excellent site for groundwater utilization because it has good recharge potential (Ting *et al.*, 1998):

The Pingtung Plain is underlain mainly by alluvial soils developed in Quaternary-age deposit. ... These alluvial deposits consist of non-calcareous older soils (At 5) and calcareous younger soils (At 6). The soils are weakly developed to undeveloped, *with moderate to large permeabilities* (emphasis added) (p. 286)

Therefore, management of the groundwater resources that acknowledged the importance of groundwater recharge had been discussed by both governmental bodies and scholars when the Tseng-Wen Reservoir Transbasin Diversion Project was under heated debate and before the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project (1999) was drafted. It is thus surprising that the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project didn't discuss the feasibility of groundwater utilization in the context of groundwater charge. Without mentioning of groundwater recharge, utilization of groundwater as one of the alternatives to the Transbasin Diversion Project was easily dismissed as being environmentally infeasible. I consider this as a form of power that shaped the general public's perceptions of possibilities of challenge to the proposed Tseng-Wen Reservoir Transbasin Diversion Project and oppressed the masses' imaginations about alternatives other than this transbasin diversion project.

b. Reducing the rate of water leakage during the routes from water providers to end users

Data showed that in 2001 water leakage rate, the amount of water lost during the course from water provider to end users, for all counties and cities in southern Taiwan was the following: for Kaohsiung City and County was 29.72%; for Tainan City and County was 24.74%; for Pingtung County was 40.73%; and for Chiayi City and County was 25.37% (Water Resources Agency, 2009). And the available water resources was able to provide 1.52 million tons of water / day for Kaohsiung City and County; 0.79 million tons / day for Tainan City and County; 0.17 of water / day for Pingtung County; and 0.29 million tons / day for Chiayi City and County. This translates to a loss of 451,744 tons of water / day for Kaohsiung City and County; 195,446 tons of water / day for Tainan City and County; 69,241 tons of water / day for Pingtung County; and 73,573 tons of water / day for Chiayi. Above statistic shows that a significant amount of water was lost for counties and cities in southern Taiwan from water providers to end users: A total of 790,004 tons of water / day was lost. Water Resources Agency claims that southern Taiwan suffered from water shortage problem, and the development of the Tseng-Wen Reservoir Transbasin Diversion Project would alleviate the problem. However, replacing water pipelines to alleviate the problem of water shortage, which are far less environmentally detrimental and far more economically efficient (Interviewee H), was not considered and discussed at all in the Environmental Impact Statement or the Environmental Impact Assessment Report of the Tseng-Wen Reservoir Transbasin Diversion Project.

The myth of the Tseng-Wen Reservoir Transbasin Diversion Project discouraged public participation

In working on this thesis, I became curious as to what people around me think how fresh water should be stored in Taiwan. After engaging in casual conversations with some of them on this topic, I observed that they are rarely aware of what bureaucracies, coincidentally or not, are also rarely aware of: reservoirs are not the only way for utilization of water resources. This may not seem surprising when one realizes that children in Taiwan since elementary schools have been instilled with the merits of reservoirs (see the first two opening quotes of Chapter 6.2.2). Naturally, only a very minority of citizens could conceive of and support alternatives that question the traditional “wisdoms”.

So far I have illustrated how one of the mechanisms through which third-dimensional power shaped the nature and extent of public participation by shaping the general public’s perceptions – both the perceptions of those belonged and did *not* belong to the opposition movement – of the Tseng-Wen Reservoir Transbasin Diversion Project. That is, I focused on the communication of information – both of what was communicated and how was it done. The political and business elites misrepresented the Tseng-Wen Reservoir Transbasin Diversion Project as one 1) that was economically justified by leaving out information regarding the low possibility of actually diverting as much water as promised (640,000 m³ / day) and the Tseng-Wen Reservoir’s sedimentation problem; and as one 2) that was also environmentally sound by presenting false information regarding the project’s effect on the Laonung River. This misrepresentation of facts was significantly complemented by framing the problem of water resources facing southern Taiwan as one of water shortage when in fact the fundamental problem was one of water quality. Key information about groundwater utilization and reducing water leakage rate was left out to the effect that neither of these alternative strategies was considered as feasible alternatives to the transbasin diversion project, further limiting the general public’s imagination regarding alternatives to water resource management.

As a result, false economic, environmental, and political legitimations were developed around the Tseng-Wen Reservoir Transbasin Diversion Project, and instilled as beliefs in the general public; hence, the latent message was that opposition against this development project translated to opposition against an environmentally- and economically-sound solution that would save southern Taiwan from drought. Public participation in the environmental impact assessment review process was thus discouraged.

The myth of this transbasin diversion project was then repeated and reinforced by national newspapers and circulated in the national communities. The mass media thus achieved what the myth-making had done, but on a much larger scale. In the next section, I illustrate how the mass media shaped the nature and extent of public participation in the environmental impact assessment review process.

6.2.2. The media’s power in telling the general public what to think about

An intensive literature in the social sciences suggests that the media may exercise power by “setting the agenda” of the political conflicts (Kline & Tichenor, 1972; Smith, 1973). The process may occur in a way that the messages distributed by the media are thought to have an effect upon the conceptions and actions of an audience. This is a form of power. And McCombs (1963) notes that the media “may not be successful much of the time in telling people *what* to think, but it is stunningly successful in telling people the readers what to think *about*” (p. 182). Significantly, what information regarding the Tseng-Wen Reservoir Transbasin Diversion Project were presented by the media to the general public, both inside and outside Taoyuan

Township, Sanming Township, and Daipool Township, might have shaped the nature and extent of their participation in the environmental impact assessment and determined their stance.

I obtained all the newspaper articles whose titles and contexts contained the keyword, “Tseng-Wen Reservoir Transbasin Diversion Project”, appeared on all nationwide newspapers between 1995, when the project was first proposed by the Water Resources Agency, and June, 2002, when the project was approved by second phase of the environmental impact assessment. I read through these articles to see how this development project was framed and discussed. The predominant messages were those that recited the reasons given by the governmental agencies, which reiterated the water shortage problem in southern Taiwan and that this project was the solution to this problem. To show some examples:

The provincial governor requested the Water Resources Agency to speed up the Tseng-Wen Transbasin Diversion Project in order to increase the economic value of water resources. ... He also stated that the Tseng-Wen Transbasin Diversion Project is a *revolutionary* strategy in water resource development (emphasis added, The People’s Livelihood Newspaper, 19/09/1995).

Taiwan Water Corporation²⁰ predicts that Kaohsiung City and Kaohsiung County [in southern Taiwan] will face water shortage problem after 2021, and it aims to solve this problem by progressively push the Tseng-Wen Reservoir Transbasin Diversion Project (China Times, 21/05/1996).

The Tseng-Wen Reservoir Transbasin Diversion Project faces resistance from the Kaohsiung City; but Taiwan Water Corporation stated that without this development project, southern Taiwan will suffer from water shortage problem in the future (China Times, 08/06/1996).

Where are the future water sources? The Meinung Reservoir and the Machia Reservoir encountered great resistance from the local residents, thus the development of these two reservoirs are not likely. ... If we do not proceed with the Tseng-Wen Reservoir Transbasin Diversion Project, the alternative to these two reservoirs, where will water come from? (China Times, 12/06/1996).

WITHOUT DIVERTING WATER FROM LAONUNG RIVER [by the Tseng-Wen Reservoir Transbasin Diversion Project], SOUTHERN TAIWAN WILL LACK WATER IN FIVE YEARS:

⋮

The environmental impact statement of the Tseng-Wen Reservoir Transbasin Diversion Project states that this project aims to provide water for southern Taiwan. ... Without this development project, although the integrity of the natural environment will remain intact, the situation will be one in which southern Taiwan will witness incalculable economic losses. (China Times, 16/08/1996).

The Minister of the Ministry of Economic Affairs said yesterday that the Tseng-Wen Reservoir Transbasin Diversion Project replaces the Meinung Reservoir to solve the problem of water shortage in Kaohsiung City (Commercial Times, 06/08/2000).

²⁰ Under the auspice of the Ministry of Economic Affairs, it is a government-owned provider of tap water.

From these messages can be seen that this development project was predominantly presented as if it was the only feasible strategy of water utilization.

Dissenting voices did appear, yet rarely, to question the traditional knowledge of prioritizing large-scale development projects such as reservoirs and transbasin diversion project as the only strategy of water utilization and conservation. But these dissenting voices were misrepresented in the news papers in a way that they only strengthened the legitimacy of the transbasin diversion project. As I have mentioned in Chapter 6.2.2., studies had been conducted that evaluated the utilization of groundwater coupled with groundwater recharge as an alternative to the Tseng-Wen Transbasin Diversion Project when this development project was under heated debate. For example, a study, titled “A Study on the Estimation of Groundwater Recharge by Agricultural Irrigation”, was sponsored by the Council of Agriculture, Executive Yuan to examine the mechanisms and rate of groundwater recharge by agricultural irrigation (1996). C.S. Ting (1998) had been promulgating utilization of groundwater as an alternative to reservoirs and the Tseng-Wen Reservoir Transbasin Diversion Project. But in the newspaper article only the potential problems with groundwater *withdrawal* was presented and the necessity of groundwater *recharge* – necessary for avoiding the problems of utilizing groundwater – was nowhere to be seen, hence significantly undermining the feasibility of groundwater utilization:

If the Tseng-Wen Transbasin Diversion Project does not proceed, southern Taiwan will witness water shortage in five years. ... In terms of technical alternatives, *groundwater withdrawal leads to deterioration of water quality and groundwater-related subsidence*, hence infeasible (emphasis added, China Times, 16/08/1996).

Furthermore, deviating from the dominant discourse that water shortage requires solutions involving large-scale constructions such as building more reservoirs and transbasin diversion projects, Chen (1996) asked the question why water shortage was becoming a serious problem in southern Taiwan:

water shortage, simply speaking, reflects an underlying problem in the strategy of water conservation and utilization. Water resources include both surface water, water stored in reservoirs, and groundwater; and groundwater is a more important water resource than is surface water. The problem with the storage and utilization of surface water is the decreasing storage capacity of reservoirs resulting from heavy sedimentation because of inappropriate soil and water conservation. Without addressing the problem of soil and water conservation, building more reservoirs will not solve the problem [of water shortage] ... Industrial water usage in southern Taiwan also deserves attention from the state. Blindly encouraging industrial development without addressing the overall industrial policy and ecological, biological implications of this development guarantees that water shortage is a constant problem that we all have to face (China Times, 23/01/1996).

This article also calls attention to the industrial policy, which should treat water availability as one of the variables in determining the developmental trajectory for southern Taiwan. However, this article was the only one published in the newspapers that examined the problem of water shortage from this broad perspective.

In Chapter 6.2.2 I have disclosed that the Tseng-Wen Reservoir Transbasin Diversion Project aimed to fulfill water demands of industries, not of households and public service. This point was mentioned only twice by the news media. In one instance, the Kaohsiung City Government (a city in southern Taiwan) held a seminar, attended by government agencies responsible for

water resources and environmental organizations, to discuss the feasibility of the Tseng-Wen Reservoir Transbasin Diversion Project. Environmental organizations claimed that

the project intends to provide water only for the Bin-nan Industrial Complex²¹ (China Times, 21/08/1996).

In another instance,

in a public explanation meeting held to discuss water issues in Kaohsiung City several environmental organizations maintained that the Tseng-Wen Reservoir Transbasin Diversion Project was proposed only for the sake of satisfying water demands of industries in southern Taiwan (China Times, 10/12/1996).

Another theme of the newspaper articles refers to the reports of local residents' oppositions. For instance,

The president of Tauyuan Township People's Association said that the proposal of the Tseng-Wen Reservoir Transbasin Diversion Project didn't consider the opposing opinions of the local residents (China Times, 09/09/2000).

The Tseng-Wen Reservoir Transbasin Diversion Project witnesses resistances from the local residents of Tauyuan Township. ... The president of Tauyuan Township People's Association said that the proposal of the Tseng-Wen Reservoir Transbasin Diversion Project didn't consider the opposing opinions of the local residents (United Daily News, 09/09/2000).

Of the few criticisms against the Tseng-Wen Reservoir Transbasin Diversion Project that were presented on the newspapers, the more common messages were those that emphasized the environmental and ecological detriments of the project without questioning the necessity of the project itself. To show some examples:

The Tseng-Wen Reservoir Transbasin Diversion Project will impact various endangered species including fish species and bird species. Diverting water from the Kaoping River catchments to the Tsengwen River catchments will also likely introduce foreign species to, hence destroying the ecosystem of, the latter (China Times, 19/03/1997).

Wetlands Taiwan [an environmental organization] asserts that the Tseng-Wen Reservoir Transbasin Diversion Project will have significant [ecological] implications to the Kaoping River catchments and advices that the relevant government agencies should re-evaluate this project (China Times, 27/12/1997).

The Director of the National Museum of the Marine Science asserted that the Tseng-Wen Reservoir Transbasin Diversion Project will dramatically change the marine ecosystem of the Laonung River [wherein water diversion takes place] (China Times, 09/02/1998).

Development project in mountainous region will have irreversible implications on the ecological environment and water and soil conservation. These implications should first be

²¹ see Chapter 5.1 for details about this industrial zone

evaluated to see if they are acceptable. *The project should not only be evaluated against whether it is necessary* (emphasis added, United Daily News, 10/08/2000)

Criticisms centering on environmental and ecological detriments could easily be counter-argued that the environmental and ecological implications associated with the project inhered with great uncertainty such that they might or might not occur. And argument centering on only the environmental and ecological implications of the project sent out the impression that the Tseng-Wen Reservoir Transbasin Diversion Project was necessary – when in fact it was, and still is, not. Hence, the focus was redirected to technical issues of environmental and ecological modeling to evaluate consequences: the fundamental question, “Is the Tseng-Wen Transbasin Diversion Project necessary?”, becomes obscured.

Newspaper might be the only source of information regarding the Tseng-Wen Reservoir Transbasin Diversion Project for many people, and when only the myth of the water shortage problem were communicated to the general public, and when criticisms doubting the dominant discourses were hidden from view, the general public’s perception of this transbasin diversion project was how necessary it was. Therefore, the media exercised its power, intentionally or otherwise, by controlling the distribution of the messages and circulating myth of the Tseng-Wen Reservoir Transbasin Diversion Project. False economic, environmental, and political legitimations around this transbasin diversion project were consequently disseminated on a much larger scope relative to Environmental Impact Statement’s scope of dissemination.

6.2.3. Manufacturing virtual supporters of the Tseng-Wen Reservoir Transbasin Diversion Project

Thus far, the economically and politically powerful actors have translated the Tseng-Wen Reservoir Transbasin Diversion Project to what would be a solution for problem of water shortage in southern Taiwan. Would framing this development project as something that would benefit the entire southern Taiwan work? The development’s potential environmental and ecological implications were raised in, for examples, newspaper articles, and local residents who lived in the places where the transbasin diversion would take place had to weight “benefiting everyone else in the southern Taiwan” against “we would bear the lion’s share of the negative effects of the project”. To strengthen the legitimacy of the Tseng-Wen Reservoir Transbasin Diversion Project, the project proponent, the Water Resources Agency, utilized another mean of persuasion: manufacturing “virtual supporters” of the project, and survey was the best way to speak on behalf of these supporters.

In the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project (G.T. International, 1999) was stated that “... a quarter of the people surveyed [123 individuals] agreed that this development project would promote local economic development. Those who approved or conditionally approved the project consisted of 40% of the people surveyed, and *only* 11% of those surveyed disapprove, while 47% and 2% surveyed individuals didn’t have opinions and didn’t respond, respectively” (emphasis added, p. 3-67). These supporters were virtual for two reasons. First, survey methodology might have suffered from flaws that rendered the results substantively meaningless. Second, these supporters were virtual because of survey results’ poor representativeness.

Literature on the construction of questionnaire in introducing biases abounds, documenting that item wording can produce bias. For example, wording effects have appeared on issues such as social spending on drugs. The phrase “drug rehabilitation” elicits less support than “dealing with drug addiction”. Another bias in survey methodology can be introduced by order effects such that earlier items may influence the responses to later ones. One study asked two abortion attitude items, one specific (in response to high risk of serious birth defect), and the other general

(mother's choice because she does not want more children). Respondents expressed up to 17 percent higher agreement with the general proposition favoring legal abortion when that proposition came before rather than after the more specific items (Dooley, 2001).

It is entirely possible that the ordering of the questions and how the Tseng-Wen Reservoir Transbasin Diversion Project was introduced to the survey participants would have predisposed respondents to favor the project. For example, one of the survey questions, "Do you know southern Taiwan suffers from increasingly serious problem of water shortage?", might have impressed the respondents that the water shortage problem was indeed real when in fact it was not, as discussion above has shown, thus predisposing them to favor the transbasin diversion project – A more appropriate question should be, "Do you *think* southern Taiwan suffers from increasingly serious problem of water shortage?"²²

Another reason refers to the poor representativeness of the results. That is, the result to the key statement, "Those who approved or conditionally approved the project consisted of 40% of the people surveyed, and *only* 11% of those surveyed disapprove", is artificially inflated by expressing the results in percentages to create the false impression of majority support. Because we don't know the number of individuals who responded to each question, we have no way of knowing how many people – expressed in absolute number – endorsed each response option. However, in the following analyses I will assume the most optimistic scenario to show that even the most optimistic scenario still makes the survey results look far from being representative.

Assuming all 123 individuals (the total sample size) responded to the question of how many people were aware of the Tseng-Wen Reservoir Transbasin Diversion Project (the most methodologically optimistic scenario), only 14 (11%) surveyed individuals were aware of the project and 17 (14%) were aware but did not know the specifics of the project, while 86 (70%) individuals didn't know about the project and 6 (5%) individuals didn't respond to this question.

Recall that the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project reports 40% surveyed individuals was supportive of the project and 11% was not. The survey result will only be substantively meaningful when only those who were aware of and knew the specifics of the project were surveyed: how could someone make a valid and meaningful judgment as to whether he/she is supportive of the project if he/she does not know what the project entails? Thus argued and assuming all 14 individuals who were aware of the project responded to this question, only 6 (14 × 40%) respondents were supportive of the project! Even if we assume the entire sample ($N = 123$), albeit not methodologically correct, expressed their opinions as to whether they were supportive of the project, only 49 (123 × 40%) individuals supported the project. When juxtaposing these 6 or 49 respondents with the entire population of the townships where the survey was conducted, the representativeness of the survey results appear laughably ridiculous – entire population of Taoyuan Township = 4,887, Sanming Township = 3,033, and Daipool Township = 5,433 (G.T. International, 1999, p. 3-65).

Similarly, although the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project reports that ¼ of the respondents agreed with the statement, "The

²² The Environment Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project did not describe how the survey was distributed, the wording and order of the survey questions, nor how the development project was introduced on the survey. When I contacted the environmental consultant company who conducted the survey and drafted the Environmental Impact Statement of the Tseng-Wen Reservoir Transbasin Diversion Project to ask for the original questionnaire, more descriptive statistics than already provided (e.g., how many people responded to the question "Are you supportive of the Tseng-Wen Reservoir Transbasin Diversion Project?"), and information about survey methodology, I was told that they were already paper-shredded because the survey was conducted almost 10 years ago (personal communication, September 28, 2009). As a result, further analysis of how survey methodology might have predetermined survey results is not possible.

transbasin diversion project will promote local economy upon completion”, further analysis reveals that “¼of the respondents” translates to “only 4 individuals (14 × 25%)” out of the entire population of the three townships.

In sum, these virtual supporters granted democratic legitimacy to the Tseng-Wen Reservoir Transbasin Diversion Project by sending out the impression that it would resolve the mid- and long-term water provision problem in the southern region of Taiwan for households, public services, and industries” (G.T. International, 1999, p. 2-1). The legitimacy didn’t arise from the validity of the promise itself, but from the support and the *apparent* representativeness (40% of the surveyed individuals approved of the project) of these virtual supporters who sent out the message: “as many as 40% of the people support the project and they also agree that the project would help with the economic development, why do you still participate in the environmental impact assessment to oppose it?” A third-dimensional power analysis reveals that these virtual supporters could shape the perceptions of emerging conflicts of both opposition movement members and those who hadn’t participated in the movement.

6.3. Conclusion

In this chapter, I have illustrated with an analysis of second-dimensional power that mobilization of biases through administrative and procedural barriers excluded grievances against the Tseng-Wen Reservoir Transbasin Diversion Project out of the conflict arena. Specifically, neither the Sanming nor the Taoyuan Mayors disseminated information regarding the opportunities of public participation in the environmental impact assessment. The Taoyuan Township Mayor, Chair of the Representative Council of Taoyuan Township, and one of the County Councilors conveyed to the local residents, whose ability to actively participate were compromised by the “complexities and time pressures of modern living”, the unjustifiable impression that they would object to the project on latter’s behalf. Locations of the public participation channels isolated the emerging, local opposition movement so that only the Taoyuan Township People’s Association attended, of all the public participation channels, only the on-site inspection. And these public participation meetings were held in weekdays, making that much harder for people who wished to attend. Those who did attend the public participation meetings, however, found their grievances organized out as non-issues because no legal ground existed to require satisfactory resolution of participants’ opinions.

I have also illustrated how one of the mechanisms through which third-dimensional power shaped the nature and extent of public participation by shaping the general public’ perceptions – both the perceptions of those belonged and did *not* belong to the opposition movement – of the Tseng-Wen Reservoir Transbasin Diversion Project. That is, I focused on the communication of information – both of what was communicated and how was it done – and showed that the Tseng-Wen Reservoir Transbasin Diversion Project was misrepresented to the general public. This device of third-dimensional power provides insights into the low public participation in the environmental impact assessment review process to the extent that information was misrepresented and key information was otherwise held from the general public that might have reflected badly on the Tseng-Wen Reservoir Transbasin Diversion Project or might have raised questions among the public. As a result, false economic, environmental, political, and even social legitimations were developed around the Tseng-Wen Reservoir Transbasin Diversion Project, and instilled as beliefs in the general public. Hence, the latent message was that opposition against this development project translated to opposition against an environmentally- and economically-sound solution that would save southern Taiwan from drought. Public participation in the review process was thus discouraged.

And these official discourses were repeated and disseminated to the general public by

national newspapers; false economic, environmental, and political legitimations around this transbasin diversion project were consequently disseminated on a much larger scope relative to Environmental Impact Statement's scope of dissemination. And "virtual supporters" of the project tried to impress on the general public that many people supported the Tseng-Wen Reservoir Transbasin Diversion Project.

All these devices power provide insights into why public participation in the environmental impact assessment was remarkably low.

One final note remains. Interestingly, the entire process of EIA review took about six years (from November, 1996, when the Special Project Group convened for the first time, to June, 2002, when the project was approved). (See Chapter 4 for dates of EIA meetings.) There are several possible explanations for it.

In the EIA Review Committee meeting during the first phase of the EIA review, held on July 8, 1999, one of the conclusions reached is that the project proponent failed to evaluate the environmental and ecological impacts of the Tseng-Wen Reservoir Transbasin Diversion Project (G.T. International, 1999, p. 1). This is a significant omission in the information provided by the project proponent and the environmental consultant company that drafted the environmental impact statement. As a result, in the project's environmental impact assessment report, two chapters (Chapter 6 and 7) were added that discussed the environmental and ecological impacts and what measures would be taken to alleviate these potential impacts. Because these evaluations covered rather comprehensively the scope of potential impacts (on the physical, chemical, ecological, landscape, social and economic, and cultural environments), rigorous empirical studies would presumably take a significant amount of time. (If the length of report is any guide, Chapter 6 has 127 pages, and Chapter 7 has 33 pages.) Drafting the project's environmental impact assessment report would therefore take a significant amount of time. This may partly explain the fact that the Special Project Group of the second phase of EIA didn't convene until March 12, 2002, to review the environmental impact assessment report.

Another possible explanation is that local indigenous people's opposition movement might have caused economically and politically powerful actors to slowed down their pace of pushing the Tseng-Wen Reservoir Transbasin Diversion Project, hence a slow-down in the EIA review process, as a gesture of paying attention to indigenous people's concerns. Or the fact that the project's EIA review took six years may suggest that the power relation is a dialectical one in which local indigenous people's and environmental organizations' opposition interacted with the prevailing power structure in a way that the economically and politically powerful actors needed to spend time resisting the opposition.

These are of course just speculations. The fact remains that prevailing power structure has contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project and shaped the nature and extent of public participation. As such, the prevailing power structure proved to be more formidable than local indigenous people's oppositions and finally triumphed over their interests and concerns.

7. Conclusion

7.1. What's the role of environmental impact assessment as an environmental governance tool?

Informed by theories of politics of pro-growth regime and clientelism, I identified powerful actors in the pro-growth regime of the Tseng-Wen Reservoir Transbasin Diversion Project and, in some instances, how clientelism and factions further strengthened this regime. This thesis is a study that examined how prevailing power structure has contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project and shaped the nature and extent of public participation in this development project's EIA review process. Drawing from Arnstein's conceptualization of public participation and Steven Lukes' three dimensions of power, I wish to emphasize that although opposition movement members and the general public were certainly offered channels to participate in the decision-making process and to engage in dialogue with powerholders in the conflict arena, their participation, in general, eventually proved to be empty in changing how power was distributed because the prevailing power structure proved to be more formidable than local indigenous people's oppositions. That is, where the opposition movement members were able to participate, and were allowed to participate, their participation generally resembled, in Arnstein's term, various "degrees of tokenism", for their participation inevitably faced confrontation of the larger political-economic constraints that rendered their participation eventually futile and not be able to challenge the very core of power, hence the ultimate failure of opposition movement and the successful development of the Tseng-Wen Reservoir Transbasin Diversion Project²³. Without first addressing the larger, structural problem, participation in the status quo won't likely do anything significantly more than maintaining the status quo.

Eckstein and Throgmorton (2003, p. 17) said, "as a citizen-reader I, too want to be able to identify the authors of the stories planners use and tell so I can assess the bases of their claims – or, in some cases, presumptions of – authority". Stories, they argue, are created in "public arenas and processes of decision-making and plan-writing" (Richardson, 2005, p. 362). Although Eckstein and Throgmorton were engaged in dialogue with planning theory, I think their comments strongly resonate with EIA, which, as it is often envisioned and practiced, bestows high legitimacy to scientific experts whose opinions are often the entire base of persuasion. But contrary to the original conception of EIA as an environmental governance tool that sought to rely on objective and scientific procedure to assess development project, the current study discloses that EIA review process is in constant dance with varying rationalities and values, and this dance manifests itself as power struggle among a plurality of participants in the review process. For example, the "scientific" data on the economical and environmental feasibilities of the Tseng-Wen Reservoir Transbasin Diversion Project turned out to be a disguise for powerful actors' rationalities and values, *i.e.*, the rationalities and values that held economic development most dear. As such, "science" was a tool that was instrumental to myth-making of the Tseng-Wen Reservoir Transbasin Diversion Project. "Virtual supporters" were then summoned and told a story that did not correspond with the actual story that I have disclosed in my analysis.

²³ It is conceivable that some of the general public's participating behaviors were more than just various "degrees of tokenism" and actually had some degrees of decision-making clout. But an empirical examination of this possibility is beyond the scope of this thesis, which set out to examine how prevailing power structure has contributed to the development of the Tseng-Wen Reservoir Transbasin Diversion Project and shaped the nature and extent of public participation in this development project's EIA review process. Nonetheless, I acknowledge this omission as a limitation of the current study and urgent future research to empirically examine this possibility. I thank Dr. Simon R. Bush for the discussion of this point.

In the face of this, the general public should become disillusioned when the powerful intends to use EIA review as one that is based entirely on scientific rationality – something that is never achievable in practice – and the general public should be fully aware that EIA is a dramatic site of struggle where decision-making is shaped and defined by a constant, however subtle, contest and power struggle among various, sometimes oppositional, rationalities, values, opinions, and interests. An application of EIA without acknowledging and bearing in mind this inherent feature of its only allows it to be a fig leaf for the politics of environmental governance.

Things have been changing since then. There have been certain, however transient, attempts to open up the review process to allow for higher level of public participation, an attempt to move up Arnstein's ladder so that participation involves higher level of power redistribution. A breakthrough in the EIA is widely believed to have happened in 2005 when 7 environmental activists were able to serve as the EIA Review Committee members from 2005 to 2007, an event perceived to hold great promise for Taiwan's environmental movements²⁴.

Few studies have examined the contributions to environmental governance made by this move as well as the structural barriers faced inside the system of EIA. Tu and Pong (2008) opined positively on the potential of reforming from inside the state, maintaining that the simultaneous entrance of these seven environmental activists to the system not only enabled them to collaborate, hence forming a small-scale network of environmental groups inside the state, but also allowed environmental groups a "learning-by-doing" opportunity to familiarize themselves with the ins and outs of the EIA system. A penetration to the state also allowed environmental groups to launch reforms to the current EIA. For example, the environmental activists in their capacities of Review Committee members demanded more transparency of all the documents related to assessment review (c.f. Su, 2008).

Another contribution made by the penetration into the system was the change in how the members of the Special Project Group were chosen. Upon receiving the environmental impact statement, the component authority convenes a Special Project Group whose members may vary between development projects to preliminarily review the development project. The decision made by the Special Project Group is then submitted to the EIA Review Committee, convened also by the component authority, for final review. (How the members of the Special Project Group are chosen is described in detail in Chapter 3.2.1.) The convener of the Special Project Group is appointed by the Minister of the Environmental Protection Administration, and its members can be drawn by the convener from the EIA Review Committee and/or other experts and scholars. Therefore, the convener of the Special Project Group can to a large extent influence the outcome of the EIA review by selecting particular individuals to the Special Project Group. To prevent the unruly manipulation of the EIA by the economically and politically powerful actors, the Sixth EIA Review Committee members agreed that they might first express their wishes to become the convener or members of the Special Project Group. If more than one EIA Review Committee members wish to be the convener, they should coordinate among themselves

²⁴ Why were these environmental activists able to penetrate the state? On June, 2001, the EIA Act underwent a revision with respect to the nomination of the EIA review committee members. According to the new EIA Act, environmental organizations and general populace may recommend individuals to serve on the EIA review committee (Ho, 2006). In addition, the new EIA Act stipulated a heretofore unrecognized criterion for EIA review committee member: Having the experiences of being managers of government recognized environmental organizations for three years or more (Ho, 2006). Furthermore, the Minister of the EPA, Chang Kuo Long, who took office in June, 2005, was an environmental activist, and he selected environmental activists to the "Environmental Impact Assessment Committee Member Selection Panel" responsible for selecting the EIA Review Committee members (Su, 2008). All these conditions combined ensured that one-third (i.e., seven out of 21) of the sixth EIA Review Committee members (2005 – 2007) were environmental activist (Su, 2008; Shu, 2009).

(Shu, 2009, p. 89).

However, the subjective activities of environmental activists in their capacity of EIA review committee members paled in the face of larger political-economic context. For example, one of the environmental activist committee members who was to be the convener of the Special Project Group was suddenly replaced by someone else who wasn't an environmental activist. And in another instance, two review committee members – one who was environmental activist and one who wasn't – expressed their wishes to be the convener of the Special Project Group, and instead of coordinating among themselves, the Minister of the Environmental Protection Administration unilaterally appointed the non-environmental-activist review committee member to be the convener (Shu, 2009, p. 101 – 102). Examples abound suggesting that the Environmental Protection Administration fails to uphold the spirit of environmental protection. Researchers also have offered other empirical evidence to support this observation.

Contrasting Tu and Pong's (2008) positive observation that environmental activists *theoretically* could launch reform more effectively inside the state by, for example, demanding higher level of transparency of documents related to the review process, Shu (2009) interviewed one of the Sixth EIA Review Committee members, who revealed that the extent to which and efficiency of documents were publicized are disappointing. That is, instead of automatically publishing all documents on the Environmental Protection Administration's website, staff in this administration only published requested documents. Also, one of the Sixth EIA Review Committee members who were interviewed by Su (2008, p. 177) revealed that the transparency of EIA-related document rapidly deteriorated after Chang Kuo Long, the Minister of the Environmental Protection Administration who took office in June, 2005, and who was an environmental activist, stepped down in May, 2007, because the cabinet was reshuffled. (At the farewell ceremony for Chang Kuo Long, his wife revealed to the press that President Chen's promulgation of his vision that "environmental protection should not undermine economic development" clearly contradicts that of Chang Kuo Long, which is the reason for his leaving the cabinet.) Thus, in terms of making information related to the EIA review more transparent, the penetration of environmental activists into the state made limited progress.

Lee Ken Chen (2009), a Sixth EIA Review Committee member, also wrote of his experiences, revealing structural barriers constraining his and his fellow committee members' abilities to effectively function in their capacities as committee members.

First, the budget allocated for reviewing each development project ranges from NT\$ 60,000 (~ US\$ 1,823) to NT\$ 150,000 (~ US\$ 4,557), a portion of which is used as compensations for the committee members. EIA review is highly time-consuming and the Review Committee positions are not offered as full-time jobs. The committee members were only compensated for their transportation expenses in addition to being paid NT\$2,000 (~ US\$ 61) for attending each EIA review session. However, they were not compensated for the time spent on reading the environmental impact statements or any other related preparation works. The committee members on average received one development project to review every 2 days, and they only had about nine days to review each environmental impact statement, each of which has hundreds of pages and is highly technical. Therefore, a majority of resources of the environmental organizations with which these seven environmental activists were affiliated was devoted to helping them with the review process. As a result, the already limited resources possessed by environmental groups were further strained, effectively undermining their abilities to launch reforms outside the state.

Second, according to the EIA Act, seven out of the 21 committee members can come from government agencies, and it is obvious that they have more interests in ensuring that the development projects obtain approval than safeguarding against environmental detriments arising from the projects. Insofar as four more Review Committee members can be "persuaded"

somehow so that a majority of the committee members approved the development projects, EIA serves only as a rubber-stamp.

Third, the Environmental Protection Administration was in many instances clearly biased toward the project proponents despite the fact that environmental activists served on the EIA Review Committee.

Thus, Lee (2009) asserts that the system of environmental impact assessment has fatal flaws, assuring “the necessity of protesting from outside” (2009).

These observations are not Lee’s biases. Robin Winkler, founding director of the Wild at Heart Legal Defense Association in Taiwan (a public interest organization providing legal consultations for environmental issues), also served for a two-year term on the EIA Review Committee and concluded strongly that rarely was there a case that didn’t reflect major problems with the EIA in Taiwan (2007). Significantly, the EIA Act conferred the Environmental Protection Administration the power to veto development projects if the EIA review concludes the projects as environmentally infeasible. But in reality, the Environmental Protection Administration has ways to make sure that the “veto right” will not be effectively exercised. For example, when he and other environmental activist committee members sought to veto the controversial 2,800 MW Changgong #1 and #2 Coal Fired Power Plants, the Environmental Protection Administration illegally allowed the project proponent, Taiwan Power Company, a state-owned electric power utility company, to withdraw the case prior to the EIA Review Committee meeting, and then resubmit it after the end of the term of those “non-conforming committee members”. In another instance, the Special Project Group, consisted of these “non-conforming committee members”, requested a US \$ four billion steel plant proposed by the Formosa Plastics Group go into the second phase of EIA review. But the Environmental Protection Administration waited after the end of the term of environmental activist committee members to submit it to the EIA Review Committee meeting. These two examples are just a tip of a whole iceberg of similar examples.

Consistent with other experiences of this political strategy of “inclusion” – penetrating the states to gain governmental positions inside the state with the intention to launch reform from side (e.g., social movement for health reform in Brazil, Weyland, 1995), Taiwan’s environmental movement’s experiences of reforming inside the EIA institution proved to be futile. More significantly, another unfortunate, unintended consequence of political inclusion is “professionalization and alienation from the grass roots” (Schlosberg & Dryzek, 2002, p. 793). Because environmental organizations in Taiwan have limited resources, devoting resources to penetrate and to reform from inside the EIA institution necessarily undermine their ability to educate and organize the masses. This is unfortunate, for an organized citizenry is more politically powerful, influential, and intimidating than a few environmental activists.

I can now return to the question posed in the beginning of this chapter, “What’s the role of environmental impact assessment as an environmental governance tool?”. In analyzing power structure vis-à-vis public participation in the development of the Tseng-Wen Reservoir Transbasin Diversion in general and in the project’s EIA review process in particular, I didn’t intend to paint the picture that the powerholders have absolute power and the relatively powerless are forever trapped in the larger political-economic context, which is never achievable

in practice²⁵. Rather, my analysis suggests that the prevailing power structure proved to be more formidable than local indigenous people's oppositions and finally triumphed over their interests and concerns; and a very small portion of citizens with a low socioeconomic status was mobilized, thus unable to challenge this very power structure. Therefore, the core of the problem in my case study is that the general public weren't organized to the extent that would have posed significant challenge to the prevailing power structure, be able to demand redistribution of power, and allow themselves to take advantages of the EIA system.

The EIA system is only as good as the political-economic and ideological frameworks in which it's conceived of, upon which it's built and by which it's sustained. By this I don't mean that participating in EIA is not important; instead, I am making the point that as long as Taiwan's current political-economic context is maintained, participating in EIA does not generate organic changes. Neither does it effectively challenge the prevailing, deep-seated power structure among the state, political parties and private interests. Only a politically active citizenry can effectively challenge and demand structural changes to this prevailing political-economic context. Indeed, what is to be done urgently is to enlarge the general public's organizational strength and scope because genuine participation requires a politically informed, active, and organized citizenry.

And this doesn't mean Taiwan's EIA should be abandoned altogether because it in some circumstances has been able to exercise its decision-making clout and vetoing power to stop environmentally unsound and economically unnecessary development projects. In fact, available statistics show that a total of 50 development projects located in Taipei, Taiwan had undergone EIA until February 2004, and, of these 50 projects, 10 projects were vetoed (Wu, 2004). But I doubt these vetoed projects constituted main and large-scale projects, which means large pay-offs, whose rejections by the EIA would shake the foundation of political-economic relationships among the state, political parties and private interests. My general observations have been that controversial development projects that didn't go, or haven't gone, forward isn't because EIA uses its vetoing power effectively; rather, it is because of the bargaining power exercised by a well organized and politically active citizenry.

For environmental organizations EIA should not be the primary battlefield where they engage in dialogue with the ideology of economic development because the EIA institution is inevitably imbedded in the larger political-economic context that constantly constrains the subjective activities of those who participate in this institution. Environmental organizations with their limited resources should focus their attention on educating and organizing the masses with the ultimate hope of unifying them as a collective class that is in direct contradiction with the ruling class. Masses' political influences should primarily direct at changing the political-economic context where the hegemonic ideology is one that holds economic development most dear often to the exclusion of environmental considerations.

The general public should not look at EIA as a site where conflicts can be scientifically rationalized, and they should realize that EIA is immersed in power relation and

there is no escape from manipulating fronts, seeking membership of communities, protecting fragile egos, maneuvering for advantage and power, seeking to assert one's ethic over others, deploying discourse and establishing spiked rules to dominate others, disputing methodology

²⁵ A related point is that although the opposition movement failed to stop the development of the Tseng-Wen Reservoir Transbasin Diversion, there might be other ways through which movement members could have negotiated with the powerful to obtain something as compensations for the transbasin diversion project in question. Thus, the powerless wasn't absolutely powerless. While this is conceivable, an empirical examination of this possibility is not the focal point of the current thesis. Nonetheless, I acknowledge this omission as a limitation of the current study and urgent future research to empirically examine this possibility. I thank an attendee in my thesis presentation for the discussion of this point.

and therefore professional or disciplinary competence (Wood, 1998, cited in Hilding-Ryevik, 2001).

For the masses EIA should be an opportunity and a platform for the general public to politically educate themselves so that gradually they themselves can become a collective class. This graduate and conscious process involves the development of organizations; the transformation of relatively temporary “self-help groups”, formed by individuals affected by environmental degradations to demand some sort of solutions to and/or compensation for these degradations, to more permanent environmental organizations; and finally the growth of class consciousness, and the consciousness and theory relating to revolution. An organized citizenry, along with environmental organizations that also play a role in realizing the collective power of the masses, can then participate in, among other political settings, the EIA institution – which includes participation in the review process and monitoring the approved projects for environmental impacts – with power and political muscle that allow them to stand on equal footing with the economically and politically powerful actors.

Finally, the process of this gradual development also involves demands for changes to the current EIA Act and other supplementary regulations. Improving the EIA Act should be considered as both a mean and an end. It’s an end because better EIA Act allows for more rooms for genuine public participation – although the extent of genuine participation only gets as good as Taiwan’s political-economic and ideological frameworks. More importantly, improving the EIA Act is a mean in that through building general public’s collective bargaining energy of their common class and exercising this energy in actual disputes in the EIA settings, the masses can experience their collective power.

7.2. Directions for Future Research

The power structure that I have illustrated by no means comprehensively tells the whole story. Future study can examine other parties that I didn’t observe in this study but are also part of the power structure.

I have focused on the power external to the opposition movement in this study; however, internal contradictions might have also played a central role in determining the outcome of the opposition movement. Future study can also say more about internal contradictions.

And because of the limited time available, I wasn’t able to interview environmental activists who didn’t serve on the Sixth EIA Review Committee about their opinions of the consequences to environmental movements of environmental activists penetrating the state. Future study can also fill this gap.

EIA review process is only one critical stage of the entire chain of guarding against environmental detriments associated with development projects – another crucial stage is monitoring whether development projects are been implemented according to the protocols approved by the EIA. Future research can examine whose onus it is to monitor the implementations and operations of EIA-approved development projects and how.

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