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## Control by containment: the politics of institutionalizing pollution disputes in Taiwan

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Received 9 November 2006; in revised form 29 March 2007; published online 5 August 2008

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**Abstract.** Democratization entails the political incorporation of pollution victims whose subsistence rights have been sacrificed in the single-minded pursuit of economic growth. Newly democratized regimes have instituted mechanisms of environmental governance with varying degrees of success. This paper analyzes the process in which pollution disputes are channeled through legal procedures, by looking at Taiwan's Public Nuisance Disputes Mediation Act (PNDM). This system was enacted in 1992 to reduce the disruptiveness and politicization of protests after the failure of preemption and repression strategies. Contrary to the official claims, I find the PNDM produced limited absorption because its restrictive design was unfavorable to pollution victims. The institutional failure led to the widespread implementation of good-neighbor policies by business. With this undemocratic system of material payoffs to affected communities, business succeeded in reducing protest potentials by co-opting community leadership.

### **Democratic inclusion of pollution victims**

In the postwar era, economic miracles have been manufactured in many corners of the globe. Almost a dozen developing countries witnessed rapid industrialization that transformed rustic farms into modern factories. States in Japan, South Korea, and Taiwan took the lead in fostering competitive industries for the global export market. Economic helmsmanship called for the concentration of powers. To engineer economic transformation, Johnson argues, it is necessary to have a high degree of bureaucratic autonomy through which a system of administrative guidance can be quickly implemented rather than a democratic system that "inevitably increased reliance on laws, lawyers, and litigations, and excessively codified procedures" (1987, page 159).

Without democratic accountability, developmental goals were achieved at the cost of sacrificing popular rights. Severe environmental degradation came as a necessary result of the single-minded pursuit of prosperity. To attract business investment, the price of land and other natural resources was artificially depressed. Consequently, producers were not motivated to preserve land and economize energy. Because economic growth was proclaimed as the supreme goal, authorization regimes were willing to tolerate industrial pollution that damaged public health and livelihood.

As late as the mid-1980s, signs indicated that Taiwan's authoritarian capitalism as a *modus vivendi* was being exhausted (Bello and Rosenfeld, 1990). Democratic transition was underway amidst the uproar of popular contentions against pollution. Since governmental policies could no longer merely target accumulation but had to pay more attention to the issue of legitimacy, extralegal measures to promote economic growth became untenable. As citizens voiced their demands for improved environmental quality, more budgetary allowances had to be earmarked for this purpose. The waning of authoritarian control endangered the hitherto pro-growth policy orientation that systematically marginalized the interests of consumers and residents.

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Democratization entails a process of political inclusion so that the defining concerns of deprived groups are genuinely incorporated into decision-making processes (Dryzek, 1996). It is not enough to allow pollution victims to organize themselves and publicize their discontent. A bona-fide democracy has to develop institutional capacities to integrate grassroots participation into environmental governance (Tang and Tang, 2006).

But what counts for genuine democratic inclusion for environmental interests? According to Dryzek (1997a), several criteria can be used to gauge the extent of ecological democratization. The number of participants (franchise), the range of issues (scope), and the degree of authenticity are all relevant, yet independent, aspects here. Furthermore, even when a new policy is formulated to address a particular environmental grievance, there is no guarantee that the victims are duly protected. An element of ambiguity accompanies the institutionalizing of a grievance; when incumbents promote a formal procedure for certain groups, they acknowledge the legitimacy of these groups while at the same time seeking to defuse their possible explosiveness. In other words, institutions can be either channeling or containing, depending on the extent of elites' concession.

More specifically, the Environmental Conflict Resolution (ECR) movement, which aims to create an assisted mediation system outside of lawsuits, has been underway in the past three decades. In the United States the movement gained a tremendous momentum when a federal agency, the Institute for Environmental Conflict Resolution, was instituted in 1998. How this alternative system performs in a nonlitigious society like Taiwan and to what extent it can pacify the antipollution protests remain interesting research questions.

This paper analyzes the political inclusion of environmental interests in a new democratic regime by taking a close look at how industrial pollution disputes are processed in Taiwan. In particular, this paper is concerned about the actual working of the Public Nuisance Disputes Mediation Act (PNDM) enacted in 1992. The PNDM makes possible a legal procedure of mediation, remediation, and arbitration with which officials hope to reroute unruly protests into administrative routines. Instead of using violence to close down polluting factories, victims are encouraged to settle their grievances through this official process. This paper traces the shifting official responses to the mounting pollution disputes that led to the passage of PNDM. The PNDM is interpreted as an attempt to control antipollution protests by neutralizing their disruptiveness. Closer scrutiny reveals that, contrary the Environmental Protection Administration's optimistic claim, the PNDM's design is oriented more towards containing the threat of disputes rather than empowering the pollution victims. Consequently, a considerable number of disputes continue to be resolved outside any institutional avenues.

Despite the failure of this approach, Taiwan's pollution disputes have become fewer and less threatening over the years. Widespread environmental protests have certainly persuaded industrial producers to control their pollution. For those reluctant firms, relocating their productive bases to coastal China is also an increasingly popular option. Nevertheless, the producers themselves also initiate a system of rewards (*hui k'uei*) by which purchase contracts, jobs, and material compensations are offered to nearby communities to obtain the local goodwill. These good-neighbor policies are effective because they target the community leaders, who usually receive disproportionate benefits. Once the local leaders are successfully silenced, their followers are less likely to react vehemently to a pollution problem.

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### Conflicts and institutionalization

According to North (1998, page 249), an institution sets the rules of the game and actors are its players. How a transaction among actors brings about the formalization of their relationship and how a given rule shapes their subsequent action is a perennial question for social scientists. Various theoretical paradigms have provided explanations for institutional changes. Competition, learning, exogenous shock, change in power relationship, and shifting cultural values are the contributing factors (Mahoney, 2000). This paper is concerned with pollution disputes and their rule-making impact. Hence, a closer look at the formative role of social conflicts in general and in environmental disputes in particular is needed.

In sociology a venerable conflict school holds that social conflicts are a ubiquitous phenomenon. No matter how well a society is integrated, clashes of ideas and interests are never absent. Furthermore, conflicts are a vital source for social change in that they expose hidden strains that demand attention long overdue. Coser (1956, pages 121 – 128) views social conflicts as a unifier because through them “new rules are continuously created and old rules modified”. Dahrendorf (1968, page 227) also argues that conflicts are a constructive element in that they “[give] rise to new solutions”. In other words, there is an everlasting dialectic of conflict and institution. The rigidity of previous institutions engenders social tensions that give a renewed impetus to institutional innovation. The function of institutions lies in regulating social transaction, at least for a certain period of time.

In the field of environmental politics, innovations in conflict resolution mechanisms have been underway over the past three decades. Globally, there has been a persistent attempt to institute mediation as a more efficient solution to settle environmental disputes other than lawsuits and regulation (Bingham, 1986; Emerson et al, 2003; Sidaway, 2005). How can we account for the rise of alternative dispute resolutions (ADR)? One prevalent perspective holds that the ADR is a natural response to the institutional sclerosis since many existing decision-making mechanisms prove incapable of coping with the mounting conflicts on environmental issues. According to Susskind and Cruikshank (1987, pages 38–76), the environmental crisis reveals the fatal flaws of representative democracy, which tends to mire conflicts in protracted and adversarial litigations. Analyzing the conflicts concerning the hazardous waste management facilities in North America, Rabe (1994) argues that both the regulatory approach that relies on the command-and-control initiatives from above and the market approach that uses monetary incentives to obtain community friendliness fail to discourage the widespread nimbyism.<sup>(1)</sup> With the exhaustion of given possibilities, the ‘siting agreement’ that emphasizes public participation and fairness emerges as an increasingly popular option. Though Dryzek (1997b, pages 87–88) was cautious regarding the potential abuses of ADR, the fact that he treated the ADR as a result of reflexive learning of democratic pragmatism was largely in sync with this perspective. In other words, the diffusion of environmental ADR is interpreted as an automatic evolution to channel new conflicts.

On the other hand, another perspective takes the institutionalizing process as the elites’ attempt to control. Aside from channeling disputes, institutions also serve to contain the disruptiveness of social conflicts within a tolerable limit. After a new conflict resolution mechanism is initiated, popular protests are likely to lose their legitimacy and sympathy. As Schattschneider (1960) points out, the scope of conflict itself is always contentious; the challenged elites seek to prevent any spillover effect of local conflicts. Many social conflicts are contagious in nature and symptomatic

<sup>(1)</sup> Nimby—‘not in my backyard’.

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of deeper and irreconcilable contradictions in our society. An institution creates, rather than merely reflects, the reality at stake. Once environmental conflicts are defined as a negotiable mediation issue, broader issues concerning industrialism and private property are tacitly shelved.

In addition, an institution can appear neutral to related parties without being fair, just as the rule of basketball applies to the same scoring method to two teams and at the same time systematically favors the players with a tall stature. This illustrates why Schattschneider claims that there is a necessary element of 'mobilization of bias' in every organization. Thus, channeling is no less than the restructuring of social conflicts according to certain explicit or implicit biases.

Amy (1987) argues that the growing application of environmental mediations in the United States is a "subtle but powerful form of political control". The 1969 National Environmental Protection Policy legalized the right of citizens to sue developers and officials, and thus triggered a wave of litigations in the following decade. Only when the interests of dominant sectors are threatened by a change in the balance of power is there a concerted effort to funnel these new cases into an informal adjudication process. Amy further argues that the widely praised virtues of ADR, such as informality and nonconfrontational atmosphere, are seductive in that they tend to disarm the aggrieved victims.

In sum, the institutionalization-as-channeling view neglects the political dimension of environmental conflicts. Rather than evolving spontaneously, the rules of the game are artificially devised, often with the intent to control social conflicts. In this paper I will apply the institutionalization-as-containment perspective to understand the rise of the PNDM in Taiwan. To echo Amy's observation in America, the PNDM is a more sophisticated control form. In the United States the promotion of ADR is an attempt to take disputes out of the courtroom, whereas Taiwan's PNDM is motivated to take protests off the streets. Though Taiwan's legal system is underdeveloped in its capacity to deal with environmental disputes, the intent to control is nevertheless the same. Only when other alternatives, such as preemption and repression, prove futile will control-by-institutionalization be placed on the agenda. Thus, the PNDM is not a politically neutral mechanism, but a reluctant concession by officials.

### **Antipollution protests in Taiwan**

Since the mid-1980s a great wave of environmentalism has surged in Taiwan. Public consciousness was awakened to the dangerous degree of environmental degradation. Popular grievances have gathered momentum, and grassroots environmental protests have mushroomed in every corner of Taiwan (Hsiao, 1997; Williams, 1992). Middle-class environmentalists formed professional advocacy groups and sought to influence public policy (Tang and Tang, 1999). In many cases their successful campaigns resulted in significant policy changes and made possible better environmental governance (Ho, 2004; Tang and Tang, 1997). On the other hand, local 'self-relief' activists used direct action to fight the pollution that damaged their health (Terao, 2002). Obviously, the dissipation of authoritarian control removed the popular fear and restored rights of speech and organization, thus enabling the flourishing of many styles of environmentalism.

This paper is concerned with grassroots-level environmentalism. Not surprisingly, local protests tend to evolve around a nearby source of pollution, be it incinerator, factory, or construction site. Usually, the sudden knowledge of impending construction or the direct impact of pollution galvanizes the community into action. Since the famous Lukang protest against a DuPont investment in 1986–87, a visible pattern of community mobilization has become the norm. Local organizations, such as

temple associations, farmers' associations, fishermen's associations, and chambers of commerce, are persuaded to contribute financial support to antipollution protests. These dense and overlapping networks are also instrumental in mobilizing people to demonstrate (Reardon-Anderson, 1992).

Taiwan's antipollution protests are characteristically communal in orientation. Local compatriots fight for their community's interest, and they consider it a success when the factories are forced to relocate to other places (Ho, 2005a). Culturally speaking, antipollution protesters utilize established folk religion and stresses local well-being as the first priority. Common belief strengthens their solidarity and makes conciliation to polluters a costly option for the community leadership. Thus, it does not come as a surprise that religious symbols and ceremonies are common phenomena in local protests (Weller, 1999, pages 115–120).

With these unmistakably local traits, it is understandable why urban middle-class environmentalists tend to shun involvement in these disputes. Unless eagerly invited by local protesters, they simply do not possess the network that affords them trust and legitimacy. Further, since these environmentalists tend to live in the residential areas relatively free from industrial pollution, their lack of experience as victims produces a highly idealistic mindset that decries the demand for monetary compensation as mercenary, or even as the outright selling of 'environmental right' (Yeh, 1992).

In the 1988 Linyuan incident (analyzed in the next section), local fishermen who were eager to secure compensation angrily rejected the voluntary intervention of outside environmentalists. This unhappy confrontation resulted in a growing detachment of outside environmentalists from local pollution disputes. Without the participation of outside movement organizations, the localization of antipollution protests was reinforced. As a result, pollution disputes were largely settled by the tug of war between residents and producers.

The second trait of Taiwan's pollution disputes is the high degree of politicization. Here, politicization means the intense involvement of local politicians including elected representatives and executives and the resulting partisan struggle over the course of an antipollution protest. Pollution, by nature, is spatially distributed and often perceivable only in a specific locality. Given the fact that the boundary of pollution victims coincides with a specific electoral district, residents tend to look to their elected officials to solve the problem. Political democratization intensifies electoral competition among candidates, who become more sensitive to local needs. During the electoral period, candidates are also motivated to highlight pollution issues within their campaign platforms. This is especially true for opposition politicians, who do not possess established voting records and who must convince voters, but have to rely on promises. Focusing on an existing environmental grievance is an easy way to capture voters' attention.

In the above-mentioned Lukang case the local movement started as a signature-collecting campaign promoted by one candidate for the town mayoralty in early 1986. After he won the election, the movement evolved into a mobilization of the entire town (Reardon-Anderson, 1992). In the late 1980s many Democratic Progressive Party (DPP) candidates focused on the pollution issue to boost their campaigns. After being elected, these candidates became known as the "environmental protection legislators (*huanpo liwei*)", who spoke for their pollution-impacted communities. In Ilan County non-KMT (Kuomintang) magistrates have been in office since 1981. Their longevity stems from their leadership of local movements that fought several KMT-endorsed development projects. Naturally, the politicization of industrial pollution alarmed the KMT government, which saw their local support gradually erode. While the DPP attempted

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to exploit the political value of environmental grievances, the KMT officials were pressed to devise a formal procedure to neutralize the political impact of pollution.

The third feature of Taiwan's antipollution protests lies in its violence. Unlike other social movements, Taiwan's grassroots protests have the disruptive potential to shut down an entire factory or an industrial zone and, in some cases, to endanger the national economy. So far, even the better organized workers who possess the strategy of strikes are unable to pose a threat of this magnitude. In this aspect, Taiwan's pollution victims follow the logic of mass defiance frequently seen in poor people's protests (Piven and Cloward, 1997, page 24). Since their peaceful petition is repeatedly ignored and trivialized by officials and factory managers, they have to apply a stronger negative incentive to activate the latter's concern.

As early as the early 1980s several incidents of severe violence broke out in local antipollution protests. In 1982 a group of Linyun villagers broke into an amino-producing factory. They smashed office windows, sabotaged the industrial machinery, and released wastewater that the factory discharged. These villagers were enraged by the fact that the company never sought to honor its promise to reduce the pollution which had already produced respiratory and skin illness. Blockading the factory as a violent means to shut down the harmful operation immediately became a frequent phenomenon in this period. In 1986 Yungan villagers raised a roadside block to halt the traffic to a nearby harbor construction that damaged their roads and houses. Organizing a local vigilance committee (*tzuweitui*) was also a desperate measure for the aggrieved populace when officials failed to deliver lawful protection. In 1982 a vigilante group was organized by the fishing community in Hunei. They threatened to kill all the pigs raised in a nearby farm if the latter continued to discharge untreated sewage. In these self-relief cases violence became the last resort after victims had exhausted other possibilities.

In the early period these violent incidents were sporadic, unpremeditated, and limited in their impacts. Nevertheless, the removal of authoritarian control gradually emboldened the victims to solve pollution problems through their own means. Violence became more organized and sustained. A blockade against a chemical plant in Shiyuan Ward, Hsinchu City in 1987–88 persisted for more than 400 days (Kao, 1997). A three-year blockade against the China Petroleum Company began in Houchin, Kaohsiung City in 1987.

To sum up, Taiwan's antipollution movements were noted for their localism, politicization, and violence. These characteristics reinforced one another in an escalating protest wave. Strong local solidarity gave rise to violent confrontations, while politicians' support protected those who showed violent behavior. The KMT officials watched this growing trend with apprehension. The government made certain concessions to the pollution victims while repressing other radical protests. Prior to the PNDM, no consistent official policy to deal with antipollution protests existed.

### **From preemption to repression**

The government's initial response to grassroots protests could be broadly characterized as preemptive. As defined by Gamson (1975, page 29), preemption means that officials acknowledged the validity of movement claims and sought to address the grievances, but refused to accept the legitimacy of movement groups and tactics. In other words, while officials agreed industrial pollution was a severe problem, radical self-relief protests were frowned upon. Officials contended that protest activities were counterproductive and, in many cases, illegal. They hoped pollution victims could "calm down" and follow normal procedures to solve their grievances.

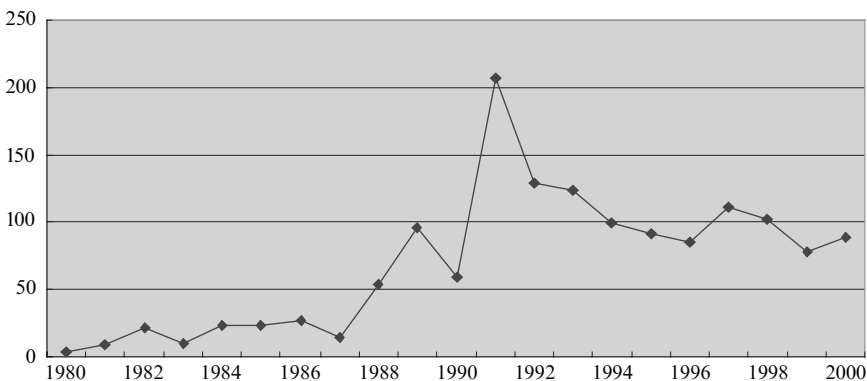
As the great wave of protests surged all over Taiwan, the government responded by upgrading its environmental administration. In 1987 the government announced a Current Program of Environmental Protection Policies. The program acknowledged the fact that Taiwan's environmental degradation originated from the previous economic development. In the same year the cabinet-level Environmental Protection Administration (EPA) was upgraded from a subordinate unit under the Department of Health. Environmental protection bureaus were also set up in local governments. These reinforced administrative organs showed the government's determination to prevent the worsening of pollution disputes by policy initiatives.

The lifting of martial law in 1987 removed many draconian measures that punished protest activities, though admittedly these laws had long been inoperative before their formal abolition. In theory, all public gatherings of more than ten persons were outlawed under the martial law regime. The 1988 Public Meeting and Demonstration Law formally legalized protests. As long as organizers submitted their application and received approval from the local police, it was legal to stage a demonstration or public gathering.

In tandem with political liberalization, officials tolerated antipollution protests to a degree though they persisted in warning about concomitant illegal violence. During the Lukang movement against DuPont, Premier Yǔ Kuo-hua ordered his subordinates to improve their communication by exercising more patience with local opposition. True, police monitored the Lukang movement closely. Reports of police harassment surfaced, but overall none of Lukang's protest activities was outlawed or repressed (Nien, 1997, pages 26–33). Likewise, the blockades in Shuiyuan Ward (1987–88) and Houchin (1987–90) were largely tolerated.

Figure 1 presents the distribution of antipollution protest cases from 1980 to 2000. The data are collected from various sources including journalistic reports and official records.

The lifting of martial law in 1987 clearly opened the lid of pent-up environmental grievances. Whereas the annual number of antipollution protests averaged around 20 before 1987, the number increased dramatically in the next two years: 54 in 1988 and 96 in 1989. The violent eruption of popular grievances was an unambiguous message that people had endured enough. In particular, the Linyuan incident in 1988 deserves special attention in that it prompted officials to reconsider their previous tolerance.



**Figure 1.** Antipollution protests in Taiwan (1980–2000): cases per year. [For data source and methodology, see Ho (2006, appendix). This figure includes only the protest cases involved with existing pollution, while those which fight new development projects are not counted here. The reason for excluding the latter is that they are not applicable to the PNDM.]

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Linyuan is a seaside township near the estuary of the Kaoping River in southern Taiwan. Before the installment of a petrochemical zone in the 1970s, fishing and aquaculture was the main local livelihood. Industrialization brought about a grave subsistence crisis, as petrochemical plants recklessly extracted underground water and discharged their wastewater into the river and sea. Prior to the outbreak of the 1988 incident, I collected and reviewed twelve protest cases; some of them were settled with monetary compensations, while others were still pending. In September 1988, as local fishermen found dead fish floating in their harbor, they stormed into the industrial zone and forcibly shut down the power of the sewage treatment plant. As a result, eighteen companies in the industrial zones all halted their production. Since the Linyuan industrial zone was a key upstream provider, the conflict evolved into a severe crisis for Taiwan's petrochemical industry. During the three weeks of negotiation, economic officials constantly threatened to use police force to disperse the blockade. After the government and companies agreed to pay an unprecedented compensation of NT\$1.3 billion to local victims, the crisis was finally resolved.

The Linyuan incident demonstrates the explosive disruptiveness that antipollution protests can bring about. Alarmed, Taiwan's capitalists began to voice their impatience with these "noneconomic factors" that negatively affected investment incentives. In the late 1980s, they began to openly threaten the government with an investment strike if the protest wave could not be controlled (Wang, 1993, pages 84–85). For officials the Linyuan incident was also an embarrassing lesson. It exposed the fact that officials did not possess guidelines or procedures to deal with these aggressive claims for compensation. After the incident a visible shift in the official attitude occurred. The initial tolerance was gradually replaced by a more repressive stand. In 1989 the EPA promulgated a statement to the effect that the government would never accept violence as a legitimate means to secure monetary compensation, legal impunity, plant relocation, and other demands (EPA, 1994, page 40). At the same time, a national ad-hoc supervision working group was formed to prevent a second Linyuan incident. That working group, made up of economic and environmental officials, was authorized to negotiate with protesters directly and to use police force when necessary.

The authoritarian turn culminated in the appointment of Hau Pei-tsun as Premier in May 1990. During his tenure (1990–93), Hau viewed the rise of popular protests as a deplorable consequence of weakened public authorities. Thus, he adopted a repressive stand by branding environmental activists as "bullies" and strengthened the police force. Hau pushed forward many controversial projects that had been suspended because of popular opposition.

Hau espoused a zero-tolerance attitude toward violent antipollution protests. In May 1992 Talinpu residents in Kaohsiung City staged a blockade against one China Petroleum Company refinery. In many ways the Talinpu incident was similar to the Linyuan incident four years earlier. Talinpu and Linyuan were adjacent, and both communities suffered from the installation of petrochemical zones in the 1970s. After an industrial accident the people of Talinpu demanded immediate compensation just as the people of Linyuan had done. After three weeks of blockade Hau visited the besieged plant and denounced the protesters vehemently. Four days later policemen broke up the blockade and brutally beat up the local people. In the end as many as thirty-nine participants were prosecuted.

Despite the reinvigorated authoritarianism during this period, it seems doubtful that repression actually reduced the number of protests by those impacted by the pollution. In Hau's first year (1990) there were 59 antipollution protests, a decline from the 96 of the previous year. However, the next year (1991) the number peaked at 207 protests (see figure 1).



In fact, difficulties persisted despite the government's attempt to repress the wave of antipollution protests. As stated in the previous section, Taiwan's antipollution protests were locally embedded. Without outside environmentalists' involvement, leadership, participants, and resources all came from within a community. The highly decentralized nature of antipollution protests stultified a concerted repression from above. As local headmen served as protest leaders and the mobilizing network was built upon everyday friendship, kinship, and neighborhood, there was simply no way to single out specific targets unless the incumbents were willing to risk the political ramifications of indiscriminate violence. Consequently, when the government concentrated its attention on the major cases, more numerous protests took place.

Politicization was another reason why repression failed to curb the diffusion of pollution protests. Unlike the central government officials, local representatives and executives were answerable to their constituencies, whose voices often spoke louder than those from the business sector. As democratization made elections more competitive, politicians had more incentives to support the pollution victims in their district. Thus, even local KMT politicians would endorse protests in defiance of their national leadership. During the National Assembly election in 1991, four township mayors in northern Taoyuan County took the lead in demanding the compensation from a nearby power plant. They claimed the power plant had damaged fishery, farms, and public health and thus demanded NT\$33.2 billion in compensation. Soon all the candidates joined the protest bandwagon. In order to appease local voters, the government initially agreed to earmark NT\$0.8 billion for construction. This incident set forth a wave of compensation demands, as politicians in Taipei County and Taichung County applied the example to protest against their local power plants. What was especially embarrassing for the KMT government was the fact that the protest leadership consisted mostly of KMT membership. Clearly, the politicians' involvement made repression a dubious proposition.

With the failure of preemption and repression, officials turned to the option of institutionalization. Shortly after the northern Taoyuan County incident, the government started to push the PNDM, which had been lying dormant in the Legislative Yuan for two years. In January 1991 the PNDM was hastily inserted into the agenda and passed on the last day of the session.

### **The PNDM as control by institutionalization**

By providing a procedure of mediation and arbitration, the government sought to contain pollution disputes within the normal channels and to reduce the incentives for using violent direct action. Once they were in the official mediation process, the victims could no longer use protest to advance their claims. If there was no immediate threat, the suspected firms were also allowed to continue their production. Thus, the PNDM was designed to avoid costly and unpredictable protests. However, opening up an institutional avenue also ran the risk of encouraging requests for more compensation. A new legal system implied the official acknowledgment of the failure of other preexisting institutions, such as civil law and local mediation. And this implication seemed to justify the claims of pollution victims. This hesitation between the desire to contain protests and the fear of encouraging them explained the delayed legislation of PNDM.

Taiwan's officials planned to draft a process of pollution dispute mediation as early as 1975. There was a second attempt in 1981–82, as a special taskforce was set up. These early efforts did not produce any material outcomes (EPA, 1994, page 23). Since antipollution protests did not emerge as a significant phenomenon at that time, officials were understandably unenthusiastic to push it through the legislative process.

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The 1987 program on environmental protection proposed by build “an administrative system of mediation, arbitration and relief”. But it turned out that five years were needed for the PNDM to become a fully effective law. Clearly, unless strategies of preemption and repression had proved ineffective, officials were reluctant to provide a new legal means of resolving pollution disputes.

The 1992 PNDM had the following features. First, it adopted a three-stage process of mediation, remediation, and arbitration, which came under the jurisdiction of county/city government, provincial/municipal government, and central government respectively. Only when a case failed to reach bilateral agreement could it be forwarded to the next stage. Originally, the legal scholars drafting the act suggested only two stages because they were of the opinion that the more local mediation took place the deeper “political influences” would be (Cheng, 1988, page 18). Despite this suggestion, officials insisted on the inclusion of county/city government. In the finalized version county and city executives were stipulated as the chair of mediation committees and endowed with the power to appoint other committee members. Further, officials also discarded the suggestion that mediation committee members should be politically independent and refrain from partisan activities. During the legislative review, some lawmakers offered similar proposals, which failed to be accepted by the executive branch (Legislative Yuan, 1993, pages 95–96). The 1992 PNDM was not designed as an above-politics institution. Instead, local politics was incorporated into the first stage of mediation as an additional buffer. The decision certainly compromised the credibility of the PNDM.

Secondly, the PNDM did not acknowledge the right of public interest groups to file applications with the authorization of pollution victims. Some DPP legislators suggested this proposal, which they thought would benefit the underprivileged, while the KMT legislators countered it by questioning the motive of environmental groups (Legislative Yuan, 1993, pages 98–102, 155–160). The final version did not adopt the DPP suggestion, and, as a result, the PNDM did not allow third-party involvement.

Third, some scholars suggested that, before its passage in 1992, the PNDM placed the burden of proof upon the accused polluters rather than on the victims. In other words, it was the responsibility of the accused party to prove they were not culpable. If the latter failed to do so, the petitioner’s claim should be sustained. Scholars contend that it was unfair for the complainants to prove they had been victimized and that their injury resulted from a specific source. Once the pollution accident had occurred, it became extremely difficult to produce any evidence. Since industrial producers always monitored their operations, it should have been easy for them to prove their innocence. In the end, this progressive idea was not written into the codified law. One EPA official acknowledged that this modification would have been more reasonable, but, given the possibility that victims were tempted to “raise an extortionate claim”, the government should wait for a better time to implement this measure (interview with an EPA official, 18 December 1998). Thus, the PNDM placed the burden of proof on the victims.

Fourth, in order to prevent ‘blackmailing’, a bylaw of the 1992 PNDM stated that applicants were to be charged a progressive rate for a handling fee based on the claimed amount of compensation. The more seriously the victims suffered the higher the handling fee they had to pay. While the regular mediation on civil affairs in the township or district was free of charge, those who filed public nuisance mediation could pay dearly.

The PNDM, in the form it was passed in 1992, largely reflected the EPA’s original draft of 1989. The Legislative Yuan did not produce any significant modification, despite some proposals from the opposition legislators. Until the end of 1992, Taiwan’s Legislative Yuan was not fully reelected, and, therefore, the finalized version did

not incorporate the ideas of environmentalist groups. As a result, the PNDM was not designed to uphold the right of pollution victims, but reflected the bureaucratic ‘problem-solving’ philosophy (Yeh, 1993, page 315). Finding a costless solution was deemed more important than protecting victims’ lawful claims. Apparently, officials were more concerned about possible extortions that victims could impose upon the industrial producers than the fact that polluters could escape with impunity under the current PNDM regime.

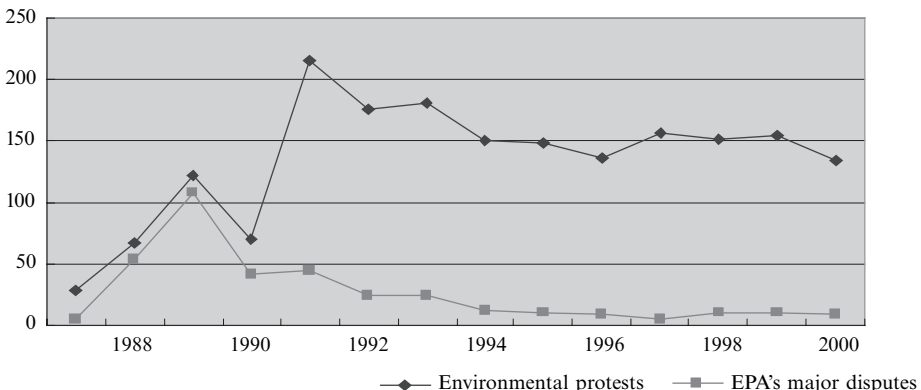
### Why did the PNDM fail?

According to an EPA’s 1998 report, the PNDM had the effect of “eliminating the public nuisance disputes and contributing positively to domestic economic development and social stability” (EPA, 1997, page 316). In figure 1 a secular decline of protest was visible after 1992, when the PNDM was first put into practice. Did this gradual reduction of protest cases signify the creditable performance of the PNDM? I disagree with the EPA’s optimistic diagnosis. While it is undeniable that there were fewer and fewer pollution protests, the relation of this with the PNDM is spurious.

First, there were technical problems in how the EPA viewed the protest trend. Since its founding in 1987, the EPA monitored and recorded the so-called “major public nuisance disputes”. EPA officials cited a fall in the number of major public nuisance disputes as evidence that the PNDM worked. However, a closer analysis of the EPA’s data arouses suspicion. First, the EPA never provided a consistent criterion of how a protest was categorized as “major”. Second, there was systematic underreporting, especially after 1990. The EPA tended to report less than 15% of all the cases I was able to find, and the divergence becomes even starker in the late 1990s (see figure 2).

Taiwan’s scholars have long contended that an underreporting problem exists in the EPA’s data (Hsiao, 1997, pages 5–6). When asked, one EPA official denied this problem by claiming that many disputes were not “environmental problems, but belonged to the issue of industrial safety or local faction politics”. Clearly, the official perspective was biased by the bureaucratic division of labor. It follows that the EPA’s positive evaluation of the PNDM should be taken with a grain of salt.

Second, a more direct test of the PNDM’s performance consisted of its ability to dissuade pollution victims from resorting to protest and to encourage them to submit to mediation instead. The fact was that the PNDM only demonstrated a highly limited



**Figure 2.** Environmental protests and EPA’s ‘major public nuisance disputes’ (1987–2003). (Environmental protests include all protests that are related to environmental issues, including those that deal with existing pollution. Research data is based on Ho (2006, appendix). The EPA’s data is collected from annual issues of the *White Book on Environment*.)

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capacity to absorb pollution disputes. From 1993 to 2000, there was a total of 127 cases of mediation application (EPA, 2002, page 409), while the same period of time produced 777 cases of antipollution protests. The gap here means there was a large number of disputes which could have followed the PNDM procedure. The fact that many disputes were solved outside the PNDM testifies to its limited attraction for pollution victims. Incidentally, one EPA official also based his positive evaluation of the PNDM on the fact that the EPA's arbitration committee had processed more than fifty cases by 2001 while the civil judicial system only finalized about twenty cases (*Lifayün Kungpao* 2001, page 29). This reasoning is also suspicious in that PNDM came about as a result of official acknowledgment of the failure of other legal channels, including the civil law system.

Third, in the mid-1990s, officials began to liberalize the 1992 PNDM. In 1995 the EPA came to acknowledge that the proportionate rate of the handling fee was a disincentive for pollution victims. A new flat rate of NT\$3000 per case was instituted instead. In 1998 a revision also increased the PNDM's political neutrality by requiring that more than two thirds of committee members had to be "scholars, experts and impartial citizens". In 1999 the government also streamlined the cumbersome three-stage design by abolishing the intermediate remediation so that an unsuccessful mediation case could go to arbitration directly. In fact, all of these subsequent reforms had been previously suggested by scholars and legislators before 1992. However, the EPA's fear that victims would abuse the PNDM prevented it from accepting these measures in the first place. These revisions indicated that officials were less than satisfied with the PNDM's actual performances.

In short, despite the officials' positive assessment, I find the PNDM was far from fully accomplishing its mission to institutionalize pollution disputes. Why did the PNDM produce a less-than-desirable result? Two reasons explain this.

First, the persistent gap between antipollution protests and mediation cases shows that the PNDM itself was not attractive to victims, who still preferred to retrieve their loss by protest politics. In regular civil lawsuits the plaintiffs could hire their lawyers, but in the PNDM even the voluntary assistance of environmentalists was prohibited. Thus, the official suspicions of possible abuse led to an unattractive PNDM, which provided insufficient incentives for those who suffered from pollution.

Secondly, bureaucratic incompetence also negatively affected the PNDM's performance. A half year after the enactment, some local governments were still reluctant to set up their own mediation committees because of the financial and personnel burdens. In August 1992, when the victims of radioactivity-contaminated houses petitioned the Taipei Municipal Government, they found its mediation committee not yet established. As a result, these hapless residents had no choice but to stage a series of protests and lawsuits. In April 1993 Tashe villagers blockaded the petrochemical industrial zone and shut down the whole operation. Like the 1988 Linyuan incident and the 1992 Talinpu incident, the Tashe protest also resulted in a severe crisis for Taiwan's petrochemical sector. During the whole episode the PNDM was never used to solve the conflict. In the end the Tashe incident was solved by direct negotiation between local leaders and company management. Undoubtedly, the slow reaction of local governments blunted the edge of the PNDM.

In addition, since a mediation case started at the local level, how the frontline officials reacted to pollution complaints affected the chance of using the PNDM. Official encouragement increased the likelihood that the PNDM could be applied. However, for many local officials, the PNDM would increase their workload. Some of them, in private, hoped pollution disputes could be solved through nonofficial approaches. For example, one Ilan County official claimed the intervention of local

politicians worked better than the complicated PNDM procedure (interview, 4 June 1999). Another Kaohsiung County official said frankly that the chance of one PNDM case reaching agreement was too low and required too much paperwork (interview, 23 July 1999).

While the PNDM was not much welcomed among local officials, the EPA sometimes sent confusing messages. For example, an EPA official commented on the fact that certain local mediation committees had never received any application as a good phenomenon because the PNDM was designed “not to be used, but as a preparation” (*Liberty Times* 9 February 1996). The EPA Director even claimed that the PNDM did not apply to the issue of nuclear waste (*Lifayün Kungpao* 2001, page 31), which contradicted the second article of the PNDM.

Clearly, the statements of national and local officials reveal a collective mentality. If pollution existed, it was better not to arouse a dispute; if a dispute arose, it was better solved privately. Finally, if a peaceful private settlement was not forthcoming, then one might as well try the PNDM. The same defensive attitude resulted in the original design of the PNDM in 1992, which was characterized by the thinly veiled distrust of victims. The original purpose of the PNDM was to provide an institutional solution to protest behaviors. However, the actual result of the PNDM was dictated and compromised by the fear of popular abuse.

### **An alternative explanation of the decline of protests**

If the PNDM failed, what caused the gradual decline in the number of protests during the mid-1990s? Certainly, with the upgraded environmental administration and surveillance, industrial pollution was likely to be reduced. More preventive measures were put into practice with the rise of environmental consciousness. While there is no denying the improvement of environmental quality, this section analyzes the development of businesses’ good-neighbor (*mulin*) policies in the 1990s. As a response to widespread protests, industrial producers strengthened their public relations with local communities by earmarking a considerable sum of money for this purpose. More often than not, this money was targeted at local representatives or community headmen. With the latter successfully being silenced, a polluted community was less likely to organize a protest.

The state-owned enterprises took the lead in implementing these good-neighbor policies. In 1990, in order to neutralize the opposition to its expansion project, the China Petroleum Company (CPC) allocated a fund of NT\$1.5 billion for Houchin. The so-called Houchin Social Welfare Foundation used the annual proceeds to provide all kinds of community services, subsidized utilities, free school lunches, and even cash rewards. All local leaders were invited to join the foundation board of directors. In addition, the CPC specified some of its procurement as “good-neighbor purchases (*mulinpiao*)”, as well as specifying a portion of its personnel recruitment exclusively for Houchin residents. These local workers were organized into a good-neighbor team that helped the company to monitor local opinion. The CPC also set up an industrial relations office whose main purpose was to build good relationships with community leaders. The CPC industrial relations officials frequented the community, and they had a discretionary budget to spend on dining and drinking with local elders. An industrial relations official whom I met claimed to have settled many potential disagreements clandestinely.<sup>(2)</sup>

<sup>(2)</sup>The information on the CPC is based on my study on petrochemical workers in the Kaohsiung area 2002–04. I came to know its industrial relations personnel through union officers incidentally. They told me rich details concerning the CPC’s good-neighbor policy in private conversation. Afterwards, my request for a formal interview was politely rejected.

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The state-owned Taiwan Power Company (Taipower) also initiated a process to institutionalize its community rewards. To meet growing local antagonism, Taipower earmarked 1% of its revenue to form a Power Development Fund. How this fund was used remained a highly classified secret for a long time. An insider's source revealed that its annual budget of 1994–96 was close to NT\$3.0 billion, with which the fund underwrote more than 1000 applied projects each year (interview with an antinuclear activist, 24 June 1999).<sup>(3)</sup>

Private companies also followed these examples. It became a frequent phenomenon that companies in the same industrial zone formed an association (*ch'angshang lienyihui*), which managed a common fund for good-neighbor policies. To cultivate public relationships, local workers and contractors were also given preferential treatment, and community activities such as temple festivals were regularly sponsored.

In Taiwan it was generally believed these rewards involved some behind-the-scenes corruption. How the state-owned enterprises ran their good-neighbor policies remained hazy to outsiders despite the fact they were subject to more public scrutiny than private companies. Prior to the regime shift in 2000, The Taipower Fund managing board members did not have a fixed tenure. The DPP government appointed some reputed scholars to its managing board. But these reformers found it impossible to ward off greedy politicians. A former fund director acknowledged that a large sum of money was spent on wasteful projects simply for political reasons. As a result, "those villages with aging population were busy in building nursery centers and kindergartens, while bulletin boards with modern liquid crystal displays were erected along the bucolic country roads" (Ho, 2002). It is reasonable to believe that these unnecessary constructions served only to fatten politicians' wallets.

As the official PNDM failed to institutionalize pollution disputes, business devised a way to reduce the communal antagonism. These good-neighbor policies more or less worked because they could win a more favorable attitude from community leadership. A scandal broke out in 2002, in which it was revealed that many legislators regularly received subsidies from the CPC's good-neighbor fund or the Taipower Fund. Once politicians grew reliant upon the contributions from industrial producers, there were fewer incentives for them to act as champions for local antipollution voices. Those local headman without political positions were also beneficiaries because they were given more discretionary resources over their community followers. Now they could act as brokers between the company and local contractors or job seekers.

It should be stressed that these benefits were unevenly distributed among the community members. Local patrons, faction bosses, and other influential elites played an intermediate role in dispensing these payoffs to their constituencies as personal favors. Community rewards strengthened the redistributive power among these local leaders. To put it another way, these good-neighbor policies drove a wedge between the community leadership and the rank and file. As the community leadership was able to receive material payoffs, it was increasingly less willing to work with the aggrieved populace. Even when an industrial accident occurred, leadership was more likely to adopt a conciliatory tone and to behave as a go-between rather than as a protest leader. Thus, regardless of the actual amount of pollution, the system of community rewards reduced the probability that pollution would trigger a protest. Much like the situation of Japanese local politics analyzed by Broadbent (2003), local bosses were bribed into acquiescence, and their connection to the industrial producers stifled rank-and-file protests.

<sup>(3)</sup>The interviewed activist once worked as an assistant to a DPP legislator. He used the name of his boss to obtain this classified information.

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Finally, compared with the official PNDM, these revealed measures played a much more important role in shaping relations between industry and community. A monetary comparison would be enough to prove this point. The Taipower's fund distributed about NT\$3.0 billion annually, while the PNDM had settled less than NT\$0.1 billion for compensation from 1992 to 2001 (*Lifayün Kungpao* 2001, page 28). The fact that industrial producers were willing to lavish a large sum of money on local politicians proved the latter were instrumental in decreasing the popular propensity of violent protests.

### Conclusion

Toward the end of the 1990s, the wave of pollution protests visibly subsided. The peak number of contentions was reached in 1991; after that, the number of protest cases decreased annually. Qualitatively speaking, environmentalism also ceased to be disruptive and unpredictable. Violent blockades against an industrial zone which resulted in a national crisis, such as the 1988 Linyuan incidence, did not happen again. Businesses no longer cited environmental protests as an obstacle to their investment.

How was this result brought about? Taiwan's government had tried different control strategies over the years. In the mid-1980s the state sought to preempt the environmental grievances by upgrading its administrative structure. In the late-1980s a new repressive strategy was employed to crack down on some violent protests. However, even the reinforced policing found it hard to contain the protests because of their decentralization and political support. After the failures of both preemption and repression, officials decided to institutionalize the environmental conflicts.

The PNDM was devised in this context. By providing a new conflict resolution institution, the state sought to tame the highly explosive protests. It was hoped pollution victims would follow this official procedure instead of laying a blockade against the suspected factories. As a control strategy, the 1992 version of the PNDM revealed the officials' distrust and fear. It was more inspired by the urgent need to restrain popular radicalism than to uphold the victims' rights.

Contrary to the EPA's claim, the PNDM failed to settle the majority of pollution disputes. Most victims still tended to use protest rather than file mediation cases. The restrictive design of the PNDM did not offer enough incentives for victims. Further, the persistence of bureaucratic reluctance was not helpful to the promotion of the PNDM as a solution to environmental conflicts.

The institutional failure of the PNDM prompted business and economic officials to implement a series of good-neighbor policies. In this paper, I have argued that these community rewards reduced the protest propensity by offering material payoffs to community leadership. By fostering pro-business local bosses, businesses succeeded in depriving victims of their leadership. As a result, the number of protests visibly declined toward the end of the 1990s. After 2000, although the DPP government came into power with an explicitly pro-environment agenda, its subsequent centrist turn and the declining salience of pollution disputes left the existing PNDM framework largely intact (Ho, 2005b).

Finally, let us take a look at the implications of community rewards. As a compensation measure, they helped to redress the losses and inconvenience suffered by the residents near industrial facilities. Monetary payment was a necessary though insufficient means to protect their environmental rights. The 2002 Basic Environmental Act also established the principle of compensation to those who were negatively affected by development. However, the community reward as it was widely practised in Taiwan was both unaccountable and undemocratic. It was unaccountable because how these monies were spent remained opaque to the general public. Even the state-owned enterprises

declined to reveal the details of their good-neighbor policies. It is reasonable to surmise that those policies conducted by the private sector were more ethnically questionable. Without transparency, there is only a thin line between bribing community leaders and compensating the welfare loss of the affected people.

The current system was also undemocratic because local headmen were given more power in dispensing the benefits while the grassroots did not have a say in it. In many cases, reward was only a thinly disguised measure to co-opt local bosses without really improving the victims' living condition. Further rewards strengthened the clientelism between local patrons and their followers, as local patrons obtained more personal resources in redistributing company's contracts and jobs. As a consequence, these good-neighbor policies reinforced the vertical dependency in local politics and made the transition to civil society more difficult (Fox, 1994).

In sum, although community rewards help to reduce the antipollution protests, it fails to institutionalize the strenuous relation between community and industry. Unvoiced discontents over pollution still lurk beneath the superficial harmony. In the current regime, environmental grievances are arguably suppressed. Thus, how to institutionalize a more democratic conflict resolution mechanism remains a great challenge in Taiwan.

## References

- Amy D, 1987 *The Politics of Environmental Mediation* (Columbia University Press, New York)
- Bello W F, Rosenfeld S, 1990 *Dragons in Distress: Asia's Miracle Economies in Crisis* (Institute for Food and Development Policy, San Francisco, CA)
- Bingham G, 1986 *Resolving Environmental Disputes: A Decade of Experience* (Conservation Foundation, Washington, DC)
- Broadbent J, 2003, "Movement in context: thick network and Japanese environmental protest", in *Social Movements and Networks* Eds M Diani, D McAdam (Oxford University Press, Oxford) pp 204–229
- Cheng Y-P, 1988 *Kinghuai chiufen ch'uli chi minshih chiuchi chih yenchiu* [A study in public nuisance and civil law relief], unpublished research proposal commissioned by Environmental Protection Administration, Taipei (in Chinese); copy available at the EPAs library, 100432 #41, Sec.1, Chung-Hwa Road, Taipei, Taiwan
- Coser L, 1956 *The Functions of Social Conflicts* (Free Press, New York)
- Dahrendorf R, 1968 *Essays in the Theory of Society* (Stanford University Press, Stanford, CA)
- Dryzek J S, 1996, "Political inclusion and the dynamics of democratization" *American Political Science Review* **90** 475–487
- Dryzek J S, 1997a, "Strategies of ecological democratization", in *Democracy and the Environment: Problems and Prospects* W M Lafferty, J Meadowcraft (Edward Elgar, Cheltenham, Glos) pp 108–123
- Dryzek J S, 1997b *The Politics of Earth: Environmental Discourses* (Oxford University Press, Oxford)
- Emerson K, Nabatchi T, O'Leary R, Stephens J, 2003, "The challenges of environmental conflict resolution", in *The Promise and Performance of Environmental Conflict Resolution* Eds R O'Leary, L B Bingham (Resources for the Future, Washington, DC) pp 3–26
- EPA, Environmental Protection Administration, Taipei  
 1994 *Kunghuai chiufen ch'uli paishu* [White book on processing pub nuisances] (in Chinese)  
 1997 *Huanching paishu* [White book on environment] (in Chinese)  
 2002 *Huanching paishu* [White book on environment] (in Chinese)
- Fox J, 1994, "The difficult transition from clientelism to citizenship: lessons from Mexico" *World Politics* **46** 151–184
- Gamson W A, 1975 *The Strategy of Social Protest* (Dorsey Press, Homewood, IL)
- Ho M-S, 2004, "Contested governance between politics and professionalism in Taiwan" *Journal of Contemporary Asia* **34** 238–253
- Ho M-S, 2005a, "Protest as community revival: folk religion in a Taiwanese anti-pollution movement" *African and Asian Studies* **4** 237–269
- Ho M-S, 2005b, "Weakened state and social movement: the paradox of Taiwanese environmental politics after the power transfer" *Journal of Contemporary China* **14**(43) 339–352



- Ho M-S, 2006 *Lüse minchu taiwan huanching yüntung te yenchiu* [Green democracy: a study on Taiwan's environmental movement] (Socio, Taipei) (in Chinese)
- Ho T-F, 2002, "Tienchihui chihsi jen cheng'ko yüch'üych'iu" [Power Development Fund was looted by politicians] *United Daily* 19 April, page 15 (in Chinese)
- Hsiao H-H, 1997 *Taiwan tifang huanpao k'angcheng yünt'ung* [Taiwan's local environmental protest movements], unpublished research report commissioned by Environmental Protection Administration (in Chinese); copy available at the EPA's library, 10042 #41, Sec.1, Chung-Hwa Road, Taipei, Taiwan
- Johnson C, 1987, "Political institutions and economic performances: the government-business relationship in Japan, South Korea, and Taiwan", in *The Political Economy of the New Asian Industrialism* Ed. F C Deyo (Cornell University Press, Ithaca, NY) pp 136-164
- Kao C-P, 1997, "Lich'angjung huakung kunghuai shihchien" [The pollution case of Lee Changyung Chemicals] *Hsin-Chu Journal of History* 3 45-58 (in Chinese)
- Legislative Yuan, 1993 *Kunghuai chiufen ch'uli faan* [Compiled record of Public Nuisance Dispute Mediation Act] (Legislative Yuan, Taipei) (in Chinese)
- Lifayün Kungpao* [Bulletin of Legislative Yuan] 2001, 91(51)
- Mahoney J, 2000, "Path dependency in historical sociology" *Theory and Society* 29 507-548
- Nien H-L, 1997 *Lukang fantupang shihniench'i chuanchi* [Tenth anniversary of Luka anti-DuPont movement] (Green Advocacy Workshop, Lukang, Taipei) (in Chinese)
- North D C, 1998, "Economic performance through time", in *The New Institutionalism in Sociology* Eds M C Brinton, V Nee (Russell Sage Foundation, New York) pp 247-257
- Piven F F, Cloward R A, 1977 *Poor People's Movements: Why They Succeed, How They Fail* (Vintage, New York)
- Rabe B G, 1994 *Beyond Nimby: Hazardous Waste Siting in Canada and United States* (Brookings Institution, Washington, DC)
- Reardon-Anderson J, 1992 *Pollution, Politics, and Foreign Investment in Taiwan* (M E Sharpe, Armonk, NY)
- Schattschneider E E, 1960 *The Semisovereign People: A Realist's View of Democracy in America* (Harcourt Brace Jovanovich, New York)
- Sidaway R, 2005 *Resolving Environmental Disputes: From Conflict to Consensus* (Earthscan, London)
- Susskind L, Cruikshank J, 1987 *Breaking the Impasse: Consensual Approaches Resolving Public Disputes* (Basic Books, New York)
- Tang C-P, Tang S-Y, 2006, "Democratization and capacity building for environmental governance: managing land subsidence in Taiwan" *Environment and Planning A* 38 1131-1147
- Tang S-Y, Tang C-P, 1997, "Democratization and environmental politics in Taiwan" *Asian Survey* 37 281-294
- Tang S-Y, Tang C-P, 1999, "Democratization and the environment: entrepreneurial politics and interest representation" *China Quarterly* 158 66-82
- Terao T, 2002, "An institutional analysis of environmental pollution disputes in Taiwan: cases of 'self-relief'" *Developing Economies* 40 284-304
- Wang J-H, 1993 *Tzupen, laokung, y ü kouchiachich'i* [Capital, labor and state apparatus] (Taiwan Shehui Yenchiu, Taipei) (in Chinese)
- Weller R P, 1999 *Alternative Civilities: Democracy and Culture in China and Taiwan* (Westview Press, Boulder, CO)
- Williams J F, 1992, "Environmentalism in Taiwan", in *Taiwan: Beyond the Economic Miracle* Eds D F Simon, M Y M Kau (M E Sharpe, New York) pp 187-210
- Yeh J-R, 1992, "Ch'umai huanchingch'üan: ts'ung wuch'ing shech'ang te shihwi huik'ueichichin t'anch'i" [Environmental right on sale: on the 1.5 billion compensation fund for houchin fifth naphtha cracker] *Proceedings of National Science Council* 2 17-34 (in Chinese)
- Yeh J-R, 1993 *Huanching chengtse yü falü* [Environmental policy and law] (Yuantan, Taipei) (in Chinese)

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