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The Environmental Movement in Taiwan after 2000: Advances and Dilemmas

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Overview: The Transformation of the Environmental Movement Since 2000

The topic of this chapter is the transformation in the environmental movement after the Democratic Progressive Party (DPP, 民主進步黨), took the presidency of Taiwan in the year 2000. This is a political analysis based on the authors' experiences in the last decade in Taiwan and on recent discussions with eight environmental activists. The chapter will also discuss some of the historical context behind recent changes in the environmental movement in Taiwan, as well as relevant environmental and social movement issues.

In recent years there has been a strong link between the environmental movement and the course of politics in Taiwan. A particularly well-publicised example of this link is used as an extended example in this chapter. This was the drive to prevent construction of Nuclear Power Plant Number 4 (NPP4), which was a part of the forces that unseated the Chinese Nationalist Party Kuomintang (KMT, 中國國民黨) and brought the DPP's Chen Shui-bian 陳水扁 into the presidency in May 2000. Following the 2000 election, many environmentalists were hopeful that the environmental situation in Taiwan would drastically improve. However, after an initial push for advance in environmental policy and enforcement, the DPP administration has been considerably stymied by the resistance of the old order, and has basically settled into retrenchment and compromise in order to try to decrease resistance to its rule and court the approval of Taiwanese capitalists. This process of change in the base of the ruling party in 2000 and beyond has led at the same time both to new empowerment of diverse local groups with local projects, and to alienation of the national-level environmental movement from the DPP; while the DPP seeks to produce visible public improvements in parks, air quality, roads, etc., that can shore up its voter base, and has recently made renewed gestures to reincorporate the environmental movement. However, the general prognosis of the environmental activists is that the priorities of the DPP lie with industry and globalization, and it will not turn back from operation of NPP4 and also continued leaps in carbon emissions.

The chapter commences with an introduction of the environmental movement before 2000, that is, during KMT era Taiwan. It follows with a longer explanation of the changes that have occurred since the DPP were elected to power; this section will also contain comparisons to environmental stewardship under the KMT. The final section is an analysis of what the change of government has meant to the Taiwanese environmental movement, with some personal thoughts about where this will take Taiwan in the future.

The Environmental Movement in Taiwan under the KMT

The KMT did not have a good record of environmental stewardship in Taiwan. The forests that were harvested but also carefully managed and renewed under Japanese colonialism were logged nearly to elimination under the KMT;¹ under the oversight of retired servicemen's organisations, much more was cut illegally than recorded. At lower altitudes, once-dense tropical forest on hillsides has been clear-cut for government-promoted fruit tree cultivation, or for betel nut palm plantations. Mining and other interests were allowed almost any public land they wanted, for example the infamous case of Asia Cement 亞洲水泥 at the mouth of Taroko Gorge 太魯閣, in which the company in the 1970's conspired with local government officials to forge transfer of the land use rights from local indigenous people.² The long-term consequence of land misuse has been crumbling of slopes and choking of rivers; dams built in the 1960's and 70's such as the Shihmen Reservoir 石門水庫 have silted up and lost much of their capacity for flood control and water storage decades before their life expectancy.³ Especially where cement mining continues to expand, once-clear rivers on the east coast such as the Li Wu Stream 立霧溪 in Hualien 花蓮 are thick as chocolate milk after a typhoon, and river beds have filled up with as much as ten meters of loose gravel, so the river disappears beneath it.⁴

The KMT government had a role as well in chemical poisoning, which is a much more insidious issue for human life. Government-owned industries, for example the petrochemical and steel industries around Kaohsiung 高雄 and the paper industry in Hualien, have been among the worst offenders.⁵ The rampant export production expansion of the 1970's and 80's proceeded with no design for collection or treatment of waste. Whether through the electronics industry or electroplating, the production and wastewater were dispersed over the countryside, poisoning fields and animals. Small-scale industry in the suburbs dumped both solid and liquid waste; there was no public service for industrial disposal. The rivers through Tainan and Kaohsiung counties, on the south of the western coastal plain, often appear black seen from an airplane.⁶ But in the early days martial law prevented much reaction to any environmental problem; the 1986 'Lukang Rebellion' 鹿港反杜邦 against Dupont's plans for a titanium dioxide plant, already government-approved, was the first.⁷

¹ USDA Foreign Agricultural Service, GAIN Report *Taiwan Solid Wood Products Annual 2005*, 25 June 2005, GAIN Report Number: TW5022, p3.

² Chu, Henry, "The Tale of Taiwan's Aborigines", *Los Angeles Times*, June 1, 2001.

³ Chiu Yu-Tzu, "Dam foes say time is right to seek changes", *Taipei Times*, September 26, 2004.

⁴ For an international perspective, see Kondolf, G. Mathias, "Hungry water." The estimate of ten meters fill of gravel at the mouth of the Li Wu and adjacent rivers in the last thirty years was made by Igung Sipan (Tien Chun-chou 田春綱), an indigenous activist age sixty who grew up in Taroko Village, when Arrigo visited in 1998.

⁵ For example of water pollution by China Paper & Pulp Corp., Hualien plant, see back cover of *Bulletin of Concerned Asian Scholars*, 1994, Vol. 26, No. 1-2, photo provided by Arrigo, Linda Gail.

⁶ Chiu, Yu-Tzu, "Secret pipes pollute river in the south." In: *Taipei Times*, March 17, 2005.

⁷ Reardon-Anderson, James, *Pollution, Politics, and Foreign Investment in Taiwan*.

In response to this protest the KMT government finally established its EPA in 1988. In the view of many environmental activists, the EPA was mainly a distraction and a public relations front. Environmental impact assessments were commissioned from scholars who received government support or their dissenting reports were ignored. For example, in 1999 a government-commissioned survey found that there were fault lines running under the proposed Meinung Dam 美濃水庫; seeing his report buried, the leader of the survey, Professor Soong Kuo-cheng 宋國城 of Kaohsiung Normal University Geography Department 國立高雄師範大學地理系, went public with several opinion pieces.⁸ Even when the KMT government responded to environmental imperatives, such as recycling, the outcome was reportedly distorted by the corruption of its associates: for example, subsidies for collecting recyclables were paid out, but the reported quantities of materials collected were faked, and perhaps even that actually collected was dumped as garbage.⁹

In mid-March of this year in a chance meeting Arrigo was made privy to a confidential synopsis of such an inside deal; the person involved will remain unnamed here. As a retired air force officer with international experience, "Xi" was in the late 1980's able to get contracts for preparing waste disposal sites, although he had no civil engineering experience. In about four years he was able to amass over 50 million NT dollars through rigged bidding; but after 1992 (about when DPP legislators began to be able to examine government expenditures) he got out of the business, because, he said, he knew the easy money was over.¹⁰

With this background, it is easier to understand why the Premier appointed by President Lee Teng-hui 李登輝 in 1990, former Minister of Defense Hau Pei-tsun 郝柏村, planned a sudden escalation in public construction throughout the island, one that environmentalists then said would exceed the capacity of available trucks and cement production. As it is, Taiwan's use of cement is only second to Korea per capita, however, Taiwan has a much higher population density. Along with this accelerated construction, Hau called for crackdown on labour and environmental activists, branding them as 'hooligans', liu mang 流氓. This was significant because Taiwan's laws and political practice allowed imprisonment of persons designated as gangsters. Such excessive, top-down development has created oversize facilities with crumbling concrete and no staffing, and carelessly excavated roads in mountain areas that contribute to landslides. It was only after the first democratically elected legislature took office in early 1993 that Hau was ousted from office.

⁸ Song, Guo-cheng, *Taiwan News Opinion Page* (English), April 2, 2000. For Chinese, see *Liberty Times Forum* 自由時報自由廣場, April 12, 2000, <http://mpa.ngo.org.tw/why-no-dam/relation/000412.htm>.

⁹ Arrigo received such explanations in past years from Chien Lin Hwei-chun 錢林慧君, formerly National Legislator (2001-04) affiliated with Taiwan Solidarity Union, who as a city councillor for Tainan in the 1990's spent nearly two years trying to find out where recycled materials went, mostly without success.

¹⁰ "Xi", mid-sixties, now a taxi driver in Taipei after recently losing his fortune in real estate dealings in China, volunteered a detailed account and his name card without knowing Arrigo's background or interests. His yellow taxi is converted from a luxury sedan.

The ecological devastation and disorder of Taiwan's economic development can be boiled down to three main reasons. First, martial law (1949-1987), and the freezing of substantive democratic processes set conditions adverse to good environmental decision-making. Government planning was top-down, generally handing land and resources to crony capitalists. Communities were unable to unite and protect themselves. Very few would report on shoddy or destructive public construction or illegal dumping, even if it affected their immediate vicinity, for fear of reprisal from police or gangsters.

Secondly, there was an element of distance and disdain by the rulers for the island and disregard for its long-term viability, so there was little to balance collusion with industry or grandiose plans for nuclear reactors and incinerators that yielded a high rate of kickbacks in construction. Chiang Kai-shek 蔣介石 and his minions simply never planned to stay long in Taiwan. The proliferation of unregulated small and medium scale industries (incorporation opened the company to government intrusion) was also rooted in the gap between government and populace, as well as a general lack of trust in the government as a protector of public good.

Thirdly, the populace of Taiwan also developed habits of short-sighted opportunism and anarchic selfishness. This is a common feature of developing countries, and is by no means peculiar to Taiwan. However, the short-sightedness of a government that had no plans to stay on the island may have exacerbated this problem. Illegal construction and the degradation of public land was the mode. Dumping of household and industrial garbage in the mountains or along rivers was done with impunity and on a huge scale, generally under collusion between officials and local political factions with their gangster affiliates.¹¹

The above first and second reasons for the environmental devastation wreaked upon this once beautiful island explain why the goals of environmental justice in Taiwan meshed with the goals of the movement for political democracy in a way that might not be as compelling in another country, and why in recent history there has been a significant overlap of personnel. But the social movements, notably the environmental movement, were still only a small fraction of the organised forces behind the democratic movement. By far the predominant forces were the proponents of native Taiwanese majority rule, self-determination or formal Taiwan independence. The democratic movement was secretly bolstered by a small number of business owners from the beginning, and in the late 1990's some native Taiwanese conglomerates who came close to the DPP even suddenly embraced environmental

¹¹ This became apparent in Arrigo's participation in activities and election campaigns of Chen Wan-chen 陳婉真. Chen was a DPP National Legislator in 1993-95, representing the south side of Taipei County. She mustered volunteers for a project to survey the river banks of the Da Han branch of the Tamsui River. On one trip to the river banks around Tucheng, around 1994, it was found that for several kilometers the gravel had been dug out in strips about ten feet deep, garbage dumped in, and hidden with a few feet of gravel replaced on top. Fresh truck tracks and diggings abounded - an incredible scale of illegal activity and under a DPP county head, You Ching 尤清.

causes (Chi Mei Corporation 奇美企業集團, plastics; and I Mei Foods 義美食品公司). Chi Mei had previously been callous to complaints of emissions from its Tainan plant.¹² Points of conflict with the business community around the DPP since then have not been obvious, just a general lack of interest among politicians if there is no immediate vote-appeal.

The Environmental Movement under the DPP

As mentioned in the introduction, environmental considerations were part of the reason that the KMT was ousted in the 2000 election. Land and environmental issues had been elevated in the public eye also just before the election by the 7.3 earthquake in central Taiwan on September 21, 1999 that killed nearly 2,500 people, and exposed the deadly shoddiness of public construction, and the ineptitude of the ruling officials of the Kuomintang. Volunteer religious groups and social activists stepped into the gap to provide succour, and appeared as the heroes in this human tragedy. Noted academics such as Nobel Laureate Lee Yuan-tseh, head of Academia Sinica, threw their weight behind the opposition candidacy of the DPP. Chen Shui-bian came in narrowly ahead of Soong Tsu-yu (James Soong) 宋楚瑜, who had split the KMT's voting block with his candidacy. Environmental activists were, for the most part, optimistic about where this change of government would take the environmental movement.

An incident that seemed to indicate that the Chen Shui-bian administration was committed to environmental enforcement occurred soon after the inauguration on May 20. On July 13 and 14, 2000, one hundred tons or more of highly toxic organic solvents were dumped into the Chishan Stream 旗山溪, the upper branch of the Kao-Ping Basin 高屏溪, which is the water source for the city of Kaohsiung. Dead fish and stench quickly led to police investigation and apprehension of the toxic waste disposal company involved and the original source of the waste in Taipei County. Kaohsiung city water was declared unpotable for three days. The quick investigation and also the stiff charges against the defendants were unprecedented.¹³ This was perhaps due to the action of the DPP's first appointee to head the EPA, biologist Edgar Lin 林俊義, long an environmental activist.

The reason the case could be so vigorously prosecuted was that the Chishan Stream case followed on the embarrassing international incident in which 2,700 tons of mercury-laced dried sludge were dumped in Sihanoukville, Cambodia, on November 30, 1998, directly or indirectly causing seven or more deaths, and the source was found to be Formosa Plastics.¹⁴ Following this case the legislature

¹² Arrigo, Linda Gail, "Environmental Nightmare", p. 40. The abbot of a temple near the plastics plant related ten years of struggle to get Chi Mei to rein in emissions that could be smelled in much of east Tainan City.

¹³ A thorough summary of this case in Chinese can be found on the website of the Ecology Education Center of the Kaohsiung City Teachers Association 高雄市教師會, 生態教育中心, ecc.kta.org.tw/damage_html/a-wpollution08.htm

¹⁴ Kyne, Phelim, and Sotheacheath, Chea, "Return to Sihanoukville."

stiffened environmental regulations, making the source of the materials as well as the registered waste disposal companies liable for damage, including prison time for the officers. It was soon revealed that 130,000 tons of this mercury-contaminated waste product churned out by the plastics industry in the process of making PVC for over a decade till 1989 was unaccounted for. Despite the tragic experiences of Japan with mercury poisoning at Minamata and at the Hakano River, Taiwan's Ministry of Economic Affairs never tracked the waste. Farmers in Pingtung 屏東 had long complained that chemicals dumped at an old brick factory killed their ducks, but until the debacle in Cambodia the EPA never came to test it; and that was only 5,000 tons. The eventual cleanup of the Pingtung site in 2003 cost 240 million NT dollars, 40 percent covered by the government.¹⁵

In the Chishan case, prosecutors charged twenty-two persons with criminal counts and demanded life imprisonment for five for negligent manslaughter. Fines were 16 million NT dollars. The source company was believed to have dumped 4,000 tons of toxic organic solvents in rivers all over Taiwan since 1998. The eventual sentences were as high as ten years imprisonment.¹⁶

As seen in this case, early in its administration, the DPP appeared to advance in the enforcement of environmental regulations, and it greatly increased the transparency of operations, allowing environmental activists much more access to information and dialogue with government organs. For example, it has absorbed many environmental activists, especially the ones from academia, into government service as researchers or consultants, where they have been busied either with designing regulations to address practical problems or with making lofty public statements, though with little obvious effect.¹⁷ The Ministry of Foreign Affairs set up a website for non-governmental organisation (NGO) coordination¹⁸ and has provided generous support for international travel for NGO's. This led to a high profile Taiwanese presence at the Johannesburg World Summit on Sustainable Development in August 2002.¹⁹ The DPP has also cooperated with environmental pushes in areas such as the exploration of alternative energy (especially windmills), minimisation of materials use in manufacturing and household waste reduction of waste. It has largely done this by

¹⁵ Chiu, Yu-tzu, "Group says EPA set a bad precedent with Formosa." In: *Taipei Times*, August 19, 2003.

¹⁶ However, as common under Taiwan's legal procedures for white collar crime, over five years after the event none of those convicted has served time; they are still free on bail awaiting appeal. Moreover, George Cheng of Taiwan Watch has heard that the law under which officers of the source company were sentenced to jail time has since been repealed.

¹⁷ For example, in his October 23, 2005 presentation to the Environmental Consensus project, Sam Lin 林聖崇, a seasoned environmental activist who is now on a government advisory committee that meets once every three months, joked that he advises the President but the President doesn't ask (a pun on the Chinese term for "consultant" *gu wen* 顧問).

¹⁸ Ministry of Foreign Affairs, Republic of China, NGOs Taiwan (English) website: http://www.taiwannngo.org.tw/ngowbs/index_E.jsp.

¹⁹ Chiu, Yu-Tzu, "Taiwan scores success at summit." In: *Taipei Times*, September 10, 2002. About thirty persons from NGOs in Taiwan and about thirty staff from the Ministry of Foreign Affairs attended. As Arrigo knows from Green Party Taiwan meetings, the Taiwan connection with the Summit began through the contacts of Green Party Taiwan with the German Greens in February 2002.

handing out research and development contracts, while at the same time decreasing the size and sway of the old bureaucracy that had previously overseen such functions.

But to the already established NGOs, the loss of experienced personnel to government bodies has been a haemorrhage that has weakened their ability to function; dedicated recruits are few, despite public demand for an improved environment. Contributions of labour and funding are sparse, and activists suspect some of their original protest base was mainly motivated by Taiwanese nationalism, that is, overthrowing the Chinese Nationalists. One major figure of the DPP, however, Lin Yi-hsiung 林義雄, remains committed to a national referendum on NPP4 (with implications for a national referendum on the future of Taiwan), and is a beacon for the environmentalists. We will discuss this further when we focus on the partisan struggle over the construction of Nuclear Power Plant No. 4.

Despite this perceived weakening of established centralised NGOs, there has also been a proliferation and diversification of local-level environmental and cultural organisations, marking a significant shift in the composition of the environmental movement in Taiwan. This shift has been encouraged by the trend towards "native identity" 本土意識, i.e. identity with Taiwan rather than with distant China as indoctrinated in the past, and government funding of community projects. These include projects such as cataloguing and protecting local flora and fauna, recording oral history and developing local tourism with particular sites and food specialties. The community college movement (i.e., non-degree adult education using high schools and public buildings at night), about half funded by local governments, has provided a venue and some income for activists; beginning 1995 in Taipei with the Wenshan Community College, there are now 105 programs extending out to remote areas. These organisations have helped to magnify the NIMBY ("not in my backyard") effect, increasing opposition to incinerators, dumps, dams, and building on wetlands. The environmental movement has seen some victories in these areas. For example the EPA has recently begun to follow up reports by environmental volunteers who scout rivers for polluters in the south of Taiwan.²⁰

But an opposition party that has grown up in the face of a monolithic power can be expected to be an amalgamation of forces with somewhat differing agendas, all pushed together by the forces of repression. The uniting element may be tenuous, more situational than programmatic. The DPP's early image was that of a champion of environmental issues, even to the detriment of industry. However, in the last few years the DPP has sought compromise and co-existence with economic forces in order to stabilise its shaky transition to ruling party.

It has been a great disappointment to environmentalists that the DPP has commonly pandered to pork barrel "development" politics during elections, supporting the usual concrete-pouring mega-projects rather than promoting sustainable alternatives. A recent example of this is the controversial freeway access granted to the residents of Pinglin 坪林, Taipei County, despite the fact that the area is the watershed for the Fei Tsui Reservoir 翡翠水庫, the protected source of

²⁰ "Taiwan's Amateur Enviro-spies." In: *Christian Science Monitor*, August 24, 2005.

drinking water for Taipei City. And some environmental activists believe that illegal dumping and polluting by industrialists has scarcely abated.²¹

Following Edgar Lin's quiet departure in March 2001²², decision-making in the government's Environmental Protection Administration (EPA) 環境保護署, under the Executive Yuan 行政院 was left in the hands of non-activists until June 2005.

According to Ho Tsung-hsun, General Secretary of Taiwan Environmental Protection Union (TEPU) 台灣環境保護聯盟, the oldest environmental NGO, he and his organization have not faced the DPP's relative neglect of environmental issues passively. TEPU systematically networked the scattered environmental groups throughout Taiwan by holding large forums in April 2004 and April 2005. They also carried out environmental training programs for youth, twenty camps in two years, which were fully subscribed with 60-80 youth participating in each. TEPU also mustered a huge program for environmental education in the schools. It recruited over a hundred speakers on environmental issues, and then through the offices of the Ministry of Education, which agreed to send out an official letter to all the schools about the availability of the speakers, TEPU arranged talks to schools that responded, 320 talks in 2004 and 350 in 2005. The schools and their contact persons are all neatly listed in a printed report, allowing later follow up. TEPU also received some government contracts for carrying out education on energy issues, but Ho Tsung-hsun insists that what he has done has been substantially without government funding. Prior to 2000, the Ministry of Education would not have cooperated in notifying the schools; the official letter gave a legitimising sanction to these activities. Even after 2000, school counsellors, with their traditional links to the security agencies and enforcement of ideological correctness under the KMT, have been heard haranguing student assemblies on the evils of the anti-nuke movement;²³ Ho Tsung-hsun did encounter a few efforts to silence his discussion of nuclear energy in school presentations.

After renewed efforts in 2004-2005 to unite environmental organisations into a concerted island-wide force, in June 2005 Premier Frank Hsieh 謝長廷 appointed Chang Kuo-lung 張國龍 to be head of the EPA. Chang, a nuclear physicist with over

²¹ Ho Tsung-hsun and Robin Winkler both voiced such opinions; interviews August 23, 2005 and August 26, 2005, respectively.

²² From the timing, close on resumption of construction of Nuclear Power Plant No. 4, it would appear that Edgar Lin, one of the founders of the anti-nuclear movement, resigned in protest; but he did not make this the public issue. The DPP's next surprise appointee to the position seemed calculated to calm partisan protest on environmental issues: Hau Lung-pin 郝龍斌, a professor of food science, was an influential member of the New Party (a splinter from the KMT) and son of the former military man-turned-premier, Hau Pei-tsun.

²³ In November 2000 after Chen Shui-bian ordered construction of NPP4 stopped and the KMT threatened to impeach him, Arrigo overheard a lengthy amplified address to the whole student body of Da Cheng High School 大誠高中 in Muzha 木柵, Taipei City, condemning Chen's actions.

twenty years of opposition to nuclear energy in Taiwan and much administrative experience, has recruited two other leading activists as his personal staff. Already seriously contaminated industrial sites such as that of the Anshun Factory of Taiwan Alkali Industrial Corp. 台灣鹼業公司安順廠 in Tainan county, where high levels of dioxin have been discovered, have been elevated to public attention.²⁴ Observers do not believe that Chang Kuo-lung will be co-opted, but the real tests will be seen soon.

Five years after acceding to the presidency in 2000, the DPP seems to be courting the approval of, but also courting a confrontation with, the environmental activists. Is this another stage of cooptation, or a new effort to tackle Taiwan's chemical cesspool? Does the environmental movement still have any clout in Taiwan politics? At this point we can only speculate.

The view of Ho Tsung-hsun, Wu Chien-kuo, and the environmental activists interviewed in general was that although they appreciate increased access to policy makers and procedural transparency under the DPP, they treat the DPP administration as an adversary on the concrete issues, just as they saw the KMT's previous administrations. They decry the complacency of some social movement participants who assumed that after 2000 that the DPP would stand on principle and carry out good programs after they got around to it. The activists do not think that the DPP will give more than lip service to environmental goals in the absence of a sustained and massive mobilisation, because the DPP is drawing closer to entrenched capitalist interests as it gradually grows roots of control into the government machinery. Thus Ho Tsung-hsun encouraged some of the environmental activists to protest outside on April 22, 2005 at the same time that President Chen Shui-bian addressed the opening of the 2005 National NGO Conference on the Environment.

Such an attitude was not without reason. The activists already knew that the energy conference 全國能源會 that the government was to convene on June 20, 2005 only planned for expert and industry representation, with little input from NGOs. Eventually the environmental activists resorted to crashing the meeting and protesting outside.

Now observers are awaiting the outcome on contentious decisions about future development. For example, the Binnan Industrial Complex 濱南工業區 which plans a petrochemical refinery and a steel mill next to Tainan wetlands has been resurrected and a new environmental impact assessment has been submitted. The new EPA head must rule on this.²⁵ Then there are the presently-slated petrochemical projects that

²⁴ Chiu, Yu-Tzu, "EPA head visits polluted industrial site in Tainan." In: *Taipei Times*, July 13, 2005. A thorough description in Chinese can be found on the website of the Ecology Education Center at http://ecc.ka.org.tw/magazine_html/environment10-1.htm.

²⁵ The earlier DPP commissioner of Tainan County Mark Chen 陳唐山 supported the Binnan project. The current commissioner, Su Huan-chih 蘇煥智, reportedly hand-picked by Chen Shui-bian, rose to popular recognition by opposing it. Mark Chen even undermined Su Huan-chih's election campaign in 2001 by getting a rival DPP figure to run as an independent.

would increase Taiwan's high per capita level of carbon dioxide emissions by 20 percent, which at over 10 tons per capita in 2002 was over four times that of China, and had already surpassed Japan's.²⁶ Premier Hsieh verbally supports Chang Kuo-lung, with statements that Taiwan should weigh international proscriptions such as the Kyoto Protocol on carbon emissions. The ultimate test will be whether NPP4 goes into operation, and whether a popular referendum is called on this issue.

The 'Bread and Circuses' Approach to Environmentalism

Some consideration of the types of environmental problems that received attention by the DPP are in order. This is clearly a situation of a government thinking of their electoral bottom line. Generally the cost of "slash and burn" capitalist development falls disproportionately on the lower-income sectors of the society, say directly through toxic dumping and industrial work exposure, and indirectly through damage to farm and fishing resources. However, many environmental demands resonate also with the middle and upper classes: demands for green open space, clean air and water, recreation in natural settings and easing of urban congestion. Green Parties throughout the world are typically composed of middle-upper income intellectuals. This is a constituency that is concerned with its quality of life and property values, among others. Environmental rhetoric can be very appealing in campaign literature decorated with trees, children playing in parks and cute animals.

In the relatively short term, the obvious conditions of the physical environment, for example garbage in the streets, have improved with the accession of the DPP. After Chen Shui-bian took over the mayorship of Taipei City at the end of 1994—the first time in decades that the mayor's seat was open to democratic election and the first time that a split in the KMT led it to a serious loss—he quickly cleaned up the parks, began laying more durable sidewalks, and escalated sewage hook-ups. This effort was very soon emulated in local administrations around the island; there was major urban cleanup and improvement in public amenities, especially parks.

Other changes that deeply affected urban life were in garbage collection; these changes mostly went into effect after Chen Shui-bian lost the Taipei mayorship to the KMT's Ma Ying-jeou 馬英九 in 1999. Earlier, garbage was piled up in plastic bags on designated street corners, to await the garbage collectors; stray dogs and cats would often tear open the bags. The new requirement, much resisted at first, was that household garbage could only be disposed of in special green plastic bags that were sold according to size, and the bags could only be brought down when the garbage trucks passed, playing their distinctive music. Recycling was also promoted. Within

²⁶ Energy Information Administration, *Taiwan: Environmental Issues*.

about six months, the volume of garbage decreased by half, idling the huge new incinerators built for Taipei City.²⁷

In Taipei County, under DPP administration since 1990, huge amounts of garbage were removed from river banks and/or covered over with soil, and the river banks were transformed into grassy recreation areas, bicycle paths, skating rinks, and parking areas that could still serve as flood overflow when necessary. The Tamsui River 淡水河 does not smell and look nearly as bad as it did, though there is still a long way to go in cleaning up. The mouth of the river has been changed into a quaint tourist boardwalk area and a park that is very popular with young people on weekends. Rock concerts and Taiwanese music festivals are often held there at public expense.

Urban life has also been much ameliorated by the debut of the Taipei Rapid Transit system. Although it was planned, tardily, in the 1980's when Lee Teng-hui was the KMT-appointed mayor of Taipei, it was finally finished under Chen Shui-bian's mayorship. The system beyond Taipei City proper was originally designed to serve Mucha 木柵 and Hsindien 新店, the suburbs south of Taipei that also happen to be the locations for government bureaucrats' residences and organs of the security agencies. The rapid transit system neglected the more densely populated areas where industrial workers lived, such as San Chung City 三重市, Luchou 蘆洲, and Panchiao 板橋 across the river west of Taipei City. Under the DPP, that is being quickly remedied with new lines now under construction.

In the last five years, the decrease in air pollution in the Taipei basin has been palpable. That is probably mostly attributable to the movement of much industry to mainland China, but it also reflects improved management of industrial areas, encouraging industry to re-locate and concentrate farther west of the city. Similarly, many of the horribly air-polluting industries originally sited in Tainan and Kaohsiung have moved to Guangdong Province 廣東省 in China. For example, until the mid 1990's, there was a huge home industry of burning cable and electronic components to recover the valuable metals centered in Wanli 灣里 south of Tainan City, on the coast; the air was noxious for miles around.²⁸

There is clearly a "bread and circuses" populist element to these environmental improvements, since they provide free recreation space that is much appreciated among Taiwan's dense, urban populations, and the riverside areas are also enlivened on some holiday evenings with huge public fireworks displays and rock concerts. This pattern was repeated when the DPP's Frank Hsieh (now Premier) took over the mayorship of the next major city, Kaohsiung, in 1998. Amazingly, he was able to turn the Love River 愛河, for decades stinking and black with industrial pollution, into an

²⁷ Ko, Shu-ling, "Garbage disposal program putting strain on city resources." In: *Taipei Times*, Aug 22, 2000. Since the incinerators were built with a contract guaranteeing the income of the operator, decrease in garbage volume does not decrease cost to Taipei City.

²⁸ Arrigo visited this area several times in 1992 and 1993 and took photographs; the stinging smoke could cause coughing several kilometres away. About 1995 the burning was halted.

attractive river promenade with the ambience of outdoor coffee shops and wandering minstrels.²⁹

The DPP has lived up to its pre-2000 environmental campaign promises on several fronts. They stopped the construction of a dam planned to provide water to industry, sited on the Lao Nong River in Kaohsiung County above a Hakka community, Mei Nong, that had been resolute in prolonged protest. The planned Binnan Industrial Complex 濱南工業區, with processing of petrochemicals, steel, and batteries, had in 1999 seemed destined to destroy the last remaining major wetlands on the southwest coast where the endangered black-faced spoonbill wintered. It was stopped at least for the time being on a technicality over the environmental impact assessment.³⁰ But on the largest and most contentious environmental issue, Nuclear Power Plant No. 4, the DPP began to backtrack on its explicit promises within a few weeks of the presidential election of March 18, 2000.

Chen Chien-chih of Green Citizen says that because the DPP knows the environmental movements very well, they also know that the movement cannot sustain protest for long and has a thin popular base. The DPP also knows tactics for defusing protest, with partial response and incorporating participation by environmentalists. But overall the DPP is moving step by step closer to the business sector, which now knows how to cultivate relations with the DPP as it did with the KMT. This does not bode well for Taiwan's environmental movements.

Nuclear Power Plant No. 4, the Ultimate Test

First a quick review of the background of nuclear power in Taiwan. The first three plants went into operation in 1978, 1981, and 1984. As Chang Kuo-lung once explained to me, local residents at first welcomed Nuclear Power Plant Number 1 (NPP1), which went on line in 1978. However, within a year they found that the huge heat release from the ocean water cooling system, and the chemicals used to clear the pipes of barnacles, decimated their catch of eel fry, crabs, clams, and fish, and damaged the small "nine-hole" abalone that are raised in enclosed seashore pools, a specialty of the northeast coast. Moreover, no new development was allowed within five kilometres of the plant, to stop population increase, and this cut the local population out of the benefits of skyrocketing property values near the capital city. Since then local fishermen have opposed the power plants.

Local residents near NPP1 and Nuclear Power Plant Number 2 (NPP2) also claim they are affected by radiation leakage, and deformed fish have been found. However that may be, radioactive scrap metal from the plants was sold (government workers get contributions to their welfare funds from scrap sales) and melted into rebar that

²⁹ See Kaohsiung City Government Public Works Bureau website for the sewer-building explanation, http://pwse.kcg.gov.tw/Love/clean_02.htm ; many other websites provide photos of the night scene as well.

³⁰ Chiu, Yu-Tzu, "Pinnan complex delayed again over EIA questions." In: *Taipei Times*, November 30, 2000.

ended up in apartment buildings and even schools in the mid-1980's. Taiwan's nuclear materials and energy regulatory body, the Atomic Energy Council 原子能委員會, chanced upon a case of radioactive walls in 1985 when inspecting a dentist's X-ray machine, but failed to investigate until a discovery elsewhere in August 1992 finally forced admission.³¹ Over a hundred apartment buildings may be affected, and activists claim there have been twenty-five or so deaths, but there has been no wholesale testing. Homeowners fearing for their property values also reject the test.

NNP1 and NNP2 are close to the northeast tip of Taiwan. NNP3 is on the western side of the southern tip. Each has two reactors. When NNP4 was slated to be sited at Kungliao Township 貢寮鄉 on the east coast of Taipei County, just above the main recreational beach in northern Taiwan, Fulong Beach 福隆海水域場, the local community dug in its heels. Although they could not stop expropriation of their land in 1984, the construction has been delayed by fourteen years due to stiff local resistance, the rise of an anti-nuclear movement after the Chernobyl accident in April 1986, and the objections of the DPP in Taipei County and Taipei City governments. In one pitched battle at the entrance to the site in 1991, a young driver of a protest truck panicked when police moved in to arrest him, and he accidentally killed a policeman when backing up. Lin Shun-yuan 林順源 was sentenced to life imprisonment as if the killing were intentional, and others were jailed up to eight months. This put a chill on the movement. Lin is still in prison fourteen years later; a documentary film on the movement in Kungliao has recently revived concern for his plight.

Alternatively, we might say that strong support from the people of Kungliao helped the DPP to hold on to the majority vote in Taipei County through mobilisation on this issue. Annual April or May marches from 1988 on rallied tens of thousands of participants. In March 1996, Taipei City under Mayor Chen Shui-bian held a non-binding referendum on the nuclear power plant; 58.7 percent of voters participated, and of those, 51.5 percent opposed NPP4.

In 1994 in a crucial vote in the legislature the DPP failed to try to stop the KMT from appropriating funding for the total future estimated construction costs of NPP4; but the KMT had an overwhelming majority. There have since been allegations that three DPP legislators as well as KMT counterparts received indirect emoluments from Taipower 台灣電力公司, the government electricity monopoly operator of the plants, both before and after that time.³²

³¹ This background on the radioactive rebar was covered in a Sunday feature article by Phelim Kyne in the English newspaper *China News* (now *Taiwan News*) in 1997 or 1998, but not reported in local newspapers until later. Detailed background on radioactive housing 輻射屋 can be found on the Taiwan Watch website at <http://www.taiwanwatch.org.tw/issue/rad/rad-4.htm>

³² Lin, Mei-chun, "TSU blasts DPP ties to power plant." In: *Taipei Times*, June 12, 2002. Arrigo was told personally in 2002 of the early involvement of one DPP legislator in NPP3 construction, through a firm in which he had interests. The leak source, who had worked for an international contractor, refused to go public because he also received a payoff and could be charged.

Environmentalists felt that the DPP as a whole would not stand strong on the issues, although some DPP figures were crusaders in the anti-nuclear, farmers', labour or other campaigns. Green Party Taiwan 台灣綠黨 was formed in 1996 to serve as the political arm of the environmental movement through the efforts of Kao Cheng-yen 高成炎. A dynamic agitator returned from study in the United States, Kao excelled in street theatre and in challenging KMT candidates at their campaign headquarters. Green Party Taiwan received many visits from the German Greens and made publicity from that, but has not been able to break through to electoral success. Rather, it has been influential in upping the agenda for debate on environmental issues in the political sphere, especially in Hualien where the Greens challenged the cement companies and the planned widening of the Suao-to-Hualien highway along the cliffs; they discovered that the dumping of excavated rock smothered the coral ecosystem offshore, among others.

About ten days before the presidential election of March 18, 2000, Chen Shui-bian appeared in Kungliao and penned his signature on a large sign board promising to stop construction of NPP4. The photo of President Chen with the Kungliao activists has since been printed up in thousands of post cards. But within a month his chief campaign strategist, Chiu Yi-ren 邱義仁 of the New Tide faction, was quoted in the newspapers of warning of retribution from the United States if NPP4 construction were halted. Then Chen took office on May 20, 2000, and did not order a halt although at that point the construction of the first reactor foundation was just beginning, and construction costs were accruing at US\$2.2 million a day. The anti-nuclear movement held several marches. Then in July Chen ordered that a commission of 18 experts and industry representatives be convened to make recommendations on this decision.

The anti-nuclear movement was allowed seven seats on the commission but no funding or assistance for research or authority to make Taipower turn over documents, as against Taipower with its 200 engineers and twelve full-time public relations personnel, who have been heard to rationalize Taiwan paying North Korea to take its nuclear waste, among others. The crucial argument may not have been safety or environment, but cost. Chen Mou-hsing 陳謀星 of the Energy Systems Research Center at the University of Texas at Arlington, who had students among Taipower's engineers and was familiar with the inside information, returned from the States to explain personally to the Minister of Economic Affairs that Taipower was fudging the economic calculations, and that the power grid upgrade that would be required to accompany such a concentrated energy source would effectively double the cost of the facility.³³

On October 27, 2000, Premier Chang Chun-hsiung 張俊雄 appeared with a huge photo of a Ukrainian mother kissing her dead son goodbye - a victim of Chernobyl radiation. He explained why he was ordering a halt to construction in terms of safety

³³ Professor Chen Mou-hsing described his meetings with the Minister of Economics to Arrigo in November 2000 following a Green Party Taiwan gathering celebrating the Premier's decision to stop construction of NPP4.

and the future of Taiwan. But this did not deflect the Constitutional crisis that ensued. The KMT camp moved to impeach the President, not the Premier (which would have allowed the President to dissolve the legislature), for countermanding the legislature's advance funding of the full project in 1994. KMT and DPP supporters faced off across the island with banners, small marches, and recall drives. Seeming to fear loss of social control, the DPP blinked. In two months, the highest court came back with a ruling that the order to halt construction had not been properly issued. Lawyers in the DPP camp were prepared to dispute that. But according to an authoritative source that must remain unnamed, Chen Shui-bian, ordered resumption of construction immediately after meeting with Lee Teng-hui, the recent KMT president now on the outs with his own party. Lee favoured nuclear power.³⁴ Not long after, moves for a public realignment between Chen and Lee were begun, and Lee swung his weight behind Chen in time for the National Legislature elections at the end of 2001. It appears that Chen Shui-bian may have traded his nuclear power plant stance for Lee's support.

The reversal on the nuclear power plant issue was a painful blow to the environmental movement, and symptomatic of the direction of the DPP. In fact there are hints that legislators such as Lai Chin-lin 賴勁麟, whose election campaigns depended much on the constituency at Kungliao, wanted to continue the anti-nuclear struggle, but were forced to abandon the issue. Lai was later transferred to administration in the Council of Labour Affairs 勞工委員會. Almost all of the DPP figures fell silent on the nuclear issues despite the fact that "nuclear-free homeland" 非核家園 had been enshrined in the DPP's charter, or they mouthed the unconvincing line that it would be built but not used.

The exception that could not be ignored was Lin Yi-hsiung. As summarised by Wu Chien-kuo, the organization he works for, Referendum on NPP4, was formed in the wake of the 1994 failure in the legislature, with Lin Yi-hsiung the most prominent figure involved. Following on several earlier hunger strikes outside the legislature, on September 21, 1994 Lin Yi-hsiung began a "bitter march" 苦行 on foot around the island, covering over a thousand kilometres in thirty-five days with hundreds of followers, including Reverend Kao Chun-ming 高俊明 of the Presbyterian Church and the environmental activists from academia (notably those from Green Party Taiwan). To avoid political figures grandstanding or other groups muddying the issues, the format was disciplined: marchers could wear only the shirts issued with the four-square logo of the nuclear referendum demand plus a farmer's bamboo-leaf sun hat (often used as a symbol of Taiwan nationalism). They walked silently single file. The march was repeated again beginning September 21, 1997. The organisation decided on another march for September 2002. President Chen Shui-bian personally sent emissaries to persuade Lin to desist, but Lin Yi-hsiung ignored them.³⁵ According to Wu Tung-jye, the DPP is much more afraid of ex-party chairman Lin Yi-hsiung and

³⁴ Lee Teng-hui's support for nuclear power is confirmed by George Cheng of Taiwan Watch. Interview, Taipei, August 21, 2005.

³⁵ Lin, Miao-jung, "Anti-nuclear activists begin march." In: *Taipei Times*, September 22, 2002.

of his prestige as an icon of the democratic movement than of the environmental movements per se.

What Now for Taiwan?

Before writing this chapter, the authors interviewed eight well-known environmental activists in Taiwan. These activists are in substantial agreement with each other. They feel the movement has been seriously weakened by the absorption of activists into government, and they are ambivalent or pessimistic about the performance of the DPP on environmental issues. However, they have hopes for the impact of Chang Kuo-lung and the other activists who have accompanied him into the EPA.

Relatively politically-neutral organisations have thrived in the last few years, according to Pan Han-chiang. This is a trend that he expects to continue. For example, the Society of Wilderness 荒野保護協會, founded 1996, has chapters all over Taiwan and perhaps 12,000 members, mainly outdoors types who hike and watch birds.³⁶ Likewise, the Taiwan Homemakers Environmental Union 主婦聯盟環境保護基金會, founded 1989, focuses on practical projects for housewives and children, like composting kitchen waste and teaching children how to separate materials for recycling. However, it takes a strong stand against nuclear power plants. An organisation important in disseminating national and international environmental news has been Taiwan Environmental Information Association 台灣環境資訊協會, which has been producing a daily electronic newsletter in Chinese since April 2000, and now has 11,000 subscribers.³⁷

While in general the authors share the views and prognosis of the activists, it seems that they also tend to take for granted the improved conditions for the environmental movement, especially greater transparency in government. The environmentalists taken into government as well as the research and initiatives supported by the government since 2000 should eventually bear fruit. But so far there has been no major overhaul on the legal front that could make more environmental regulation binding. Changes in the laws are moving slowly, given the gridlock in the National Legislature with the KMT/PFP opposition blocking almost all new legislation. Out of about 250 legislators, actually only about five DPP or TSU legislators resolutely support environmental or labour issues, and only two KMT legislators show concern.³⁸

³⁶ Society of Wilderness website, www.sow.org.tw

³⁷ Taiwan Environmental Information Association website, e-info.org.tw

³⁸ Names of National Legislators who are especially concerned with environmental issues were supplied by Pan Han-jiang, who is a legislative assistant, and by Wu Tung-ye of Green Formosa Front in interviews on August 26, 2005 and September 1, 2005. DPP: Chao Yung-ching (Eugene) 趙永清; Tien Chiu-chin 田秋堃; Wang To-far 王塗發; Lin Su-shan 林樹山. KMT: Shyu, Jong-Shyong 徐中雄; Chen Hsueh-sheng (Apollo) 陳學聖 (Chen lost his seat in 2004). Chao Yung-ching, a KMT legislator in 1996, was expelled in October 2000 for disobeying the KMT's pro-nuclear policy and soon joined the DPP.

It also seems that the minimalist improvements in the works will be too little, too late, in objective terms of the long-term sustainability of Taiwan's livelihood, and in global terms such as the greenhouse effect. It was a shock to both officials and environmental experts that in 2005, Taiwan was rated second last of 146 countries ranked by the Environmental Sustainability Index of the World Economic Forum.³⁹ For some of the signs, average rainfall has been steadily decreasing over the last decade, while storms now seem to leave much more damage on the landscape that has been disturbed by human activity. Robin Winkler of Wild at Heart warns that the environmental movement in Taiwan seems to have no inkling of the further destruction to farming that will follow full opening to global markets under WTO. He is concerned that farming and raising livestock is already marginalised, with much land left to waste or being used to dump waste, while Taiwan falls further and further below self-sufficiency in food.

Ho Tsung-hsun of TEPU says it is clear that the environmental movement must specialise and reach a level of technical expertise that is comparable or beyond that of government officials. Overall, it seems clear that a large portion of the activists have matured into more specialised and financially-secure positions, and that their professional skills are recognised, whether they have migrated to government or to industry; although Pan Han-chiang says the DPP has not funded its supporting activists like the old KMT used to do. Whether personal or organisational, it seems that the activists have access to much greater resources than before. It remains to be seen what the long-term impact of this transformation may be.

Conclusion

Here we must say that there are mixed signs of both cowardice and of hopeful innovations in the ruling party, the DPP, and its approach to serious environmental issues. For one, the administration has generally caved in to the demands of the United States, whether for continuing construction of NNP4, or avoiding a referendum on Taiwan's future. For another, its priority is clearly in trying to wean Taiwanese capitalists from allegiance to the KMT as well as to stem the outflow of investment capital to China. It has not directly challenged the public perception that big development projects will bring prosperity, at least as a trickle down from local contractors. Its lofty statements about environmental sustainability are not matched in concrete policy. But the DPP is also very aware of the electoral bottom line, and its first environmental projects have been designed to deliver better public quality of life to its constituents in short order: cleaner streets, better transportation, clearer air and water and green public recreation space. It has also provided political space and even funding for a myriad of initiatives in local culture, history, ecology, and community renewal.

³⁹ Woodworth, Max, "Environmental index puts Taiwan at bottom of the heap." In: *Taipei Times*, February 20, 2005.

Within electoral politics, it is a foreboding challenge for the environmental movement to rally more than slogan-level concern among the wider population, and to create a constituency that can impact the democratic process beyond the widespread local struggles against pollution and inappropriate construction. Overall, a public mentality of unlimited economic expansion and "development" that greases local election machines is in ascendancy. Now that protest is passe and there are legitimate channels for grievances, the environmental movement must attain a higher level of technical knowledge and capacity, and demonstrate that global environmental alarms are genuine, while designing actions for mid-term goals that serve to inform and involve the populace.

Appendix 1

The eight environmental activists who have been interviewed recently in Taipei for this chapter, and the dates interviewed, are:

- Chen Chien-chih 陳建志, General Secretary, Green Citizen Action Alliance 綠色公民行動聯盟. September 4, 2005.
- Cheng Yi-min 鄭益明 (George Cheng), General Secretary, Taiwan Watch. August 21, 2005.
- Ho Tsung-hsun 何宗勳, General Secretary, Taiwan Environmental Protection Union 台灣環境保護聯盟. August 23, 2005.
- Hsu Chu-feng 許主峰, former General Secretary, Social Legislation Movement Federation 社會立法運動聯盟, 1995-2000. August 30, 2005.
- Pan Han-chiang 潘翰疆, Corporate Responsibility Project, Green Party Taiwan 台灣綠黨; also assistant to TSU and DPP legislators since 2001. August 26, 2005.
- Robin Winkler 文魯彬, Director, Wild at Heart Legal Defense Association 台灣蠻野心足生態協會. August 26, 2005.
- Wu Chien-kuo 吳建國, Office Director, Referendum on Nuclear Power Plant No. 4 核四公投促進會. September 4, 2005
- Wu Tung-jye 吳東傑, General Secretary, Green Formosa Front 綠色陣線協會. September 1, 2005.

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