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# NEW DEVELOPMENTS IN ENVIRONMENTAL LAW AND POLICY IN TAIWAN

Dennis Te-Chung Tang<sup>†</sup>

*Abstract:* This article provides a critical review of the important developments of the environmental laws and policies of the Republic of China on Taiwan since 1993. The article also supplements the author's 1990 and 1993 publications. Section II briefs the reader on background political and economic changes. Section III analyzes three new environmental statutes, including the Environmental Impact Assessment Act of 1994. Section IV investigates the problems encountered in some environmental initiatives, including the collection of air pollution control fees and the newly launched "four-in-one" recycling program. Section V summarizes important environmental decisions by the Administrative Court. Section VI suggests strategies for further progress, including changing the mode of legislation, making the administrative decision-making process accessible to the public, as well as reforming the judicial system.

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## I. INTRODUCTION

This article provides a critical review of the developments of the environmental laws<sup>1</sup> and policies of the Republic of China on Taiwan ("ROC" or "Taiwan") since 1993.<sup>2</sup>

Taiwan has been facing the serious problem of environmental degradation as a result of rapid economic growth and industrialization.<sup>3</sup> In studying the development of Taiwanese environmental law, it is important to understand that the environmental policies have been influenced by the development of Taiwan's legal, economic, social, and political systems.<sup>4</sup> For instance, Taiwan has undergone a tremendous transition toward democracy during the past ten years. On July 15, 1987 the *état de siege*, or "martial law," imposed since 1949, was lifted. On May 20, 1996, the first popularly elected president took the oath of office. Part II of this article briefs these background political changes and evaluates their possible impacts upon the development of environmental policy. Part II also provides some background on the geography of Taiwan and on the economic development of Taiwan.

An effective and coherent environmental policy is needed. There have been difficulties with the quickly emerging environmental laws and policies of Taiwan, including problems with environmental regulations,<sup>5</sup>

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<sup>1</sup> As of this writing, there was no officially certified translation of Taiwanese environmental laws and regulations, nor of judicial and administrative decisions. For purposes of this Article, the environmental laws and regulations and the Interpretations of the Council of Grand Justices and decisions of the Administrative Court were translated into English by the author.

<sup>2</sup> This article updates the following works by the author: DENNIS TE-CHUNG TANG, ON THE FEASIBILITY OF ECONOMIC INCENTIVES IN TAIWAN'S ENVIRONMENTAL REGULATIONS: LESSONS FROM THE AMERICAN EXPERIENCE (1990) [hereinafter ECON. INCENTIVES IN TAIWAN'S ENVTL. REG.] (concluding that given the absence of any strong tradition of a command and-control environmental regulatory scheme, a hybrid economic incentive system with a staged implementation timetable would be both desirable and feasible); Dennis T. Tang, *The Environmental Laws and Policies of Taiwan: A Comparative Law Perspectives*, 26 VANDERBILT J. TRANSNATIONAL L. 521 (1993) (reprinted in 3 PAC. RIM L. & POL'Y J. S-89 (1993) and reprinted in part in 1993 JAHRBUCH DES UMWELT-UND-TECHNIKRRECHTS 261 (1993)) [hereinafter *Envtl Laws and Policies of Taiwan*].

<sup>3</sup> ECON. INCENTIVES IN TAIWAN'S ENVTL. REG., *supra* note 2, at 1.

<sup>4</sup> See *id.*, 241-362.

<sup>5</sup> E.g., ambiguous goals enunciated and poor tools equipped in the legislation; over-broad discretion endowed with the regulatory agency; bias in favor of regulating new sources; all regulatory standards are

little and limited environmental litigation,<sup>6</sup> selective enforcement,<sup>7</sup> and misguided experiments with economic instruments.<sup>8</sup> This article updates the environmental developments and problems since 1993. Part III comments on the three newly enacted or revised environmental statutes. Part IV investigates some major environmental initiatives by administrative authorities. Part V analyzes recent judicial decisions on environmental law. And Part VI, based upon these new findings, makes policy suggestions for further progress.

## II. THE CONTEXT

### A. *Physical and Geographical State*

Taiwan, a mountainous island with a total area of nearly 36,000 square kilometers, is located off the eastern coast of China, almost equidistant from Shanghai and Hong Kong. The Taiwan Strait, which separates Taiwan from Mainland China, is about 220 kilometers at its widest point and 130 kilometers at its narrowest.<sup>9</sup> The fundamental topographic feature of Taiwan is the central range of high mountains running from the northeast corner to the southern tip of the island.

The demands on Taiwan's environment stem from an uneven and dense distribution of a relatively large population (more than twenty-one million people) on about thirty percent of the island plain areas having an elevation of less than 100 meters.<sup>10</sup> Due to its location between four climatic zones<sup>11</sup> and her diverse topography, Taiwan is endowed with a broad selection of animal and plant species.<sup>12</sup> To protect this ecological

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prescribed only in terms of density; ineffective enforcement mechanisms; and overlapping yet inaccurate separation of power among the various levels of government. See *The Envtl Laws and Policies of Taiwan*, *supra* note 2, at 524-45.

<sup>6</sup> See *Envtl Laws and Policies of Taiwan*, *supra* note 2, at 545-47.

<sup>7</sup> See *id.* at 547-52.

<sup>8</sup> E.g., the design of pollution charges programs has been mainly aimed at increasing revenues in the easiest way, rather than inducing polluters' behaviors in an more environmentally friendly way. See *id.*, *supra* note 2, at 552-64.

<sup>9</sup> THE REPUBLIC OF CHINA Y.B. 1996, at 3 (Mar. 1996) [hereinafter 1996 ROC YEARBOOK].

<sup>10</sup> Environmental Protection Agency, Executive Yuan (TEPA), 1993 State of the Environment: Taiwan, R.O.C. 8 (Dec. 1993). The population density of the ROC was the second largest in the world (585 persons per sq. km) after Bangladesh. *Id.*, at 15.

<sup>11</sup> The four climate zones are: tropical (in the south), sub-tropical (in the north), temperate and frigid (in the mountain area). See TEPA, 1993 State of the Environment: Taiwan, R.O.C. 10 (Dec. 1993).

<sup>12</sup> Some 62 species of mammals, more than 400 species of birds (40 percent of which are resident), 92 species of reptiles, 30 amphibian species, 140 species of freshwater fish, and an estimated 15,000 insect

heritage, the ROC government has set aside about ten percent of the land as protected areas,<sup>13</sup> including six national parks,<sup>14</sup> eighteen natural reserves,<sup>15</sup> twenty-four natural forest reserves,<sup>16</sup> and seven wildlife refuges.<sup>17</sup> Table 1 in the appendix presents selected data describing the physical environment of Taiwan.

### B. *Trend of Economic Development*

Four decades of rapid economic growth and industrialization is at the root of current pollution problems and the depletion of natural resources in Taiwan. Many of these economic achievements have been accomplished at the expense of the environment. In Taiwan, environmental policy (mainly pollution abatement) has commonly been regarded as a part of the nation's economic policy, and therefore has been greatly influenced by economic development needs. As Taiwan approaches developed-nation status, its people are demanding a higher quality of life commensurate with Taiwan's elevated level of economic development.

In retrospect, the economic development in Taiwan shows a distinctive feature of gradual upgrading and transformation.<sup>18</sup> Such economic development relies heavily upon strong political leadership and the close cooperation of the people. The government has consistently loosened its control over many sectors of the economy by adopting more flexible policies, such as financial liberalization<sup>19</sup> and tariff cuts.<sup>20</sup> It has

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species, including more than 400 species of butterflies, are known to exist in the Taiwan area. 1996 ROC YEARBOOK, *supra* note 9, at 211.

<sup>13</sup> 1996 ROC YEARBOOK, *supra* note 9, at 211.

<sup>14</sup> *Id.* at 212. See KUOCHIA KUNGYUAN FA [GUOJIA GONGYUAN FA] [National Park Act] [hereinafter KUNGYUAN FA], art. 1.

<sup>15</sup> 1996 ROC YEARBOOK, *supra* note 9, at 212. See WENHUA TZUCH'AN PAOTS'UN FA [WENHUA ZICHAN BAOCUN FA] [Cultural Heritage Preservation Act], [hereinafter WENHUA PAOTS'UN FA], art. 49.

<sup>16</sup> 1996 ROC YEARBOOK, *supra* note 9, at 215. See SENLIN FA [Forestry Act], arts. 10, 17.

<sup>17</sup> 1996 ROC YEARBOOK, *supra* note 9, at 213. See YESHENG TUNGWU PAOYU FA [Yesheng Dongwu Baoyu Fa] [Wildlife Conservation Act], art. 12. In addition, there are 12 coastal reserves designated according to administrative rules. The Ministry of the Interior has proposed a draft Coastal Management Act.

<sup>18</sup> See ECON. INCENTIVES IN TAIWAN'S ENVTL. REG., *supra* note 2, at 279-97.

<sup>19</sup> ROC has gradually relaxed its restrictions on inward and outward capital transfers. For example, foreign investment in Taiwan's stock market has increased 76% (from US\$ 5.8 billion in August 1995 to US\$ 10.2 billion in September 1996). HSINGCHENG CHINGCHI CHIENSHE WEIYUANHUI [XINGZHENG YUAN JINGJI JIANSHE WEIYUANHUI] [Council for Economic Planning and Development, Executive Yuan]. See *also* Developing Taiwan as an Asia-Pacific Regional Operations Center: Implementation Review and Achievements 36 (Dec. 1996). Restrictions on entry and operation of foreign banks and financing companies are scheduled to be eased soon. See HSINGCHENG CHINGCHI CHIENSHE WEIYUANHUI

also allowed the shifting of industries to mainland China. Over the past six years, more than 20,000 Taiwan firms have invested at least US\$ 80 billion in Mainland China.<sup>21</sup> The relocation of labor-intensive industries across the strait has released land, capital, and man-power in Taiwan for high-tech enterprises.

During the same period, the government has tried to promote a new stage of transformation. In light of the fact that the global economy is increasingly oriented toward the Asian-Pacific region, the ROC government has declared its intention to develop Taiwan into an Asian-Pacific Regional Operation Center ("APROC"), and to promote Taiwan as the center of industries such as manufacturing, sea transportation, air transportation, finance, telecommunications, and the media.<sup>22</sup> This initiative will further change Taiwan's economy and environmental regulation.

The performance of Taiwan's economy must be considered in comparison with other nations. Table 2 in the appendix shows some basic economic indicators of Taiwan as compared to some other economies, while Table 3 compares the trend in economic performance of Taiwan to several other economies. Notably, Taiwan's economic growth has slowed down in the past few years. Whether this will have a negative impact on the effort to improve the environment is yet to be observed. It seems fair to say that the economic development of Taiwan was achieved, to some extent, at the price of political democracy. As the economy continued to develop, however, growing pressure for political development emerged. This pressure resulted

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[Xingzhengyuan Jingji Jianshe Weiyuanhui] [Council for Economic Planning and Development, Executive Yuan], FACHAN TAIWAN YAT'AI YINGYUN CHUNGHSIN CHIHUA [Fazhan Taiwan Chengwei Yatai Yingyun Zhongxin Jihua] [The Plan for Developing Taiwan as an Asia-Pacific Regional Operations Center] 24-30 (Jan. 5, 1995).

<sup>20</sup> In keeping with the World Trade Organization ("WTO") negotiations and Asia Pacific Economic Cooperation ("APEC") trade liberalization, ROC has revised import tariffs on 758 items of industrial goods in July 1995. The average nominal tariff rate was reduced from 8.9 % in 1994 to 8.6% in 1995, and the effective tariff rate reduced from 4.7% to 4.2%. It is expected that by 1999 the average nominal tariff rate will have been reduced to around 5% , with the effective tariff rate down to 4%. See HSINGCHENG CHINGCHI CHIENSHE WEIYUANHUI, FACHAN TAIWAN YAT'AI YINGYUN CHUNGHSIN CHIHUA, 8 (Jan. 5, 1995).

<sup>21</sup> 1996 ROC YEARBOOK, *supra* note 9, at 156.

<sup>22</sup> The Executive Yuan (Cabinet) on January 5, 1995 approved "The Plan for Developing Taiwan as an Asian Pacific Regional Operations Center" FACHAN TAIWAN YAT'AI YINGYUN CHUNGHSIN CHIHUA [Fazhan Taiwan Chengwei Yatai Yingyun Zhongxin Jihua.] See HSINGCHENG CHINGCHI CHIENSHE WEIYUANHUI [Xingzhengyuan Jingji Jianshe Weiyuanhui] [Coordination & Service Office, Council for Economic Planning and Development, Executive Yuan], FACHAN TAIWAN YAT'AI YINGYUN CHUNGHSIN CHIHUA [Fazhan Taiwan Chengwei Yatai Yingyun Zhongxin Jihua] [The Plan for Developing Taiwan as an Asian Pacific Regional Operations Center] (1995).

in the lifting of martial law (or more accurately, the lifting of the "state of siege") in 1987, and the rapid transition towards democracy.

### C. *Political Development and Constitutional Reform*

#### 1. *Political Development*

Since 1986, there have been eight major elections. Each of them contributed to the gradual devolution of dominant power from the ruling Nationalist Party or Kuomintang ("KMT") to a multiparty political system.<sup>23</sup> The decline of the KMT's political power is reflected in the number of votes obtained by the KMT in each Legislative Yuan<sup>24</sup> election since 1983. Figure 1 in the appendix indicates the drop of KMT's total votes gained from 73% in 1983 to 46% in 1995. Figure 2 shows a similar drop in terms of seats controlled in the Legislative Yuan. Furthermore, the opposition Democratic Progressive Party ("DPP") formally appeared on the ballot for the first time in 1989 and won more than 20% of the seats in the Legislative Yuan. Three years later (1992), the DPP won fifty seats, accounting for more than 30% of the seats. In 1995, the total number of seats won by the DPP (fifty-four) and by the New Party<sup>25</sup> (twenty-one) constituted 46% of the seats and have further reduced the KMT's eighty-five seats in the Legislative Yuan to a slim majority (only three seats more).<sup>26</sup>

The KMT's decline in power was also seen in the National Assembly, another elected body. In the National Assembly, the ruling KMT retained a

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<sup>23</sup> During the martial law ruling period (1949-1986), the government prohibited the organization of any new political party besides the then existing Nationalist Party ("KMT"), the Democratic Socialist Party, and the Chinese Youth Party. However, as affiliation to a party was not required to qualify as a candidate in an election, opposition forces indeed existed before the lifting of martial law in 1987. For example, in the 1986 Legislative Yuan election the KMT won 81% of the total seats backed by only 69.9% of the total votes.

<sup>24</sup> The Legislative Yuan is the ROC's unicameral legislature; it is one of the five ruling bodies of the ROC's central government. The other bodies are the Executive Yuan, the Judicial Yuan, the Control Yuan, and the Examination Yuan. THOMAS H. REYNOLDS & ARTURO A. FLORES, III-A FOREIGN LAW: CURRENT SOURCES OF CODES AND BASIC LEGISLATION IN JURISDICTIONS OF THE WORLD, Taiwan 4 (1994). See discussion *infra* Part II.C.2.

<sup>25</sup> The New Party ("NP") [Xindang] branched off from the KMT in August 1993. It then held only seven seats (of 161) in the Legislative Yuan. Among the founders are the former administrator of Taiwan's Environmental Protection Agency ("TEPA") and the former Finance Minister. See 1996 ROC YEARBOOK, *supra* note 9, at 100.

<sup>26</sup> A total of 164 seats were up for grabs in 1995, including four seats that were won by independents. See 12 FREE CHINA J. 1-2 (Dec. 8, 1995).

dominant majority of 318 seats, accounting for 78.91% of the total of 403 in the 1991 National Assembly election.<sup>27</sup> This enabled the KMT to lead constitutional amendments three times since 1991.<sup>28</sup> Despite its sweeping victory in the first popularly-elected presidential election conducted in March 1996, the KMT then won only 54% seats in the National Assembly, far less than three-fourths required for passing constitutional amendments.<sup>29</sup> Figures 3 and 4 in the appendix illustrate the change of the power balance in the National Assembly in terms of the total votes and seats gained in the last two elections respectively. Figure 5 shows the votes of all four sets of candidates received in the presidential election of 1996.

The formation of a multiparty political system and the continuing development of democratization have had positive impacts on the cultivation of environmental awareness in the society. It seems too early, however, to predict whether these developments will immediately result in significant improvement in environmental laws and policies. With varying importance, environmental protection has become a public policy embraced by all the political parties in Taiwan.

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<sup>27</sup> See 8 FREE CHINA J. 1 (Dec. 24, 1991).

<sup>28</sup> On May 1, 1991 the ROC Constitution was revised by annulling the "Temporary Provisions for the Duration of Mobilization to Suppress the Communist Rebellion" and attaching 10 Additional Articles. On May 28, 1992 the Constitution was revised again by adding 8 new articles to the earlier 10 Additional Articles. On July 28, 1994 the Constitution was further amended by replacing the then 18 Additional Articles with 10 newly drafted ones (Zhonghua Minguo Xianfa Zengxiu Tiaowen 1994) [hereinafter 1994 Additional Articles]. See 8 FREE CHINA J. 8 (May 2, 1991); 9 FREE CHINA J. 1-2 (May 29, 1992); 11 FREE CHINA J. 1 (Aug. 5, 1994); 1996 ROC YEARBOOK, *supra* note 9, at 70, 75; and THE REPUBLIC OF CHINA Y.B. 1995, at 92, 96-97 (Mar. 1995). Before the adoption of 1991 Amendments, the core power of the National Assembly was to consider constitutional amendments. See *infra* note 29.

<sup>29</sup> ZHONGHUA MINGUO XIANFA [Const.] [hereinafter XIANFA] art. 174 (ROC) states:

Amendments to the Constitution shall be made in accordance with one of the following procedures:

- 1) Upon the proposal of one fifth of the total number of the Delegates to the National Assembly and by a resolution of three fourths of the Delegates present at a meeting having a quorum of two thirds of the entire Assembly, the Constitution may be amended.
- 2) Upon the proposal of one fourth of the members of the Legislative Yuan and by a resolution of three fourths of the Members present at a meeting having a quorum of three fourths of the Members of the Yuan, an amendment may be drawn up and submitted to the National Assembly by way of referendum. Such a proposed amendment to the Constitution shall be publicly published half a year before the National Assembly convenes.



## 2. *Constitutional Reform*

The Constitutional amendments of 1991, 1992 and 1994<sup>30</sup> contributed a great deal to the smooth transition of Taiwan from an authoritarian state to a full democracy, and have brought some far-reaching changes for the future, such as the first popular presidential election in 1996. The so-called "constitutional reform," however, has not truly cured the main defects of the Constitution.

To elaborate, one must understand the constitutional structure of Taiwan. The most distinguishing feature of the ROC Constitution lies in its unique design of the so-called "separation of powers among five branches" (i.e., the Executive Yuan (cabinet), Legislative Yuan (congress), Judicial Yuan, Control Yuan, and Examination Yuan). In addition, there are two other important political actors: the President and the National Assembly. The ROC President possesses broad power to nominate government officials.<sup>31</sup> The National Assembly exclusively enjoys the power to amend the Constitution. A major problem with such a complicated constitutional structure indeed lies in the great complexity of checks and balances among seven powers.<sup>32</sup> The difficulty has been suppressed, but never solved, by the powerful coordination lead of the ruling KMT since the retreat from the Chinese mainland in 1949. Yet with the recent development of a multiparty political system, all the ambiguities, loopholes, and even contradictions originally embedded within the Constitution have come to the foreground. These ambiguities and contradictions could easily create sharp confrontations among the seven powers, and may result in a constitutional deadlock.

For example, a constitutional deadlock occurred in late May of 1996

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<sup>30</sup> See *supra* note 28.

<sup>31</sup> Setting aside the controversy of whether the President of the Republic has the power to nominate the Premier (the President of the Executive Yuan), who is under both the "consent of the Legislative Yuan" and the "politically responsible to the Legislative Yuan" conditions, the President of the Republic undoubtedly is entitled to nominate the President, Vice President and Grand Justices of the Judicial Yuan; the President, Vice President and Members of the Examination Yuan; as well as the President, Vice President and Members of the Control Yuan with the consent of National Assembly. See XIANFA arts. 79, 84; see also 1994 Additional Articles, art. 4, art. 5, sec. 2, art. 6. All members of the Judicial Yuan, Examination Yuan and Control Yuan shall act in a nonpartisan manner and independently exercise their powers and discharge their duties in accordance with law. See XIANFA art. 80, 88; 1994 Additional Articles, art. 6.

<sup>32</sup> See Dennis Te-Chung Tang, *A Critical Review of the Council of Grand Justices' Interpretations Concerning the Separation-of-Powers Doctrine (Part II: Case Review)*, 55 NAT'L. CHENGCHI U. L. REV. 9, 45 (Fig. 4) (June 1996).

when Premier Lien Chan, with all cabinet members, followed the so-called "conventional practice" of resigning soon after taking the oath of Vice President of the Republic. President Lee Teng-hui decided not to "approve" the resignation. The effect of this was to permit Lien to continue serving as Premier, thereby avoiding the need for a new decree of consent from the Legislative Yuan.<sup>33</sup> Though Lien had just received the necessary consent as Premier in February of 1996 when the Third Legislative Yuan was composed and convened,<sup>34</sup> President Lee's move troubled the Legislative Yuan greatly, resulting in a complete paralysis of the parliamentary sessions. On June 11, 1996 the members of the Legislative Yuan, representing all three political parties, passed a resolution requesting the Council of Grand Justices to decide whether it was unconstitutional for the Vice President to serve as Premier at the same time. The Council of Grand Justices rendered its Interpretation No. 419 on Dec. 31, 1996, equivocally ruling that:

1) The Constitution itself does not prescribe if the Vice President can serve as Premier at the same time, and these two duties are not apparently incompatible in essence, yet the combination of such posts does affect the constitutional design of succession in case the office of the President should become vacant or the President is unable to discharge the powers and duties of the office, and thus is not completely in line with the intent of the Constitution to have separate persons serve as Vice President and Premier separately. The very facts which motivate this Interpretation should be dealt with adequately in accordance with the Interpretation.<sup>35</sup>

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<sup>33</sup> XIANFA art. 55 provides: "The President of the Executive Yuan (Premier) shall be nominated and, with the consent of the Legislative Yuan, appointed by the President of the Republic."

<sup>34</sup> According to the Interpretation No. 387 of the Council of Grand Justices (Oct. 13, 1995),

Article 57 of the ROC Constitution prescribes clearly that the Executive Yuan shall be responsible to the Legislative Yuan. As the President of the Executive Yuan (Premier) shall be appointed with the consent of the Legislative Yuan and be politically responsible to the Legislative Yuan, in light of the doctrines of democratic politics and political accountability, the President of the Executive Yuan must render his resignation to the President of the Republic after every election of the Legislative Yuan while before the first gathering of a new Legislative Yuan.

*Reprinted in Judicial Yuan, 9 Supplement to the Compilation of Interpretations by the Grand Justices* 293 (June, 1996).

<sup>35</sup> LIANHE BAO [UNITED DAILY NEWS], Jan. 1, 1997, at 6.

2) The Premier's resignation upon the inauguration of the President is a courtesy for the head of state, rather than a constitutional obligation. How to handle such a resignation is within the discretion of the President; it constitutes one of the so-called governing actions (*Regierungsakten*) and is beyond the competence of the Council of Grand Justices.<sup>36</sup>

3) Under the Constitution, it is the Executive Yuan that is responsible to the Legislative Yuan;<sup>37</sup> unless otherwise prescribed in the Constitution, the Legislative Yuan is not entitled to pass resolutions requesting the President to take specific action or inaction. The resolution passed by the Legislative Yuan on June 11, 1996 requesting the President to re-nominate a Premier at his earliest convenience and to submit the candidate to the Legislative Yuan for consent is therefore beyond the constitutional duties of the said Yuan; it is advisory in nature and carries no binding effect under the Constitution.<sup>38</sup>

Such an ambiguous decision reflects to a large extent the inability of a conservative judiciary to remedy the defect of the overly complex separation of powers framework that exists in the ROC Constitution.<sup>39</sup> An overhaul of the Constitution by means of constitutional amendments to reasonably rearrange the checks-and-balances among the branches, especially among the thorny triangle of the President, Premier (the Executive Yuan) and the Legislature (the Legislative Yuan), is therefore urgent and necessary.

In his inaugural address, President Lee Teng-hui announced his intention to hold a national conference for reaching a consensus on fundamental national policies, including the proposed "fourth constitutional reform," during his term.<sup>40</sup> The five-day National Development Conference

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<sup>36</sup> *Id.*

<sup>37</sup> XIANFA art. 57.

<sup>38</sup> LIANHE BAO [UNITED DAILY NEWS], Jan. 1, 1997, at 6.

<sup>39</sup> The inability is partly attributed to legislative restraint. Art. 14, Sec. 1 of the Case Decision Procedure Act of the Council of Grand Justices requires any two-thirds of all Grand Justices to constitute a quorum, and an agreement by two-thirds of the attending Justices to render an interpretation of the Constitution. For a criticism of the provision as unconstitutional, see Dennis T. Tang, *A Critical Review of the Council of Grand Justices' Interpretations Concerning the Separation-of-Powers Doctrine (Part I: Overall Analysis)*, 54 NAT'L. CHENGCHI U. L. REV. 29-30 (Dec. 1995).

<sup>40</sup> As Vice President, Dr. Lee Teng-hui ascended to the Presidency of the ROC upon the death of Chiang Ching-kuo in January 1988. He was then elected President in his own right in March 1990 by the

came to an end on December 28, 1996. The KMT and the DPP were able to reach a consensus resulting in a dramatic change in the constitutional power structure. The consensus<sup>41</sup> position provides for several important changes:

- 1) the President should be empowered to appoint a Premier without legislative consent;
- 2) the President can dissolve the Legislature at the request of the Premier or whenever necessary;
- 3) the Legislature should have the power to dismiss the Premier by a no-confidence vote and the authority to impeach the President and Vice President;
- 4) the membership of the Legislature should be increased from the current 164 to 200 or more, and the terms of their office should be extended to four years, the same as the President;
- 5) the seats of the National Assembly would be reduced in number and become party-appointed completely rather than elected positions.

The KMT and DPP are mobilizing their National Assembly members with an expectation to pass all necessary amendments for realizing the consensus in a single package in the summer of 1997.<sup>42</sup>

Regarding environmental matters, recent constitutional amendments have made specific reference to environmental concerns. The 1992 constitutional revision added a provision entitled Section 2, Article 18 of the Additional Articles of the Constitution, providing that "environmental and ecological protection shall be given equal consideration with economic and technological development."<sup>43</sup> Whether this provision will effectively promote environmental protection remains to be seen.<sup>44</sup>

In sum, with the outburst of enthusiasm for reconstructing the

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National Assembly. In March 1996, he became the first popularly elected President in the history of the ROC. All of the constitutional reforms mentioned were undertaken during his presidency.

<sup>41</sup> See 14 FREE CHINA J. 1 (Jan. 4, 1997).

<sup>42</sup> Given such a coalition with the DPP, it is widely believed that the KMT under the leadership of Lee Teng-hui will be able to forge the needed three-fourths majority in the National Assembly to pass the constitutional amendments as planned.

<sup>43</sup> It was rearranged as sec. 2, art. 9 of the Additional Articles in the 1994 revision.

<sup>44</sup> Although this is the only provision in the Constitution to ever mention environmental protection, it is not required. That is, the constitutions of many other countries do not contain environmental provisions. Furthermore, Article 15 of the ROC Constitution already provides that: "The right of existence, the right of work and the right of property shall be guaranteed to the people," which, arguably, is broad enough to cover the right to environmental protection.

political power balance, there is likely to be a general stagnation of environmental legislation in Taiwan, despite the recent constitutional amendments. However, the legislators' accomplishments in the area of environmental protection is quite good compared with their overall poor legislative performance in other areas.<sup>45</sup>

### III. NEW MEMBERS OF THE ENVIRONMENTAL STATUTE FAMILY

Beginning in 1987, when Taiwan's Environmental Protection Agency ("TEPA") was established, until the end of 1992, a primitive regulatory regime for pollution control was being constructed. Since 1993, the Legislative Yuan has enacted two new environmental statutes and dramatically revised one existing environmental law. All three statutes are concerned with nature conservation; this might suggest a subtle legislative shift of emphasis towards nature conservation, as previous environmental legislation focused upon pollution control. As TEPA was only charged with pollution control responsibilities, it is presently under consideration<sup>46</sup> whether and how to further integrate existing nature conservation efforts. However, the amendment to the Organization Act of the Executive Yuan which is required to set up a new agency has been postponed due to the possible "fourth constitutional reform" mentioned above.<sup>47</sup> Table 4 in the

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<sup>45</sup> An overview of the Legislative Yuan's performance is illustrated as follows:

| Legislative Yuan | Session | Time Period         | Bills Passed* |
|------------------|---------|---------------------|---------------|
| 1st LY           | 90th    | Sep. 1992-Jan. 1993 | 90            |
| 2nd LY           | 1st     | Feb. 1993-July 1993 | 25            |
|                  | 2nd     | Sep. 1993-Jan. 1994 | 20            |
|                  | 3rd     | Feb. 1994-July 1994 | 13            |
|                  | 4th     | Sep. 1994-Jan. 1995 | 69            |
|                  | 5th     | Feb. 1995-July 1995 | 36            |
|                  | 6th     | Sep. 1995-Jan. 1996 | 35            |
| 3rd LY           | 1st     | Feb. 1996-July 1996 | 6             |
|                  | 2nd     | Sep. 1996-Jan. 1997 | 28            |

\*The number includes the newly enacted acts and various revisions to an existing act. Legal Information Center, Legislative Yuan (Feb. 1997). According to the Rules Committee, there were 810 bills pending in the Legislative Yuan at the end of 1996. *Id.*

<sup>46</sup> See generally DENNIS TE-CHUNG TANG ET AL, A STUDY ON REORGANIZING FUNCTIONS CONCERNING MATURE CONSERVATION AMONG CENTRAL DEPARTMENTS (July 1996) (Research Report for the Commission for Research, Development and Evaluation, Executive Yuan (Cabinet)).

<sup>47</sup> See discussion *supra* Part II.C.2.

appendix illustrates the most updated major environmental statutes in Taiwan.

#### A. *Environmental Impact Assessment Act of 1994*

The Environmental Impact Assessment Act ("EIA Act") was promulgated and became effective on December 30, 1994.<sup>48</sup> It is regarded as a landmark in Taiwanese environmental protection as it is the first legislation to address multiple environmental issues in a single law. Prior to the enactment of this law, the Cabinet had adopted two administrative orders: the "Program for Speeding up the Promotion of Environmental Impact Assessment"<sup>49</sup> in 1985 and the "Follow Up Program for Speeding up the Promotion of Environmental Impact Assessment"<sup>50</sup> in 1991. The administrative orders required more Environmental Impact Assessments ("EIA" or "EIAs") to be conducted at selected major governmental construction projects.

##### 1. *Types of Activities That May Require an EIA*

Instead of listing categorical exclusions, the EIA Act specifically provides that the following types of activities shall be subject to EIAs whenever they might have an adverse impact on the environment. They include:

- 1) the establishment of factories and development of industrial parks;
- 2) the construction of roads, railways, mass transit systems, harbors and airports;
- 3) the extraction of soil and stone; exploitation and extraction of minerals;

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<sup>48</sup> See *Huanjing Yingxiang P'ingku Fa* [Huanjing Yingxiang Pinggu Fa] [Environmental Impact Assessment Act].

<sup>49</sup> Executive Yuan (Cabinet) Order 74 (Sanitation) No. 19,080 (Oct. 17, 1985); reprinted in TEPA, *Compilation of Environmental Laws and Regulations XII-9* (1989). For comments, see Dennis Te-Chung Tang, *Huanjing Yingxiang P'ingku Chihtu* [Huanjing Yingxiang Pinggu Zhidu] [Environmental Impact Assessment System], in HUANGCHING PAOSHU CHIH LIFA YENCHIU [HUANJING BAOSHU LIFA ZHI YANJIU] [A COMPARATIVE STUDY OF ENVIRONMENTAL LEGISLATION] 242-53 (Ke Zedong et al. eds., HSINGCHENGYUAN CHINGCHI CHIENSHE WEIYUANHUI [Xingzhengyuan Jingji Jianshe Weiyuanhui] [Council for Economic Planning and Development, Executive Yuan], Research Report # 5002, 1987).

<sup>50</sup> Executive Yuan (Cabinet) Order 80 (Environment) No. 11,754 (April 17, 1991); reprinted in TEPA, *Compilation of Environmental Laws and Regulations I-57* (1992).

- 4) the construction of works for water storage, water supply, flood control and drainage;
- 5) the development and utilization of lands reserved for agriculture, forestry, fishing and grazing;
- 6) the development of recreational areas, scenic areas, golf courses, and sport fields;
- 7) the construction of cultural, educational and medical treatment facilities;
- 8) the construction of new towns, multi-storied buildings, or the renovation of inner cities;
- 9) the construction of environmental protection works;
- 10) the exploitation of nuclear and other energies; and construction of nuclear waste storage and treatment sites; and
- 11) any other activities so designated by the responsible central agency [i.e., TEPA].<sup>51</sup>

The EIA Act also authorizes TEPA to promulgate rules to further identify precisely which activities fall under the EIA requirement and to set up guidelines for conducting the EIAs.<sup>52</sup> In addition to the development activities listed above, all “governmental policies” which might have an adverse impact on the environment are made subject to EIAs<sup>53</sup> (EIAs for “governmental policies,” however, may entail a different process).<sup>54</sup>

## 2. *Who Shall Conduct the EIA*

Unlike in the United States where a federal agency has the duty of preparing the Environmental Impact Statement (“EIS”),<sup>55</sup> the EIA Act

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<sup>51</sup> HUANCHING YINGHSIANG P'INGKU FA, art. 5.

<sup>52</sup> *Id.* See TEPA, Details and Scope Identification Criteria for the Development Activities That Shall Conduct Environmental Impact Assessment, TEPA Public Notice 84 (Comprehensive) No. 54036 (Oct. 18, 1995), reprinted in 95 TEPA Register 92 (Nov. 1995). As of June 1996, the TEPA has announced at least 22 EIA guidelines to guide the operation of EIAs for various construction projects, such as for nuclear power plants (TEPA Public Notice 84 (Comprehensive) No. 69167 (Dec. 27, 1995), reprinted in 97 TEPA Register 241 (Jan. 1996), and for incinerators (TEPA Public Notice 84 (Comprehensive) No. 60018 (Nov. 8, 1995), reprinted in 96 TEPA Register 3 (Dec. 1995).

<sup>53</sup> HUANCHING YINGHSIANG P'INGKU FA, art. 4. This provision was not part of the bill introduced by the TEPA, rather, it was inserted by legislators during review.

<sup>54</sup> Article 26 of the EIA Act authorizes TEPA to set up guidelines governing the EIAs for governmental policies. So far, TEPA has not promulgated such guidelines.

<sup>55</sup> The agency may hire outside consultants to prepare the EIS, but the agency remains responsible for the scope and contents of the EIS. 42 U.S.C.4332(C)&(D).

assigns the responsibility for preparing the EIA to the project's proponent, while reserving the power of reviewing the EIA to the central environmental agency (i.e., TEPA).<sup>56</sup> However, in reviewing the EIA, TEPA is required to set up an EIA Review Commission where no less than two-thirds of the commissioners must be experts or academicians.<sup>57</sup> It is not clear whether the Commission's decisions are binding on TEPA. In current practice, however, the TEPA Administrator usually adopts the Commission's decisions.

### 3. *The EIA Process*

The EIA Act provides for an environmental review process analogous to that required for an EIS in the United States,<sup>58</sup> that is, it includes screening,<sup>59</sup> scoping,<sup>60</sup> a draft Environmental Impact Assessment Report ("EIA Report"),<sup>61</sup> a final EIA Report,<sup>62</sup> and post-decision monitoring.<sup>63</sup> One notable distinction is that the responsible agency having jurisdiction over the development project shall not issue a permit for construction until TEPA completes the EIA review process.<sup>64</sup> The entire EIA process is illustrated in Figure 6 in the appendix.

### 4. *Contents of an EIA Report*

The statute provides that an EIA Report shall record the following information:

- 1) the name of the developer and the location of its main business office;

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<sup>56</sup> Cf. HUANCHING YINGHSIANG P'INGKU FA, arts. 2, 3, 6.

<sup>57</sup> *Id.* art. 3.

<sup>58</sup> 42 U.S.C. § 4332.

<sup>59</sup> See HUANCHING YINGHSIANG P'INGKU FA, art. 6; 42 U.S.C. § 4332.

<sup>60</sup> See HUANCHING YINGHSIANG P'INGKU FA, art. 10; 42 U.S.C. § 4332.

<sup>61</sup> See HUANCHING YINGHSIANG P'INGKU FA, art. 11. This is similar to a draft EIS report in the United States. See 42 U.S.C. §4332.

<sup>62</sup> See HUANCHING YINGHSIANG P'INGKU FA, art. 13. This is similar to a final EIS report in the United States. See 42 U.S.C. §4332.

<sup>63</sup> See HUANCHING YINGHSIANG P'INGKU FA, art. 18.

<sup>64</sup> *Id.* art. 14. A person who undertakes construction without a legally issued permit shall be punished by an administrative penalty ranging from NT\$ 300,000 to NT\$ 1,500,000; and if the violator fails to suspend construction, its legal representative shall be punished by imprisonment of no more than three years and a fine of no more than NT\$ 300,000. HUANCHING YINGHSIANG P'INGKU FA, art. 22. "NT" is the New Taiwan Dollar and is valued at approximately NT\$ 27.5 to the US dollar. ECONOMIST, Mar. 14, 1997, at 108.



- 2) the name, residence, legal address and identification number of the legal representative of the developer;
- 3) the signature of the persons who have prepared the comprehensive summary of the EIA Report and who evaluated the various kinds of environmental impact;
- 4) the name and location of the development project;
- 5) the purpose and contents of the development project;
- 6) a status quo description of the environment to be affected, primary and secondary consequences of the project, and relevant project plans;
- 7) a prediction, analysis and evaluation of the environmental impact;
- 8) measures to mitigate or avoid adverse environmental impact;
- 9) alternatives to undertaking the project as proposed;
- 10) a comprehensive plan for environmental management;
- 11) responses to the comments by relevant agencies;
- 12) responses to the comments by local residents;
- 13) a conclusion and recommendation;
- 14) the economic cost required for environmental protection in the project design;
- 15) a summary of strategies for mitigating or avoiding adverse environmental impact; and
- 16) references.<sup>65</sup>

Despite the length of this list, it is not clear at all from this and other relevant provisions if the alternatives shall include the *alternative of no action*. The EIA Report neither sharply defines the issues nor provides a clear basis for choice among alternative courses of action. It is uncertain whether TEPA in review of the proposed project must adopt the most environmentally sound alternative.

##### 5. *Post-Decision Monitoring*

The EIA Act prescribes that the responsible agency having jurisdiction over the development project shall track it,<sup>66</sup> and the responsible agency for EIAs (i.e., TEPA) shall supervise the implementation of the "Environmental Impact Statement" (which is equivalent to a U.S. Environmental Assessment), the EIA Report (which is equivalent to a U.S.

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<sup>65</sup> HUANCHING YINGHSIANG P'INGKU FA, art. 11.

<sup>66</sup> *Id.*, art. 18.

Environmental Impact Statement),<sup>67</sup> and the EIA review conclusions. Whenever it is necessary, a developer may be required to submit periodically an "Environmental Impact Investigation Report" ("EIIR") comparing the environmental changes between pre-development and post-development status. When there is an adverse impact on the environment, TEPA shall order the developer to propose within a specific time period "response strategies" to be implemented after approval.<sup>68</sup>

As to the sanctions against the violators of any EIA requirement, the Act continues to follow the "gradual escalation" pattern of enforcement sanction.<sup>69</sup> For example, those who fail 1) to submit an EIIR when so ordered, (2) to submit "response strategies," or (3) to implement the approved "response strategies," shall be subject to an administrative penalty ranging from NT\$ 300,000 to NT\$ 1,500,000 and be subject to further "continuous daily fines" if the violator(s) fail to make corrections within the specified time period.<sup>70</sup> If the continuous violation is found to be serious, TEPA may request the responsible agency which has jurisdiction over the development project to suspend the construction; or when necessary, TEPA may order suspension directly.<sup>71</sup> Those who fail to follow the suspension order shall be punished by imprisonment of no more than three years and a fine of no more than NT\$ 300,000.<sup>72</sup>

## 6. *Public Participation*

Compared with its pre-existing programs,<sup>73</sup> the EIA Act further increases opportunities for public participation. For example, for scoping and for the on-site inspection before reviewing the draft EIA Report, all relevant agencies, groups, academicians, experts, and representatives of local residents shall be invited to participate in the decision-making process.<sup>74</sup> The public, however, has no chance to comment on either the draft EIA Reports or the final EIA Reports, although TEPA has the duty to publish a summary of its review conclusions in the TEPA Register. A 1995

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<sup>67</sup> See 42 U.S.C. § 4332.

<sup>68</sup> HUANCHING YINGHSIANG P'INGKU FA, art. 18.

<sup>69</sup> See *Env'tl Laws and Policies of Taiwan*, *supra* note 2, at 540-43.

<sup>70</sup> HUANCHING YINGHSIANG P'INGKU FA, art. 23.

<sup>71</sup> *Id.*

<sup>72</sup> *Id.*

<sup>73</sup> See *supra* notes 49, 50.

<sup>74</sup> HUANCHING YINGHSIANG P'INGKU FA, arts. 10, 12.

interpretation<sup>75</sup> given by the Ministry of Justice has determined that a final decision made by TEPA on an EIA Report constitutes an "administrative action," the only type of administrative decision reviewable by the Administrative Court to date.<sup>76</sup> Yet it is still uncertain whether TEPA's determination of no need to prepare an EIA Report (which is equivalent to the FONSI under the U.S. National Environmental Policy Act)<sup>77</sup> constitutes an "administrative decision" and therefore can be challenged in the Administrative Court. It is also unclear if a violation of any aspect of the EIA process constitutes an agency error reviewable by the Administrative Court.

### 7. *Further Efforts Needed*

Many modifications will have to be made before the EIA Act can be expected to function effectively. The following recommendations should be given priority:

- 1) The essence of scoping should be unambiguously defined as necessary for identifying significant issues to be analyzed in an EIA Report. TEPA should revise the Implementation Rules for the EIA Act<sup>78</sup> to require that three types of actions (connected actions, cumulative actions, and similar actions), three types of alternatives (no action alternative, other reasonable courses of actions, and mitigation measures) and three types of impacts (direct, indirect and cumulative) be considered or discussed in the EIA Report.<sup>79</sup>
- 2) The "Environmental Impact Explanation" ("EIE"), the equivalent of Environmental Assessment ("EA") in the United States, should be clarified to be a screening tool. The EIA Act may have somehow mistakenly treated the EIS as a draft EIA Report, which is equivalent to the EIS in the United States.<sup>80</sup>

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<sup>75</sup> MINISTRY OF JUSTICE, Circular No. 18,033 (July 29, 1995), reprinted in TEPA Register No. 94, at 288 (Oct. 1995).

<sup>76</sup> See *Env'tl Laws and Policies of Taiwan*, supra note 2, at 532-34.

<sup>77</sup> See e.g., 16 C.F.R. § 1.83.

<sup>78</sup> See TEPA Register No. 95, at 3-11 (Nov. 1995).

<sup>79</sup> See 40 C.F.R. 1508.25 & 1501.7 (1996).

<sup>80</sup> This seems plausible if one compares the contents of the Taiwanese EIE with the EA of the United States. Cf. HUANCHING YINGHSIANG P'INGKU FA, art. 6, 40; C.F.R. 1508.9 (1996).

3) All environmentally-concerned requirements of a development project, such as the soil-and-water preservation plans,<sup>81</sup> should be integrated as much as possible into the EIA process in order to improve decision consistency and bureaucratic efficiency.

4) For meaningful public participation, the notice and comment procedures<sup>82</sup> should be adopted during, rather than before, scoping. Notice and comment procedures should be provided for reviewing the draft and final EIA Reports. TEPA should construe a "determination of no need to prepare an EIA Report" as an "administrative action" suitable in the Administrative Court.

### *B. Water and Soil Conservation Act of 1994*

In order to improve water and soil resources conservation, and to promote reasonable land uses, the Legislative Yuan passed the Water and Soil Conservation Act ("WSCA") in May of 1994, and amended it soon afterwards, in October of the same year.<sup>83</sup> Under this Act, the managers, users, and owners of land within specific areas are required to conduct "water-and-soil conservation treatment and maintenance."<sup>84</sup> The conservation obligations are of two levels, and are largely dependent on the ecological vulnerability of the lands.

#### *1. General Water-and-Soil Conservation*

Following the Water-and-Soil Conservation Technique Guidelines promulgated by the Council of Agriculture ("COA"), water-and-soil conservation treatment and maintenance measures are required to be conducted in the following areas:

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<sup>81</sup> See, e.g., SHUIT'U P'AOCH'IH FA [Shuitu Baochi Fa] [Soil and Water Conservation Act], arts. 12, 13; see also Hillside Conservation and Utilization Act, art. 30.

<sup>82</sup> See HUANCHING YINGHSIANG P'INGKU FA, arts. 8, 9.

<sup>83</sup> ROC Presidential Office Register No. 5875, at 1-7 (May 27, 1994) & No. 5963, at 1-3 (Oct. 21, 1994).

<sup>84</sup> It denotes measures which utilize engineering, farming and planting as means to conserve water and soil resources, preserve natural landscape, and prevent disasters such as erosion, landfalls, landslides, and soil and stone flush-away. SHUIT'U P'AOCH'IH FA, art. 3.

- 1) river catchment areas;
- 2) farming, forestry, fishing and grazing lands;
- 3) mining, well-digging, soil and stone extraction areas;
- 4) railroad and highway construction areas;
- 5) development of construction within hillside or forest areas; installing parks, dams, strolling areas, sports fields, or forest amusement areas; piling up rocks, managing discarded matter, excavation and other soil preparation areas.
- 6) coastlines, lakesides, damsides or banks of waterways;
- 7) deserts, beaches, sand dunes; and
- 8) protected areas within urban planning zones.<sup>85</sup>

A responsible agency having jurisdiction over the above-listed activities may only issue a permit for the proposed construction or utilization of the land when the COA approves a water-and-soil conservation plan proposed by the developers (managers, users, or owners) of the land. Whenever an EIA is required, TEPA's EIA review conclusion shall be submitted together with the proposed water-and-soil conservation plans.<sup>86</sup>

## 2. *Special Water-and-Soil Conservation*

Under the WSCA, the following land areas are designated as special water-and-soil conservation areas:

- 1) dam catchment areas;
- 2) major river catchment areas that deserve special protection;
- 3) coastlines, lakesides, banks of waterways that deserve special protection;
- 4) sand dunes, beaches that suffer serious wind erosion;
- 5) steep hillsides that might endanger public safety; and
- 6) any other areas that might have significant impact on water-and-soil conservation.<sup>87</sup>

No development activity can be undertaken in special water-and-soil

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<sup>85</sup> SHUIT'U P'AOCH'IH FA, art. 8.

<sup>86</sup> See SHUIT'U P'AOCH'IH FA, arts. 12, 13.

<sup>87</sup> *Id.* art. 16.

conservation areas unless it concerns vital construction of water resources conservation, causes landform changes within a specified scale, or concerns natural recreation area development which has passed an EIA review, and is approved by the central responsible agency (i.e., the COA).<sup>88</sup>

A violator of a conservation requirement may be punished by imprisonment of up to twelve years and a fine of up to NT\$ 1,000,000 if the violation results in catastrophic consequences.<sup>89</sup>

### C. *Wildlife Conservation Act Amendments of 1994*

Criticism of Taiwan's wildlife conservation efforts reached a peak on March 25, 1994, when the Convention on International Trade in Endangered Species ("CITES") concluded at its standing committee meeting in Geneva that Taiwan's proposed actions "toward meeting minimum requirements have not yet been implemented."<sup>90</sup> Following the decision of CITES, the U.S. government invoked the Pelly Amendment<sup>91</sup> to impose trade sanctions on Taiwan in April of 1994, and went on to announce a ban on imports of Taiwan wildlife and wildlife products, effective August 19, 1994.<sup>92</sup> Under this unprecedented international pressure, the law-makers of Taiwan decided in 1994 to substantially revise the Wildlife Conservation Act.<sup>93</sup>

Wildlife conservation in Taiwan can be traced back to the Cultural Heritage Preservation Act ("CHPA") of 1982. The so-called "natural-cultural landscapes" under the Act include "rare and valuable flora and fauna."<sup>94</sup> The designated rare flora and fauna may not be "hunted, netted, fished, picked, cut, or otherwise destroyed" without obtaining permission in advance.<sup>95</sup> The Wildlife Conservation Act ("WLCA") of 1989 classified "wildlife" into two categories, i.e., "protected species" and "general

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<sup>88</sup> *Id.* art. 19.

<sup>89</sup> *See, e.g., id.* art. 32.

<sup>90</sup> *See* 59 Fed. Reg. 22,044 (1994).

<sup>91</sup> Fisherman's Protective Act of 1967 § 8, 22 U.S.C. §§ 1971-1980 (1967).

<sup>92</sup> According to the U.S. Fish and Wildlife Service, the total value of wildlife imports from Taiwan to the United States was about US\$ 22 million in 1992. 59 Fed. Reg. 22,045 (1994). The ban was lifted on June 30, 1995.

<sup>93</sup> The original act consists of 45 articles; the revised act contains 57 articles.

<sup>94</sup> WENHUA TSUCH'AN PAOTS'UN FA [Wenhua Zichan Baocun Fa] [Cultural Heritage Preservation Act] art. 49.

<sup>95</sup> *Id.* art. 53. A violator shall be subject to imprisonment of no more than three years, detention, and/or a fine of no more than NT\$ 20,000. *Id.* art. 56.

wildlife,”<sup>96</sup> and further classified “protected species” into three classes, i.e., “endangered species” (meaning that their population size is at or below a critical level), “rare and valuable species” (referring to endemic species or those with a very low population) and “other conservation-deserving species.”<sup>97</sup> All conserved species, unless mandated otherwise by laws or regulations, may not be “disturbed, abused, hunted, captured, traded, exchanged, illicitly possessed, killed or processed.”<sup>98</sup>

The 1994 WLCA Amendments deal with habitat conservation and wildlife protection, import and export regulations for live wildlife and their products, regulations for raising and breeding of protected species, and penalties.<sup>99</sup> The highlights of the 1994 Amendments include the following provisions:

- 1) The central responsible agency (i.e., the COA) is empowered, in an unprecedented grant of authority in Taiwan, to set up a “conservation donation account” for receiving donations from the private sector, to issue wildlife conservation stamps,<sup>100</sup> and to set up a “conservation police force.”<sup>101</sup>
- 2) Any construction or other land uses that might have a significant impact on the “major wildlife habitats” designated by the COA can only be taken after obtaining advance approval from the COA.<sup>102</sup>
- 3) Prohibited hunting methods are enumerated,<sup>103</sup> penalties for violations are imposed, and destruction and/or confiscation of illicit hunting devices (such as traps) by the control agencies is authorized.<sup>104</sup>
- 4) No import or export of live wildlife and products of protected species is allowed without prior approval from the COA.<sup>105</sup>
- 5) All persons who have been engaged in raising or breeding protected wildlife, and who have possessed products of protected species before the COA announced the regulations have a duty to register and an obligation to

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<sup>96</sup> 1989 Yehsheng Tungwu Paoyu Fa, art. 4.

<sup>97</sup> See *id.* art. 4.

<sup>98</sup> *Id.* art. 5.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.* art. 7.

<sup>101</sup> *Id.* art. 22.

<sup>102</sup> *Id.* art. 8.

<sup>103</sup> *Id.* art. 19.

<sup>104</sup> *Id.* arts. 48, 49.

<sup>105</sup> *Id.* art. 24.

be inspected.<sup>106</sup>

6) Protected wildlife and products of endangered species or rare and valuable species shall not be displayed or exhibited in public areas without permission from the COA.<sup>107</sup>

7) The penalties against violators have been tightened across the board; the confiscation of illicit devices and drugs is prescribed.<sup>108</sup>

According to the Ministry of Justice, 361 criminal cases were brought to trial under the Wildlife Conservation Act from 1994 to 1996. These cases involved the prosecution of 463 people and resulted in 344 convictions. Table 5 in the appendix shows the breakdown of the cases. In addition to the emphasis on law enforcement,<sup>109</sup> the COA and the Ministry of the Interior have achieved remarkable success in the rehabilitation of endangered species, such as Formosan landlocked salmon (*Oncorhynchus masou formosanus*) and Formosan sika deer (*Cervus nippon taiouanus*).<sup>110</sup>

#### IV. SOME ENVIRONMENTAL INITIATIVES

In addition to the reasons analyzed above<sup>111</sup> the formation of a tripartisan Legislative Yuan since 1993 helps the administrative authorities continue to enjoy tremendous autonomy and discretion in shaping environmental policies.<sup>112</sup> The most notable initiatives of the administrative authorities are discussed below.

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<sup>106</sup> *Id.* art. 31. Those who have engaged in raising or breeding the protected wildlife before the passage of the Amendments must cease such raising or breeding within three years. *Id.* art. 31.

<sup>107</sup> *Id.* art. 35. A violator shall be punished by imprisonment ranging from six months to five years, and a fine ranging from NT\$ 300,000 to NT\$ 1,500,000. *See id.* art. 40.

<sup>108</sup> Offenders now face up to seven years in jail and a fine of NT\$ 2,500,000 (presently about US\$ 90,000). *See id.* art. 40.

<sup>109</sup> *See* THE REPUBLIC OF CHINA Y.B. 1995, at 246-48; 1996 ROC Yearbook, *supra* note 9, at 207-10.

<sup>110</sup> *See id.* at 248-49; *see also* Y. WANG ET AL., THE ECOLOGICAL STUDY ON THE RELEASED HERD OF THE FORMOSAN SIKA DEER AT KENTING NATIONAL PARK (National Park Administration, Ministry of the Interior, Conservation Report # 93, June 1996).

<sup>111</sup> *See* discussion *supra* Part II.C.

<sup>112</sup> *Envtl Laws and Policies of Taiwan, supra* note 2, at 531-35 (including the prevalence of blanket authorization provisions, the absence of the administrative procedure act, and lack of citizen suits mechanisms).



A. *Air Pollution Control: Constitutionality of Emission Charges Challenged*

In the area of air pollution control, TEPA has continued to follow the "guided incrementalism" pattern<sup>113</sup> in revising the Emission Standards for Stationary Sources<sup>114</sup> and the Emission Standards for Mobile Sources.<sup>115</sup> It is, however, the controversial imposition of Air Pollution Control Fees<sup>116</sup> that has attracted most attention. Despite serious criticisms, TEPA decided to stick with these "misguided experiments with economic instruments"<sup>117</sup> and commenced the emission charges program in March, 1995 by promulgating the Measures for Collecting Air Pollution Control Fees ("the Measures").<sup>118</sup> Both stationary sources and mobile sources (both automobiles and motorcycles) are subject to the charges. The imposition of emission fees on stationary sources has been carried out in two phases. In the first phase, effective on July 1, 1995, the emission fees are collected according to the fuel consumption of each source; in the second phase, effective on the date to be set by TEPA, the fees will be collected according to the nature and amount of the actual emissions of the sources.<sup>119</sup> By contrast, the emission fees for mobile sources are collected based upon their

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<sup>113</sup> See ECON. INCENTIVES IN TAIWAN'S ENVTL. REG., *supra* note 2, at 279-97.

<sup>114</sup> See TEPA, REGISTER No. 77, at 7-22 (May 1994). The revised Standards further clarified the difference between new and existing sources in terms of the stringency of pollution control. In addition to this general standard, there are at least 13 special emission standards established for specific category of industries, such as emission standards for waste incinerators.

<sup>115</sup> The most updated emission standards for gasoline/clean fuel motor vehicles will be tightened up from July 1, 1995 until Jan. 1, 1999; those for diesel engine motor vehicles will be tightened up beginning on July 1, 1999; those for motorcycles will be tightened up beginning on Jan. 1, 1998. See TEPA REGISTER No. 100, at 4-16 (Apr. 1996) & TEPA REGISTER No. 90, at 3-6 (June 1995).

<sup>116</sup> Art. 10 of the Air Pollution Control Act states:

The regulatory agencies of all level of government shall collect air pollution control fees based upon the type and amount of the air pollutants discharged by polluting sources.

The classification of the sources mentioned in the last section and the detailed measures for collecting the fees shall, after consulting relevant agencies, be promulgated by the regulatory agency of the central government.

<sup>117</sup> These experiments are misguided because revenue raising, rather than incentive impact on the environment, has indeed become the major motives for adopting the various pollution charges programs. See *Envtl Laws and Policies of Taiwan*, *supra* note 2, at 552-59

<sup>118</sup> TEPA Public Notice 84 (Air) No. 14106 (Mar. 23, 1995), *reprinted in* TEPA REGISTER No. 88, at 2-5 (Apr. 1995).

<sup>119</sup> K'UNGCH'I WUJAN FANG CHIHFEI SHOUFEIPIEN [Kongqi Wuran Fang Zhifei Shoufeibian Fa] [Measures for Collecting Air Pollution Control Fees] [hereinafter K'UNGCH'I CHIHFEI], art. 3.

fuel consumption, regardless of their actual emissions.<sup>120</sup> The revenues from both kinds of emission fees will go to a special fund, the Air Pollution Control Fund, and may be spent only for air pollution control related purposes, as specified in the Measures.<sup>121</sup>

According to the original rates<sup>122</sup> proposed by TEPA, the estimated revenue of emission fees for the fiscal year of 1995 would be more than NT\$ 9,932 million (or US\$ 361 million). About 40% of this amount comes from stationary sources, and the rest (60%) from mobile sources. At the budget review in May 1995, the Legislative Yuan cut the revenue from these charges to NT\$ 5,961 million (or US\$ 216 million), and adjusted the burden share between stationary and mobile sources to a 57%:43% split.<sup>123</sup> After the passage of the budget, sixty-seven members of the Legislative Yuan immediately attempted to postpone the implementation of the emission charges program by filing an application with the Council of Grand Justices for "constitutional interpretation" to challenge the constitutionality of the Measures.<sup>124</sup> As expected, the Council of Grand Justices of the Judicial Yuan, did not take prompt action to review the case and as yet has not issued its ruling.

Whatever the final result might be, this case provides valuable lessons for adopting economic incentives for environmental protection. First, whenever revenue raising becomes the dominant concern, the purpose of the economic incentive-based instruments will be twisted. Emission charges based solely upon "fuel input" (fuel consumption), rather than upon "pollution output" (actual emissions), can barely be expected to induce regulated firms and individuals to respond. It is indeed the weak correlation between the (volume and hazardousness of) discharge and the (amount or level of fees) payment that is the very basis for constitutional challenge. In order to bring positive changes to the environment, Taiwan must implement

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<sup>120</sup> *Id.* art. 4.

<sup>121</sup> See *id.* art. 14 (listing nine broadly-phrased purposes). See also TEPA, Measures for Collecting, Safekeeping and Spending Air Pollution Control Fund, reprinted in TEPA REGISTER No. 92, at 2-4 (Aug. 1995).

<sup>122</sup> TEPA Public Notice 84 (Air) No. 12,272 (Mar. 31, 1995), reprinted in TEPA REGISTER No. 88, at 4-5 (Apr. 1995).

<sup>123</sup> The TEPA then lowered the original charge rates. For example, the emission fees for unleaded gas was reduced from NT\$ 0.4 per litre to NT\$ 0.2 per litre. See TEPA Public Notice 84 (Air) No. 26146 (June 1, 1995), reprinted in TEPA REGISTER No. 90, at 12-13 (June 1995).

<sup>124</sup> The Application does not provide clear reasoning why the Measures for Collecting Air Pollution Control Fees should be declared unconstitutional except vaguely charging that they cannot properly protect the right of property. See Application for Constitutional Interpretation on the Constitutionality of the Measures for Collecting Air Pollution Control Fees (June 9, 1995).

an effective emission fees program—one that strikes a balance between administrative ease and cost-efficiency. This is especially true when looking at the “fuel tax” that has been levied for years; people cannot help but wonder why they need a double “fuel tax” under the irresistible guise of “polluter-pays-principle.”<sup>125</sup>

This case also exhibits the potential threat of blanket authorizations under the extant legal system. TEPA, as the regulatory agency, is authorized by law to make all necessary rules for implementing the Air Pollution Control Fees, including when, how, and how much to charge.<sup>126</sup> The Measures at issue were promulgated on March 23, 1995, and the fees started to be collected on July 1, 1995. For all stationary and mobile sources there were only three months left for adjusting their polluting behavior and the costs of their production activities. Besides the short notice, there was no way for the public to participate in the administrative rule-making, nor could a rule or regulation be challenged directly in the (administrative) court.<sup>127</sup> Really, one must ask if individual property rights were thereby jeopardized.<sup>128</sup>

Finally, in order to correct the misguided employment of various pollution charges programs,<sup>129</sup> the Justices should take this opportunity to push for reform by doing the following:

- 1) require TEPA to faithfully abide by the statutory delegation in making rules, i.e., the emission fees should be proportionate to the “type and amount of air pollutant emitted;”<sup>130</sup>
- 2) require TEPA to adopt “appropriate procedures for public participation” during the rule-making process to assure better decision-

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<sup>125</sup> Ironically, the Council of Economic Planning and Development of the Executive Yuan recently decided that beginning on July 1, 1996 the current practice of collecting an annual “fuel tax” based upon the mode of motor vehicle will be substituted by a tax based upon actual fuel consumption with each fuel purchase. See LIANHE BAO [UNITED DAILY NEWS], May 17, 1996.

<sup>126</sup> Air Pollution Control Act, art. 10; see *supra* note 82.

<sup>127</sup> This is so because there is no administrative procedure act of general applicability, and the judicial review of administrative decisions is limited to only individual and particular adjudications (“administrative actions”). See *Envl Laws and Policies of Taiwan*, *supra* note 2, at 531-33.

<sup>128</sup> XIANFA art. 15. (The right of property shall be protected) Cf. Germany’s *Abwasserabgabengesetz* 1976 9(4), 18 (The effluent charges became effective for the first time on Jan. 1, 1981, though the act itself came into force on Jan. 1, 1978).

<sup>129</sup> In addition to the controversial air pollution control fees, there are trash disposal fees based upon the consumption of tap water of each household. Effluent charges for wastewater and noise charges for civil aircraft are under consideration.

<sup>130</sup> Air Pollution Control Act, art. 10; see *supra* note 82.

making; and

3) follow its precedent (i.e., Interpretation No. 217<sup>131</sup> and Interpretation No. 313<sup>132</sup>) and require a statutory delegation for collecting environmental charges to, at least, unambiguously specify the "allowable uses" of the charge revenues and a "correlation between charges as a means and the environmental objective to be achieved."

#### B. *Water Pollution Control: Integrated Program for River Basins*

In light of the continuing deterioration of water quality of the major rivers around the island, TEPA launched a five-year Integrated Environmental Protection Project for River Basins beginning in July 1995.<sup>133</sup> Hopefully by June 2000, ten of the most polluted primary river basins will be cleaned up with a grant of NT\$ 4 billion from the central government.<sup>134</sup> The Project is noteworthy since it is the first effort in Taiwan to combat the pollution in river basins on multiple fronts. The local governments of the selected river basins are encouraged to submit a comprehensive river basin pollution control plan to compete for the grant. According to TEPA, these plans shall include:

- 1) measures for controlling air pollution, water pollution, and waste management of enterprises;
- 2) construction plans for sewage system, waste incinerators, recycling sites, and garbage dumps clean-up plans;
- 3) landscape preservation (riverbank greening);

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<sup>131</sup> Interpretation No. 217 (July 17, 1987) reprinted in SUPPLEMENT TO THE COMPILATION OF INTERPRETATIONS BY THE GRAND JUSTICES, JUDICIAL YUAN, VOL. III, at 208 (June 1990) states:

Article 19 of the ROC Constitution which provides that people shall have the duty of paying taxes in accordance with law means that people have the duty of paying taxes only in accordance with the items prescribed by law, such as the taxpayer, title, rates, means, and duration of time.

<sup>132</sup> Interpretation No. 313 (Feb. 12, 1993) reprinted in SUPPLEMENT TO THE COMPILATION OF INTERPRETATIONS BY THE GRAND JUSTICES, JUDICIAL YUAN, VOL. VII, at 52 (June 1990) states:

Imposing administrative fines upon those who violate an administrative obligation concerns the restriction of the fundamental rights of people; the requirements and amount/level of the fines shall be prescribed by law. Whenever an agency is authorized to supplement the requirements of fines with administrative rules, the contents and limits of such an authorization shall be unambiguously specified by law.

<sup>133</sup> TEPA, COMPREHENSIVE ENVIRONMENTAL PLAN FOR RIVER BASINS (TEPA, Dec. 1994).

<sup>134</sup> *Id.* at 43, 60 (Table 3).

4) other relevant measures, such as flood-defense and water-supply devices.<sup>135</sup>

So far, four integrated pollution control plans have been proposed. A preliminary investigation of these plans reveals the following institutional obstacles that need to be overcome:<sup>136</sup>

1) The Water Pollution Control Act should be revised to clearly prescribe due procedures for determining the appropriate uses for each body of water. These selected water uses, in turn, will determine the necessary water quality and therefore the legal "optimality" for pollution control.<sup>137</sup> Without such a process for selecting water quality standards, there is simply no principled way to decide whether a "down-grading" or "up-grading" proposal in an integrated pollution control plan should be approved.

2) In view of the close connection between water quantity (water supply) and water quality (water pollution control), the river basin as a planning unit should be applied further to pursue a greater integration in the management of water resources.<sup>138</sup> A more integrated water resource management administration is highly recommended to overcome the prevalent "self-centeredness" within the bureaucracy.

3) An integration among the current fiscal mechanisms is also needed. The present practice of fully subsidizing only eligible construction costs at a uniform rate<sup>139</sup> should be substituted with more flexible and more cost-effective alternatives. The Sewage Act should be revised to release householders of the impracticable burden of paying for the connection to the sewage system. However, whenever the government finishes the sewage construction and connection, the householders in the sewage region should be responsible for all operation and maintenance expenses required

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<sup>135</sup> *Id.* at 79 (Appendix 1).

<sup>136</sup> See Dennis T. Tang, *On the Bottlenecks and Breakthroughs of Current Water Pollution Control for River Basins*, 9 SOOCHOW L. REV. 111 (1996).

<sup>137</sup> For an analysis of the water-quality-based approach under the Water Pollution Control Act, see *The Env'tl Laws and Policies of Taiwan*, *supra* note 2, at 527-30.

<sup>138</sup> See, e.g., OECD, *WATER RESOURCE MANAGEMENT: INTEGRATED POLICIES* (1989); NICOLAS SPULBER & ASGHAR SABBAGHI, *ECONOMICS OF WATER RESOURCES: FROM REGULATION TO PRIVATIZATION* 3-13 (1994).

<sup>139</sup> See *ECON. INCENTIVES IN TAIWAN'S ENVTL. REG.*, *supra* note 2, at 123-26. This is a reflection of the American practice.

for the sewage system. In the meantime, the proposed "water pollution control fees" (effluent charges) under the Water Pollution Control Act should be imposed only upon the sources that directly discharge polluted water into the surface water (river) in order to avoid a possible double burden for a householder.

### C. *Solid Waste Management: Recycling Programs at a Crossroads*

TEPA has continued, following the three-step track,<sup>140</sup> to launch new recycling programs. The total number of recycling programs has now reached twenty. Table 6 in the appendix shows the evolution of these programs in Taiwan. As two-thirds of Taiwan's landfills have approached or already are at full capacity,<sup>141</sup> the planned construction of incinerators have been met with constant local opposition<sup>142</sup> and the amount of household waste is ever-increasing.<sup>143</sup> TEPA, however, is now getting serious about waste recycling.

In April 1994, TEPA promulgated the "Measures for Collection, Clean-up and Disposal of General Waste Containers"<sup>144</sup> and integrated twelve of the then-existing recycling programs for various containers. Table 7 in the appendix summarizes the contents of the existing eight measures for the collection, clean-up and disposal for the recycled articles. These new measures are similar to the prior regulations, except that under the new measures TEPA may mandate that the regulated group adopt a deposit-refund system when it fails to reach the specific rate of return of recyclables in two consecutive years.<sup>145</sup> The backbone, however, of the TEPA recycling programs is still command-and-control regulation reinforced with penalties. The driving force, the stick, is the "annual rate of return"<sup>146</sup> specified by the TEPA; failure to reach such a required level makes all relevant enterprises

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<sup>140</sup> I.e., announcing a particular item to be "non-biodegradable" waste; promulgating measures for collection, clean-up and disposal; specifying an annual rate of return.

<sup>141</sup> See 46 FREE CHINA REV., at 5 (June 1996).

<sup>142</sup> See, e.g., LIANHE BAO [UNITED DAILY NEWS], Dec. 28, 1994, p. 7.

<sup>143</sup> See TEPA, YEARBOOK OF ENVIRONMENTAL PROTECTION STATISTICS, TAIWAN AREA, THE REPUBLIC OF CHINA 168-69 (Table 4-1) (Aug. 1996).

<sup>144</sup> TEPA Public Notice 83 (Waste) No. 16,553 (Apr. 15, 1994), reprinted in TEPA REGISTER No. 77, at 1 (May 1994).

<sup>145</sup> *Id.* art. 8.

<sup>146</sup> The annual rate of return is, for example, the ratio of wasted general containers collected by the relevant enterprises compared to the general containers produced by the same enterprises within a specified time period. *Id.* art. 3(9).

subject to sanctions.<sup>147</sup> Economic incentives, such as refundable deposits, play only a limited role.

Since each of these existing recycling programs has been developed separately, there is no comprehensive design or overall planning. This is illustrated by asking a very fundamental question: who has the responsibility for recycling under the system? On the surface, the relevant enterprises (companies) have the responsibility. Section 1, Article 10-1 of the Waste Disposal Act ("WDA") states:

The manufacturers, importers, and sellers of an article, its packing or container, which after consumption, may produce wastes with one of the following characteristics, and thus may seriously pollute the environment, shall be responsible for its collection, clean-up, and disposal if such waste

- 1) is difficult to clean up or dispose of;
- 2) has contents that are not biodegradable for a long period; or
- 3) contains hazardous substances.

However, it is far from clear from the cited provision whether the responsibility for recycling is joint and several among the manufacturers, importers and sellers of goods, and what share or percentage of this liability should be allocated for each category of the industry.<sup>148</sup>

In practice, TEPA has utilized its broad statutory delegation<sup>149</sup> to instruct each regulated industry to set up a "collective organization"<sup>150</sup> for recycling. Many (perhaps most) companies in these regulated industries have, by paying "disposal fees" agreed among themselves, established a

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<sup>147</sup> Under Article 23-1 of the Waste Disposal Act, if a company violates a measure promulgated in accordance with the authorization of Article 10-1, then the company shall be punished by a fine ranging from NT\$ 20,000 to NT\$ 50,000; serious violations may result in suspension of business for a time period ranging from one month to one year. FEICH'I WU CH'INGLI FA [FEIQI WU QINGLI FA] [Waste Disposal Act] art. 23-1.

<sup>148</sup> Based on the wording of the section, there are at least six categories of enterprises: manufacturers of products, manufacturers of packing material/containers, importers of products, importers of packing material/containers, sellers of products, sellers of packing material/containers.

<sup>149</sup> "The classes of waste, and the scope of industries manufacturing, importing and selling of the articles, the packing or containers of the waste, mentioned in the last subsection shall be announced by the regulatory agency of the central government; the measures for collection, clean-up and disposal of the waste shall be jointly promulgated by the environmental regulatory agency and the subject matter regulatory agency of the central government." FEIQI WU QINGLI FA, art. 10-1.

<sup>150</sup> Every measure for collection, clean-up and disposal promulgated by the TEPA contains such a provision. See, e.g., Art. 21 of the Measures for Collection, Clean-up and Disposal of for Wasted General Containers.

“recycling fund” within their industry association or union. It is these industry associations or unions, rather than each and every individual company, that actually conduct recycling. Such a subtle shift of recycling function in reality does not, however, solve the thorny problem of imposing sanctions. Whenever there is a failure to meet an annual rate of return, TEPA has insisted that the regulated enterprises and companies, rather than their associations or unions, shall be sanctioned as it is the former that are *legally* responsible for recycling. Yet the regulated enterprises and companies are numerous and the individual obligation for each and every company has not been defined in any way. Those that have joined and paid fees to a collective organization believe that they have performed their legal obligation and they urge TEPA to punish those firms that have not joined or paid fees to a collective recycling organization. It seems evident such an ill-conceived regulation and de-centralized practice can only result in lax and uneven enforcement.

TEPA has set up one giant recycling fund (“superfund”) and plans to consolidate the more than twenty existing recycling funds of various industry associations and unions in stages. Under this plan, every regulated company would be required to join the “superfund” in the long run. In May of 1994, TEPA set up the Fund for Collecting, Cleaning-up and Disposing General Wastes by donating a fund<sup>151</sup> and by promulgating the Measures for Collecting, Cleaning-up and Disposing of Wasted General Containers.<sup>152</sup> The “superfund,” however, has troubled the already diminishing group of “private scavengers”<sup>153</sup> who worry about further damage to their competitive advantages in the recycling market. Also, TEPA has been criticized for constructing its “superfund” governing board in such a way so as to render “conflicts of interest” inevitable for many of the members who have worked closely with or are officials of TEPA.

Serious questions have been raised about the actual performance of the recycling system. Widespread doubt exists as to whether the regulated enterprises actually recycle the specified recyclables as indicated by their statistics. To meet this criticism, the new administrator of TEPA has announced a reform plan, the “four-in-one recycling program,” to be

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<sup>151</sup> See Donation Charter for Establishing the General Waste Collection, Clean-up and Disposal Fund (June 11, 1983).

<sup>152</sup> See TEPA REGISTER No. 77, at 2-7 (May 1994).

<sup>153</sup> These “private scavengers” are small-scale operators who have been collecting recyclables ever since the period of Japanese occupation (1895-1945). They anticipated the concept of recycling by selling recyclables to reprocessing plants.



implemented beginning in January 1, 1997.<sup>154</sup> While the "four-in-one" program promises to improve inspection and auditing by establishing a certification system to be applied to all enterprises handling general containers,<sup>155</sup> it still leaves it up to the regulated businesses to decide if they should join the newly-established collective organization, the Collective Fund.<sup>156</sup> To join, a business must pay specific fees for collection, clean-up and disposal to be calculated based upon the actual amount of its transactions.<sup>157</sup>

As the specified recyclables increase, and the annual rates of return increase, the entire recycling system is now facing a crucial choice: what to do next? Does the recycling system require more regulation or should it be controlled solely by market forces? TEPA has been unwilling either to take over the recycling responsibility directly, or to leave it to the market completely. To tighten the enforcement of the existing regulatory scheme, however, TEPA must actually identify the liable parties. There appear to be two feasible solutions to this problem:

- 1) requiring all enterprises and companies of the regulated industries to join the collective organization by paying enough "disposal fees" and then shifting the legal duty of recycling to the collective organization; or
- 2) defining an accurate share (an accurate percentage) of the responsibility for each category of the relevant enterprises and developing specific means for calculating the exact amount and kind of recyclables to be collected or recycled by each and every company.<sup>158</sup>

Without fixing the existing system-wide defects, it is doubtful that the recycling system can effectively reach its goal of easing the solid waste problem in Taiwan.

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<sup>154</sup> The "four-in-one" means integrating the local communities, recycling merchants, local governments and the Collective Fund into a working scheme. See TEPA, RECYCLING FOUR-IN-ONE: PLANING REPORT (Dec. 20, 1996).

<sup>155</sup> See Draft Amendments to Measures for Collection, Clean-up and Disposal of for General Waste Containers, art. 12-6, 27 (scheduled to be published in February 1997).

<sup>156</sup> See *id.* art. 12. This Fund differs from the 20 or so existing collective organizations in that its operation and maintenance shall be entrusted to a financial institution. *Id.*

<sup>157</sup> *Id.* art. 2.

<sup>158</sup> See DENNIS T. TANG ET AL., ON THE IMPROVEMENT OF THE EXISTING WASTE RECYCLING SYSTEM, II-37-39, III-6-21 (Feb. 1997) (Research Report for the Council for Research, Development and Evaluation, Executive Yuan).

## V. JUDICIAL DECISIONS UPDATED

### A. *The Current State of Environmental Litigation*

Little progress has been made since 1993 in reforming the judicial system, though serious planning has been initiated.<sup>159</sup> Both the draft Administrative Litigation Act Amendments and the draft Administrative Procedure Act are, among hundreds<sup>160</sup> of other proposed bills, still pending in the Legislative Yuan. Until the existing power struggle among the parties is over and the legislators really begin working to overhaul the present public law litigation system, one can hardly expect conservative courts operating under a Continental legal system to take the lead in shaping the environmental policies. Table 8 in the appendix updates the breakdown of results in air pollution and water pollution cases.<sup>161</sup>

### B. *Highlights of Important Environmental Decisions*

The high points of several significant decisions can be summarized as follows:

1) Building a cemetery of less than five hectares on a rented parcel of national forest land does not constitute "a major construction activity" and therefore an environmental impact assessment need not be conducted during the planning stage. However, one is still required under the Hillside Conservation and Utilization Act ("HCUA"), to submit to the regulatory agency a water-and-soil conservation plan for approval before undertaking such construction.<sup>162</sup>

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<sup>159</sup> The Judicial Reform Committee was set up on October 19, 1994 to conduct a comprehensive planning for reform. See JUDICIAL YUAN, CONFERENCE PROCEEDINGS OF THE JUDICIAL REFORM COMMITTEE (VOL. 1-VOL. III) (May 1996).

<sup>160</sup> See *supra* note 45.

<sup>161</sup> The environmental decisions rendered by the Administrative Court include more than air pollution and water pollution cases. However, since cases of other environmental statutes are fewer or simply more trivial (for instance, almost all cases under the Waste Disposal Act are fact-finding disputes over who dumped the garbage), and for the sake of data continuity for comparison, only air and water cases are calculated in Table 7.

<sup>162</sup> See Administrative Court Decision ("ACD") No. 2792 (Dec. 30, 1994), reprinted in ESSENTIALS OF THE ADMINISTRATIVE COURT'S DECISIONS, VOL. 14, at 66 (Judicial Yuan, May 1996); see also HILLSIDE CONSERVATION UTILIZATION ACT, arts. 30, 35.

2) Under Article 54 of the Water Pollution Control Act, if a company is found to be violating relevant effluent standards, an initial fine is imposed and the company is given a period during which to improve or correct the violation. The company is obliged to submit evidence showing the required improvements or corrections. Otherwise, the company shall be subject to the “continuous daily fines;” thus, the “continuous daily fines” are indeed aimed at punishing polluting behavior.<sup>163</sup>

3) The public interest principle is an important principle in public law. Whenever private interests are in conflict with public interests, the latter shall prevail. A golf course constructed on a parcel of private land located within a “tap-water quality and water quantity protection area” will definitely affect the conservation of both the quantity and quality of tap-water, and it will therefore be prohibited by the Drinking Water Management Act (“DWMA”).<sup>164</sup>

4) Under the Hillside Conservation and Utilization Act (“HCUA”), a landowner must still submit a “water-and-soil conservation plan” to the relevant agencies for approval before commencing construction, even if the parcel of land has been re-classified by the Ministry of Economic Affairs pursuant to the Act for Encouraging Investments.<sup>165</sup>

## VI. PROSPECTS: STRATEGIES FOR FURTHER PROGRESS

Having worked hard for decades to achieve economic prosperity, the people of the Republic of China on Taiwan are now gradually becoming more sensitive to and more aware of the fundamental questions of human life; that is, what are we striving for? What kind of quality of life are we pursuing? How can we, as our ancestors did, maintain a more harmonious relationship with nature? Here are some strategies for making progress

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<sup>163</sup> See ACD No. 257 (Feb. 4, 1994) reprinted in *ESSENTIALS OF THE ADMINISTRATIVE COURT'S DECISIONS*, VOL. 14, at 847 (Judicial Yuan, May 1996); see also Water Pollution Control Act, arts. 38, 54.

<sup>164</sup> See ACD No. 2037 (Sept. 22, 1994) reprinted in *ESSENTIALS OF THE ADMINISTRATIVE COURT'S DECISIONS*, VOL. 14, at 860 (Judicial Yuan, May 1996). Under Article 4 of the DWMA, all activities that interfere with the conservation of water quantity, flow of water, and preservation of quality are prohibited in a “tap-water quality and water quantity protection area.”

<sup>165</sup> See ACD No. 2445 (Oct. 29, 1993) reprinted in *ESSENTIALS OF THE ADMINISTRATIVE COURT'S DECISIONS*, VOL. 13, at 896 (Judicial Yuan, May 1996); see also *HILLSIDE CONSERVATION UTILIZATION ACT*, arts. 30, 35.

towards a better future.

#### A. *Strategies for Improving Legislation*

Both the quality and quantity of legislation have been severely criticized by the public for years. Without considering the defects in the structure of the Constitution,<sup>166</sup> many things can be done with relative ease to improve legislation substantially.

##### 1. *Reform the Mode of Legislation*

The current mode of bill review (including enacting and revising) focuses upon one statute at a time and is therefore extremely fragmented and extremely disadvantageous for reforming the outdated body of statutory law. In order to improve consistency among policies embraced in various statutes and to increase legislative efficiency, a U.S.-modeled integrated mode of legislative consideration should be adopted immediately. That is, a bill submitted by the Executive Yuan to the Legislative Yuan for review should propose all necessary provisions for implementing a specific policy as a package, including new statutory provisions and amendments to or revisions of existing laws. When the integrated bill package passes review, the individual provisions contained therein should be codified into appropriate statutes separately.

##### 2. *Hold Legislative Hearings*

With the emergence of multiparty politics in the Legislative Yuan, the chairmanship of each committee has been apportioned among the three major parties. It would be very beneficial to appeal to these chairpersons to voluntarily establish public hearings for reviewing proposed bills. This would dramatically expand the accessibility of public information regarding pending legislative developments and the legislative process itself. Once a committee led by a chairman of a particular party successfully launches a public hearing as part of the routine bill review procedures, other committees controlled by other parties may suffer pressure for "openness" and might follow the same practice.

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<sup>166</sup> See discussion *supra* Part II.C.

## *B. Strategies for Improving Administration*

### *1. Reorienting TEPA*

It is not unusual in Taiwan to hear complaints like "TEPA is not really environmentally-concerned" or "why is TEPA so deferential to other development-oriented departments." To appoint officials who have long served in economic development departments, such as the Council for Economic Planning and Development, to lead TEPA may not in and of itself be problematic. What is needed, however, is more self-awareness and a basic re-orientation within TEPA. If TEPA does not care about environmental protection, why should it exist? In addition, why should there be a division of labor among governmental departments?

For the same reasons, the author has already suggested<sup>167</sup> that the proposed integrated administration for nature conservation should also be a separate agency. Only as a separate agency can it have the institutional incentive to devote all its effort to conserving and protecting natural resources in order to win recognition for survival. In the event the Executive Yuan decides to establish only a new division for nature conservation under an existing ministry, for example, the Council for Agriculture (which will probably be reorganized soon as part of the Ministry of Agriculture), the author still strongly urges that "nature conservation" be incorporated into the title of that ministry, such as the "Ministry for Agriculture and Nature Conservation."

### *2. Open Decision-Making to the Public*

Before the draft Administrative Procedure Act is enacted, the administrative agencies still can, based upon their discretion, voluntarily adopt various procedures that encourage public participation in agency decision-making. The agencies are certainly aware that openness to the public is the most effective means of balancing the influences from the interest groups and of increasing public support for their work. In order to make the procedures effective, I suggest that the agencies, by rule-

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<sup>167</sup> See DENNIS T. TANG ET AL., A STUDY ON REORGANIZING FUNCTIONS CONCERNING NATURE CONSERVATION AMONG CENTRAL DEPARTMENTS 265-88 (July 1996).(Research Report for the Commission for Research, Development and Evaluation, Executive Yuan (Cabinet)).

making,<sup>168</sup> establish the “principle of exhaustion of administrative remedies” to encourage public participation. Under this rule, one who did not participate in the prior administrative procedures may not sue later in the Administrative Court to challenge the administrative decision made therein.

### C. *Strategies for Improving the Judicial System*

The courts in Taiwan have not yet effectively participated in the formation of environmental policies. The limitations on judicial review imposed by the Administrative Litigation Act are certainly responsible for the limited impact of the judiciary.<sup>169</sup> Yet what is more pertinent, in my view, is the conservatism among judges. It has been emphasized in this country that “the judges shall in accordance with law hold trials and render judgments.”<sup>170</sup> However, this is just one half of the story. Lawyers, especially judges, should realize that it is the judges who say what the law is and what the law means. Judges are, in effect, law-makers themselves. In order to liberate judges from the confines of tradition, several efforts should be considered.

#### 1. *“General Principles of Administrative Law” Should Provide the Basis for a Judicial Breakthrough*

For judges who are aware of the ardent expectations of the public and want to push for legal reforms, the “general principles of administrative law” may be the right basis for a breakthrough to empower judges to act. Citing to the broad doctrine encompassing the “general principles of administrative law” enables judges to provide remedies in critical cases without being crippled by the outdated and limiting statutes. In a sense, the “general principles of administrative law” in Taiwan may serve similar functions as that of “natural justice” or “due process” in common law countries.

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<sup>168</sup> The author believes that the Administrative Court will be much more likely to uphold such an administrative rule, rather than create such a judicial rule.

<sup>169</sup> An “administrative action” is currently the only form of administrative decision-making reviewable by the ROC Administrative Court. See *Env'tl Laws and Policies of Taiwan*, *supra* note 2, at 533.

<sup>170</sup> See XIANFA art. 80 (“Judges shall be above partisanship and shall, in accordance with law, hold trials independently, free from any interference.”).

## 2. *Reform Legal Education*

In order to expand the experience of the judiciary, the current legal education should be reformed to increase the background diversity of law students. Law schools in Taiwan are all undergraduate. Law students, like other undergraduates, are selected through the annual joint entrance examination. So far there is only one graduate institute of law that provides an LL.M. program exclusively for graduates of other backgrounds. It may not be easy to change the entire legal education system. Yet I see no reason for not establishing more programs to accept graduates of different backgrounds. There is a huge market for legal scholars and practitioners, and such a policy would be wholly consistent with the national education liberalization policy. In addition, the subjects of the bar examination for lawyers and the judicial examination for judges should include newly-developed courses, such as environmental law, so that practicing lawyers may be more diversified and more responsive to the real world.<sup>171</sup>

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<sup>171</sup> See Dennis T. Tang, *Facing Up with the Stalemate of and Looking for New Momentum for Taiwanese Environmental Protection*, in STRATEGIES FOR BETTER QUALITY OF LIFE TOWARDS 21ST CENTURY 1, at 22-27 (Cheng-Wen Tzai ed., 1996).

APPENDIX

TABLE 1 : SELECTED ENVIRONMENTAL DATA

| ITEMS        | Land Area<br>(1,000 km <sup>2</sup> ) | Forest and<br>Woodland<br>(as % of land area) | Arable Land<br>(as % of land area) | Irrigated Land<br>(as % of land area) | National Protected Areas<br>(as % of land area) |
|--------------|---------------------------------------|---|------------------------------------|---------------------------------------|---|
| NATIONS      |                                       |   |                                    |                                       |   |
| Taiwan(ROC)♦ | 36                                    | 52.0  | ..                                 | 25.0                                  | 12.10   |
| Korea*       | 99                                    | 65.5  | 21.0                               | 64.0                                  | 7.0   |
| Hong Kong*   | 1                                     | 22.2  | 7.1                                | 28.6                                  | ..  |
| Singapore*   | 1                                     | 4.9   | 1.6                                | ..                                    | 4.5   |
| Japan*       | 377                                   | 67.0  | 12.0                               | 62.1                                  | 7.3   |
| USA*         | 9,573                                 | 29.9  | 19.6                               | 10.8                                  | 10.6  |
| China(PRC)*  | 9,291                                 | 13.8  | 10.3                               | 50.9                                  | 6.1   |
| OECD*        | (Total)33,340                         | 19.3  | 12.9                               | 11.0                                  | ..  |

Sources:

- ♦TEPA, State of Environment, Taiwan, R.O.C., at 190 & 212 (1993).
- \*UNDP, Human Development Report 1995, at 188 (Table 17) & 209 (Table 34)(1995).



## APPENDIX, CONTINUED

TABLE 2 : BASIC INDICATORS

| ITEMS        | Population<br>(million) | Area<br>(1,000 km <sup>2</sup> ) | Population<br>Density<br>(inhabitants/km <sup>2</sup> ) | GNP per capita<br>(US Dollars) | Avg ann. growth |
|--------------|-------------------------|----------------------------------|---|--------------------------------|-----------------|
|              | 1993                    | 1993                             | 1993  | 1993                           | 1980-93         |
| NATIONS      |                         |                                  |   |                                |                 |
| Taiwan(ROC)♦ | 21.1                    | 36                               | 587   | 10,852                         | 6.4%            |
| Korea★       | 44.1                    | 99                               | 445   | 7,660                          | 8.2%            |
| Hong Kong★   | 5.8                     | 1                                | 580   | 18,060                         | 5.4%            |
| Singapore★   | 2.8                     | 1                                | 280   | 19,850                         | 6.1%            |
| Japan★       | 124.5                   | 378                              | 328   | 31,490                         | 3.4%            |
| USA★         | 257.8                   | 9,809                            | 26  | 24,740                         | 1.7%            |
| China(PRC)★  | 1,178.4                 | 9,561                            | 123   | 490                            | 8.2%            |

## Sources:

- ♦TEPA, Year Book of Environmental Statistics 1995, at 348 & 355 (1995); Department of Budget, Accounting and Statistics (DGBAS), Executive Yuan; Statistical Abstract of National Income in Taiwan Area, Republic of China 1951-1995, at 8 (September 1995); DGBAS, Executive Yuan, Quarterly National Economic Trends in Taiwan Area, Republic of China, at 46 (Table 2) & 47 (Table 3) (February 1996).  
 ★The World Bank, World Development Report 1995, at 162 (Table 1)(1995).

APPENDIX, CONTINUED

TABLE 3 : TRENDS IN ECONOMIC PERFORMANCE

| ITEMS        | GNP<br>(US\$ billion) | GNP<br>Annual growth<br>rate(%) | GNP<br>per capita<br>(US Dollars) | GNP<br>per capita<br>annual growth<br>rate(%) | Average annual rate<br>of inflation<br>(%) | Income Share<br>Ratio of highest<br>20% to lowest<br>20% | Unemployment<br>rate(%) |
|--------------|-----------------------|---------------------------------|-----------------------------------|---|--|--|-------------------------|
| NATIONS      | 1992                  | 1980-91                         | 1992                              | 1965-80                                       | 1980-92                                    | 1981-92  | 1993                    |
| Taiwan(ROC)♦ | 216.3                 | 8.1                             | 10,470                            | 7.5   | 6.6  | 4.5  | 4.2                     |
|              | 1995                  | 1980-95                         | 1995                              | 1980-95                                       | 1980-95                                    | 1980-95  | 1995                    |
|              | 263.6                 | 7.6                             | 12,439                            | 6.3   | 4.3  | 3.7  | 1.8                     |
| Korea*       | 315.50                | 10.0                            | 7,220                             | 7.3   | 8.5  | 5.9  | 6.3                     |
| Hong kong*   | 90.8                  | 6.9                             | 15,710                            | 6.2   | 5.5  | 7.8  | 5.7                     |
| Singapore*   | 46.9                  | 7.1                             | 16,970                            | 8.3   | 5.3  | 2.0  | 8.7                     |
| Japan*       | 3,565.0               | 4.3                             | 28,690                            | 5.1   | 3.6  | 1.5  | 9.6                     |
| USA*         | 6,081.0               | 3.1                             | 23,830                            | 1.8   | 1.7  | 3.9  | 4.3                     |
| China(PRC)*  | 568.1                 | 9.4                             | 480                               | 4.1   | 7.6  | 6.5  | 8.9                     |
| OECD*        | 18,770.0              | 2.6                             | 19,664                            | 3.9   | 1.6  | 5.0  | 6.5                     |
|              |                       |                                 |                                   |   |  |  | 3.5                     |
|              |                       |                                 |                                   |   |  |  | 8.1                     |
|              |                       |                                 |                                   |   |  |  | 2.6                     |
|              |                       |                                 |                                   |   |  |  | 8.1                     |

Sources:  
 ♦Department of Budget, Accounting and Statistics (DGBAS), Executive Yuan, Annual Report of Statistical Abstract of National Income in Taiwan Area, Republic of China 1951-1995, at 5-8 (September 1995); DGBAS, Executive Yuan, Report on the Survey of Family Income & Expenditure in Taiwan Area of Republic of China 1994, at 22 (Table 8)(1994); DGBAS, Executive Yuan, Monthly Statistics of Republic of China, at 60 (Table 14-1)(June 1996); DGBAS, Executive Yuan, Commodity-Price Statistics Monthly in Taiwan Area of Republic of China, at 3 (April 1996); DGBAS, Executive Yuan, Quarterly National Economic Trends in Taiwan Area, Republic of China, at 46 (Table 2) & 47 (Table 3)(February 1996).  
 \*UNDP, Human Development Report, at 178 (Table 12), 194 (Table 20), 196 (Table 21), 202 (Table 27), 203 (Table 28) & 213 (Table 38)(1995); DGBAS, Executive Yuan, Monthly Statistics of Republic of China, at 60 (Table 14-1) (June 1996).

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TABLE 4 : MAJOR R.O.C. ENVIRONMENTAL LEGISLATION

| Subject                   | Period | 1960-1969                        | 1970-1979   | 1980-1989  | 1990-   |
|---------------------------|--------|----------------------------------|---|--|---|
| General Policy            |        |                                  |   |  | Environmental Impact Assessment Act of 1994                                   |
| Air Pollution Control     |        |                                  | Air Pollution Control Act (APCA) of 1975  | APCA Amend. of 1982  | APCA Amend. of 1992   |
| Water Pollution Control   |        |                                  | Water Pollution Control Act (WPCA) of 1974<br>Drinking Water Management Act of 1972 | WPCA Amend. of 1983  | WPCA Amend. of 1991   |
| Noise Control             |        |                                  |   | Noise Control Act (NCA) of 1983                                      | NCA Amend. of 1992  |
| Waste Management          |        |                                  | Waste Disposal Act (WDA) of 1974  | WDA Amend. of 1980<br>WDA Amend. of 1985<br>WDA Amend. of 1988       |   |
| Toxic Substances Control  |        |                                  |   | Toxic Chemicals Regulation Act (TCRA) of 1986<br>TCRA Amend. of 1988 |   |
| Pesticides Control        |        |                                  | Pesticides Regulation Act (PRA) of 1972   | PRA Amend. of 1986   |   |
| Radiation                 |        | Atomic Energy Act (AEA) of 1968  | AEA Amend. of 1971  |  |   |
| Land Use and Conservation |        | Urban Planning Act (UPA) of 1964 | UPA Amend. of 1973<br>National Park Act(NPA) of 1972                                | NPA Amend. of 1983   | Water & Soil Conservation Act (WSCA) of May, 1994<br>WSCA Amend. of Oct, 1994 |

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|                       |  |  |  |   |
|-----------------------|--|--|--|---|
|                       |  | Forrest Act (FA) of 1972                                 | FA Amend. of 1985                          |   |
|                       |  | Hillside Conservation and Utilization Act (HCUA) OF 1976 | HCUA Amend. of 1986                        |   |
|                       |  | Mineral Industry Act of 1978                             | Cultural Heritage Preservation Act of 1982 |   |
| Wildlife Conservation |  |  | Wildlife Conservation Act(WCA) of 1989     | WCA Amend. of 1994<br>Fishery Act of 1991 |

## APPENDIX, CONTINUED

Table 5: Law Enforcement of WLCA

| Enforcement<br>Activities | Investigation Phase        |   |                           |               |                                |
|---------------------------|----------------------------|---|---------------------------|---------------|--------------------------------|
|                           | (1)<br>Cases<br>Prosecuted | (2)<br>Cases<br>Submitted to<br>Summary<br>Conviction | (3)<br>Cases<br>Acquitted | (4)<br>Others | Total<br>Cases<br>Investigated |
| Year                      |                            |   |                           |               |                                |
| 1994                      | 119                        | 2   | 118                       | 14            | 253                            |
| 1995                      | 87                         | -   | 40                        | 8             | 135                            |
| 1996                      | 155                        | 4   | 42                        | 17            | 218                            |

| Enforcement<br>Activities | Trial Phase<br>Conviction (# of persons) |                                    |                                  |                                   |                                 |                                |
|---------------------------|--|------------------------------------|----------------------------------|-----------------------------------|---------------------------------|--------------------------------|
|                           | Fine                                     | Detention<br>(2 months<br>or less) | 2-6 Months<br>of<br>Imprisonment | 6-12 Months<br>of<br>Imprisonment | 1-2 Years<br>of<br>Imprisonment | People<br>judged<br>not guilty |
| Year                      |  |                                    |                                  |                                   |                                 |                                |
| 1994                      | 10                                       | 25                                 | 87                               | 16                                | -                               | 11                             |
| 1995                      | 6  | 14                                 | 48                               | 22                                | 2                               | 13                             |
| 1996                      | 3  | 2                                  | 47                               | 54                                | 8                               | 10                             |

Sources: The Statistics Bureau, the Ministry of Justice (Feb. 1997).

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TABLE 6: DEVELOPMENT OF WASTE RECYCLING PROGRAMS

| PHASES<br>ITEMS                            | Classification<br>Announced           | Measures<br>Promulgated               | Specified Annual Rate of Return   | Actual Rate<br>of Return |
|--|---------------------------------------|---------------------------------------|---|--------------------------|
| General<br>containers:<br>Aluminum<br>cans | 78(Waste)<br>No.39756<br>[12/21/1989] | 83(Waste)<br>No.16553<br>[04/15/1994] | 70% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |                          |
|  |                                       | 79(Waste)<br>No.29015<br>[08/31/1990] | 70% [for 01/01/95-12/31/95]<br>40% [for 07/01/95-12/31/95]<br>40% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994] | 71.86%                   |
|  |                                       |                                       | 65% [for 01/01/94-12/31/94]<br>82(Waste)No.61268<br>[01/10/1994]  | 45.87%                   |
|  |                                       |                                       | 60% [for 01/01/93-12/31/93]<br>82(Waste) No.01034<br>[01/18/1993]   | 62.09%                   |
|  |                                       |                                       | 55% [for 01/01/92-12/31/92]<br>81(Waste) No.15311<br>[04/15/1992]   | 55.20%                   |
|  |                                       |                                       | 30% [for 01/01/91-12/31/91]<br>79(Waste) No.45740<br>[12/13/1990]   | 31.82%                   |
| General<br>containers:<br>Tin cans         | 78(Waste)<br>No.39756<br>[12/21/1989] | 83(Waste)<br>No.16553<br>[04/15/1994] | 70% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |                          |
|  |                                       | 79(Waste)<br>No.29016<br>[08/31/1990] | 70% [for 01/01/95-12/31/95]<br>40% [for 07/01/95-12/31/95]<br>40% [for 01/01/95-06/30/91]<br>83(Waste) No.65794<br>[12/30/1994] | 80.36%                   |
|  |                                       |                                       | 65% [for 01/01/94-12/31/94]<br>82(Waste) No.61269<br>[01/10/1994]   | 66.69%                   |
|  |                                       |                                       | 60% [for 01/01/93-12/31/93]<br>82(Waste) No.01035<br>[01/18/1993]   | 61.37%                   |

## APPENDIX, CONTINUED

|   |                                       |                                       |   |        |
|---|---------------------------------------|---------------------------------------|---|--------|
|   |                                       |                                       | 55% [for 01/01/92-12/31/92]<br>81(Waste) No.15343<br>[05/01/1992]   | 55.86% |
|   |                                       |                                       | 20% [for 01/01/91-12/31/91]<br>79(Waste) No.45741<br>[12/14/1990]   | 20.42% |
| General<br>containers:<br>PET bottles         | 78(Waste)<br>No.03051<br>[01/31/1989] | 83(Waste)<br>No.16553<br>[04/15/1994] | 65% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |        |
|   |                                       | 78(Waste)<br>No.17038<br>[06/16/1989] | 65% [for 01/01/95-12/31/95]<br>35% [for 07/01/95-12/31/95]<br>35% [for 01/01/95-06/30/91]<br>83(Waste) No.65794<br>[12/30/1994] | 75.33% |
|   |                                       |                                       | 65% [for 06/26/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994]   | 76.34% |
|   |                                       |                                       | 65% [for 06/26/93-06/25/94]<br>82(Waste) No.32090<br>[08/10/1993]   | 74.42% |
|   |                                       |                                       | 60% [for 06/26/92-06/25/93]<br>81(Waste) No.34523<br>[08/14/1992]   | 80.47% |
|   |                                       |                                       | 55% [for 06/26/91-06/25/92]<br>80(Waste) No.41936<br>[11/01/1991]   | 41.04% |
|   |                                       |                                       | 50% [for 06/26/90-06/25/91]<br>79(Waste) No.40416<br>[11/10/1990]   | 26.16% |
|   |                                       |                                       | 50% [for 06/26/89-06/25/90]<br>78(Waste) No.19318<br>[07/03/1989]   | 23.46% |
| General<br>containers:<br>Glass<br>containers | 82(Waste)<br>No.32081<br>[08/17/1993] | 83(Waste)<br>No.16553<br>[04/15/1994] | 35% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |        |
|   |                                       |                                       | 35% [for 01/01/95-12/31/95]<br>20% [for 07/01/95-12/31/91]<br>20% [for 01/01/95-06/30/95]<br>83(Waste) No.65794                 | 70.91% |

APPENDIX, CONTINUED

|                                       |                                       |                                       |   |                      |
|---------------------------------------|---------------------------------------|---------------------------------------|---|----------------------|
|                                       |                                       |                                       | [12/30/1994]<br>35% [for 06/01/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994]   | 70.19%               |
| General containers:<br>PE containers  | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 50% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]<br><br>50% [for 01/01/95-12/31/95]<br>30% [for 07/01/95-12/31/91]<br>30% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994]<br><br>50% [for 06/01/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994] | 33.70%<br><br>9.94%  |
| General containers:<br>PP containers  | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 50% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]<br><br>50% [for 01/01/95-12/31/95]<br>30% [for 07/01/95-12/31/91]<br>30% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994]<br><br>50% [for 06/01/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994] | 40.32%<br><br>9.94%  |
| General containers:<br>PVC containers | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 65% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]<br><br>65% [for 01/01/95-12/31/95]<br>35% [for 07/01/95-12/31/91]<br>35% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994]<br><br>65% [for 06/01/94-12/31/94]<br>82(Waste) No.22466<br>[01/10/1994] | 17.42%<br><br>23.49% |



## APPENDIX, CONTINUED

|   |                                       |                                       |   |        |
|---|---------------------------------------|---------------------------------------|---|--------|
| General containers:<br>Foamed<br>PS<br>containers     | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 55% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |        |
|   | 80(Waste)<br>No.23331<br>[07/11/1991] | 80(Waste)<br>No.34551<br>[08/30/1991] | 55% [for 01/01/95-12/31/95]<br>30% [for 07/01/95-12/31/91]<br>30% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994] | 56.13% |
|   |                                       |                                       | 55% [for 09/01/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994]   | 39.23% |
|   |                                       |                                       | 55% [for 09/01/93-08/31/94]<br>82(Waste) No.40220<br>[09/02/1993]   | 30.64% |
|   |                                       |                                       | 50% [for 09/01/92-08/31/93]<br>81(Waste) No.39626<br>[09/02/1992]   | 12.81% |
| General containers:<br>Unfoamed<br>PS<br>containers   | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 50% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |        |
|   |                                       |                                       | 50% [for 01/01/95-12/31/95]<br>30% [for 07/01/95-12/31/91]<br>30% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994] | 0.48%  |
|   |                                       |                                       | 50% [for 06/01/94-12/31/94]<br>83(Waste) No.22466<br>[05/25/1994]   | 2.58%  |
| General containers:<br>Other<br>plastic<br>containers | 81(Waste)<br>No.05740<br>[03/03/1992] | 83(Waste)<br>No.16553<br>[04/15/1994] | 50% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995]   |        |
|   |                                       |                                       | 50% [for 01/01/95-12/31/95]<br>30% [for 07/01/95-12/31/91]<br>30% [for 01/01/95-06/30/95]<br>83(Waste) No.65794<br>[12/30/1994] |        |

APPENDIX, CONTINUED

|   |  |   |  |  |
|---|--|---|--|--|
| <p>General containers:<br/>Aluminum Foil Lining</p> | <p>81(Waste)<br/>No.39640<br/>[09/10/1989]</p> | <p>83(Waste)<br/>No.16553<br/>[04/15/1994]</p>  | <p>60% [for 01/01/96-12/31/96]<br/>84(Waste) No.71615<br/>[12/29/1995]</p> <p>60% [for 01/01/95-12/31/95]<br/>35% [for 07/01/95-12/31/91]<br/>35% [for 01/01/95-06/30/95]<br/>83(Waste) No.65794<br/>[12/30/1994]</p> <p>60% [for 06/01/94-12/31/94]<br/>83(Waste) No.22466<br/>[05/25/1994]</p>   | <p>32.76%</p> <p>0.76%</p>                               |
| <p>General containers:<br/>Cartons</p>              | <p>82(Waste)<br/>No.40161<br/>[08/17/1993]</p> | <p>83(Waste)<br/>No.16553<br/>[04/15/1994]</p>  | <p>50% [for 01/01/96-12/31/96]<br/>84(Waste) No.71615<br/>[12/29/1995]</p> <p>50% [for 01/01/95-12/31/95]<br/>30% [for 06/30/95-12/31/91]<br/>30% [for 01/01/95-06/30/95]<br/>83(Waste) No.65794<br/>[12/30/1994]</p> <p>50% [for 06/01/94-12/31/94]<br/>83(Waste) No.22466<br/>[05/25/1994]</p>   | <p>22.81%</p> <p>0.48%</p>                               |
| <p>Tires</p>  | <p>78(Toxic)<br/>No.18400<br/>[06/24/1989]</p> | <p>83(Waste)<br/>No.26657<br/>[06/15/1994]</p> <p>78(Toxic)<br/>No.28780<br/>[09/20/1989]</p> | <p>90% [for 01/01/96-12/31/96]<br/>84(Waste) No.71615<br/>[12/29/1995]</p> <p>50% [rate of disposal]<br/>85% [rate of recycling]<br/>[for 01/01/95-12/31/95]<br/>83(Waste) No.57971<br/>[12/23/1994]</p> <p>50% [rate of disposal]<br/>85% [rate of recycling]<br/>[for 10/01/94-12/31/94]<br/>83(Waste) No.38648<br/>[08/23/1994]</p> <p>85% [for 10/01/93-09/30/94]<br/>82(Waste) No.55230<br/>[11/29/1993]</p> <p>80% [for 10/01/92-09/30/93]</p> | <p>105.64%</p> <p>91.66%</p> <p>94.36%</p> <p>82.24%</p> |



APPENDIX, CONTINUED

|                                      |                                       |                                       |   |        |
|--------------------------------------|---------------------------------------|---------------------------------------|---|--------|
|                                      |                                       |                                       | 60% [for 07/01/92-06/30/93]<br>81(Waste) No.45506<br>[10/09/1992] | 69.09% |
|                                      |                                       |                                       | 50% [for 07/01/91-06/30/92]*                                      | 29.64% |
| Agricultural<br>chemicals<br>cans    | 78(Waste)<br>No.30963<br>[10/18/1989] | 83(Waste)<br>No.31564<br>[07/29/1994] | 65% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995] |        |
|                                      |                                       | 79(Waste)<br>No.03374<br>[09/21/1990] | 65% [for 04/01/95-12/31/95]*                                      | 70.77% |
|                                      |                                       |                                       | 65% [for 04/01/94-03/31/95]<br>83(Waste) No.03201<br>[04/08/1994] | 69.12% |
|                                      |                                       |                                       | 60% [for 04/01/93-03/31/94]<br>82(Waste) No.10127<br>[03/15/1993] | 60.14% |
|                                      |                                       |                                       | 55% [for 04/01/92-03/31/93]<br>81(Waste) No.34408<br>[08/04/1992] | 55.39% |
|                                      |                                       |                                       | 20% [for 04/01/91-03/31/92]<br>80(Waste) No.10163<br>[03/28/1991] | 20.70% |
| Lubricant<br>oil                     | 79(Waste)<br>No.01384<br>[01/22/1990] | 83(Waste)<br>No.18438<br>[04/29/1994] | 50% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995] |        |
|                                      |                                       | 79(Waste)<br>No.14450<br>[05/25/1990] | 30% [for 01/01/95-12/31/95]<br>83(Waste) No.57971<br>[12/23/1994] | 25.20% |
| Mercuric<br>oxide<br>button<br>cells | 79(Waste)<br>No.15562<br>[05/21/1990] | 79(Waste)<br>No.29177<br>[08/31/1990] | 65% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995] |        |
|                                      |                                       |                                       | 55% [for 01/01/95-12/31/95]<br>83(Waste) No.65406<br>[12/31/1994] | 56.14% |
|                                      |                                       |                                       | 50% [for 01/01/94-12/31/94]<br>82(Waste) No.58375<br>[12/20/1993] | 52.45% |

## APPENDIX, CONTINUED

|                         |                                    |                                    |   |        |
|-------------------------|------------------------------------|------------------------------------|---|--------|
|                         |                                    |                                    | 40% [for 01/01/93-12/31/93]<br>81(Waste) No.51164<br>[12/08/1992] | 46.95% |
|                         |                                    |                                    | 30% [for 01/01/92-12/31/92]<br>81(Waste) No.22809<br>[05/23/1992] | 32.74% |
|                         |                                    |                                    | 5% [for 01/01/91-12/31/91]<br>79(Waste) No.45757<br>[12/19/1990]  | 5.48%  |
| Lead acid car batteries | 79(Waste) No.10992<br>[04/24/1990] | 83(Waste) No.30205<br>[06/29/1994] | 75% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995] |        |
|                         |                                    | 79(Waste) No.29008<br>[08/31/1990] | 70% [for 01/01/95-12/31/95]<br>83(Waste) No.57971<br>[12/31/1994] | 70.50% |
|                         |                                    |                                    | 60% [for 07/01/94-12/31/94]<br>83(Waste) No.38609<br>[08/16/1994] | 61.50% |
|                         |                                    |                                    | 60% [for 07/01/93-06/30/94]<br>82(Waste) No.31926<br>[06/30/1993] | 61.90% |
|                         |                                    |                                    | 50% [for 07/01/92-06/30/93]<br>81(Waste) No.34593<br>[08/26/1992] | 51.13% |
|                         |                                    |                                    | 30% [for 07/01/91-06/30/92]<br>80(Waste) No.09606<br>[03/05/1991] | 34.54% |
| Fluorescent lamps       | 79(Waste) No.27051<br>[08/22/1990] |                                    |   |        |
| Scrapped vehicles       | 82(Waste) No.40198<br>[09/08/1993] | 83(Waste) No.49291<br>[10/21/1994] | 60% [for 01/01/96-12/31/96]<br>84(Waste) No.71615<br>[12/29/1995] |        |
|                         |                                    |                                    | 60% [for 01/01/95-12/31/95]<br>83(Waste) No.65401<br>[12/28/1994] | 64.77% |

Sources: TEPA Register No.15, 20, 21, 22, 23, 26, 30, 31, 34, 35, 36, 37, 40, 42, 43, 44, 45, 47, 52, 54, 56, 57, 58, 59, 62, 64, 67, 69, 70, 72, 73, 74, 77, 78, 79, 80, 81, 83, 85, 91; 1996 Yearbook of Environmental Protection Statistics, Taiwan Area, the Republic of China 488-490 (Appendix 7) (1996).

\* For some reason unknown, the notice was not formally made public on the TEPA Register.



## APPENDIX, CONTINUED

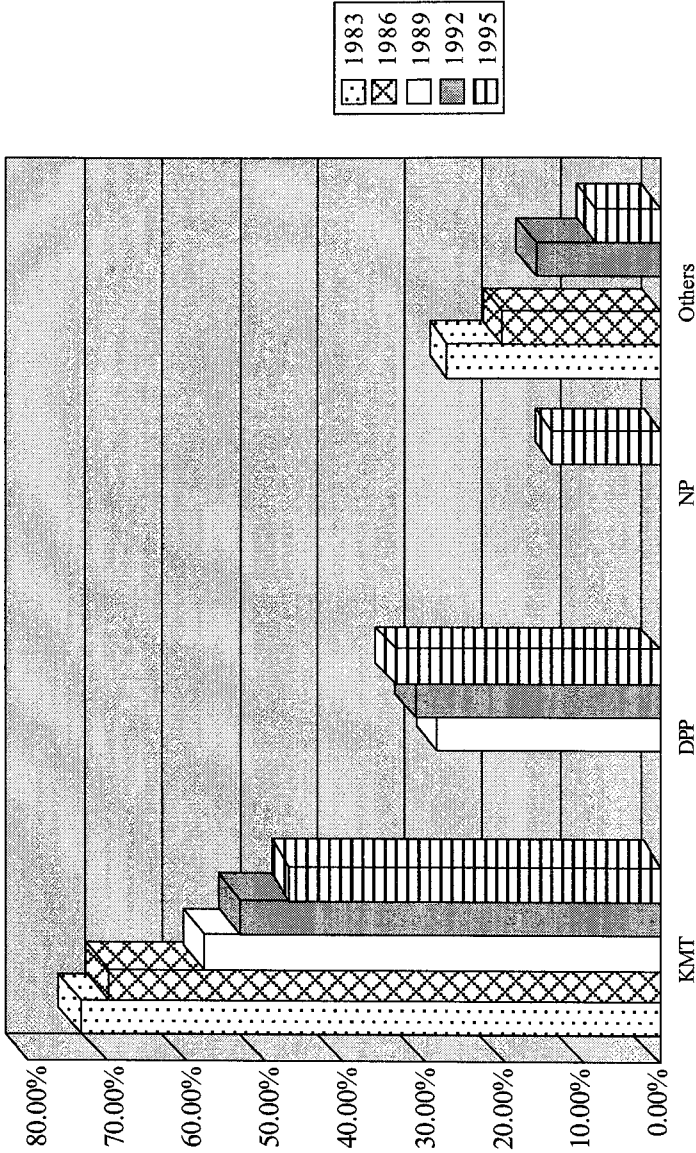
Table 8 : Environmental Decisions by the Administrative Court  
Taiwan, Republic of China

| Year | Number of cases | % of total decisions rendered | Result of litigation          |                                 |
|------|-----------------|-------------------------------|-------------------------------|---------------------------------|
|      |                 |                               | appeal rejected<br>% (number) | decision reversed<br>% (number) |
| 1981 | 6.00            | 0.43%                         | 100% (6)                      | 0% (0)                          |
| 1982 | 10.00           | 0.61%                         | 100% (10)                     | 0% (0)                          |
| 1983 | 12.00           | 0.69%                         | 91.67% (11)                   | 8.33% (1)                       |
| 1984 | 15.00           | 0.88%                         | 100% (15)                     | 0% (0)                          |
| 1985 | 59.00           | 2.80%                         | 74.75% (49)                   | 15.25% (10)                     |
| 1986 | 36.00           | 1.46%                         | 97.22% (35)                   | 2.78% (1)                       |
| 1987 | 52.00           | 2.30%                         | 94.23% (49)                   | 5.77% (3)                       |
| 1988 | 118.00          | 5.13%                         | 61.61% (69)                   | 38.39% (43)                     |
| 1989 | 313.00          | 11.54%                        | 36.10% (113)                  | 63.90% (200)                    |
| 1990 | 218.00          | 10.40%                        | 66.97% (146)                  | 33.03% (72)                     |
| 1991 | 138.00          | 5.51%                         | 94.93% (131)                  | 5.07% (7)                       |
| 1992 | 186.00          | 6.66%                         | 96.24% (179)                  | 3.76% (7)                       |
| 1993 | 149.00          | 5.08%                         | 83.89% (125)                  | 16.11% (24)                     |

Source: JUDICIAL YUAN, ANALYSIS OF JUDICIAL CASES, 1981, at 395 & 407 (June, 1983); *Id.*, 1983, at 434, 438, 447, 451 (June, 1984); *Id.*, 1984, at 500, 504 (June, 1985); *Id.*, 1985, at 475 (1986); *Id.*, 1986, at 491, 496 (June, 1987); *Id.*, 1988, at 471, 478, 486, 491 (1989); *Id.*, 1989, at 423, 435 (1990); *Id.*, 1991, at 535, 562 (1992); *Id.*, 1993, at 623, 640 (1994).

APPENDIX, CONTINUED

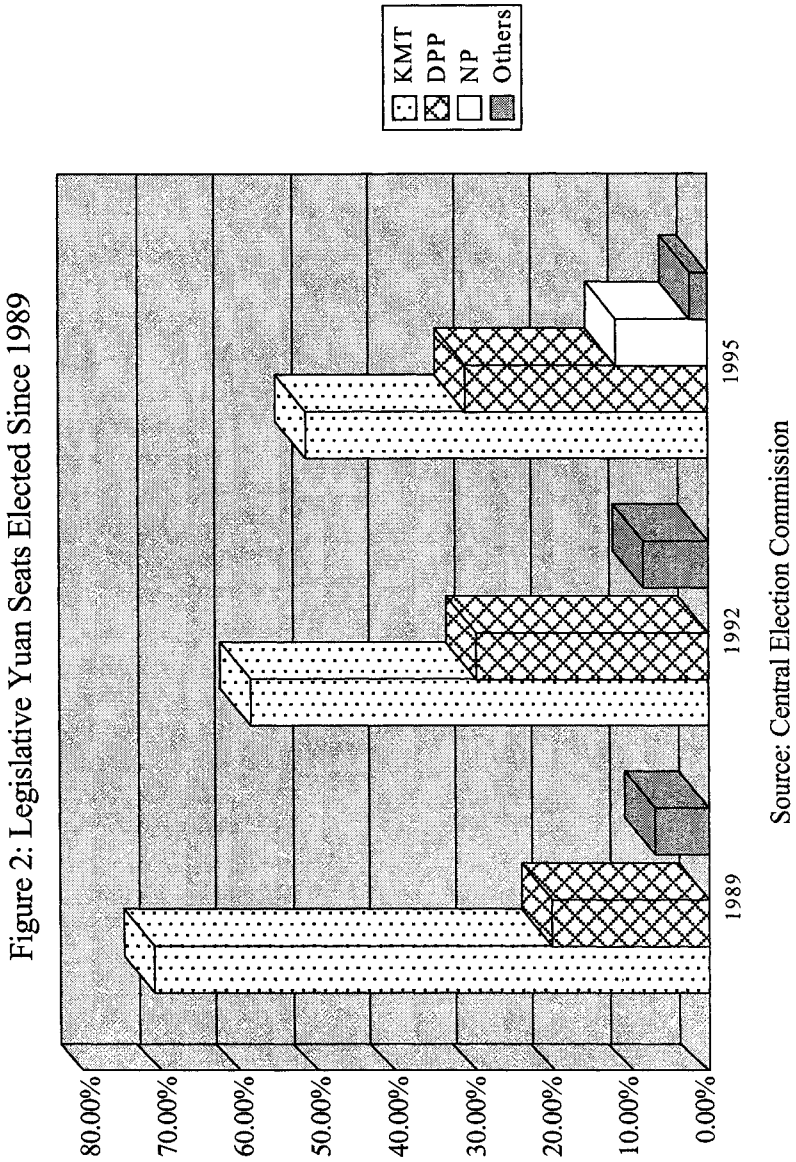
Figure 1: Percentage of Votes in the Legislative Yuan Elections Since 1983



Source: Central Election Commission

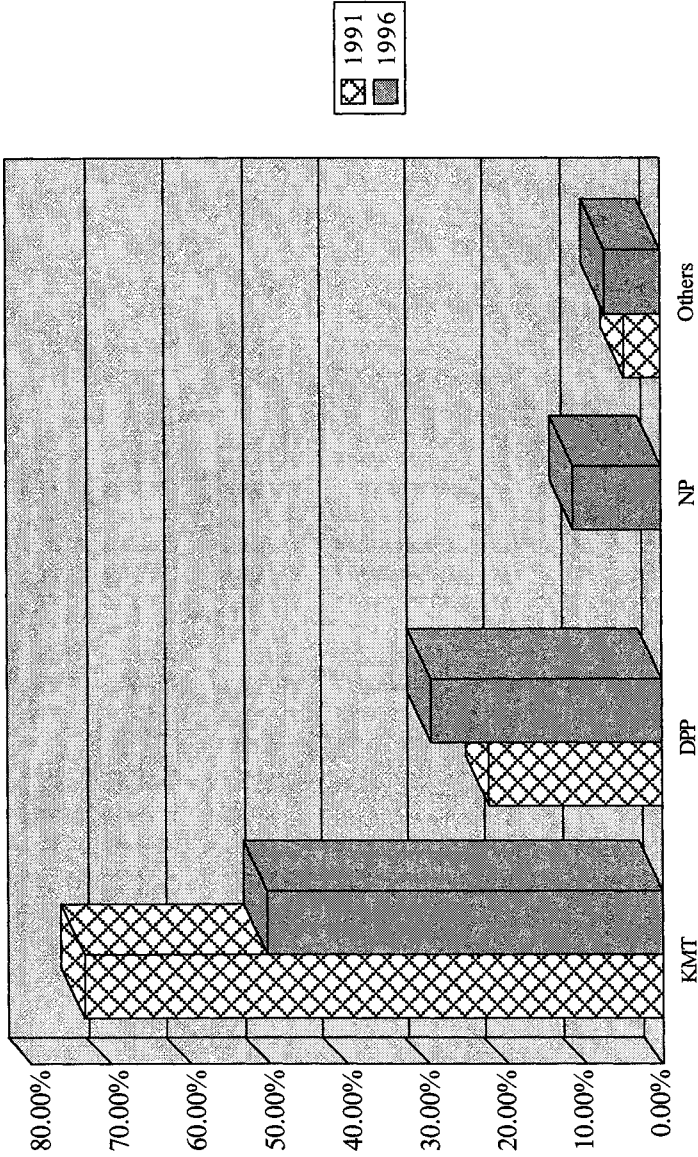


APPENDIX, CONTINUED



APPENDIX, CONTINUED

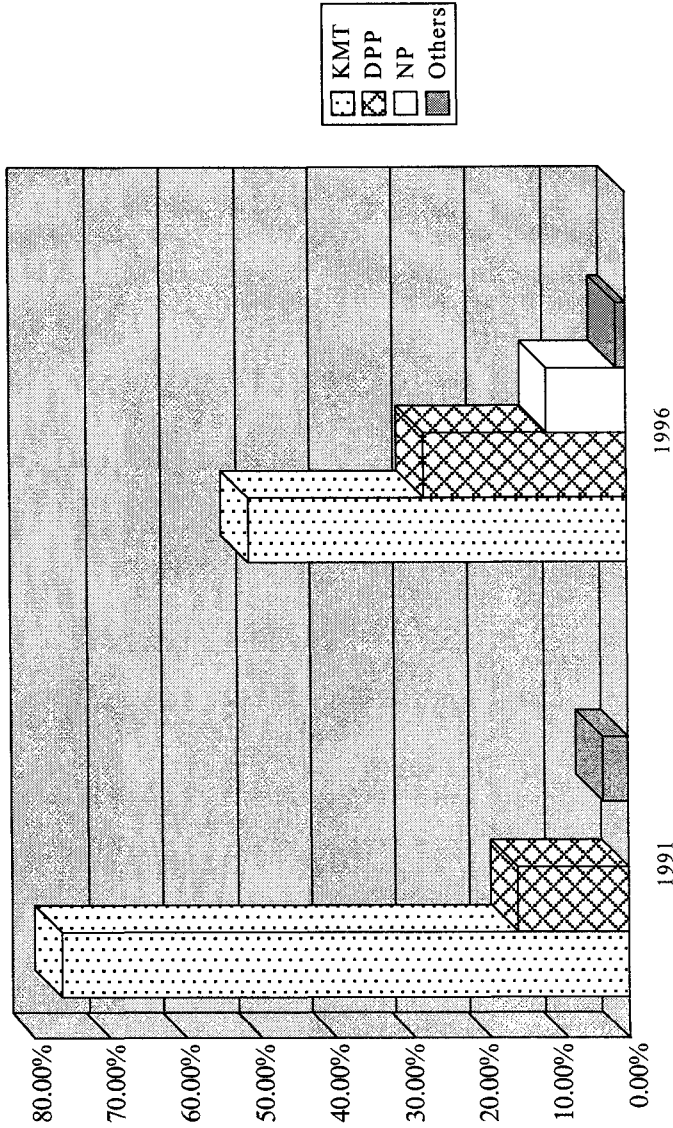
Figure 3: Percentage of Votes in the National Assembly Elections



Source: Central Election Commission

APPENDIX, CONTINUED

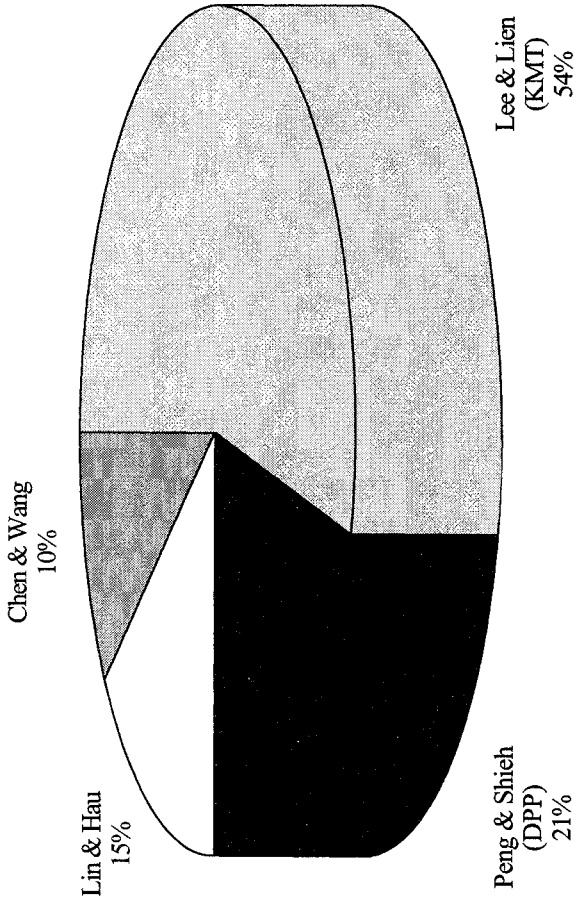
Figure 4: National Assembly Seats Elected in 1991 & 1996



Source: Central Election Commission

APPENDIX, CONTINUED

Figure 5: Percentage of Votes in the Presidential Election of 1996



Source: Central Election Commission

APPENDIX, CONTINUED

Figure 6: EIA Process  
Taiwan, R.O.C.

