

93年國家永續發展年報

2004 Annual Report on National Sustainable Development

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行政院國家永續發展委員會 編印

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GPN:2008800148

行政院國家永續發展委員會 編印

93年國家永續發展年報

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前言

聯合國於1992年邀集171個國家元首及代表舉行「地球高峰會議」，通過「廿一世紀議程」做為全球推動永續發展的行動方案，並發表「里約宣言」，提出「全球考量，在地行動」的概念，呼籲各國共同行動追求人類永續發展。次年聯合國設置「聯合國永續發展委員會」，以為督導及協助各國推動永續發展工作。聯合國並於2002年召開「永續發展世界高峰會」，通過「永續發展行動計畫」，以具體行動及目標期程推動永續發展。

台灣做為地球村的一份子，深切瞭解推動永續發展的重要性。行政院早於民國83年6月即成立「行政院全球變遷政策指導小組」，其後於民國86年8月23日將該政策指導小組提升擴大為「行政院國家永續發展委員會」（簡稱永續會），專責永續發展政策諮詢及工作協調。

民國91年5月，行政院游錫堃院長有感於永續發展對台灣的重要性，指示永續會進行改組，除親自兼任永續會主任委員外，同時擴大委員會中非政府委員比例，其中相關部會首長、學者專家及社會團體代表比例各佔三分之一。委員會並設置「永續願景」、「國土資源」、「資源與產業」、「生物多樣性」、「生活與生產」、「國際環保」、「健康風險」及「永續教育」等8個工作分組。

本年報彙集整理93年度中央及縣市政府，以及民間推動永續發展重要成果，包括了永續會會務（第一章）；永續會重要成果（第二章）；各工作分組績效（第三章）；縣市政府推動成果（第四章）；民間推動永續發展楷模（第五章）；國際動態（第六章），以及永續會未來展望（第七章）等。永續會推動永續發展重大事件，則依時間序，詳列於年報附錄。

藉由「國家永續發展年報」之發行，我們希望能提升國人對永續發展的認知，將永續發展推動生活化及在地化，促進社區及國家永續發展，同時希望國際人士能更了解我國推動永續發展之努力及成果，共同合作致力全球永續發展工作。

Preface

The United Nations convened the Earth Summit in 1992, during which the leaders and representatives of 171 nations endorsed Agenda 21 to serve as the action plan for promoting the sustainable development of our planet. The Earth Summit also issued the Rio Declaration, which proposed the “think global, act local” concept, calling on all nations to join together in pursuing sustainable development of humanity. The next year, the UN installed the UN Commission on Sustainable Development to supervise and assist each nation in carrying out sustainable development work. The UN later convened the World Summit on Sustainable Development in 2002, which issued the Sustainable Development Action Plan to provide an agenda for concrete measures and goals toward promoting sustainable development.

As a member of the global village, Taiwan has long recognized the significance of promoting sustainable development. In June 1994, the Executive Yuan established the Committee on Global Change Policy, which was later elevated in status and expanded to become the National Council on Sustainable Development (NCSD), established on 23 August 1997. It is the express duty of the NCSD to advise on sustainable development policy and coordinate work toward sustainable development.

Realizing how vitally important it is for sustainable development to take root in Taiwan, in May 2002, Premier Yu Hsiu-kun called for the restructuring of the NCSD, and not only personally served as Chairman of the Council, but also expanded the representation of non-governmental council members. The new Council comprises an equal proportion of government leaders, experts and scholars, and NGO representatives, one-third each. The NCSD also reorganized its working groups under the following eight task areas: Sustainable Vision, Water and Land Resources, Technology and Industries, Biodiversity, Life and Production, International Environmental Protection, Health Risks, and Sustainable Education.

This year’s annual report compiles the significant achievements that public, private and civil sectors have made toward sustainable development in 2003. Topics covered in this edition include an outline of NCSD affairs (Chapter 1); recent important achievements of the NCSD (Chapter 2); performance of the working groups (Chapter 3); city/county governments’ actions toward sustainable development (Chapter 4); good examples of sustainability in the private and civil sectors (Chapter 5); international developments (Chapter 6); and the NCSD’s prospects for the future (Chapter 7). The appendix provides a chronicle of important events related to sustainable development promoted by the NCSD over the past year.

The National Sustainable Development Annual Report is published each year for the purpose of raising citizens’ awareness of sustainable development. The report recounts successful examples of putting sustainable development into daily lives and localization of sustainable development as a means to spur further advances in community and national sustainable development. The report is bilingual so that the international community has a better understanding of our nation’s efforts and achievements toward sustainable development, and to facilitate cooperative efforts toward global sustainable development.



▲ 第18次委員會議通過「台灣21世紀議程」等多項決議

The signing of Taiwan Agenda 21 was one of the important resolutions made during the 18th NCSD Assembly.

一、國家永續發展推動現況

Chapter 1. Current Status of National Sustainable Development

一、發表「台灣21世紀議程——國家永續發展願景與策略綱領」

行政院國家永續發展委員會(以下簡稱永續會)於93年11月8日召開之第18次委員會議，通過「台灣21世紀議程——國家永續發展願景與策略綱領」，作為我國因應21世紀潮流基本策略及行動指導方針。議程內容包括我國永續發展願景、基本原則、總體策略及策略綱領，為永續會自出席「聯合國永續發展世界高峰會」以來，繼擬定「國家永續發展行動計畫」、「台灣永續發展宣言」及「台灣

1. Taiwan Agenda 21-Vision and Strategy Guidelines for National Sustainable Development

The National Council for Sustainable Development (NCSD) ratified the Taiwan Agenda 21 - Vision and Strategy Guidelines for National Sustainable Development during the 18th NCSD Assembly on 8 November 2004. This document lays down the basic strategies and action guidelines for Taiwan's response to the challenges to come in the 21st Century. The Agenda includes Taiwan's vision for sustainable development, fundamental principles, general strategies and strategy guidelines. Since the NCSD attended the UN World Summit on Sustainable Development in

永續發展指標系統」後，發表之第四項國家永續發展重要文件。「台灣21世紀議程」介紹請詳第二章。



▲ 永續會工作會議
NCSD task meeting.

二、成立「氣候變遷暨京都議定書因應小組」

為因應京都議定書將於2005年2月生效，永續會第18次委員會議決議成立「氣候變遷暨京都議定書因應小組」，由行政院院長兼永續會主任委員召集，並由相關部會依分工評估各部門溫室氣體減量方法，研提兼顧國家利益及全球責任，同時不影響我國推動非核家園決心與作為之因應策略規劃。

另為降低產業溫室氣體排放，將依聯合國氣候變化綱要公約第10次締約方大會決議，邀集產官學研規劃最適切之產業結構調整方案，發展及推動高附加價

2002, four important documents have been put into legislation including the National Sustainable Development Action Plan, the Taiwan Declaration on Sustainable Development, and the Taiwan Sustainable Development Indicator System. Taiwan Agenda 21 is the fourth major document on national sustainable development, and is explained in detail in Chapter 2.

2. Establishment of the Climate Change and Kyoto Protocol Response Taskforce

To tie in with the Kyoto Protocol slated to take effect on February 2005, the 18th NCSD Assembly resolved to establish the Climate Change and Kyoto Protocol Response Taskforce. The taskforce is lead by the Premier and NCSD Chairperson Yu Hsyi-kun. Related government departments will share the tasks of evaluating measures taken by each government department to reduce greenhouse gas emissions. All departments are called on to consider both national interests and global responsibility when formulating response strategies, and must also ensure that strategies do not conflict with the nation's determination to become a nuclear-free island.

Taiwan is determined to adhere to the resolutions regarding industrial greenhouse gas emission reductions proposed at the Tenth Session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP 10). Representatives of industry, government and academia will

值、低耗能之產業及技術，創造經濟與環境雙贏。另於明年再次召開「全國能源會議」，檢討87年能源會議結論，研擬符合國內現況及國際最新趨勢之能源政策，降低能源部門溫室氣體排放。

三、民間委員研提未來一年 永續會重點推動工作

永續會組織架構建置及推動文件研擬等第一階段任務已完成，未來除持續加強推動「永續發展行動計畫」各項工作，民間委員同時研提5項重點推動工作，包括：動物放生行為之管理與勸導、加強推動重大政策環境影響評估、推動公民參與永續發展政策規劃、評鑑及擴大協助縣市政府推動地方永續發展，及加強推動環境外交等，由相關部會分別推動，加速永續發展推動成效。



be invited to draw up the most appropriate plan for structural adjustment of industry. The plan will develop and promote high added value, low energy consumption industry and technology to create a win-win strategy that benefits both the economy and the environment. Another National Energy Conference will be held in 2005 to reevaluate the conclusions made during the 1998 energy conference and to develop a new energy policy that corresponds to the domestic situation and latest international trends to reduce energy sector greenhouse gas emissions.

3. Civil Representatives Shape NCSD's Focus for 2005

The first stage to establish the organizational structure of the NCSD and formulate key documents has already been completed. In addition to continual reinforcement of the tasks outlined in the Sustainable Development Action Plan, the NCSD will take on an additional five focal work areas in the coming year, as proposed by the civil representative members of the Council. These five tasks are to: 1) control and educate on the practice of releasing captured animals into the wild, 2) reinforce environmental impact assessments of major policies, 3) increase public participation in the planning of sustainable development policies, 4) review and expand assistance to county/city governments toward local sustainable development, and 5) strengthen environmental diplomacy. These task areas will be shared among the relevant government departments to expedite progress toward sustainable development.

四、實地訪察規劃中之「東沙國家公園」

東沙島面積約1.74平方公里，為東沙群島唯一突出海面的島嶼，其環抱的潟湖面積約0.64平方公里，為我國海域唯一發育完整的環礁，生物多樣性十分豐富。



▲ 永續會委員在碼頭預定地聆聽海巡署後勤處簡報
NCSD members survey the proposed dock location while the Coast Guard Administration explains logistics.

近年因遭受過度漁撈、破壞性漁法，以及海水暖化等衝擊，造成珊瑚大規模白化，危及東沙生態及生物多樣性。行政院遂規劃成立「東沙國家公園」，永續會委員亦於12月27日赴東沙島實地訪察，針對我國首座海洋國家公園籌設及未來管理規劃事宜，聽取內政部及海巡署簡報。委員並建議該國家公園應以主權及生態維護為主要考量，力求零垃圾、零二氧化碳排放及硬體建設適度減少水泥化方向進行。

4. Onsite Survey of Dongsha Islands National Park

Comprising a total land area of 1.74 km², Pratas Island is the only island in the Dongsha Islands that protrudes above the ocean's surface. Pratas encircles a 0.64km² saline lake and is the only intact atoll in Taiwan's marine waters. The atoll is extremely productive in terms of biodiversity. Overfishing, destructive fishing methods and ocean warming in recent years are causing coral reefs to bleach on a vast scale, posing a serious threat to the ecology and biodiversity of the Dongsha Islands. The Executive Yuan hopes to protect this area through the establishment of the Dongsha Islands National Park. An NCSD team made an onsite survey of the islands on 27 December 2004 to consider recommendations on the establishment and future management of Taiwan's first marine national park in a briefing by the Ministry of the Interior and the Coast Guard Administration. Council members advised that this national park should make every effort to follow the principles of zero-waste and zero-CO₂ emissions, and minimize the amount of concrete used in park facilities.

This marks the NCSD's first onsite survey of a construction project with strong development potential that is still in the planning stages. Council members were invited to submit their views in the initial planning stages in the interest of planning and management for sustainable development.

此次訪察係永續會首次針對規劃中且具發展潛力的建設案進行訪察，使永續會委員能於規劃初期即提供意見，有助於規劃及管理朝永續方向發展。

五、辦理「第一屆國家永續發展績優獎」表揚

為鼓勵民間共同參與永續發展推動工作，落實永續發展在地化及生活化目標，於3月8日恭請 游院長兼永續會主任委員頒發「第一屆國家永續發展績優獎」，表揚績優之社區、企業、學校、社團以及「永續發展行動計畫」執行機關等20個績優單位，鼓勵全民參與永續發展推動工作。



▲ 游院長於頒獎典禮中致詞
Premier Yu delivers speech at the awarding ceremony.

5. First National Sustainable Development Awards



▲ 游院長頒獎予永續發展績優獎獲獎企業
Premier Yu awards enterprises for outstanding merits towards sustainable development.

The First National Sustainable Development Awards were held this year as a way of encouraging private and civil sectors to help promote sustainable development and put the concepts into practice with emphasis on localization and relevance to daily living. The Premier and NCSD Chairperson Yu Hsi-kun was invited to present the awards. The awards commended 20 outstanding communities, enterprises, schools, NGOs and public projects that are part of the Sustainable Development Action Plan, showing the NCSD's strong support of the entire citizenry's participation in sustainable development.

六、強化民間參與永續發展決策管道

為擴大民眾參與永續發展決策過程，強化參與管道，此外，永續會於6月3日與行政院海洋事務推動委員會共同辦理「海洋及海岸永續發展論壇」，邀請海洋事務相關委員、學者、業者及相關部會代表共80餘人出席，針對海洋及海岸資源及環境保護，以及漁業及海事運輸產業永續發展交換意見。



▲ 永續會執行長葉俊榮擔任「海洋及海岸永續發展論壇」主席
NCSD CEO Yeh Jiunn-rong chairs the "Marine and Coastal Sustainable Development Forum".

另於6月5日環境日，邀請全國相關社會團體舉辦「永續會委員與民間團體座談會」，針對各工作分組之執行成果與永續會委員交換意見，並由相關部會副首長以上官員與會回應，座談會共100餘人出席。

6. Strengthening Citizen Participation in Sustainable Development Policy Making

One of the core objectives of the NCSD is to expand public participation in the decision making process of sustainable development policies and strengthen channels for participation in sustainable development. During the "Marine and Coastal Sustainable Development Forum" jointly held with the Cabinet Committee on Maritime and Ocean Affairs (CCMOA), Executive Yuan, on 3 June 2004, the NCSD convened over 80 maritime affairs related council members, scholars, industry and government representatives to exchange views on protection of maritime and coastal natural resources, and sustainable development of fisheries and maritime transport industries.

Two days later on Earth Day (June 5) related NGOs were invited to the "NCSD and NGO Forum" to exchange opinions on the achievements of NCSD working groups. Over 100 people attended the forum, including high-level officials (deputy-director standing and above) of related departments.



▲ 手譯人員於「永續會委員與民間團體座談會」同步翻譯
Simultaneous sign-language translation service was provided at the "NCSD and NGO Forum".



▲ 第八屆世界島嶼會議開幕記者會 金門縣政府提供
"Islands of the World VIII" opening ceremony press conference in Kinmen.

七、積極參與國際永續發展活動

為確實掌握永續發展最新國際趨勢，研訂我國因應策略，93年度分別由相關部會邀集相關機關代表及學者專家，出席巴塞爾公約、生物多樣性公約、華盛頓公約、氣候變化綱要公約，以及蒙特婁議定書締約方大會，依據此次大會決議研訂我國因應方案。

此外，「第8屆世界島嶼會議」11月1日至5日於金門縣召開，共來自全球三十餘國家及地區近二百位專家出席。永續會葉執行長俊榮應邀於開幕式致詞，蕭

7. Active Participation in International Sustainable Development Activities

To stay abreast of the latest international trends in sustainable development and ensure that Taiwan develops corresponding response strategies, several government departments invited related organization representatives, scholars and experts to attend various international meetings throughout 2004 pertaining to the Basel Convention, the Convention on Biological Diversity, the Washington Convention, the UN Framework Convention on Climate Change and the Montreal Protocol. Delegates were asked to help develop Taiwan's response plans based on the international resolutions made in these meetings.

委員新煌、劉委員小如，以及經濟部水利署陳署長仲賢亦獲邀於會中做專題演講，介紹我國永續發展現況及願景。



▲ 世界島嶼會議會議之與會者衆、討論熱烈
"Islands of the World VIII" participants engaged in enthusiastic discussion.

八、修正永續會設置要點擴大參與層面

為擴大參與層面提升永續會功能，行政院再次修正永續會設置要點，將委員人數增加為29至35人，由政府部門、學者專家及社會團體代表各1/3組成，並於7月完成新任委員遴聘，修正後設置要點及委員名單詳如附錄一及附錄二。

Taiwan hosted the 8th Islands of the World conference in Kinmen County from 1 to 5 November 2004, which was attended by nearly 200 experts from over 30 nations and regions. NCSD CEO Yeh Jiunn-rong was invited to deliver the opening speech. Council member Hsiao Hsin-huang, Council member Liu Hsiao-ru and Ministry of Economic Affairs' Water Resources Agency Director-General Chen Shen-hsien were also invited to deliver lectures on Taiwan's current status and vision of sustainable development.

8. Sustainable Development Guidelines Revised to Enhance Participation

Recognizing that broadened participation can enhance the functions of the NCSD, the Executive Yuan revised the Guidelines for Establishing the National Council for Sustainable Development to increase the number of Council members from 29 to 35. One-third of the seats will hold by government officials, one-third by experts/scholars and one-third by NGO representatives. The selection of new Council members was finalized in July 2004. The revised Guidelines and names of members are included in Appendices I and II.



▲ 美麗的恆春龍磐草原 屏東縣政府提供
Scenic Longpan grasslands in the Hengchun Peninsula of southern Taiwan .

二、國家永續發展推動成果

Chapter 2. Milestones of National Sustainable Development Plan

一、國家永續發展指標

為評估我國永續發展進程，以及呼應聯合國要求各國建立指標系統評估落實永續發展的責任，永續會於92年6月5日第16次委員會議通過以「壓力（Pressure）」、「現況（State）」與「回應（Response）」（P-S-R）為架構的「台灣永續發展指標」。指標區分為「海島台灣」及「都市台灣」兩個體系，包含「環境污染」、「生態資源」、「社會壓力」、「經濟壓力」、「制度回應」及「都市永續發展」六個領域共42項核心指標，並以環保署成立的1988年為基準年，將該年永續指標值訂為100，評量台灣永續發展趨勢。

1. National Sustainable Development Indicators

The NCSD reached consensus on the Taiwan Sustainable Development Indicators (SDI) during their 16th Assembly on 5 June 2003. The indicators help assess the progress of sustainable development in Taiwan and respond to the United Nations' request for each country to establish an indicator system that can be used to assess each country's efforts toward sustainable development. Taiwan's SDI system is based on an extended Pressure-State-Response (PSR) framework that is divided into two systems to address the unique situations of Island Taiwan and Urban Taiwan. A total of 42 core indicators are categorized under the following six dimensions: environmental pollution, ecological resources, social pressure, economic pressure, institutional response, and urban sustainable

綜觀91及92年度指標值，在42項永續指標中，呈現邁向永續的指標項目計18項，呈現背離永續的指標項目計22項，呈現持平者1項。92年各項永續發展評量結果及分析如下。

總體趨勢分析與評量結果

1. 海島台灣

自77年至92年，在生態與環境現況部分，由於歷經長期開發利用的影響，造成生態與環境朝向不永續的趨勢發展。至於壓力部分，社會及經濟面向則呈現分歧的發展現象，反映出台灣過去十幾年經濟結構逐漸轉型，但社會層面的壓力未見減緩。針對台灣面臨的現況及壓力，由回應指標來分析，可看出政府在政策層面落實永續發展的努力及決心，但因不易立即改善的時間誤差下，暫時未有明顯成果。

以92年評量結果來看，社會壓力指標值下滑，主因應來自SARS肆虐所造成社會壓力提高，並因民眾減少搭乘大眾運輸，以及上半年的乾旱現象造成水質變化，使生態及環境現況下滑，但經濟層面的快速復甦使得整體影響降到最低。制度回應部分則呈現微幅下降，未有明顯之趨勢。

2. 都市台灣

民國77年至92年間，呈現邁向永續發展的趨勢。92年則因大眾運輸乘客人數明顯減少，尤其以台北都會區最為顯著，減少約4,500萬人次，造成全國數

development. The year 1988 marks the establishment of the Environmental Protection Administration and was thus chosen as the base year and assigned an SDI of 100, the benchmark index against which sustainable development trends in Taiwan are measured. Higher index scores represent a positive trend toward sustainability in that area.

Index scores of the 42 core indicators for 2002 and 2003 show that Taiwan is advancing toward sustainable development in 18 indicators, is diverging from sustainability in 22 indicators, and is neither advancing nor digressing in one indicator.

Analyses and Conclusions of Overall Trends

1. Island Taiwan

From 1988 to 2003, the Ecological and Environmental State Indicators have been diverging away from sustainable development as a result of several decades of development and exploitation. In terms of Pressure Indicators, there is a widening gap between social and economic development trends, reflecting a gradual turnaround of Taiwan's economy over the past several years, yet with no easing up on social pressures. An analysis of Response Indicators with respect to the State and Pressure Indicators of issues confronting Taiwan clearly shows the government's efforts and determination to implement sustainable development policies. However, due to the lag time between implementation and outcomes, immediate improvements should not be expected and no distinct achievements are yet evident.

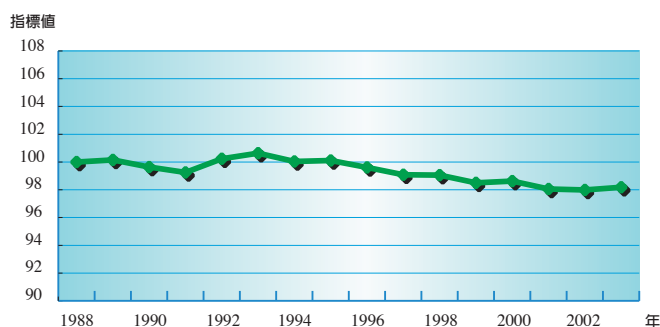
Based on the review conclusions for 2003, Social Pressure index scores have worsened, mainly due to the SARS outbreak, which reduced the number of passengers on public transportation. Ecological and Environmental State index scores decreased due to drought in the first half of the year, affecting water quality. However, Economic Pressure index

值下滑，此情形應為SARS所引起的短期現象，整體而言仍邁向永續。

六大領域趨勢分析與評量結果

1. 生態資源領域

整體趨勢除民國80至82年因成立多處保護區提升外，自82年起逐漸下降，整體趨勢呈現背離永續。92年除單位努力漁獲量及有效水資源成正向發展外，其他土地資源相關指標均下滑，其中非自然生產地面積比及耕地總面資比下滑明顯，顯示我國目前成長方式仍衝擊生態資源（詳圖1）。



▲ 圖1 生態現況指標趨勢圖

Figure 1 Ecological State Composite Index

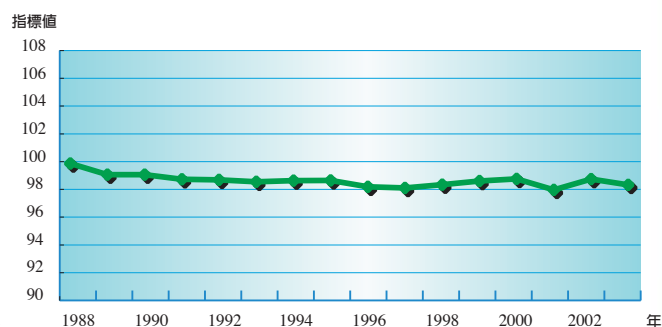
2. 環境污染領域

77至92年間指標值呈現上下起伏，惟整體趨勢仍呈現背離永續。除廢棄物資源回收率之外，包括二氧化碳排放量、輕度以下污染河川比率、水庫品質等均背離永續，顯見國人雖環境意識普遍提昇，政府也採取「環境保護與經濟並重」政策，致力污染防治工作，但整體而言，污染防治的努力仍抵不過人口及產業成長等環境負荷增加速度（詳圖2及圖3）。

scores made a rapid comeback, which minimized the overall impact on sustainable development. Institutional Response index scores worsened slightly, however no obvious trends have manifested.

2. Urban Taiwan

An overview of the years 1988 to 2003 shows that urban Taiwan is making strides toward sustainable development. However overall index scores dropped due to an evident drop in numbers of public transportation passengers, especially in Taipei City, where the total number of passengers decreased by 45 million. This is only a short-term phenomenon induced by the SARS outbreak, and overall indicators show a trend toward sustainability.



▲ 圖2 環境現況指標趨勢圖

Figure 2 Environmental State Composite Index

Analysis and Conclusions of Trends in the Six Indicator Dimensions

1. Ecological Resources

Excepting the years 1991 to 1993, which saw a substantial increase in the number of protected areas, overall trends since 1993 have gradually deviated from sustainability. In 2003, apart from successful efforts to generate positive developments in terms of fish catches and water quality, all other land resource indicators showed worsening trends. For example, the area of non-natural productive land and the total area of cultivated land have both clearly

第二章、國家永續發展推動成果

Chapter 2 : Milestones of National Sustainable Development Plan

3. 社會壓力領域

社會壓力整體而言呈下降趨勢，92年因SARS肆虐造成傳染病感染率大幅上升而下滑。惟每人每日垃圾量及檳榔種植面積均較上年度減少，反映出國人環境意識提升（詳圖4）。

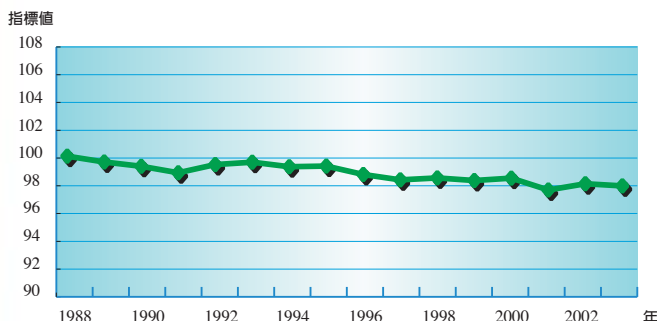
4. 經濟壓力領域

整體而言呈現持續改善趨勢，顯示台灣經濟壓力逐漸下降。雖然農藥消費量比重及資源耗用型產業佔製造業生產價值比率持續增加，造成對環境的負面影響，但國內平均每人水泥生產量近年持續減少、工業用水使用效率持續提高、製造業勞動生產力逐年提升，加上科技發展使電腦使用越來越普及，使整體經濟面向持續朝永續邁進（詳圖5及圖6）。

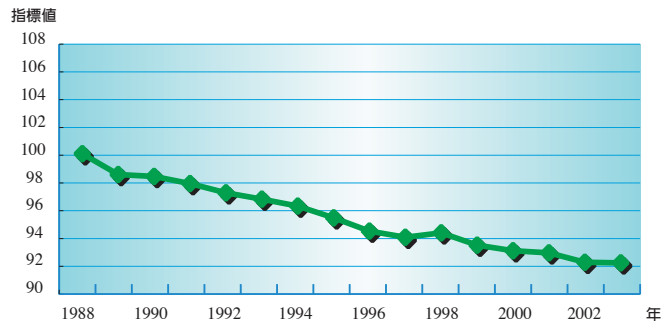
decreased, indicating that Taiwan's current manner of growth still has a detrimental impact on its ecological resources.

2. Environmental Pollution

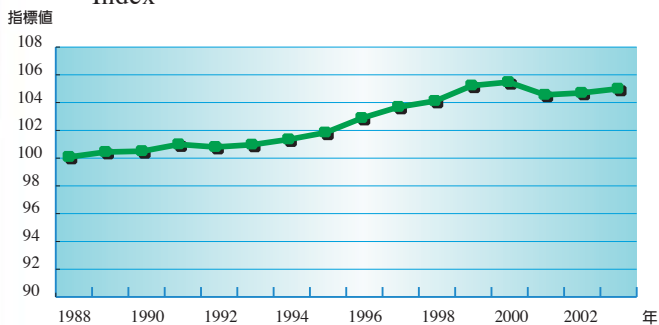
Indicators in this dimension showed both rising and falling index scores from 1988 to 2003, but overall trends show a deviation from sustainability. Apart from waste resource recycling rates, all other indicators-including carbon dioxide emissions, the ratio of total river lengths with negligible pollution, and reservoir water quality-diverged from sustainability. These trends show that despite a general increase in citizens' environmental awareness and despite government commitment toward pollution control and the adoption of a "Equal Emphasis on Environment and Economy" policy, on the whole, pollution control efforts are still unable to keep up with the continually increasing environmental load caused by population and industrial growth.



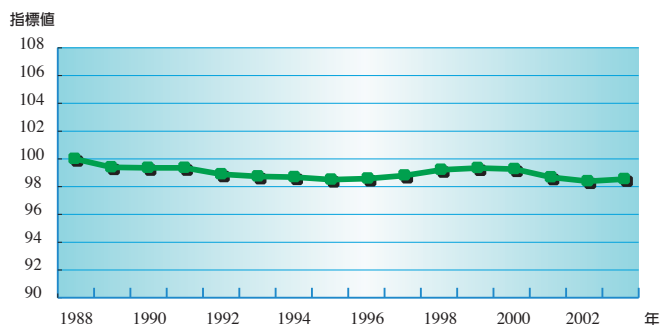
▲ 圖3 生態及環境現況綜合指標趨勢圖
Figure 3 Ecological and Environmental State Index



▲ 圖4 社會壓力指標趨勢圖
Figure 4 Social Pressure Composite Index



▲ 圖5 經濟壓力指標趨勢圖
Figure 5 Economic Pressure Composite Index



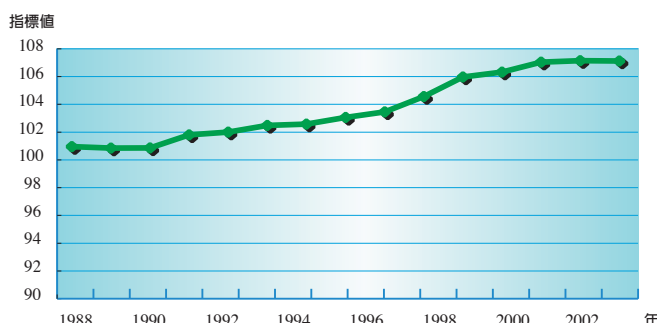
▲ 圖6 社會及經濟壓力綜合指標趨勢圖
Figure 6 Social and Economic Pressure Composite Index

5. 制度回應領域

自民國80年起整體制度量能逐步提升，呈現邁向永續。反映出政府對生態環境保育事務經費挹注、污水下水道處理、禁用化學藥品管理、環保標章推動，以及民間環保能量之參與等，於92年度均有正面成效（詳圖7）。

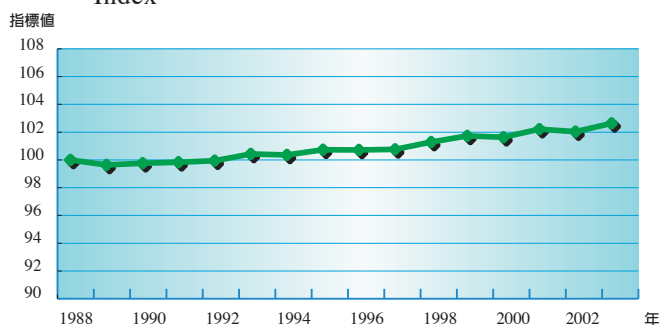
6. 都市永續發展領域

整體呈現邁向永續發展趨勢，雖然小汽車持有率、大眾運輸乘客人數、都市化面積擴張率及嚴重空氣污染比率略有負面趨勢，但平均所得、公園綠地面積、河川污染長度及河川親水性等均呈正面發展（詳圖8）。



▲ 圖7 制度回應綜合指標趨勢圖

Figure 7 Institutional Response Composite Index



▲ 圖8 都市發展綜合指標趨勢圖

Figure 8 Urban Development Composite Index

3. Social Pressure

Social pressure trends on the whole have been improving, yet a rise in rate of spread of infectious disease during the 2003 SARS outbreak caused index scores to fall. Per capita daily garbage volume and land area used for betel nut plantations decreased in the first half of 2003, reflecting increased environmental consciousness among the citizenry.

4. Economic Pressure

Overall positive trends indicate that economic pressure is gradually diminishing. On the downside, pesticide usage has increased and industrial consumption of natural resources accounts for an increasing proportion of manufacture production value, both resulting in negative environmental consequences. However, the economy at large is making continual strides in the direction of sustainability, as is shown by decreasing per capita cement production, increasing efficiency of water usage in industry, increasing labor production force in the manufacture industry, and technological developments to make the use of computers increasingly universal.

5. Institutional Response

Since 1991 the capacity for institutional response has gradually increased, showing a trend toward sustainability. This reflects the government's success in 2003 to shift funds toward ecological conservation, wastewater and sewerage treatment, controls over illegal chemical drugs, promotion of the Green Mark eco-labeling system, and increased capacity for private sector participation in environmental protection work.

6. Urban Sustainable Development

This dimension of indicators has seen an overall trend toward sustainable development despite the negative trends in the increasing rate of car ownership, numbers of public transportation passengers, rate of urban expansion and rates of serious air pollution. Positive developments are evident in the areas of average income, green park area, total length of unpolluted river sections and river accessibility.

二、永續藍圖—台灣21世紀議程

為明確規劃我國永續發展藍圖，依永續發展的基本原則及願景，並參考世界各國及「聯合國21世紀議程」及相關實踐文件，諮詢相關團體及個人，研擬「台灣21世紀議程」草案，作為我國因應新世紀國際潮流的基本策略及行動指導方針。草案於93年11月8日永續會第18次委員會議正式通過，作為我國推動永續發展的最高指導原則。

研擬過程

負責研擬「台灣21世紀議程」的永續願景組指出，台灣因地狹人稠，自然資源不豐，天然災害頻繁，對追求永續發展而言，我們比其他國家更具有迫切性。為取得經濟發展、環境保護、社會均衡發展，該組於92年6月完成「永續台灣發展願景、策略及行動綱領」，由該組召集人蕭新煌委員邀集學者專家審訂，並於網站公開徵求意見，修正成為「台灣21世紀議程」草案，於永續會委員會議通過並發表。

永續海島台灣

「台灣21世紀議程」分為五章，包括前言、台灣之環境特性、永續發展願

2. Taiwan Agenda 21-the Blueprint for Sustainability

Taiwan Agenda 21 was drawn up to provide a clear blueprint for Taiwan's sustainable development based on the underlying principles and visions of sustainable development. The draft of Taiwan Agenda 21 was officially adopted in the 18th NCSD Assembly on 8 November 2004 to provide the highest guiding principles for promoting Taiwan's sustainable development.

The Drafting Process

The Sustainable Vision Working Group, responsible for drafting Taiwan Agenda 21 first formulated the Guiding Principles for Vision, Strategy and Action Towards Taiwan's Sustainable Development in June 2003. Convener of the working group, Dr. Hsiao Hsin-huang called together scholars and experts to help draft this document and openly solicited opinions on the Internet. This document was further modified and transformed into Taiwan Agenda 21 and later endorsed by the NCSD Assembly.

Sustainable Island Taiwan

Taiwan Agenda 21 is divided into five sections including a preface, an overview of Taiwan's unique environment, a vision for sustainable development, principles and course for Taiwan's sustainable development, and the Guidelines for the National Sustainable Development Strategy.

The Agenda sketches the contours of Taiwan's vision for sustainable development in the three areas of environment, economy and society. It is hoped that while fulfilling demands for basic living materials we can maintain Taiwan's biodiversity and restore the island to its original magnificence as described hundreds of years ago: "Ihla

景、台灣永續發展原則與方向，以及台灣永續發展策略綱領。

議程勾勒出的永續發展願景，在永續環境方面，希望在追求滿足基本生活物質需求過程中，仍能維持台灣的生物多樣性，並期望能恢復「福爾摩沙－美麗之島」的面貌。在經濟發展方面，希望在達到經濟活動淨效益最大化目標的同時，仍能維持產生這些效益的人造、自然與人力資本的存量，確保當代及未來世代生活需求。在永續社會方面，議程指出「安全無懼」、「生活無虞」、「福利無缺」、「健康無憂」、「文化無際」應是安全和諧社會的寫照。

永續發展原則及方向

「台灣21世紀議程」明確指出，台灣永續發展基本原則為：(1)環境承載平衡

Formosa,"meaning "beautiful island." In terms of economic development, it is hoped that while working to maximize the net benefit of economic activities, we can also safeguard the artificial, natural and human capital that generates these benefits, thereby ensuring the livelihood of current and future generations. In terms of creating a sustainable society, the Agenda describes the image of a secure and harmonious society as having "security without fear," "livelihood without disquiet," "welfare without need," "health without anxiety," and "culture without boundaries."

Principles and Course of Sustainable Development

Taiwan Agenda 21 clearly specifies the five underlying principles of Taiwan's sustainable development as: 1) a balanced environmental load, 2) cost internalization with a priority on prevention, 3) social equity and generational justice, 4) equal emphasis on technological innovation and institutional reform, and 5) international participation and citizen participation.

These principles will steer us on the course to: 1) redefine the vision of development, establish sustainable development



▲ 編輯綠色國民所得帳，作為衡量國民福祉、生態平衡與環境發展的指標
Green GDP is an indicator of national welfare, ecological balance and environmental development

考量原則，(2) 成本內化優先預防原則，(3) 社會公平與世代正義原則，(4) 科技創新與制度改革並重原則，以及(5) 國際參與與公眾參與原則。

推動方向則包括：(1) 重新界定發展願景，建構永續發展指標，除落實國家永續發展指標，同時推動地方永續發展指標。(2) 建立永續發展決策機制。(3) 加強永續發展執行能力，包括調整組織架構、充實執行人力、落實推動永續發展相關預算，以及充實環境教育等。

永續發展策略綱領

永續發展策略綱領分為永續環境、永續社會、永續經濟三個面向，並具體列出實施策略（詳圖9）。在永續環境行動綱領中，自然保育政策重於事先防範，公害防治政策重於有效防治，環境規劃政策則重於資源永續利用。

在永續經濟方面，將以「質」的提升取代「量」的擴增，著重於良好品質且與環境相容之經濟發展，據以發展環境友善的綠色產業，從事環境無害的綠色生產，並推動保護環境的綠色消費。

在永續社會方面，將從公平正義、民眾參與、社區發展、人口健康等四個領域，追求高生活品質、資源合理分配、人民更健康、民眾更有機會及意願參與政治事物、更為公平和諧的社會。

indicators, put national sustainable development indicators into practice, and establish local sustainable development indicators; 2) establish sustainable development policy-making mechanisms; 3) build the national capacity to implement sustainable development by implementing structural adjustments of organizations, ensuring reliable administrative manpower, applying funding toward sustainable development, and ensuring a solid foundation for environmental education.

Guidelines for the National Sustainable Development Strategy

The Guidelines for the National Sustainable Development Strategy specifies concrete implementation strategies and divided into three themes: sustainable environment, sustainable society and sustainable economy (Figure 2.2-1). In working toward a sustainable environment, the Guidelines specify nature conservation policies that emphasize prevention measures, public nuisance control policies that emphasize effective controls, and environmental planning policies that emphasize sustainable use of resources.

In pursuit of a sustainable economy, enhanced quality should take the place of the current focus on increased quantity. Economic development should emphasize quality and environmental integrity, and should work toward promoting environmentally friendly industries, green production and green consumption.

In working toward a sustainable society, the guidelines focus on four themes- equity and justice, public participation, community development, and overall health of the population-in pursuit of a higher quality of life, equitable distribution of resources, a healthier populace, greater opportunity and desire among citizenry to participate in politics, and a more just and harmonious society.



▲ 圖9 台灣永續發展之策略綱領圖

Figure 9 Map of Guidelines for the National Sustainable Development Strategy

三、建置國家生物多樣性資料庫

建立生物多樣性資料庫為推動生物多樣性保育、教育及研究等工作首要之務，「生物多樣性公約」第17條亦要求，各國政府需成立生物多樣性資訊交換中心，蒐集整理本國生物多樣性資料，再透過國家節點之窗口與全球其他國家資訊相互交流合作與分享。全球生物多樣性資訊機構(GBIF)即配合公約要求於2000年成立，目的在推動與整合生物多樣性資訊並建立交換機制。該機構首先著手建立分類學為主的物種名錄及標本目錄，未來再用種名連結至各物種生態、基因、分布及各種應用資料。

與全球生物多樣性資訊機構接軌

分類資料庫可分為物種名稱、分布、

3. Establishing the National Biodiversity Database

Of foremost importance in establishing a biodiversity database is to promote conservation, education and research in the area of biodiversity. Article 17 of the Convention on Biological Diversity (CBD) asks each country's government to establish a biodiversity information exchange center responsible for compiling a national biodiversity database. A national node shall also be established to serve as a window for information exchange partnerships and sharing with other countries. The Global Biodiversity Information Facility (GBIF) was established in 2000 in compliance with the CBD for the purpose of promoting and integrating biodiversity information and establishing exchange mechanisms. GBIF's first task is to establish a list of species and catalog specimen according to taxonomic standards, and then make connections among species according to ecology, genetics, distribution and other data.

Coordination with GBIF

The taxonomic database is organized into five categories according to nomenclature, distribution, specimens, bibliography, and character. The system relies entirely on local experts to collect and compile all information and establish regional databases according to their nation's biological specimens, time-space distribution data, and research documents published within their country. Such tasks cannot be effectively performed by foreign specialists, therefore, the successful establishment of a global biodiversity database hinges critically on



▲ 台灣奴草 彭鏡毅攝
Mitrastemon Kawasakii Hayata



▲ 台灣生物多樣性資訊網
TaiBNET website.

標本、文獻，及特徵等五大類。其中各國的生物標本、含時空變化的分布資料，以及以各國文字在其國內出版的研究报告等，均有賴當地專家收集整理，建立地區性資料庫，很難假借國外專家之手。因此，如何在各國蒐集地區性完整正確的分類資料並建立資料庫，為生物多樣性資料庫建置成功與否的重要關鍵。台灣於2001年3月正式簽署加入GBIF附屬會員，並於同年規劃建置「台灣生物多樣性資訊網－物種名錄及專家名錄資料庫（TaiBNET）」，使國內生物多樣性資料能與國際資訊接軌。

台灣生物多樣性資訊中心網站現況

台灣雖然僅佔全球面積0.02%，但因地理位置特殊與生態環境多樣化，加上高山林立，垂直縱深高達4千公尺，涵

how each country collects complete, accurate, regional taxonomic data and compiles this information into a national database. Taiwan became an official affiliate member of GBIF in March 2003. To stay abreast with global biodiversity information trends, in the same year Taiwan established the Taiwan Biodiversity National Information Network (TaiBNET), which compiles databases of biological species and biodiversity specialists in Taiwan.

Taiwan Biodiversity Information Website

Taiwan accounts for only 0.02% of the earth's land surface, yet its unique geographical location and diverse ecological environment, with high mountains soaring up to 4,000 meters, and varying climatic zones ranging from tropical to temperate, have given rise to a great profusion of biological species. There are currently 50,000 species identified in Taiwan, but the total amount of species is estimated to range from 150,000 to 200,000, meaning three quarters of the island's species remain to be discovered.

The National Science Council entrusted Academia Sinica in 2001 to design and set up the TaiBNET website (<http://taibnet.sinica.edu.tw>), which lists taxonomic information and names of biodiversity specialists in Taiwan. Around 500 specialists' names and nearly 45,000 species' taxonomic data have been entered into the database over the last two years of hard work and cooperation among project coordinators Dr. Wen-Jer Wu, Dr. Ching-I Peng, Dr. Sheng-Hua Wu, and Dr. Pei-Fen Lee, together with several national civil academic organizations including the Conchology Society, Ichthyology Society, Algology Society,

蓋熱、暖、溫、寒不同氣候帶，因而孕育極豐富的生物相。台灣目前已命名物種有5萬種，估計物種總數應達15-20萬種，亦即尚有3/4的物種有待發現。

台灣配合GBIF成立國家節點的要求，於2001年由國科會委託中研院策劃建置「台灣生物多樣性資訊網－物種名錄及專家名錄資料庫（TaiBNET）」網站（<http://taibnet.sinica.edu.tw>）。兩年來在吳文哲、彭鏡毅、吳聲華、李培芬等共同主持人的合作，以及中華民國貝類學會、魚類學會、藻類學會、昆蟲學會等民間學術團體及學者專家的共同努力下，已完成500多位專家名錄，以及近45,000種物種名錄。

TaiBNET專家名錄可以姓名、專長領域、學科領域及職業等四項交互查詢，亦可由使用者自行登錄加入或經授權後更新內容。物種名錄則可以樹狀分類系統、鍵入學名或全文檢索三種方法，查詢各門、綱、目、科的物種名錄、中文名、分數階層及基本解說資料（含圖片），亦可再連結至其他網站獲得更多該物種關資訊。各分類群目前所收錄之台灣種數亦可自動累計。

TaiBNET並透過「台灣GBIF國家節點」（TaiBIF，<http://www.taibif.org.tw>）與國際合作接軌。TaiBIF於2002年成設立並

Entomological Society and other scholars and experts.

TaiBNET allows users to cross-search for biologists by name, special research area, academic field, and profession. Users can self-register and update information after authorization is granted. Three search methods-tree-based classification system, scientific name, or full-text search-can be used to find phylum, class, order or family for species' names, Chinese name, and basic description (including photo). Users can also link to other websites to obtain more information related to the target species. Users can also add new information on species in Taiwan as more information becomes available.

TaiBNET coordinates with the international system through the Taiwan GBIF National Node (TaiBIF-<http://www.taibif.org.tw>), which was established in 2002 at GBIF's request. TaiBIF catalogs biologists in Taiwan, native species, government agencies, research organizations, NGOs, large-scale plans or group research plans, related websites, biology databases, documents and publications.

Building an Integrated Platform

Biological diversity is one of Taiwan's most important natural resources. Many government departments have launched projects to gather information related to biodiversity, including the Council of Agriculture's Natural Resources and Ecology GIS Database in Taiwan, the Environmental Protection Administration's Environmental Resources Database, the National Science Council's Specialists and Species Database (TaiBNET), as well as the National Digital Archives Program, which has information on collections of plant and animal specimens. There are also many other important databases

對外開放，內容包括台灣專家名錄、本土物種名錄、政府及研究單位與民間組織、大型或群體研究計畫、相關網站（含自然資源）、生物資料庫、文獻或出版品等。

打破門戶 創造整合平台

生物多樣性為我國重要自然資源，許多部會均進行生物多樣性相關資料蒐集，包括農委會「自然資源與生態資料庫」、環保署「環境資源資料庫」、國科會「專家名錄及物種名錄資料庫（TaiBNET）」及包括動植物標本典藏資料在內的「數位典藏國家型科技計畫」等，各個學校、研究機構、民間團體亦建置維護各種資料庫。但相關資料庫並無實質整合，故極需發展整合平台與交換機制。

「國家生物多樣性資料庫」建置，預期能將各項資料全面數位化、建庫上網，做到由物種種名連結到各資料庫中該物種相關資料，或利用地理資訊系統（GIS）查詢各資料庫中所有特定地點生物種類及豐度資料，提供國內外學術交流與實際推廣應用，使基礎學術研究成果充分發揮。

have been established by various educational institutions, research organizations and NGOs.

One shortcoming though is that related databases have not been substantially integrated and there is an urgent need for developing an integrated platform and exchange mechanism. It is hoped that the establishment of the National Biodiversity Database can comprehensively digitize all the various types of information into one database on the Internet, linking a species' name to all related information about that species within each database, or using GIS to search each database for species and extent of biodiversity at a specified location. Such a platform can be used both internally and internationally to provide essential information for academic exchange and practical applications, bringing the results of groundwork academic research into full play.



▲ 玉山鋪地蜈蚣 翁茂倫攝
Cotoneaster morrisonensis Hayta.

四、推動永續校園 深耕台灣

永續校園理念在86年推動環境教育時萌芽，從校園綠化、資源回收再利用等環保行動著手，逐漸深化至將硬體改造過程的環境教育精神亦融入教學之中，讓師生、家長甚至社區在生活中體驗綠校園的成果及價值，使校園環境真正永續。行政院為擴大推動永續校園政策，自民國91年起編列約5億元經費補助永續校園推廣計畫。申請參與計畫的學校逐年顯著增加，91年度僅三所學校成為永續校園示範基地，92年增至14所，至93年4月共562所學校提出申請，可見各校對永續校園理念的支持。

教育與環境結合 創新改造校園

參與計劃的學校結合各鄉鎮環境特色營造生態校園，或發揮各校技術專長創新。如北縣深坑國小再利用水資源、台東新興國小就地取材製作具排灣族文化特色的課桌椅及工藝品、台灣師大環境教育研所建造人工溼地、台北科技大學搭設太陽能發電板利用再生能源等。目前全國超過上百所學校積極推展綠校園建設，採取省能、省資源、健康舒適、生態循環等方式，改造傳統校園環境。

台灣將教育和環境建設合而為一的永續校園計畫，超脫全球綠校園概念的經營模式，以自發性、整合性校際互動，

4. Sustainable Campus Movement

The "sustainable campus" concept was born in 1997 when environmental education took off in Taiwan. The concept aims to put environmentalism into practice and into curriculums, through actions ranging from greening the campus and recycling resources to even deeper aspects such as incorporating the spirit of environmental education into the process of refurbishing facilities. Teachers, parents and even communities are able to experience the positive effects and value of campus reform on their daily lives, ensuring that the campus environment develops in a truly sustainable direction. In order to expand the sustainable campus policy, the Executive Yuan has granted a total of NT\$500 million to assist the sustainable campus promotion program since 2002. The number of schools to join the program has steadily increased over the years, with only three schools designated as sustainable campus demonstration sites in 2002, increasing to 14 schools in 2003. Already 562 schools have applied to the sustainable campus reform program as of April 2004, attesting to the overwhelming support of the sustainable campus concept from schools around the nation.

Campus Reform Unites Education and the Environment

Schools participating in the program are encouraged to integrate the unique features of their local environment in creating a diverse ecology on the school grounds. Schools are also encouraged to bring about innovative reforms by drawing on local technological expertise. For example, Shengkeng Elementary School in Taipei County harvests rainwater and reuses its water resources. Hsin-hsing Elementary School in Taitung

建立「綠色學校夥伴」網路機制，由下而上推動校園自主性環境教育，並透過教育部及地方教育局，由上而下推展至全國各級學校。執行結果，累積出廣大的傳播力量，不但獲得國際學者認同，來自日本、大陸及香港的生態學校主動觀摩，學校的參與盛況也領先全球。

打破城鄉差距 落實永續觀念

以台東縣新興國小為例，該校因位處偏僻，軟硬體設備明顯不足，但師生充份利用當地原住民文化及自然資源，並帶動提升社區發展，讓城鄉差距縮小。該校利用營養午餐的廚餘，製作堆肥種植有機蔬菜，作為學童午餐來源之一，另將社區污水經天然過濾成為生態水池，並收集雨水作為廁所用水。同時利用太陽能及風力發電，不但能自給自足，還可回賣台電公司。學校同時與社區緊密結合資源共享，校內美化飾品均由社區居民偕同師生合力完成。



County makes use of local materials to create tables, chairs and artwork that show the cultural uniqueness of the Paiwan aboriginal tribe. National Taiwan Normal University's Graduate Institute for Environmental Education has created an artificial wetland to treat the building's wastewater. National Taipei University of Technology has installed photovoltaic panels that double as window shades. Now over one hundred schools are actively re-creating green campuses that conserve energy, save resources, and demonstrate how traditional school environments can be transformed into healthier, more comfortable places that support complete ecological cycles.

toward a marriage between education and environmental design, Taiwan's sustainable campus program goes beyond conventional operating models of the global green campus concept. Taiwan has established the online Green School Partnership Program, which is based on spontaneity and school-to-school interaction, and supports a bottom-up strategy that lends impetus to unique environmental education initiatives at each school. Top-down strategies are also used in working through the Ministry of Education and local education bureaus

to ensure that this program is implemented nationwide at all levels of education.

◀ 台東縣新興國小校園內的太陽能光電板

Solar panels installed on top of Hsin-hsing Elementary School in Taitung County

台北縣深坑國小則為擁有上千名學生的百年校園，該校永續校園計畫起步於搶救當地百年老樹。該校結合社區資源，挖除200平方公尺的水泥鋪面，還老樹一個自由呼吸的空間，也使每年3月10日成為「深坑老樹節」。深坑國小同時利用雨水截流回收工程，建築「人工溪流」與「生態水池」，創造具生物多樣性的校園環境，讓學生透過生態觀察，體認生態平衡及水資源的重要性。



▲ 台北縣深坑國小校園內的荷花池
Lotus pond installed at Shenkeng Elementary School in Taipei County

Breaching the Urban-Rural Gap through Sustainability

Located in rural Taitung County, Hsinhsing Elementary School has set an excellent example despite its lack of resources. The teachers and students have brought local aboriginal culture and natural resources into full play, taking the lead in community development and narrowing the gap between urban and rural areas. The school turns leftover food scraps from lunch into compost, which is used in the school's organic vegetable garden, one of the sources of the children's meals. The school has also channeled the community's wastewater into the schoolyard, where it is filtered by a series of eco-ponds. Rainwater is harvested from the school's rooftops to supply water for flush toilets. Solar and wind power provides more electricity than the school can use and excess power is sold to Taipower to generate income for the school. The school and the community closely share resources with each other and some of the campus beautification work is the result of cooperative efforts between local residents, teachers and students.

Another leading example has been set by Shenkeng Elementary school- a school of over one thousand students in Taipei County. The school's sustainable campus project started out with a plan to rescue local hundred-year-old trees. Integrating community resources, the school dug up 200 square meters of concrete pavement to give the trees more breathing space, and started an annual tradition to hold a musical concert in honor of the trees on March 10 every year. Shenkeng Elementary School channels rainwater runoff into a man-made stream and eco-pond, which have greatly increased the biodiversity of the campus environment. Students are regularly led to observe the new ecosystem, and contemplate ecological balance and the importance of water resources in the ecology.



從學校 看到台灣的創意與生命力

永續校園推動三年多來，多層次生態綠化比率從91年度的23.4%提升到92年度的35.8%，透水面積平均提升12.8%。獲補助學校中，10.6%將落葉廚餘堆肥整合有機農園，成為戶外教學課程；33.2%執行再生能源利用與教學；10.6%收集雨水與再生水回收再利用；82%整合戶外教學，將成果與社區分享。從各校利用社區特有資源，規劃各具特色之校園建設計畫，除落實永續經營理念之外，同時顯示各校的創意及生命力的延續。

現階段「永續校園計畫」之多數學校僅完成局部改造，距完全成為永續校園及多校整合營造社區生態環境的目標尚有距離，將是未來努力重點。教育部於93年與觀光局共同規劃四條永續校園觀光旅遊路線，導引民眾參觀北、中、南、東部的永續校園成果並進行生態之旅，期使對環境的關懷，由學校出發擴及每一位國人。

◀ 深坑國小富含溼地動植物的生態池

The eco-pond at Shenkeng Elementary
School teems with life.

Schools Reflect Taiwan's Creativity and Vitality

In just over three years of promoting sustainable campuses, the ratio of green school yard areas returned to ecological processes has increased from 23.4% in 2002 to 35.8% in 2003, and water permeable land area has increased 12.8% overall. Among those schools receiving assistance through the sustainable school program, 10.6% have incorporated leaf/food waste composting and organic gardening into outdoor education curriculum, 33.2% have executed resource recycling and education programs, 10.6% harvest rainwater and reuse wastewater, and 82% integrate outdoor learning activities and share results with the community. Schools are encouraged to utilize local resources particular to their community in planning unique campus designs. This approach not only puts sustainable management concepts into practice, but also displays each school's creativity and vitality. The purpose of the Sustainable Campus Program is to create an environment for actualizing environmental conservation and sustainable development. Through the efforts and hard work contributed by all circles, sustainable campuses can have wide-ranging effects. At the current stage, most schools have only undertaken piecemeal reforms and still have a long way to go to become truly sustainable campuses that fully integrate with the local community and ecological environment. This will become the focal work in the future. The Ministry of Education and the Tourism Bureau joined forces in 2004 to map out four routes along which tourists can conveniently visit several sustainable campuses in one trip. The idea is to popularize the ecotour concept by attracting interest in visiting sustainable campuses throughout the island. This is one way for schools to lead the way in teaching the populace to care for the environment.

五、多管齊下 致力溫室氣體減量

鑒於京都議定書將於2005年2月生效，永續會因此成立「氣候變遷暨京都議定書因應小組」，負責統籌規劃相關部門減量策略，同時決議召開全國能源會議，研擬符合最新趨勢之能源政策，降低能源部門溫室氣體排放。

協助業者落實溫室氣體盤查制度

國際環保組同時於93年整合產業、運輸及住商部門領域，辦理溫室氣體盤查管理、減量規劃、策略分析及試行推動等工作。

針對產業溫室氣體減量，首先從溫室氣體盤查著手。自93年11月開始推動「產業溫室氣體盤查、登錄及示範推廣試行計畫」，免費輔導建立產業溫室氣體排放清冊，並辦理產業經驗分享與交流座談，同時協助受輔導產業建立與國際接軌的溫室氣體盤查、登錄方法。

政府與民間攜手 合作全氟碳化物減量

目前國內半導體及薄膜電晶體液晶顯示器(TFT-LCD)的總產量均已超過全球三成以上，而全氟碳化物為半導體業常用清洗劑，排放量雖不高，但因其溫室效應高過CO₂數千倍，故使用量成長不容忽視。

5. Multifaceted Efforts to Reduce GHG Emissions

With the Kyoto Protocol scheduled to take effect in February 2005, most of the world's countries and related international organizations are already actively pursuing response strategies. The European Union has taken the lead to initiate a greenhouse gas emissions trading system and multinational finance enterprises now consider greenhouse gas controls when assessing investments. No longer viewed as solely an environmental issue, the greenhouse effect is now recognized as a universal issue affecting the economy, society and energy use. The NCSD has established the Climate Change and Kyoto Protocol Response Taskforce, which is responsible for overall planning of reduction strategies for related sectors. The NCSD will convene a national energy conference to ensure that Taiwan's energy policy accords with the latest trends to minimize the energy sector's greenhouse gas emissions.

Assisting Industry to Implement GHG Inventory System

The NCSD's International Environmental Protection Working Group is making a comprehensive assessment of Taiwan's greenhouse gas emissions and possible future challenges, targeting manufacture industry, transport, building, and business sectors to carry out greenhouse gas inventory and management, reductions planning, strategic analysis and trial plans.

The first step in making industry greenhouse gas reductions is to inventory the nation's greenhouse gases. The "Industry Greenhouse Gas Inventory, Registration and Demonstration Pilot Project" was thus launched on November 2004. This project provides free assistance to industries on how to

目前國內半導體及薄膜電晶體液晶顯示器TFT-LCD業均承諾將致力於全氟碳化物排放減量工作。其中台灣半導體產業協會承諾，將於2010年控制全氟碳化物排放量於0.66百萬噸碳當量以下（約為2000年排放量的50%）。中華民國台灣薄膜電晶體液晶顯示器產業協會（TTLA）則率先於93年8月與環保署簽訂「全氟碳化物排放減量合作備忘錄」，創下政府與業者合作減量的全球首例。為達成此項排放減量目標，TTLA所有會員公司於2003年之後設計的新廠或2004年以後量產者，均須全數設置全氟碳化物去除率90%以上的處理設備。預估業者未來幾年內將陸續投入

establish greenhouse gas emissions records. Industries are also brought together for experience sharing and exchange forums, during which they are assisted to establish internationally compatible methods for inventorying and reporting greenhouse gases. This pilot project specifically aims to solve the difficulties that arise when industries engage in practices inconsistent with national and international standards.

Government and Private Sectors Cooperate to Reduce PFCs

Currently Taiwan is responsible for over 30% of the world's total production of semiconductors and TFT-LCDs, and perfluorinated compounds (PFCs) are often used in the semiconductor industry as a cleaning agent. Although PFC emissions are small in volume, this substance is several thousand times more destructive to the ozone layer than CO₂. Therefore, the increasing amounts of PFCs used during production cannot be ignored.

These two domestic industries have promised to do their utmost to reduce PFC emissions. The Taiwan Semiconductor Industry Association (TSIA) has pledged to control PFC emissions under 0.66 MMTCE by 2010, or about half the amount generated in the year 2000. The EPA signed the PFC Emissions Reduction Memorandum of Cooperation with the Taiwan TFT-LCD Association (TTLA) in August 2004, marking the first such cooperation between government and industry to reduce emissions. To meet this emission reduction target, all member companies of TTLA must install equipment that eliminates at least 90% of their total PFC emissions in new plants built after 2003 and all plants undertaking mass



▲ 節能服務車設備

Equipments on energy-saving service car.

近20億元的污染防制經費。環保署方面，除持續提供TTLA有關全氟碳化物排放減量技術發展動態及氣候變遷因應策略相關資訊，同時將公開表揚執行成效績優廠商，建立產業環保形象。

結合企業與民間團體 拓展國際合作

在國際合作部份，因應我國非聯合國會員國無法以國家名義參與相關國際公約活動之政治現況，因此積極結合企業及民間團體，拓展氣候變遷與溫室氣體相關國際合作。

未來除持續以上述措施拓展國際合作外，同時視公約情況，適時成立決策執行與協調小組、規劃短、中、長程目標，及強化我國因應氣候變化的能力。

production after 2004. Enterprises are expected to invest nearly NT\$2 billion toward pollution control over the next few years. The EPA provides TTTA with information regarding development trends in PFC emissions reduction technology and climate change response strategies. The EPA also publicly commends companies for outstanding implementation performance, which helps reputable corporations establish an image of environmental responsibility.

Uniting Industry and NGOs to Expand International Cooperation

In terms of international cooperation, Taiwan has a few more hurdles than most countries due to its political status, barred from obtaining UN membership and restrained from using the name "Taiwan" when participating in related international convention activities. The government thus actively integrates industry and NGO forces to expand international cooperation on climate change and greenhouse gas reductions.

The NCSD will continue to observe the UN-FCCC and accordingly establish decision-making, executive and coordination working groups, to plan short-, mid- and long-term objectives that increase Taiwan's capacity to respond to climate change.



▲ 環保署副署長林達雄(右二)與TTLA理事長林鎮弘(左二)共同簽署合作備忘錄
EPA Deputy Minister Lin Da-hsiung (second on right) and TTTA Director Lin Chen-hong (second from left) jointly sign the memorandum of cooperation.



▲ 台灣多樣的生態環境-紫斑蝶 高雄縣政府提供

Taiwan's diverse ecological environment - Purple butterfly (photo: Kaohsiung County Government)

三、工作分組年度績效

Chapter 3. Performance of Working Groups in 2004

一、永續願景工作分組

確定永續發展願景

為確立國家永續發展願景，永續願景組本年度研擬完成「台灣21世紀議程－國家永續發展願景與策略綱領」草案，草並於2004年11月8日永續會第18次委員會議正式通過。除擬定國家級永續發展願景，該分組同時積極協助縣市推動地方21世紀議程，包括評審輔導及補助11個縣市完成地方永續發展策略研擬、辦理座談及研習會、邀請美國學者分享舊金山灣區推動永續發展成功經驗等等。

1. Sustainable Vision Working Group

A Clear Vision of Sustainable Development

Working to develop a clear vision of national sustainable development, the Sustainable Vision Working Group has finalized the draft "Taiwan Agenda 21 - Vision and Strategy Guidelines for National Sustainable Development," which was endorsed at the 18th NCSD Assembly on 8 November 2004. In addition to laying down the framework for sustainable development on the national level, the Sustainable Vision Working Group actively assists county and city governments to carry out their own local Agenda 21 goals. The group has evaluated, counseled and subsidized 11 county/city governments to draw up local sustainable development strategies. Other

強化永續發展推動機制

為評量我國推動永續發展進程，並呼應聯合國要求各國建立指標評估推動落實永續發展的責任，永續願景組依永續會於92年6月5日通過之「台灣永續發展指標系統」，根據92年度相關國家統計資料，完成並公佈92年度永續指標計算結果。

此外，為落實「經濟與科學技術發展，應與環境及生態保護兼籌並顧」的基本國策，作為衡量我國國民生活福祉、生態平衡與環境發展指標，永續願景組參照國際模式，完成我國「綠色國民所得帳系統」，並由行政院主計處於8月12日完成「93年綠色國民所得帳」試編，摘要併同中央政府總預算送立法院備查。

activities this year include holding forums, carrying out research, and inviting US scholars to share successful examples of sustainable development in the San Francisco Bay Area.

Strengthening Mechanisms to Promote Sustainable Development

The NCSD ratified the Taiwan Sustainable Development Indicator System on 5 June 2003 to evaluate progress on sustainable development and to respond to the United Nations' request for each country to establish indicators and take initiatives toward sustainable development. The Sustainable Vision Working Group has announced the 2003 sustainability index scores based on relevant national statistics for the year 2003.

It is basic national policy that environmental and ecological protection should be on equal par with economic and technological development. Thus, the Sustainable Vision Working Group has referred to international models in formulating the "Green GDP System." This system can be used as an indicator to measure people's livelihood, well-being, ecological balance and environmental impact. The Directorate-General of Budget, Accounting & Statistics, Executive Yuan, has already compiled a provisional "2004 Green GDP" of the central government's general budget and has sent it to the Legislative Yuan for reference.



◀ 永續環境與自然共生 彰化縣政府提供
Sustainable development in harmony with the natural environment

二、國土資源工作分組 完成國土保育地區土地利用基本 政策

為達成國土保育與保安目標，國土資源組依據國土保育地區土地利用基本政策（草案）辦理國土保育地區劃設作業，內容包括：

1.彙整蒐集國土保育地區相關研究資料。2.清查現有地理資訊系統可表現圖層資料。3.確認第一階段政策執行目標，劃設原則與範圍。4.彙整現階段各目的事業主管機關劃設範圍並提出轉換原則構想。5.重疊管制範圍處理。

修訂生態旅遊白皮書

鑒於國內對生態旅遊之意義與認知不一，且在全球化的激烈競爭下，台灣必須快速有效地推展生態旅遊，國土資源組乃從資源「保育」的角度，籌組跨部會「生態旅遊工作圈」，重修「生態旅遊白皮書」，並於93年9月30日完成草案修訂，分別提報第13次分組會議及第14次工作會議報告。為落實生態旅遊白皮書之推動理念，已選定太魯閣國家公園作為示範案例，研擬具體推動構想、SOP及落實機制之建立，做為未來逐步推廣至其他國家公園、國家風景區及森林遊樂區之基礎。

2. Water and Land Resources Working Group

Basic Policy on Land Utilization in National Land Conservation Areas

To achieve the goals of national land conservation and ensure the safety of the public, the Water and Land Resources Working Group is now demarking National Land Conservation Areas according to the abovementioned draft policy on land utilization. This work is divided into five main areas:

1. Gather and compile research data pertinent to National Land Conservation Areas 2. Inventory existing GIS data to map out different geographic layers 3. Confirm first stage strategy implementation objectives, and design framework and scope of plan 4. Determine the planning scope of all levels of competent authorities with jurisdiction over activities in National Land Conservation Areas and propose a framework of principles for transferring land jurisdiction 5. Devise a management system with overlapping controls.

Ecotourism White Paper

Due to differing interpretations of "ecotourism" in Taiwan, as well as fierce global competition in this field, stronger efforts should be made toward developing the concept of ecotourism in Taiwan. Working from a conservation perspective, the Water and Land Resources Working Group has organized the cross-ministerial "Ecotourism Taskforce," which further revised the Ecotourism White Paper (draft) on 30 September 2004 and presented the document during the 13th and 14th Working Group meetings. Taroko National Park has been selected as a demonstration site to bring into play the concepts put forth in the Ecotourism White Paper. Tangible promotion methods, standard operating procedures and implementation mechanisms will be established to serve as groundwork that

推動綠色城鄉規劃及建設

透過「創造台灣城鄉風貌示範計畫」於93年度編列12億經費進行社區總體營造工作，推動省能、生態、環保之生態社區，並徵選31個鄉村型、都市型及原住民社區，發展不同訴求目標之生態社區示範類型。

推動綠營建

為積極推動綠建築，除「綠建築評估指標」增列「室內環境指標」，同時積極推動「綠建材標章制度」。「綠建材標章制度」於93年7月正式公告受理申請，標章審議及管理則委託財團法人中華建築中心代為執行，相關標準及作業規範正逐步研擬公告。

推廣生態工法方面，除於竹南海口、五股溼地、高屏溪舊鐵橋人工溼地及高雄洲仔溼地，辦理四場溼地生態工法博覽會，並針對道路及水域生態工法工程、生態工法基本圖、生態工法材料使用等土木化生態工法技術，投入資源進行研究。



can be progressively expanded to other national parks, national scenic areas, and forest recreation areas.

Green Planning and Building in Urban and Rural Taiwan

A budget of NT\$1.2 billion was allocated in 2004 as part of the "Plan to Create Authentic Models of Urban and Rural Taiwan," which funds overall rebuilding of communities. Reconstruction efforts focus on energy conservation, environmental protection and ecological functioning of communities. Thirty-one rural, urban and indigenous communities were selected to develop ecological community demonstration sites that fit the particular requisites and objectives of each area.

Green Construction

As for initiatives to actively promote green buildings, the "Indoor Environment Index" was integrated into the "Green Building Assessment Indicator" and the "Green Building Material Labeling System" was put into place. This system officially opened up for applications in July 2004, and its management has been entrusted to the Chinese Architecture and Building Center. Relevant criteria and work standards are presently being drawn up. In the interest of promoting ecological engineering, four expositions on wetlands ecological engineering have been held this year at Jhunan Estuary, Wugu Wetland, the "Kaoping River Old Steel Bridge Constructed Wetland" and the Kaohsiung Jhouzai Wetland. Many resources have been invested this year toward the research of ecological engineering technology, including ecological engineering of roads and waterways, and mapping and materials specific to ecological engineering.

◀ 獲得綠建築認證的環境檢驗大樓

The EPA's Environmental Analysis Laboratory building is a certified "Green Building"

三、資源與產業工作分組 水資源管理及保護

檢討水資源政策之適當性，研擬完成「新世紀水資源政策綱領草案」，並成立「經濟部自來水水價審議委員會」，期能合理調整水價並強化飲用水管理。

持續推動污水下水道建設，污水用戶接管普及率達12.13%，污水處理率達31.87%。另輔導產業提高用水回收率，本年度工業用水平均回收率已達48%之目標，並完成八行業計60家工廠基線調查，與用水效率提升輔導。

推動再生能源

完成生質柴油鹼製程製造技術開發，並建造完成國內首座生質柴油示範系統，年產量達3千噸生質柴油。另為聽取產業界對再生能源設備產業發展策略相關意見，於11月23日召開「再生能源設備產業發展推動策略」會議。

發展綠色科技及產業

辦理工業廢棄物再利用許可審查及再利用輔導與追蹤查核，完成再利用許可申請案104件，已許可92件。另建置「工業廢棄物再利用資訊管理系統」，並藉「廢棄物資訊交換服務中心」。

水資源是國家發展及民
衆生存的基石

Water resources are the
cornerstone of national
development and human
survival



3. Technology and Industries Working Group Water Resources Management

The group has drawn up the "Policy Guidelines for a New Era of Water Resources (draft)," and established the "Tap Water Price Review Committee" under the Ministry of Economic Affairs, which works to appropriately adjust water prices and strengthen management of drinking water. By November 2004, 12.13% of wastewater producers were hooked up to sewerage systems, ensuring the treatment of 31.87% of the nation's wastewater. This year industry has reached its goal of a water recycling rate of 48%. Baseline surveys and guidance to increase efficiency of water use have been carried out at 60 factories among eight industries.

Renewable Energy

The Technology and Industries Working Group has successfully developed technology to manufacture biodiesel fuels and has created the nation's first biodiesel demonstration system, capable of producing 3,000 tonnes of biodiesel fuel per year. A conference on "Renewable Energy Technology Industry Development Promotion Strategies" was held on 23 November 2004 to listen to the industry's views on strategies for developing renewable energy technology.

Green Technology and Industry

The Technology and Industries Working Group conducts reviews for industrial waste reuse permits and provides instruction on reuse and tracking audits. So far 104 applications for reuse permits have been reviewed, and 92 permits have been issued. The working group has also established the "Industrial Waste Reuse Information Management System" and has contributed to waste recycling and reuse through the "Waste Exchange Information Service Center".

四、生物多樣性工作分組 強化生物多樣性研究及監測

本年度完成「國家生物多樣性資訊中心」建置，收錄500餘位專家名錄及4萬餘種物種名錄，並建立「台灣生物多樣性資訊網」。

有關生物多樣性調查部份，除完成陸域、濕地與海洋生物多樣性監測系統規劃，並確定監測地點與方式之外，也完成多處台灣地區植群圖及重要濕地與分佈圖、臺灣沿岸海域8區32處調查點珊瑚礁生態總整體檢及分布圖。

加強生物多樣性管理

另為防止外來物種入侵，由相關部會及學者專家組成，統籌推動防治計畫，並成立「國家紅火蟻防治中心」，由學者專家組成進行防治技術開發示範，並協助執行防治工作。

傳統智慧維護

完成「台灣原住民族食用菇類種原庫」，以及原住民傳統領域251個部落調查及部落地圖繪製。同時針對現行著作權法無法提供原住民族傳統智慧創作法律保護，完成「原住民族傳統智慧保護條例」草案，送立法院審議中。



4. Biodiversity Working Group

Strengthening Biodiversity Research and Monitoring

The Biodiversity Working Group has established the "National Biodiversity Information Center" this year, which has compiled a list of over 500 biologists and over 40,000 species.

As for biodiversity survey and analysis, the Biodiversity Working Group has already finalized planning of biodiversity monitoring systems for Taiwan's land, wetland, and marine environments. Maps have been drawn up showing distribution of plant species and important wetlands in the Taiwan area.

Strengthening Biodiversity Management

To prevent invasions of exotic species, the Working Group has installed the "Central Government Work established a "National Imported Red Fire Ant Control Center," which is organized by scholars and experts and works to carry out develop and demonstrate control technology, and assist with implementation control work.

Preserving Traditional Wisdom

The Biodiversity Working Group has completed the "Taiwan Indigenous Edible Mushroom Germplasm Bank" and has completed 251 tribal surveys and maps of indigenous traditional lands. Targeting existing property right laws that fail to provide legal protection of indigenous traditional wisdom, the Working Group has drawn up the "Indigenous Traditional Wisdom Protection Act" (draft), which has been sent to the Legislative Yuan for review.

◀ 玉山薄雪草 翁茂倫攝

Yushan edelweiss on Jade Mountain (photo: Weng Mao-lun)

五、生活與生產工作分組 清潔生產 綠色消費

為推動清潔生產提高資源使用效率，93年度遴選電子零組件及塑膠製品業共17家工廠，輔導節省物料及能源資源使用、避免或減少使用有毒原料、降低排放物及廢棄物產量及毒性、降低產品生命週期環境衝擊等，並協助廠商建立環境績效量化資料及分析。

推動產品包裝簡易化，完成「糖果、糕餅、化粧品、光碟、酒及加工食品之包裝空間比例、層數、使用材質之種類及數量限制」草案公告並舉辦公聽會。



▲ 政府以競賽鼓勵業者推動綠色包裝
The government holds contests to encourage green packaging in industry

資源回收 廢棄物減量

訂定「推動垃圾強制分類計畫」並輔導實施對象，以提升資源回收效率。93年1至10月資源回收量達126萬公噸，資源回收率19.6%。在推動垃圾減量方面，持續推動塑膠袋限用及免洗餐具禁用政策。擴大辦理「環保科技園區推動計畫」，將園區數增加為4座，總面積亦由100公頃增為123公頃，總經費增加為62.05億。

5. Life and Production Working Group

Clean Production and Green Consumption

To promote clean production and efficient use of resources, 17 electronic component and plastic product manufacturers were selected this year (2004), and instructed on how to conserve material and energy resources, reduce emissions, cut the amount and toxicity of waste, and reduce the environmental impact of the product life cycle.

The working group has promoted a regulation that restricts packaging volume space ratio, number of layers, and types of packaging used for confectionaries, pastries, cosmetics, CDs, alcohol and processed foods. The draft regulation was announced in 2004 and several public hearings have been held.

To pave the way for green products, two traditional markets and one enterprise received guidance in 2004 to become green commerce demonstration points, and held workshop demonstrations to exchange experience.

Resource Recycling and Waste Reduction

The "Compulsory Garbage Sorting Promotion Plan" was implemented to instruct target groups on how to increase resource recycling efficiency. From January to October 2004, the nation recycled 1.26 million tonnes of resources for a recycling rate of 19.6%.

The government expanded the existing "Environmental Science and Technology Park Promotion Plan," increasing the number of ESTPs to four, increasing the total park land area to 123 hectares, and increasing the total ESTP budget to over NT\$6.2 billion. The government executed the "Environmental Technology Incubation Center" plan, which draws on cooperation between twelve environmental companies and nine incubation centers to develop and popularize innovative environmental technology.

六、國際環保工作分組



- ▲ 台灣積極參與國際環保活動
財團法人環境資源研究發展基金會提供
Taiwan actively participates in international environmental protection activities.

參與國際永續發展事務

93年度由相關部會組團出席生物多樣性公約、華盛頓公約、蒙特婁議定書、聯合國氣候變化綱要公約等締約方大會，並出席亞太經濟合作海洋資源保育工作小組及漁業工作小組聯合會。

推動國際永續發展夥伴關係

除持續協助中美洲友邦建構MARKAL區域整合模型，另辦理「亞洲沙塵」、「鯨豚生態與保育」、「穿山甲族群及棲地續存力」、「生態旅遊」等國際研討會，以及「國際賞鳥博覽會」等活動，強化國際永續發展夥伴關係。

配合國際公約推動配套制度

針對「聯合國氣候變化綱要公約」及「京都議定書」成立「氣候變遷暨京都議定書因應小組」，作為政策研擬及推動跨部會協調機制。此外於國際公約內國法化部份。

6. International Environmental Protection Working Group

Participation in International Sustainable Development Affairs

Participation in International Sustainable Development Affairs

Several cross-ministerial delegations were organized to attend international assemblies on the Convention on Biological Diversity, the Washington Convention, the Montreal Protocol and the Framework Convention on Climate Change in 2004. Taiwan delegations also attended joint meetings of the APEC Marine Resource Conservation Working Group and the Fisheries Working Group.

Promoting Partnerships for International Sustainable Development

In addition to continuing assistance to seven friendly Central American countries on establishing a regional integrated MARKAL model, the Working Group also held several international symposiums, including themes such as "Asia Dust Storms," "Cetacean Ecology and Conservation," "Pangolin Population and Habitat Viability Analysis (PHVA)," and "Ecotourism" as well as an International Bird Watching Exposition.

Installing Comprehensive Systems to Coordinate with International Conventions

The NCSD has established the "Climate Change and Kyoto Protocol Response Taskforce" to address the UN-FCCC and the Kyoto Protocol, serving as a mechanism for policy formulation and cross-ministerial coordination. Taiwan strives to include international agreements in national law. Every effort has been made to cooperate with the Basel Convention, including revising the "Regulations Governing the Import, Export, Transit, and Transshipment of Waste".

七、健康風險工作分組 訂定國家健康風險評估指引

確立常態性健康風險評估管理溝通機制，與突發性污染事件危機處理分工及作業流程，以降低環境污染物對民眾健康之影響。為推動國家健康風險評估機制及建立風險管理制度，也完成「建立台灣WHOQOL-BREF心理計量分數結合存活常模」、「癌症存活分析與終生醫療成本（健保給付部分）估算」等研究。

特定物質健康風險監測

完成「微粒空氣污染物研究與修訂空氣品質標準可行性評估」，作為空氣品質標準修正參考，並完成「台灣地區環境風險地圖」建置規劃及多項污染物環境監測工作。包括彰化縣達土壤監測基準之107筆農地食用作物採樣及8大重金屬檢測；台北縣、雲林縣及台東縣3座大型焚化廠周界空氣、植物及土壤中戴奧辛含量調查；頭前溪等12條河川底泥及魚體多氯聯苯等6種物質調查。



7. Health Risks Working Group National Health Risk Assessment Guidelines

The Health Risks Working Group established health risk assessment management communication mechanisms, and established division of labor and work procedures for crisis management of unanticipated pollution incidents to reduce the impact of environmental pollutants on public health. In the interest of promoting national health risk assessment mechanisms and establishing a risk management system, the government has completed two major research projects: "Establishing a survival-weighted psychometric scoring method for WHO Quality of Life survey (WHOQOL-BREF) Taiwan version" and the "Cancer Survival Analysis and Lifetime Medical Treatment Cost Computation".

Health Risk Monitoring for Specific Pollutants

Related government departments have completed the "Feasibility Assessment on Researching Particulate Matter Air Pollutants and Revising Air Quality Standards" to serve as a reference for future revisions to air quality standards. The "Taiwan Area Environmental Risk Map" has also been drawn up and environmental monitoring has been carried out on various pollutants, including: food crop sampling and testing for eight major heavy metals as part of soil monitoring carried out on 107 parcels of farmland in Changhua County; surveys of dioxin concentrations in air, plants and soil near three municipal waste incinerators in Taipei County, Yunlin County and Taitung County; surveys on measurements of PCBs and five other toxic chemical substances found in benthic substrate and fish in twelve rivers including the Toucian River.

- ◀ 健康為國民福祉及國力的基礎—國小運動會
Health is the foundation of the peoples' well-being and the nation's vitality - Athletic meet at an elementary school .

八、永續教育工作分組

增進全民永續發展知識與認知

為提升全民永續發展認知，永續教育組完成「環境教育法」草案於93年2月送行政院審議，現正依審議議建修正中。另辦理社區環境改造計畫，遴選單一社區及多社區聯合提案，進行清淨家園及社區特色發展，將永續發展理念融入社區生活。

整合資源推動永續發展教育

為整合資源發展永續教育教材及教法，永續教育組完成永續教育教學模組，並將模組登錄於九年一貫課程網站，提供中小學永續教學參考，並與師範大學合辦「環境與永續發展教育教學計畫徵選與彙編」。另為提升永續發展師資，修正中小學教師職前教育課程要求，將環境教育列入。

另針對校園環境，推動「永續校園推廣計畫」，補助93所學校，鼓勵各級學校結合社區及運用當地資源進行校園改造，並舉辦「永續校園成果展」，提供各校改善校園自然及人文環境之參考。



◀ 綠色校園展一景
Green campus expo.

8. Sustainable Education Working Group

Advancing Public Awareness of Sustainable Development

To increase citizens' understanding of sustainable development, the Sustainable Education Working Group has completed the draft Environmental Education Act, which was submitted to the Executive Yuan for review in February 2004. The draft act is currently undergoing deliberation and further revision.

The Working Group has also held community environment reform plans to demonstrate home environment clean-up and develop .

Integrating Resources to Promote Sustainable Development Education

Working to integrate resources and develop sustainable education materials and teaching methods, the Working Group has completed a sustainable education teaching module, which is accessible on the Nine-Year Joint Curricular Plan website, as a reference for elementary and junior high-school sustainable education. The Working Group sponsored a project with the National Taiwan Normal University to select and compile environment and sustainable development education teaching plans.

As for the schoolyard environment, the Working Group has implemented the "Sustainable Campus Promotion Plan," which awarded subsidies to 93 schools in 2004, encouraging schools of all education levels to carry out campus reform plans .



▲ 永續發展須落實在地方施政-社區營造範例 彰化縣政府提供

Sustainable development concepts need to be put into practice at the local level -Community construction project (photo: Changhua County Government)

四、縣市永續發展推動現況

Chapter 4. Local Progress Toward Sustainable Development

一、永續發展：縣市一起動起來！！

永續願景從中央推動到地方

鑒於與永續發展相關問題及解決辦法，許多均源於地方活動，因此縣市政府於落實永續發展具決定性因素。為將永續發展工作推動至地方，永續願景組於「擴大公共建設方案」提供3,000萬元經費，補助縣市政府進行「地方永續發展策略計畫書」研擬工作，並對地方政府推動永續發展鄉關人員進行宣導及訓練。

1. Cities and Counties Taking Action Toward Sustainable Development

Vision for Sustainability Extends from Central Government to Localities

Since both problems and solutions related to sustainable development issues are rooted in local activities, city and county governments play a decisive role in implementing sustainable development. Working to promote sustainable development on the local level, the Sustainable Vision Working Group has worked through the "Public Construction Expansion Plan," to allocate NT\$30 million to city and county governments to assist with drafting "Local Sustainable Development Strategy Plans." The working group also provides guidance and

補助縣市研擬永續願景

該政策獲得縣市政府熱烈回應，共21個縣市提出申請。各縣市建議書經學者專家組成之顧問團隊篩選後，選出11個縣市，其中高高屏地區以整合團隊方式組成，因此共9個團隊獲得補助辦理地方永續發展策略。

為確保地方政府的永續發展策略能符合整體國家永續發展，同時確保計畫品質，經建會委託學術機構訂定「縣（市）地方永續發展策略計畫書」之內容項目，並擬訂縣市推動「地方永續發展策略」標準作業程序，作為推動依據。



▲ 地方首長對永續發展的支持，圖為屏東縣前縣長蘇嘉全主持永續發展座談會
Local leaders are supportive of sustainable development. Former County Chief Su Jiachyuan of Pingtung County presides over forum on sustainable development.

提昇地方能力及共識

為提昇縣市政府推動永續發展的能力及共識，經建會舉辦一系列的訓練及宣

training for local government sustainable development personnel.

Assisting Cities and Counties Draft Sustainable Visions

City and county governments welcomed the plan and 21 counties and cities submitted applications. Proposals submitted by local governments underwent review and selection by an advisory committee comprised of scholars and specialists. Eleven local governments were chosen, and as the Kaohsiung City-Kaohsiung County-Pingtung County region forms a collaborative partnership, a total of nine delegations received assistance to carry out sustainable development policies.

To ensure that local sustainable development strategies coordinate with the comprehensive national sustainable development plan and uphold the plan's integrity, the Council for Economic Planning and Development has commissioned academic institutions to formulate a standardized format for county/city "Sustainable Development Strategy Plan" contents and standard operating procedures for local governments in promoting local sustainable development strategies.

Building Local Capacity and Consensus

The Council for Economic Planning and Development sponsored a series of training and consultation workshops to build the capacity and consensus of local governments in promoting sustainable development. This included organizing the "Local Sustainable Development Summit," inviting chiefs and mayors from all 25 cities and counties to discuss sustainable development concepts, the

導活動。包括辦理「推動地方永續發展高峰會」，邀集25個縣市首長，針對永續發展理念、國家永續發展願景與策略，以及地方永續發展問題及其對策等進行討論。另針對縣市與永續發展相關主管及承辦人員，舉辦兩梯次研討會，並邀請美國舊金山灣區四位專家，就灣區推動落實永續發展的成功經驗，與我國相關人員分享交流。

推動成果逐步顯現

經由研訂制度、提供技術及補助經費，縣市政府推動永續發展速度明顯加快，11個受補助縣市之地方的永續發展願景於93年6月後逐步完成。該11縣市永續發展策略研擬工作，除可將縣市永續發展藍圖與中央連結外，其推動經驗亦可作為其他縣市參考。在推動方法逐漸改善及縣市永續願景內容逐步完成後，我國永續發展將可真正全面展開。

national sustainable development vision and strategy, and local sustainable development issues. Two forums were held for local competent authorities and coordinators responsible for sustainable development affairs, with specialists from the San Francisco Bay Area in the U.S. invited to share successful experiences in promoting sustainable development.

Efforts Beginning to Bear Results

With a system in place to provide technology and funding assistance, local governments have noticeably quickened their pace toward sustainable development. The eleven city and counties receiving funding assistance had all formulated visions for sustainable development by June 2004. The eleven local government's sustainable development strategies not only link local blueprints for sustainability with the central government's overall plan, but also constitute a valuable reference for other cities and counties. As promotional methods progress and local sustainable visions are gradually formulated, full-scale national sustainable development will begin to unfold.



◀ 地方政府大力推動環境教育
彰化縣政府提供

Local leaders are supportive of sustainable chyuan of Ping forum on sustainable development.

二、台北市—打造永續生態城

台北市於92年8月先行規劃永續發展推動籌備小組，並於同年年底正式訂頒「台北市永續發展委員會設置要點」，作為組織設置以及與夥伴關係推動依據，委員會亦於93年元月正式成立。

永續策略計畫研擬過程及內容

台北市永續發展委員會各工作分組分別自市府已執行、執行中或規劃中之具體作為出發，重新思考修正，歸納整併相關行動方案群，形成策略計畫雛型，再經過多次內部研討及公開說明會，納入各界意見，方確定「永續發展策略計畫」內容，並於

93年5月的永續發展委員會正式通過。

策略計畫將台北市永續發展願景總目標定為：環境資源循環共生、社會安全進步共享，及經濟科技智慧成長。依據總目標，衍生出七個願景意象：

- 永續台北：土地永續使用的都市發展；
- 生態台北：全回收多樣性的都市生態；

2. Taipei City Building a Sustainable Eco-City

Taipei City lead the way in August 2003 with the formation of a sustainable development preparation committee. By the end of the year Taipei officially released the "Guidelines for Organizing the Taipei City Sustainable Development Committee," to serve as the basis for setting up a sustainable development committee, working groups and partnerships between the different working groups. The committee was officially established in January 2004.

Planning Process and Contents of Taipei's Sustainable Development Strategy

the city's sustainable development committee has established working groups to correspond with programs already implemented by the city government, programs in process of implementation, and programs in the planning stage. These program plans were first reviewed, revised, and

integrated with related action plans to form a strategy plan prototype. Opinions were then compiled from a series of internal reviews and public hearings, and the content of the "Sustainable Development Strategy Plan" was confirmed. The NCSD officially endorsed the plan in May 2004.

The strategy plan states the overall principles for the Taipei City sustainable development vision as the following: cyclic symbiosis of environment and



▲ 台北市為全台的政治經濟文化中心
Taipei is the political, economic, and cultural hub of Taiwan.



▲ 建置專屬網站做為永續發展資訊交流的平台
A website serves as a platform for sustainable development information exchange in Taipei City.

- 潔淨台北：低能耗低污染的都市環境；
- 安全台北：安全健康尊嚴的都市生活；
- 文化台北：文化總體營造的都市社區；
- 知識台北：清潔知識主軸的都市生產；
- 網路台北：便捷可靠無礙的都市網路。

永續發展近期重點及未來願景

台北市永續發展委員會依工作輕重緩急，將「執行2010零掩埋全回收時程表，研發二次料市場」等27項工作列為關鍵項目，並針對各項行動方案，訂定具體成果及量化績效指標，以客觀評量推動成果。

在環境資源循環共生、社會安全進步共享與經濟科技智慧成長的共同願景下，台北市永續發展委員會期望與市民攜手，共同為打造世界級的首都努力。

resources, social security and progress shared by all, and wise growth of economy and technology. These general principles form the basis of the following seven visions for a sustainable Taipei:

- Sustainable Taipei: Urban development based on sustainable use of land
- Ecological Taipei: Urban ecology based on total recycling and diversity
- Clean Taipei: Urban environment based on low energy consumption and low pollution
- Safe Taipei: Urban lifestyle based on safety, health, and dignity
- Cultural Taipei: Urban community based on culture and integrated design
- Smart Taipei: Urban production based on sanitation and knowledge
- Network Taipei: Urban information /transportation network based on convenience, reliability and free access

Sustainable Development Short-term Focal Work and Long-term Vision

To facilitate effective actualization of the "Sustainable Development Strategy Plan," the Taipei City Sustainable Development Committee has prioritized 27 key tasks according to gravity of issues at hand, including implementation of the '2010 Zero Landfill, Total Recycling' timeline, and research and development of the renewable waste market. Concrete outcomes and quantifiable performance indicators are set for each action plan to ensure objective evaluation of results.

Guided by the principles of cyclic symbiosis between the environment and resources, social security and progress shared by all, and wise growth of economy and technology, the Taipei City Sustainable Development Committee hopes to lead the public to create a world-class capital.

三、金門縣——從戰地重鎮到多元風貌



▲ 完整保存西式洋樓風貌的得月樓
金門縣政府提供

Western style architecture preserved intact at Kinmen's "Moon Plucking Tower."

金門縣長久受地理位置及政治因素影響，直到87年戰地政務解除，帶動在地工商業及觀光發展，同時衍生出隨之而來的環境及生態保育問題。在當地環境容許力與承載量限制下，為促使經濟生產、社會生活與環境生態能平衡發展，提出以永續發展為前提的四大願景——生活的金門、生態的金門、觀光的金門及兩岸的金門。

發展體驗經濟 打造綠色城市

金門「地方永續發展策略推動計畫」執行目的，簡述如下：

1. 以永續環境、永續經濟與永續社會三大範疇，建構整體良性發展策略。
2. 依照金門島嶼的特色、限制與需求，建構永續願景共享交流機制，成立推動地方永續發展的學習型組織。

3. Kinmen County-From Strategic War Front to Diverse Scenic Beauty

Kinmen County has long been a subject of political and geographical influence. It wasn't until 1998 when the war zone policy was lifted that industry and tourism began to develop. These changes also brought environmental and ecological conservation issues into the spotlight. Keeping in mind the limited tolerance and load capacity of the local environment, four key visions for Kinmen's sustainable development were established—well-being, ecology, tourism, and cross-strait harmony—in hopes of spurring balanced development of economic production, community living, and environmental ecology.

Developing an Experience Economy and Building a Green City

The implementation goals of Kinmen's "Local Sustainable Development Strategy Plan" are briefly described below:

1. Build a comprehensive and positive development strategy based on the three pillars: sustainable environment, sustainable economy, and sustainable community.
2. Establish mechanisms for sharing and exchanging visions for sustainability; and encourage learn-as-you-go strategies for organizations promoting local sustainable development, closely based on Kinmen's islet features, limitations, and needs.
3. Plan for short-, intermediate-, and long-range sustainable development. Formulate an appropriate action strategy and set up an inspection and control system for execution of local sustainable development affairs.

3. 規劃永續發展長中短程議目標，建構合乎時宜的行動策略，以及執行的控制稽核系統。
4. 以永續發展議題討論與行動策略，建構公、私部門與非營利組織關係，形塑民眾參與地方事務的公共領域。
以永續發展推動策略規劃，讓金門成為地球村中獨具特色且不可取代的一份子，同時也在生態環境基礎上，以永續發展的思維與行動，開啟金廈兩岸和平共生的契機。

建構優質環境 邁向活力島嶼

展望未來，金門將發展生態保育及環境保護，極力推行基礎與公共建設，展現海島生態之美，維護生物多樣特性，發展成為生態的金門；以整體規劃方式，善用人文與自然資源，發展精緻生態旅遊，成為優質觀光的金門；建立金廈互利互容、和平交流的良性發展空間，成為兩岸共生共榮的金門；在改善健康醫療環境前題下，落實永續經營理念，以具體有效的行動策略，提昇民眾生活品質，成為生活的金門；「建構優質自然文化環境，邁向健康活力島嶼社會」，成為永續的金門。

金門的歷史建築 ▶
金門縣政府提供

Memorial Arch of Kinmen

4. Establish partnerships between public, private, and non-profit organizations through action strategies and discussion of sustainable development issues to create a public domain where citizens participate in local affairs.

Nurturing a Healthy Environment on an Island of Vitality

Kinmen County Chief Li Jhu-feng's vision for the future emphasizes: 1) Ecology, by focusing concerted effort on setting up basic public infrastructure that lends impetus to ecological conservation and environmental protection so as to highlight the natural beauty of the island and protect its biodiversity; 2) Tourism, through comprehensive planning, efficient use of human and natural resources, and development of refined ecotourism; 3) Cross-strait harmony, by establishing mutual benefits and mutual acceptance between Kinmen and Xiamen, and promoting a space for positive development, cooperation and prosperity on both sides of the strait; 4) Well-being, by improving the health care environment through implementation of sustainable management concepts, and through effective action strategies to improve the quality of life; and 5) Sustainability, by working toward an optimal natural and cultural environment and striving for a healthy vibrant island community.



四、彰化縣—營造「花鳥城鄉，生活大縣」



▲ 野生動物及溼地保育向來受到重視
彰化縣政府提供

Much emphasis has been put on wildlife and wetland conservation in recent years .

擴大公民社會 重視地方參與

彰化縣長翁金珠表示，重視地方互動及擴大公民社會參與，早於推動大肚溪口野鳥保育、福寶溼地棲地經營管理時，即採納保育團體意見，引進民間的專業，並與非營利組織合作，運用有限資源創造出令國際驚艷的保育成績。

縣府於91年4月召開「彰化縣地方發展會議」，並自當年7月積極執行「創造城鄉新風貌整體策略發展計畫」與「環境景觀總顧問計畫」，並於92年10月推動「新能源政策」，施政方向已朝永續發展邁進。

環境、產業及社會 全方位落實永續

為落實永續發展，縣府在各項施政上均落實環境、產業及社會三大層面來推動，也將「文化資產的活化與人文精神的培養」及「長期扶助培養文化創意產業」列為重點。該縣長期重視歷史建築及古蹟保存，一、二、三級古蹟高達25處，居中部之冠。

4. Changhua County Promoting Livelihood and Nature in Urban and Rural Area

Enhancing Civil Society through Local Participation

Changhua County Chief Wong Chin-chu explains that emphasizing local residents' interaction and expanding community participation is key to progress. The government has sought the advice of conservation organizations in the management of the Fubao Wetland Habitat Area and bird conservation initiatives at the Dadu River Mouth. Through the introduction of private specialists and cooperation with non-profit organizations, Changhua County has set internationally impressive conservation marks with only limited resources.

In April 2002, the county government convened the "Changhua County Local Development Conference," and since July of that year it has been actively implementing the "Strategic Development Plan to Rebuild the Image of Urban and Rural Areas" and the "General Advisory Plan for Environmental Landscaping." Also, in October 2004 the county government advanced the "New Energy Policy," clearly showing administrative strides in the direction of sustainable development.

Implementing Sustainability Across the Board in Environment, Industry, and Society

The county government's administrative efforts target three levels - environment, industry, and society - in working toward sustainable development. The current focus is placed on "Activating Cultural Assets and Cultivating Humanistic Spirit" and "Long-term Support to Cultivate Cultural Innovative Industry." The county has long emphasized the preservation of historical architecture and monuments,

由於彰化縣深厚的戲曲淵源及各社團傑出的表現，未來將以此作為吸引同好或喜愛地方文化類型者旅遊的特殊人文資源，如引進國際知名團隊表演、建立售票系統、研發周邊商品、注重包裝行銷，以結合觀光事業，推廣地方特色。

期許明日彰化 與自然和諧共生



▲ 美輪美奐入口意象——賴和文學地標
彰化縣政府提供

Picturesque entryway of monument to Laihe,
father of literature.

翁縣長指出，考量該縣水資源缺乏，未來推動永續發展將以「水」為出發點，以營造彰化成為「花鳥城鄉、生活大縣」為願景。既有執行計畫如「國家級花卉園區計畫」、「鹿港地方產業交流中心計畫」、「生態環境網路計畫」、「社區營造運動」等，將依環境、產業及社會三領域，分別訂定發展目標。

翁縣長於擔任立法委員時，即籌組「立法院永續發展促進會」，針對地方永續發展願景，她期許明日彰化是與自然共生，不為短暫利益犧牲後代子孫賴以生存的環境；產業是活力的、富足的，適合彰化發展的道路；社會是健康的、互助的，並培養縣民的尊容感，進而創造生活、生產及生態兼顧的家園。

and leads central Taiwan in the number of first, second and third class monuments, currently set at 25. In addition, local residents are encouraged to take the initiative in preserving their historical and cultural assets, thus fostering a greater sense of value for local culture.

Changhua County is home to a rich history of traditional opera with each troupe offering outstanding performances, providing a unique cultural resource that will attract enthusiasts and tourists interested in local culture. This opens up a market to invite famous international groups to perform, establish box office ticketing services, and conduct R&D of peripheral products with a focus on package marketing to integrate with tourism business for promotion of unique local character.

Changhua of Tomorrow to Emphasize Harmony with Nature

Considering the county's water shortage problems, County Chief Wong stated that water will be the starting point for the advancement of sustainable development in the future, helping to forge ahead the vision of promoting the livelihood and natural environment of urban and rural Changhua County.

Wong is looking out for the future of Changhua on three dimensions: environment, industry and society. As for the environment, Wong hopes that residents can learn to be in harmony with nature and abstain from short-term gains that could spoil the environment for future generations. Industry should bring vitality and prosperity and is an integral element in Changhua's development process. Society should emphasis well-being and interdependency, and should nurture the public's sense of dignity. All three dimensions should be integrated to create a homeland that places equal importance on livelihood, production and ecology.

五、宜蘭縣—邁向科技縣、大學城



▲ 兼具休閒及運動全國最大的公園——羅東運動公園 宜蘭縣政府提供
Luotong Sports Park, the nation's largest urban park, is equipped for both leisure and sports.

深耕在地人才 促進地方發展

宜蘭縣三面環山一面向海，環境敏感脆弱，因此空氣污染防治及山坡地保育十分重要。該縣由於長期交通不便，導致人口外流，為提高縣民所得及就業，該縣目前以「科技縣、大學城」為永續發展施政目標。

在推動永續發展上，宜蘭縣封閉的地形條件固然有所限制，但正因發展規模有限，資源則相對充足，且長期推環保不遺餘力，環境保育觀念已深植政府與民間。再者，目前透過在地人力資源網爭取高科技廠商與高品質大專院校進駐宜蘭，未來隨交通改善與多所大專院校陸續增設，將形成人力資源培養環境。現階段則需進一步銜接產業發展與勞動就業環境，方能使人才養成、企業生產、勞動力再生產三方面相互作用、彼此加強，形成地方發展上社會、制度、文化的優勢條件。

5. Yilan County Aiming to Attract Hi-Tech Industry and Colleges

Spurring Local Development and Cultivating Local Talent

Yilan County is nestled amidst mountains on three sides and faces the sea on one. It is a fragile environment making air pollution control and slope conservation extremely important. Inconvenient transportation over the years has impelled many residents to move to other locations where better employment opportunities with higher incomes exist. The county's current administrative goal toward sustainable development is to build up its science and technology industry base and establish a first-rate college town.

The county is currently utilizing a local human resources network to attract hi-tech industries and highly acclaimed junior colleges to establish institutions in Yilan. Improved transportation will facilitate the establishment of more junior colleges, and thus create a better environment for fostering human resources. At this stage, more work must be done on interlinking industries and the labor environment in order to promote harmonious interplay and mutual reinforcement among cultivation of talented professionals, greater industrial output, and a stronger labor force. This will also provide ideal conditions for local development of society, systems, and culture.

Cultivating a Society of Lifelong Learning and Rich Sense of History

In response to Taiwan's bid for WTO membership and the construction of the Taipei-Yilan Freeway, Yilan proposed an overall policy objective in early 1999 to create a county with strong livelihood and well-being. The long-range goal

終身學習社會・富歷史感公民

因應台灣加入WTO及北宜高速公路通車的影響，宜蘭於88年初即提出「營造生活大縣」的政策總體施政目標。在願景方面，藉地球村國際競合的視野、就「社會、文化、環境、經濟」等內容，以「人」及「空間」為雙軸提出營造目標，包括：

1. 建立終身學習的社會，強調緊跟新趨勢的能力。
2. 培養有歷史感的公民，除在地意識外，務求宜蘭人成為最具競爭力之地球公民。
3. 創造優質的生活空間，注入「永續性」、「生活圈公共設施配套」的內涵，使縣民皆能享有公共設施服務。
4. 推動良好產業環境，在全球化、加入WTO的大環境變遷條件下，積極提出區域分工脈絡的利基型之經濟發展願景與策略。

期許讓永續發展內化為中心思想

為激發宜蘭人關心周遭生活，該縣將許多永續發展經驗，深耕於國中小教育乃至於成人教育，再藉由各面向活動，將永續發展於每個角落扎根。屆時，地方永續發展觀念將不再需要推動，而是內化成社會發展的中心思想，並付諸於永續行動。



maintains the vision of international competition and cooperation in the global community through the guiding principles of "Community, Culture, Environment, Economy" based on a dual axis of "human welfare" and "living environment" to actualize the following objectives:

1. Establish a society that pursues lifelong learning and is able to keep abreast of the latest developments
2. Cultivate a citizenry with a rich understanding of history, awareness of the local environment, and strong ability to compete at the international level
3. Create high quality living space, closely integrating the premises of "sustainability" and "infrastructure for healthy living" to ensure that all residents can enjoy public facilities and services
4. Promote positive industrial environment, and actively propose economic development goals and strategies based on regional distribution of labor niches, with consideration toward the effect that Taiwan's entry to the WTO will have in terms of globalization and environmental change.

Future Prospect: Internalization of Sustainable Development Concepts

Yilan County has a breadth of experience in sustainable development and has been successful in arousing residents' concern for their environs. Sustainable development education begins at the elementary level and continues into adult education, including a variety of related activities that let sustainable development take root throughout all aspects of everyday life.

◀ 孤懸於海上的火山島嶼，宜蘭地標——龜山島
宜蘭縣政府提供

A volcanic mountain isle resting alone on the open sea, Turtle Island is Yilan's most prominent landmark.

六、高高屏合作—區域永續發展新模式

位於台灣南部的高雄市、高雄縣及屏東縣，由於在經濟、環保、水資源、交通等生活層面關係密切，因此已逐步發展成不可分割的共同生活圈，一般多以「高高屏」稱之。



▲ 高高屏三縣市自古以來即為不可分割的整體
The KKP region has always been an inseparable entity.

區域永續發展推動沿革

高高屏三縣市自88年起即設置首長會報制度，定期集會討論跨縣市議題，並針對空氣污染防治、水質改善、治安防範、SARS聯防、登革熱防治等，採取區域規劃的方式推動。此外，如都市計畫委員納入彼此代表，對整體區域規劃均有深遠影響。

在良好的區域合作基礎下，當行政院國家永續發展委員會於92年底開始補助

6. KKP Cooperation Sets Model for Regional Sustainable Development

Kaohsiung City, Kaohsiung County, and Pingtung County are grouped together in the southern part of Taiwan and are integrally connected in terms of economy, environmental protection, water resources and transportation. This region is termed "KKP" as the development of these areas is closely interrelated.

Course of Regional Sustainable Development

KKP has been using a "chief assembly system" since 1999, regularly holding high-level meetings to discuss inter-county and inter-city issues. Regional plans have been made for issues such as air pollution control, water quality improvement, public security, SARS prevention, and dengue fever control. The three county and city urban planning committees include representatives of each other's jurisdiction, which has a major influence on overall regional planning.

Already having a well-established framework of regional cooperation, the three governmental entities decided to adopt a regional approach in 2003 when the NCSD began assisting local governments implement the "Local Sustainable Development Strategy Plan." Following six months of research and analysis Chungshan University, which had been entrusted to work on the KKP region, presented the "KKP Sustainable Development Strategy Plan." The plan incorporated concepts of living circles and regional integration in assessing social, environmental, economic, and systematic aspects of the region. Contents included the three jurisdictions' collective and individual goals of promoting sustainable development, as well as their organizational structure, strategies, action plans and performance evaluation mechanisms.

地方政府進行「地方永續發展策略計畫書」研擬時，三縣市即決定以區域整合方式，共同進行地方永續發展策略計畫書研訂工作。

經過近半年研究，受委託的中山大學以高高屏為範圍，從社會、環境、經濟、制度等方向，以生活圈及區域整合的概念，提出「高高屏三縣市永續發展策略計畫」。內容包括三縣市推動永續發展共同及分別的發展願景、組織架構、策略規劃、行動計畫及績效評估機制等。

永續發展推動組織

在推動永續發展組織架構方面，由於目前已有定期的首長會報制度，運作良好，同時討論的議題也符合永續發展精神，因此未來仍將藉由首長會報，作為區域性永續發展的決策機制。

在首長會報之下，則由各縣市分別成立個別的永續發展委員會。此外，各縣市永續發展委員會及首長會報之間，亦規劃設立「高高屏地區永續發展委員會」，委員由政府機關、學者專家及社會團體各1/3組成，作為三縣市推動永續發展的主要諮詢機制。

目前高雄市、高雄縣及屏東縣的永續發展委員會設置要點已分別通過，於93年底前陸續完成委員會設置工作，未來將作為縣市推動永續發展的專責單位。



▲ 高雄市積極推動溼地保育 高雄市政府提供
Kaohsiung City actively promotes
wetland conservation

Organizational Structure Facilitates Sustainable Development

In terms of organizational structure for promoting sustainable development, the chief assembly system is currently functioning effectively, and holds meetings regularly. The notion and spirit of sustainable development are incorporated into all discussion topics during these meetings. Thus, chief assembly meetings will form the policy-making mechanism for regional sustainable development in the future.

Under the chief assembly system, each county and city has established its own separate sustainable development committees. In addition, a "KKP Regional Sustainable Development Committee" is currently in the planning, which will assist county and city sustainable development committee coordinate with the chief assembly. Members of this new regional committee will be composed of three equal parts-governmental agencies, scholars and professionals, and NGOs. The committee will serve as the primary advisory mechanism for the promotion of sustainable development throughout the KKP region.

Guidelines for installing local sustainable development committees in Kaohsiung City, Kaohsiung County, and Pingtung County have already been approved. Preliminary work to establish the committees was completed by the end of 2004 and these committees will serve the specific role of promoting sustainable development in the KKP region.

共同願景－好地方、好生活、共繁榮

設定發展願景方面，策略計畫參考三縣市相關文件，再透過說明會及座談會蒐集各界意見，彙整修正而成。其中共同願景部分，為強調其區域發展特性並使民眾易於瞭解，特別以高雄市(K)、高雄縣(K)、屏東縣(P)三縣市的英文縮寫，以KKP21代表共同願景，意即：好地方(K：Kind city)、好生活(K：Kind life)及共繁榮(P：Partnering for prosperity)。

高雄市則以KAO代表的「知識產業」、「魅力高雄」及「海洋高雄」作為願景，期以知識與科技(Knowledge and Technology)為未來發展核心，創造能吸引投資的城市魅力(Attraction)，同時以海洋高雄(Ocean)為重點，配合綠色環境再造，發展河海休閒旅遊及國際觀光產業發展，以達成建立海洋首都的理想。



▲ 高高屏永續願景架構圖

Framework of the KKP21 Sustainable.

A Shared Vision-Kind City, Kind Life, and Partnering for Prosperity

In developing a vision for development, the region's strategic plan referenced relevant documents from each city and county, and held briefings and forums to gather ideas from representatives of various interests. All views were compiled and used to further revise the plan. All parties agreed that development plans should highlight unique regional characteristics and should be easily understood by residents. The English acronym "KKP21" was coined to represent not only the names of each region-Kaohsiung City, Kaohsiung County, and Pingtung County-but also the shared vision of "Kind Cities," "Kind Life," and "Partnering for Prosperity." Kaohsiung City has adopted its own vision for development based on the first three letters of the city, "KAO," representing "Knowledge and technology," "Attraction," and "Ocean." "Knowledge and technology" forms the core of future development. Ingenuity can stimulate greater investment in the city and elevate its level of "Attraction." The region's coastal location along the "Ocean" is of elemental importance. Coordinated efforts devoted to recreating a greener environment, developing river and ocean recreation and tours, and expanding the international tourism industry are key factors in the goal to establish a maritime capital.

Kaohsiung County's vision for sustainable development uses the same acronym "KAO," to represent "Knowledge and technology," "Amenity," and "Optima." Again, "Knowledge and technology" are at the core, with "Amenity" found in the hope of creating a comfortable, clean, eco-friendly environment with a sound social welfare system. "Optima" alludes to the county's wealth of resources and the opportunity to behold, which includes agricultural upgrading and transformation, development of the environmental industry, revitalization of coastal areas, and conservation and utilization of natural resources.

高雄縣永續發展願景，同樣以知識科技產業(Knowledge and Technology)為核心，希望建構一個包括城鄉綠化、潔淨及社會福利健全的舒適環境(Amenity)，並強調該縣擁有的大量資源機會(Optima)，包括農業升級及轉型、綠色環保產業發展、活化海岸地區、自然資源保育及利用等。

屏東縣永續發展願景則以該縣英文簡寫PT作代表，其中P代表繁榮與進步(Prosperity and Progress)，在屏東的繁榮發展中求進步的生活品質，包括提振地區經濟繁榮、健全交通網路、改善公共設施等。T則代表科技與觀光(Technology & Tourism)，包括推動永續教育打造知識大縣、發展生物科技促進農業轉型、結合當地好山好水以及農業生技基礎，打造屏東觀光科技新樂園。

推動策略及行動方案

為實現高高屏「好地方、好生活、共繁榮」的共同願景，策略計畫針對區域發展五大重要議題，包括水環境、空氣污染總量管制、生態工業園區、永續交通運輸及綠色社區推廣，進一步研擬永續發展策略及行動方案，包括：

1. 進行水土生態整合之環境規劃；
2. 強化高屏流域之區域協調整合；
3. 推動實施污染量總量管制；
4. 研擬靈活有效經濟誘因管理方法；
5. 加強生態環境監測管理；
6. 強化公私協力管理夥伴關係；

Pingtung County's sustainable development goals use the English acronym "PT," also based on the county name. "P" represents "Prosperity and Progress." Pingtung's flourishing development has improved the overall standard of living, including elevating the region's economic affluence and improving transportation networks and public facilities. "T" represents "Technology and Tourism," and includes promoting sustainable development education to increase public awareness, developing biotechnology to spur transformation of agriculture, and integrating the existing natural resources with the strong foundations in agricultural biotechnology to transform Pingtung into a tourism and technology haven.



▲ 亞洲最長之非對稱型單橋塔斜張橋
高雄縣政府提供
Asia's longest drawbridge

Promotion Strategy and Action Plan

To actualize the KKP21 vision (Kind City, Kind Life, and Partnering for Prosperity), the strategy plan addresses five major issues for regional development: water environment, air pollution total quantity control, green industrial parks, sustainable transportation, and green communities. Details of the KKP21 sustainable development strategy and action plan are highlighted below:

1. Implement comprehensive environmental plan for regional soil, water and ecology
2. Strengthen regional coordination mechanisms of the Kaoping River

7. 加強人員培訓增加專業能力；
8. 推廣環境教育提升環境意識；
9. 擬訂區域永續發展行動計畫。



▲ 恆春船帆石 屏東縣政府提供
"Ship sail rock" in Hengchun, Pingtung.

推動心得及未來措施

高高屏三縣市表示，以往推動施政時，一直朝永續發展的目標邁進，只是未特別就永續發展角度加以聯結。此次於行政院永續會支持下，開始從事區域永續發展策略規劃，為三縣市永續發展重要里程。於高高屏三縣市永續發展委員會相繼成立後，將可加速落實永續發展推動工作。

三縣市官員不約而同指出，民眾參與為永續發展重要關鍵之一，鑒於計畫實施期程緊湊，一般民眾對永續發展仍感到陌生，計畫執行單位特別開設專屬網站，向民眾介紹高高屏永續發展內容。

從各國近年來都市發展模式來看，多數城市均採結合鄰近區域共同發展，形成新型態的城市區域（City-Region）。高高屏共同規劃區域永續發展策略計畫，體現此城市整合趨勢，而此區域整合模式，亦可做為其他區域整合範例。

3. Promote pollution total quantity control (TQC)
4. Draft versatile and effective management methods with economic incentives
5. Reinforce monitoring and management of the ecology and environment
6. Strengthen joint managerial partnerships between public and private sectors
7. Enhance personnel training to increase professional ability
8. Advance environmental education to promote environmental awareness
9. Establish regional sustainable development action plans

Conclusions and Future Prospects

The KKP governments explain that while past administrations had strove for actualization of sustainable development goals, they were not allied together for the specific purpose of sustainable development. Backed by support from the NCSD, regional sustainable development planning has been initiated and constitutes an important milestone in the sustainability of the KKP region. Further consolidation of the three sustainable development committees will undoubtedly expedite implementation of sustainable development work.

Authorities of the three local governments believe that citizen participation is among the most vital aspects of sustainable development. Because of the tight implementation schedule most residents remain unfamiliar with the concept of sustainable development. A website has been specially designed to explain the contents of the KKP21 plan.

Evaluation of each country's urban development models up until this year shows that the majority of cities have chosen to form partnerships with surrounding areas to pursue mutual development, creating a new "City-Region" model. The partnership formed by Kaohsiung County, Kaohsiung City and Pingtung County embodies this trend by integrating cities and working together to establish regional sustainable development strategies and plans, realizing that the success of this city-region plan can be used as a model for others.



▲ 民眾參與是永續發展的基礎-環保義工日活動

Citizen participation is the foundation of sustainable development - Environmental Volunteer Day activity.

五、民間永續發展標竿巡禮

Chapter 5. Sustainable Development in Non-Governmental Sectors

一、永續發展績優獎簡介 績優獎推動緣起

為宣導永續發展理念，永續會自93年度開始辦理「國家永續發展績優獎」，表揚績優的社區、學校、企業、社團及行動計畫執行機關，以鼓勵全民共同參與，落實永續發展在地化與生活化，進而實現永續台灣願景。

廣邀參選

各類獎項參選資格及評選標準由相關工作分組研擬，再經永續會委員討論通過後，作為評選依據。全國共計21個社區、17所學校、5家企業、18個社團以及34項行動計畫執行機關參選。

1. Sustainable Development Awards

Origins

To spread the concept of sustainable development, in 2004 the NCSD began holding the annual National Sustainable Development Outstanding Performance Awards, which commends outstanding communities, schools, enterprises, organizations, and sustainable development projects entrusted to public agencies. The idea is to motivate the entire nation to participate in sustainable development and put the concepts into practice on both local and personal levels, ultimately leading Taiwan closer to the vision sustainability.

Broad Participation from All Sectors

Qualifications and selection criteria for the awards were formulated by the NCSD Working Groups and further discussed

第五章 國家永續發展推動現況

Chapter 5 : Sustainable Development in Non-Governmental Sectors

參選單位經永續會相關分組委員進行書面初選審查，遴選出6個社區、6所學校、4家企業、7個社團及12個行政單位進入複選。

and endorsed by the Council members. The initial list of participants included 21 communities, 17 schools, 5 enterprises, 18 civic organizations and 34 sustainable development projectsexecuted by public agencies.

表1 第一屆國家永續發展績優獎得獎單位

Table 1 Recipients of the First National Sustainable Development Awards

類別 □ Category	得獎單位 Organization	網站網址 Website
社區永續發展績優獎 Sustainable Community	台南市金華社區 Jinhwa Community, Tainan City	http://jinhwa.etan.com.tw
	宜蘭縣冬山鄉大進社區發展協會 □ Dajin Community Development Association, Dongshan Township, Yilan County	
	彰化縣埔鹽鄉永樂社區發展協會 □□ Yeongleh Community Development Association, Puyan Township, Changhua County	http://yeongleh.tacocity.com.tw
永續教育績優獎 Sustainable School	屏東縣彭厝國民小學 Pengcuo Primary School, Pingtung County	http://www.pcps.ptc.edu.tw/
	花蓮縣壽豐國民小學 Shoufeng Primary School, Hualien County	http://www.sfops.hlc.edu.tw/
	南投縣社寮國民小學 Sheliao Primary School, Nantou County	http://163.22.121.1/
	台北縣深坑國民小學 Shenkeng Elementary School, Taipei County	http://163.20.81.134/
企業永續發展績優獎 Sustainable Enterprise	正隆股份有限公司 Cheng Loong Corp.	http://www.clc.com.tw
	福特六和汽車股份有限公司 Ford Liu Ho Motor Company	http://www.ford.com.tw
	富積電子股份有限公司 Fuchi Electronics Co., Ltd.	www.fdk-fuchi.com.tw
社團永續發展績優獎 Sustainable Community	荒野保護協會 Society of Wilderness	www.sow.org.tw
	社團法人台北市野鳥學會 Wild Bird Society of Taipei	http://www.wbst.org.tw
	財團法人台灣營建研究院 Taiwan Construction Research Institute	www.tcri.org.tw
	社團法人台灣環境資訊協會 Taiwan Environmental Information Association	http://e-info.org.tw/
行動計畫執行績優獎 Execution of Sustainable Development Action Plan	中華民國健行登山會 Chinese Taipei Mountaineering Association	http://www.alpineclub.org.tw/
	行政院公共工程委員會－92年度生態工法博覽會 □□ 2003 Environmental Engineering Expo, Public Construction Commission, Executive Yuan	http://eem.pcc.gov.tw/docs/index.htm
	經濟部能源委員會－太陽能熱水系統推廣獎勵 □□ Solar Water Heater Promotion and Subsidy Plan, Bureau of Energy, MOEA	www.moeaec.gov.tw
	行政院衛生署國民健康局－研擬健康風險評估準則 □□ Study on Health Risk Assessment Standards, Bureau of Public Health, DOH	http://www.bhp.doh.gov.tw/chinese3_1/h-topic/topic02.asp?tc_no=200371132356SPHVPI
	環境保護署管制考核及糾紛處理處－環保標章 □ Green Mark Ecolabelling System, Dept. of Supervision Evaluation and Dispute Resolution, EPA	http://www.greenmark.org.tw/main4.asp
	教育部環保小組－永續發展教育定義與內涵之研究 "A Framework of Education for Sustainability," Division of Environmental Protection Education, Ministry of Education, Executive Yuan	http://140.111.34.69/EDU_WEB/Web/ENVIRONMENTAL/index.htm

實地訪查選出優勝

為確實瞭解實際狀況，由永續會委員、諮詢委員及分組委員共同組成各類獎複選委員會，實地至各單位進行訪察，深入瞭解各單位推動成效，最後再召開決選會議，評定出20個具實績貢獻之獲獎單位，包括3個社區、4所學校、3家企業、5個社團以及5個行政單位（詳表1）。

頒獎表揚及推廣

頒獎典禮於年3月8日於行政院大禮堂舉行，身兼永續會主任委員的游錫堃院長親自蒞臨致詞頒獎。游院長除再次強調永續發展的重要及政府推動的決心外，同時贊許得獎單位戮力推動永續發展工作，並逐一頒發得獎單位獎牌，肯定各單位的成就及貢獻。得獎單位代表亦與出席人員分享推動經驗，得獎單位得獎事蹟、願景及推動經驗等，另由永續會製成專輯，提供各界參考。



▲ 游院長頒獎永續發展績優獎獲獎企業
Premier Yu awards NGOs for outstanding merits towards sustainable development.

Onsite Investigations Confirm Winners

To better understand the actual situation, NCSD members, Advisory Council members and Working Group members were organized into selection committees for each award category and arranged After an initial audit on paper of the list of participants, Working Group members narrowed the list down to six communities, six schools, four enterprises, seven civic organizations and twelve public agency projects for the second review stage.

After in-depth assessment of each candidate's project outcomes, a final meeting was held to select 20 winners that have made a substantial contribution in promoting sustainable development. The final selection included three communities, four schools, three enterprises, five civic organizations, and five public agency projects (Table1).

Commending Action Toward Sustainability

The awarding ceremony took place at the Executive Yuan auditorium on March 8. NCSD Chairman and Executive Yuan Premier Yu Hsi-kun gave the opening remarks, emphasizing the importance of sustainable development and the government's determination to make it happen. Yu showed his appreciation to the winning organizations for joining the government's efforts to work toward sustainable development. The Premier personally handed over the awards to each organization, affirming their accomplishments and contributions. Representatives from each organization shared their experiences and vision for sustainability, which were subsequently compiled into reports by the NCSD and are provided for the world to refer to and learn from.

二、台南市金華社區—環境改造模範社區

獲頒第一屆國家永續發展績優獎（社區永續發展獎）的台南市金華社區，強調以生活環境改造為主軸，透過社區全體人員的參與，推動全方位的社區總體營造；並進一步將「金華經驗」向外推廣，成為其他社區觀摩學習的對象，徹底實踐2008年國家「新故鄉社區營造計劃」揭槩的「經營大台灣，要從小社區做起」的理念。



▲ 金華社區全方位生活環境改造始於金華公園。
金華社區提供

Jinhwa Community's holistic environmental reform started with Jinhwa Park.

動員社區改造環境

「金華經驗」成功的環境改造工程始於金華公園的催生。現在的金華公園是金華人平日最佳的休憩場所，鄰近社區的居民也喜愛來走動，就連喜鵲都在此築巢定居。但十多年前這裡卻是一處低窪的垃圾廢棄場，隨著社區開發，部份

2. Jinhwa Community Provides Model for Environmental Reform

One of the first communities to receive the Community Sustainable Development Outstanding Performance Award was Jinhwa Community of Tainan City for its efforts in reforming the neighborhood environment and mobilizing the entire community to participate in multidimensional transformation of the community. The community also proactively shared the "Jinhwa Experience" with other communities, acting as a model for others to follow and learn from. The dedicated efforts of Jinhwa Community embody the 2008 National Hometown Community Renewal Plan's concept that "leading the nation starts at the community level."

Mobilizing Residents to Reform Community Environment

Jinhwa Community's success in reforming the neighborhood environment originated with Jinhwa Park. The park is now a favorite place for nearby residents to relax and exercise - magpies have also recently become fond of the park and have taken up residence here. It is hard to imagine that just ten years ago this area was a trench where people dumped garbage. As the community developed, some residents proposed that a kindergarten could be built on the site. However, as environmental awareness increased among the residents, more and more residents favored building a park instead. By mobilizing the community's manpower and financial resources, and integrating social resources, the people of Jinhwa created an outstanding example of investing local capital into community reform projects.

人士希望於該地興建幼稚園，但社區環境品質意識提昇，金華里民打出「要公園不要幼稚園」的口號，動員社區人力、財力並結合社會資源，開創「地方出錢、建設地方」的最佳典範。

由於居民同心協力才將昔日的垃圾場轉化為公園，佔地1,600坪的金華公園亦成為金華社區活力的發源地。公園內濃密的樹蔭為夏日帶來一絲沁涼，涼亭、鞦韆、溜滑梯、溜冰場與籃球場則滿足居民的生活需求。社區居民亦自告奮勇負起公園維護責任，除配合認養制度，由社區居民認捐栽植每一株樹，各項設備亦有使用團隊分工維護，環保義工隊則負責整潔維護，完全展現出社區凝聚力。

民國84年起，金華社區開始推動「基礎環境景觀」改造。以「企業經營」理念，在多數地主配合前提下，建立「空地代管」制度，徹底整頓社區所有髒亂公、私有大小空地30餘處，營造出健康、安全、舒適的生活環境。



▲ 善用社區空地，設計成苗圃供居民栽植。
金華社區提供

Vacant space in the community is put to optimal use as garden beds for residents.

Through concerted effort, Jinhwa residents transformed the former garbage dump into a 5,289m² park. Jinhwa Park has since become the center around which many other activities have originated. The park boasts a luxuriant canopy that provides refreshing shade during the summer, as well as a pavilion, swings, a slide, a skating rink and basketball court, meeting the various recreation needs of the community. It also set a shining model of community solidarity that community members volunteer for maintenance duties, all of the trees and bushes were donated by residents, park facility upkeep is divided among different community user groups and environmental sanitation and cleanup is carried out by volunteers.

Since 1995, Jinhwa Community has been carrying out a comprehensive environmental landscape reform project. Using business management skills, the community first obtained consent from a majority of landowners and established a "vacant lot stewardship system" to remedy the unkempt appearance of the neighborhood. Although the untended open space was not a major threat to public security, its untidiness certainly had a negative impact on the environment. Since then, Jinhwa Community has thoroughly cleaned up over thirty public and private areas in the neighborhood and has drawn out over 700 parking spaces for cars. A provisional nursery was established to raise the plants needed for community greening projects and "corner landscaping" design methods were adopted to create unique gardens everywhere - something hard to come by in most urban communities. Smart design not only increased green space, but also solved parking and neighborhood

鄉土環境教育中心

為建立居民認同清淨家園與生活環境改造理念，並將愛護鄉土情感轉化為環保行動，金華社區成立「鄉土環境教育中心」，作為環境教育及鄉土文化服務據點，並兼作環保圖書館及環保文化活動場所。

環境教育中心並設有小型視聽放映室、環保圖書室、簡易環保教室及各項學習教育室，結合社區全面性推廣學習型社區的教育活動。此外，組織環保志工及義工推動各項積極性環保工作，並安排戶外教學活動，提昇鄉土環境教育中心的功能及形象。另透過定期舉辦環



▲ 成立鄉土環境教育中心，作為環境教育及鄉土文化服務據點。 金華社區提供

The Rural Community Environmental Education Center serves as a hub for environmental education and rural cultural activities.

保藝文、環保文化、清淨家園與生活環境總體改造活動，以座談、參觀、認養、成果展現，增加居民的參與感及成就感，凝聚民眾向心力，同時透過行動號召進行田野調查，以建立鄉土情感，達到環保社區化的目標，藉以建立永續發展機制。

appearance problems, to create a healthy, safe, and attractive living environment.

Rural Community Environmental Education Center

The community first had to establish consensus on the mutual benefits of cleaning up the home environment and reforming the neighborhood environment, and gradually transform residents' love for the community into environmental action. The Jinhwa Community thus established the "Rural Community Environmental Education Center" to serve as a hub for environmental education and rural cultural activities. The center hosts a library on environmental literature and serves as a venue for environmental and cultural activities.

The center is equipped with an AV media room, an environmental library, a simple environmental classroom and other classrooms, all of which are used in carrying out community educational activities. The facility is a hub for organizing environmental volunteers, planning environmental actions, and arranging outdoor educational activities, all of which increase the function and image of the center. The center strives to increase the local feeling of participation and accomplishment through regularly scheduled environmental and cultural workshops, activities to clean up and restore household and neighborhood environs through forums, tours, adoption projects, and displays of project outcomes. Through these activities, the center increases the community's ability to work together. Residents are also encouraged to carry out local field research, which increases the sense of belonging and affection for their neighborhood. This strategy has indeed



▲ 金華社區舉辦各類活動，鼓勵居民共同參與社區事務 金華社區提供
Jinhwa Community holds various activities to encourage residents' participation in community affairs.

社區認養 散播金華經驗

難能可貴的是，金華社區不滿足於自掃門前雪，總是希望能有更多社區可以加入永續發展行列。除熱心歡迎前來聽取金華經驗的訪客外，更在921震災後，主動發揮大愛情懷及相互扶持的情操，響應政府參與災區社區總體營造服務。以「社區認養社區」方式，成立服務隊，將社區營造理念與實務經驗傳承，協助中寮鄉龍安社區進行社區總體營造，建立村民自發性的家園認同重建與環境改造理念，付出感情與行動，協力完成重建工作。

金華社區為持續推行改造工作，以社區改造成功經驗作為傳承觀摩課題，以「母雞帶小雞」方式協助鄰近社區推動環境改造，建立交流、互動學習成長管道，將社區環境改造理念及願景規劃，於其他社區深耕推動，真正落實修身、齊家、治國、平天下。

achieved the goals of getting the community to engage in environmental action and work toward sustainable development.

Community Adoption-Sharing the Jinhwa Experience

Perhaps most commendable is that Jinhwa Community is not satisfied with just improving their own neighborhood, but also hopes that more communities team up to promote sustainable development. Ardently welcoming visitors to learn from the Jinhwa Experience, the community brought into play of its concern for society and ideals of mutual support by aiding disaster areas with reconstruction efforts after the earthquake of September 21, 1998. Through a "Communities Adopting Communities" initiative, Jinhwa established a service team to assist Longan Community of Jhongliao Township in carrying out community reconstruction, and to share their own experience in community building. The team helping villagers reach consensus on rebuilding and environmental reform, and put their hearts and hands into helping complete reconstruction work.

Working to spread reforms beyond their own neighborhood, Jinhwa Community draws on their own successful experience to advise adjacent communities on strategies for environmental reform, and establishes interactive learning exchanges with other communities. Jinhwa hopes to work together with other communities in spreading the concept and vision of community environmental reform to individuals, homes, the nation and all over the world.

三、彭厝國小—永續環境教育的搖籃



▲ 民國29年建校的彭厝國小，為國內環境教育種子學校 彭厝國小提供

Established in 1940, Pengcuo Primary School is one of the nation's seed schools for environmental education.

位於南台灣屏東縣的彭厝國小，建校64年期間，默默以實際行動貫徹這句千古不變的道理。在歷任校長與教師的堅持下，彭厝國小從早期的綠美化校園發展到現在的永續環境教育，成果受到國家肯定，榮獲第一屆國家永續發展績優獎永續教育獎。

打造生態循環的永續校園

在進行永續校園改造計畫前，彭厝國小首先充分了解學校所在地的環境特

3. Pengcuo Primary School-Cradle of Sustainable Environmental Education

Established sixty-four years ago, Pengcuo Primary School in southern Taiwan's Pingtung County embodies the meaning of this idiom through silent but sure action. Starting out with schoolyard greening and beautification projects many years ago, the principals and teachers of Pengcuo Primary School have devoted themselves to developing a solid foundation for sustainable environmental education. The school's achievements are nationally affirmed through the granting of the Sustainable Education Outstanding Performance Award in the first year of the National Sustainable Development Outstanding Performance Awards.

Building Complete Ecological Cycles on Campus

Before engaging in their sustainable campus reform project, the school faculty first took up the task of learning as much as possible about the unique features of the local environment and culture. They then thought of ways to harmonize these features with the school's existing resources and spatial conditions. The school sought professional and technical assistance to systematically integrate campus resources and resolve inappropriate use of space. Already well aware of how to bring the school's existing strong points into full play, the faculty sought further assistance from outside sources and was thus able to bring a local-adapted sustainable campus plan into fruition.

An important part of Pengcuo Primary School's sustainable campus plan was a reform project called the "Complete Ecological Cycle Plan," which emphasized

色、文化背景，再配合校內現有空間資源與條件，借重專業與科技力量，有系統整合校園資源或是改善不合時宜的空間使用。因為懂得發揮本身既有優勢，再向外尋求協助，該校推動永續校園的計畫才能走出獨有特色；沒有好高騖遠的空想，才能確切落實每項規劃。

彭厝國小提出永續校園局部改造計畫為「生態循環整建計畫」，內容包括「水的循環」與「物質循環」兩大部分，且兩者間並非獨立而是相互結合、相互應用，構成一完整的生態循環教學系統，以合乎資源節省及資源循環的基本概念，規劃構築一個水資源有效利用的校園，再配合校樹大葉桃花心木落英繽紛的特色，促使物質循環再利用。

生態教育的永續傳承與推廣

打造一個生態循環的永續校園，最終目的當然是希望提供教師生動、隨手可得的环境教材。因為唯有透過校園戶外教學及學習步道教學的實施，才能讓學童對生活周遭的事務有更深一層的真實體驗，同時激發他們學習生態的興趣。

因此，搭配學校生態環境的營造，彭厝國小設計出一套獨特的環境教育，充分利用校園既有資源，讓學童從生活中自然而然接受環境教育。目前已實施的環境教育活動設計包括：落英繽紛教學、校園植物闖關護照、校園巡禮、校

the cycling processes of water and matter and the mutual interaction of these two resources in a complete ecological cycle. Keeping to the fundamental concepts of resource conservation and resource cycling, the school designed and built their campus to use water resources efficiently and keep the profusion of fallen mahogany leaves in a continual cycling of matter.

Sowing the Seeds for Sustainable Environmental Education

The ultimate objective behind the creation of a sustainable campus, complete with full ecological cycles, is to provide teachers with living, easily accessible environmental education teaching materials. Field education and educational nature walks on campus are perhaps the only ways for school students to cultivate a deeper experience with the life and processes in the world around them. It is hoped that such experiences will kindle their excitement to learn more about ecology.



▲ 將水泥鋪面改為透水鋪面，改善視覺效果，並增進水回歸大地的速度 彭厝國小提供

Concrete pathways were turned into water permeable surfaces, not only improving the appearance but also increasing the rate of water absorbed by the ground.

園植物猜一猜、生態闖關、環境教育融入各科教學、自由研究、彭厝生態新聞、社區巡禮。

教材設計亦是推動環境教育的重要關鍵，幾年下來彭厝國小的教師設計許多學習單，也搭配校園環境設計教學活動。為減輕教師們蒐集資料及教學設計的負擔，環境教育小組更投入心血進行教材編撰與設計，提供全校教師教導環境教育的最佳參考，也讓學校在推展本位課程時更加順利，並將環境教育一代一代傳承下去。



- ▲ 增加沈沙池收集溢流水，並設汲水器及古井作為鄉土教學教材 彭厝國小提供
A bucket and well installed over a settling basin that collects runoff water is a useful teaching prop for rural education.

結合社區 構築完整教育網絡

教育不只是學校一方的單打獨鬥，如果無法結合家庭社區共同努力，就會出現缺口。因此，彭厝國小不斷思考如何將社區與學校作最好的結合，共同為校園永續努力。

Pengcuo Primary School has designed a distinctive set of environmental education curricula to complement the creation of the school's ecological environment. Courses make use of the school's existing resources so that environmental education automatically becomes a part of students' everyday lives. Some of the environmental education curricula designed so far include Fallen Leaves and Me, Campus Flora Passports, Sightseeing in the Schoolyard, Campus Flora Guess Who, Doors to Ecology, Pengcuo EcoNews, self-guided research, eco-tours within the community, as well as environmental topics embedded within other disciplines.

Good teaching material is an essential key to promoting environmental education, and over the years the teachers at Pengcuo have designed numerous study materials and educational activities to suit the campus environment. To lighten the load on teachers with regards to gathering information and designing curriculum, a special Environmental Education Team was formed and set to the task of compiling and designing specialized teaching material. The team provides well-thought-out environmental education teaching material to each teacher for reference, allowing the school to smoothly carry on with the standard curricula.

Integrating Community to Create a Comprehensive Education Network

Education is not the responsibility of schools alone. Thus Pengcuo is continually thinking of how to best bring the school and the community together in their mission to create a sustainable campus. Pengcuo Primary School and the community have built a connected education network through sharing and exchanging manpower and environmental resources. As for manpower resources,



▲ 以體驗教學建立學生珍惜資源的觀念
彭厝國小提供

Experiential learning helps students learn to appreciate natural resources.

彭厝國小與社區間透過人力與環境資源的共享與交流，將教育網絡連結一氣呵成。人力資源方面，家長會成立義工隊參與交通、環保、圖書等工作，並支援教學，擔任闖關關主、鄉土教學、讀經等。家長會委員更全力支持參與校務，並提供最佳人力與財力資源。

環境資源方面，則善用社區環境實施教學，並將校園開放社區民眾使用，成為運動休閒的去處。因此，當校園環境生態化，即能間接影響社區民眾正確的環境理念，例如將校園栽植的樹苗及製作的堆肥提供給社區民眾，讓民眾體驗大自然的美妙之處，建立善用資源的觀念，自然而然將環境教育推廣至社區。

彭厝國小了解教育的無遠弗屆，不斷運用及創造資源，不僅建立起永續的校園，培養學童永續觀念，懂得珍惜資源愛護自然，更將社區拉近此生態教育網，藉由教育家長帶動家庭環境保育工作，真正落實環境教育，期望為大地的永續發展盡一份心力。

the parents' association has formed a team of volunteers to handle various tasks such as transportation, environmental protection and library work. The parents also assist in teaching, holding activities, organizing local fieldtrips and storytelling. Members of the parents' association also show their all-out support by participating in school affairs and providing optimal manpower and financial resources.

As for mutual sharing of environmental resources, education activities make the best use of the community environment and the school opens up the schoolyard for community residents to use for sports and recreation. The school's compost and tree saplings are provided to community residents, letting them experience the wonders of nature along with the schoolchildren. An indirect benefit of this is that the campus ecology has an influence on community members' understanding of the environment. Citizens pick up on the benefits of fully utilizing resources, and environmental awareness ripples throughout the community spontaneously.

Faculty at Pengcuo Primary School fully realizes the influential power of education. The school continually utilizes and creates resources to help accomplish its goals of establishing a sustainable campus, propagating the concept of sustainability, and teaching students to cherish resources and protect nature. Perhaps more importantly is that the community is drawn into an environmental education network. By educating and working with parents the school is able to lend impetus to environmental conservation initiatives in the home. Such authentic environmental education motivates society to add momentum to the sustainable development of our only planet.

四、正隆公司—國內紙業的環保標竿

成立於48年的正隆股份有限公司，是國內第一大工業用紙及紙器廠。歷經近半個世紀，恆以「關心生活、善用資源、貢獻社會」為企業經營理念，以一貫的認真滿足客戶在品質、成本及生態效益的需求。

關心生活 善用資源 貢獻社會

目前正隆使用廢紙用料比已達原料總量92%，每年廢紙回收量也逾百萬公噸，等於拯救了2,000萬棵樹木，更減少150公噸CO2排放量。

在推動環保的具體成績方面，正隆的努力包括：率先投資汽電共生設備提高能源效率，開創紙業先例；投資興建焚化爐處理廢紙回收夾雜的廢料，並回收蒸氣當製程能源使用；完成國內第一座風力發電示範系統，為亞洲首套百萬瓦級的大型風力發電示範系統；紙器廠將製程廢水回收再利用，完成製程用水零排放目標。

正隆產品並取得16項環保標章，為造紙業之表率；重視綠色包裝設計，獲得26項世界包裝組織(WPO)包裝設計「世界之星」獎；建置環境會計制度，成為環保署推行環境會計制度的示範工廠；積極參與政府提升產業綠色競爭力相關活動。

4. Cheng Loong Sets Environmental Standard for Paper Industry

Established 48 years ago, Cheng Loong Corporation, Ltd., was the first large-scale domestic manufacturer of industrial use paper and other paper products. After nearly half a century, Cheng Loong adheres to the business management concept: "Respect life, use resources wisely, contribute to society," and consistently satisfies customer demands on quality, cost, and ecological efficiency.

"Respect Life, Use Resources Wisely, Contribute to Society"

CLC takes a pioneering role in green production and environmental responsibility. CLC has reached a 92% ratio of used paper in its production process and annually recycles over one million tones of paper, equivalent to saving 20 million trees and abating 150 tones of CO2 emissions per year.

As for concrete achievements in the area of environmental protection, CLC has worked hard to:

Lead investments in steam power co-generation equipment to increase energy efficiency, the first such example in the paper industry;

Invest in construction of incinerators to dispose of waste material that is mixed in with waste paper for recycling, and recover the steam to turn it into an energy source for manufacture;

Complete the nation's first wind power demonstration system, the first megawatt-grade large-scale wind power demonstration site in Asia; and

Reuse wastewater left over from paper product manufacture processes, fulfilling its objective of zero effluent discharge.

CLC takes the lead in the paper industry in terms of products bearing the Green Mark, now with products under 16 product categories of this national eco-labeling system. The company also

落實經營方針 強化環安政策

正隆經營理念有4大方針：精實本土運作，強化海外發展；加強企業電子化，提升競爭力；鼓勵終身學習，積極創建價值；以及推動友善環境，致力永續發展。根據上述方針，正隆制定環安工作要點，包括：

1. 精實環安衛管理系統，強化環安績效，以提升企業國際認同度：包括與國際同步接軌、發行企業環境報告書等。
2. 強化電子化資訊，充實環安衛新知及綠色採購資訊：配合即將導入的企業資源規劃系統(ERP)連結整合環境會計；透過網路學習，充實環安資訊，做好知識管理。
3. 自我啟發學習，肯定職能價值：包含充實線上環安資訊，鼓勵員工上網學習、積極參與環安、永續相關研討，及主動展現成果等。



▲ 總統與企業環保獎代表正隆企業副董合影
正隆提供
President Chen Shui-bian and Enterprise
Environmental Protection Award Repre-
sentative Cheng Loong Corp. Vice-President
Cheng Shu-yun.

recognizes the importance of green packaging design and has earned 26 World Star Awards from the World Packaging Organization. CLC has established a green accounting system, and for this has been used as a demonstration company in the EPA's program to promote green accounting. The company also actively participates in government activities to enhance green competitiveness among industry.

Management Principles Reinforce Environmental Safety Policy

CLC's management concept adopts four guiding principles: Refine local operations and strengthen overseas development; Enhance enterprise digitization to raise competitiveness; Encourage lifelong learning, and proactively increase value; and Promote a friendly environment while pursuing sustainable development.

Based on the above four principles, CLC has set down the following environmental safety working guidelines:

1. Refine environmental health and safety management system and enhance effectiveness of environmental safety to increase international acceptance of enterprise. This includes keeping pace with international trends and issuing industry environmental reports.
2. Strengthen e-information including the most recent environmental health and safety news and green procurement information. This shall coordinate with the new enterprise resources planning system (ERP) and integrate with environmental accounting. Increase understanding of environmental health and safety information via e-learning and enhance knowledge management. Reinforce green partnerships and promote green procurement.
3. Support self-improvement studies and affirm job value by providing ample online environmental safety information

4. 量化友善環境績效，衡量永續機能與發展：包括對環安績效及成果數字化，積極爭取企業標竿競賽，以提升自主創造能力。

正隆持續強化電子資訊及電子化管理為確保同仁健康與安全，提昇工作環境品質，正隆在落實環安政策上，訂有「全員參與、安全至上、災害歸零」的目標。尊重生命，妥善照顧同仁，創造安全、衛生、健康的工作環境，更是經營者的責任。

正隆除於公司及工廠皆設置安保部門及工安專責人員，制訂安衛規章，推動零災害制度外，並於全企業推動自護制度，提昇安全衛生設備及安全績效。經各廠均通過自護單位三年驗證後，全公司獲得產險保費降低8%優惠的回饋，同時通過OHSAS 18001驗證，且得到全國性推動勞工安全衛生五星獎及安衛楷模等實質肯定。

致力友善環境 激勵業界跟進

正隆歷年在環保、安全衛生獲得之獎項與肯定不勝枚舉。在環境與資源上，創下連續5年獲頒企業環保獎、連續6年獲頒全國工業減廢績優工廠、個人及團體的佳績，並多次獲選節約能源、污染防治、節約用水、工業污染防治設備操作維護績優工廠，以及獲頒事業廢棄物清理及資源減量回收再利用績效優良獎。

and encouraging employees to take online courses, actively participate in environmental safety, research sustainability topics, and proactively display their work achievements.

4. Quantify the benefits of a friendly environment, and measure sustainability and sustainable development. This includes digitizing the results and achievements of environmental safety and actively promoting competition between enterprises to increase independent creativity.

To guarantee the health and safety of colleagues and raise the quality of the work environment, CLC's environmental safety policy aims for "full employee participation, safety first, and zero accidents." The company asserts it has the highest respect for life, and strives to care for its employees. It is the management's responsibility to create a safe, sanitary, healthy work environment.

CLC has installed safety protection departments and work safety specialists in both its offices and factories, and has formulated strict health and safety rules that promote a zero accident system. A voluntary protection program is also implemented throughout the enterprise to enhance health and safety equipment and safety effectiveness. After each plant passed the voluntary protection program agency's certification tests for three consecutive years, the whole enterprise achieved an eight percent deduction on its property insurance rate. The company also received OHSAS 18001 accreditation, and won the national Five Star Award for setting a model in occupational health and safety.

Spurring Industry to Follow CLC's Environmental Lead

Cheng Loong Corp. has received countless awards in the areas of environmental protection, safety and

在環保形象的肯定上，正隆除獲頒第一屆國家永續發展績優獎企業永續發展獎，並榮獲《天下雜誌》年度企業社會責任調查報告列為「環保優異企業」及「製造業整體表現優異企業」之殊榮，更被世界銀行國際合作機構 2002「Developing Value」報告收錄為台灣5家環保表現績優企業之一。



▲ 歎為觀「紙」——紙藝博覽會 正隆提供
Train engine made of recycled paper at a paper art fair.

在企業經營上，正隆除自我期許成為台灣紙業的標竿，更希望藉由本身的影響力，激勵業界清潔生產、友善環境，進而把環保觀念推廣落實到上下游，環環相扣，形成一以環保為核心的供應鏈體系。未來正隆將持續朝「成為紙業及包裝的領導企業」的願景努力。

health. CLC's efforts to conserve resources and protect the environment have earned the Enterprise Environmental Award for five consecutive years, and its factories, staff and enterprise groups have won national industry waste reduction outstanding performance awards for six consecutive years. CLC is also frequently commended for outstanding performance in energy conservation, pollution control, water conservation, and operation of industrial pollution control equipment. An excellent achievement award was granted to CLC for its work in industrial waste clearance and disposal, and resource reduction, reuse and recycling.

The company's environmental image has been affirmed by various sources, receiving the Enterprise Sustainable Development Award in the First National Sustainable Development Outstanding Performance Awards, and being listed in Commonwealth Magazine's Annual Enterprise Social Responsibility Survey Report as an "Outstanding Environmental Enterprise" and "Enterprise with Outstanding Overall Manufacture Performance." International Finance Corporation's 2002 report "Developing Value," listed CLC among Taiwan's top five companies in the area of environmental protection.

In the area of business management, CLC aims to be the leader among Taiwan's paper industry. More importantly, CLC strives to use its position of influence to prompt other areas of industry to initiate cleaner production and a better environment. By helping instill environmental concepts in both upstream and downstream manufacture processes stakeholders can link together to form a supply and demand chain system that holds environmental values as its core. Cheng Loong Corp. perseveres with its vision to become a leading enterprise in the paper and packaging industries.

五、荒野保護協會—復育自然生機

荒野保護協會成立於1995年，強調全民參與，透過自然接觸與教育，推動台灣及全球荒野保護工作，並透過購買、長期租借、委託或捐贈，圈護荒地使大自然恢復生機，讓後代子孫從保留的荒野中，探知自然奧妙。

實現全民參與的綠色組織

目前荒野協會除國內20餘分會及聯絡處外，日、澳、馬來西亞及尼加拉瓜等國均有荒野的組織。在組織成員上，目前以平均一年1,000個家庭會員的速度穩定成長，至今已擁有近萬名家庭會員，2,000餘名受過專訓的義工。

荒野深信：「透過親身參與，才能改變人的行為」。生態教育推廣及專業荒野守護人才的培訓，為成立以來重點工

5. Society of Wilderness-Working to Restore Nature

Established in 1995, the Society of Wilderness strives to inspire full citizen participation in protecting wilderness areas in Taiwan and all over the world by re-connecting people with nature and by nature education. By obtaining guardianship and management authority over wilderness areas through means of purchases, long-term leases, and funding from commissions and donations, the group hopes to give nature the chance to heal itself, and ensure that future generations have the chance to learn about nature's wonders.

Reaching for Full Citizen Participation

The Society of Wilderness (SOW) currently has 20 chapters and liaison offices in Taiwan, with affiliate organizations in Japan, Australia, Malaysia and Nicaragua. The Society is growing at a steady rate of about one thousand family memberships per year. Present membership is nearly ten thousand families and two thousand members have undergone special training to become volunteers.

SOW sincerely believes that only personal contact with nature can change people's attitude toward the environment. Popularizing nature education and providing professional training to help defend wilderness areas have become the focal work of the Society since its establishment. Over one thousand nature interpreters are regularly dispatched to

◀ 如新生幼苗的下一代，正待滋養茁壯供荒野提供

Interaction with nature at an early age increases the likelihood that future generations will grow up to love and protect the environment.



作。包括：培育千餘位解說員定期於各野外定點作長期觀察，及帶領戶外生態體驗活動；培育200多名兒童生態教育種子師資，長期協助炫蜂團及不定期協助兒童及親子生態營之兒童生態課程設計及帶領工作，並推展至學校教育。

為推廣生態保育理念，任何團體只要邀集20個人，就能請荒野義工講述生態之美。協會並引進美國「綠色生活地圖」理念，目前有數十位推廣講師及200多位義工，於全省各地協助社區民眾繪製居住地綠資源地圖。荒野如野草般強韌的生命力，一步步紮實地在各地深植。

行動方針：紮根、守護、經營

協會的一切行動，可歸納為三個主要方向：

1. 紮根：荒野主張讓民眾從親近大自然，進而認識大自然，最後才論及保護大自然。在環境教育推廣工作上，協會平均一年在全國各地舉辦演講超過280場，主辦的戶外活動及自然體驗亦達150次以上。
2. 守護：台灣高山峻嶺多，生物多樣性高卻又非常脆弱，任何不慎的開發濫墾都將導致不可恢復的破壞，故大範圍公有地的監測非常迫切。
3. 經營：唯有借助民間團體的靈活與義工人力，才能完整觀照整體環境保護所有環節。

designated nature areas to make long-term observations and hold outdoor activities letting people experience nature firsthand. SOW has held training courses for over 200 seed teachers to teach children about ecology. The Society also designs children's ecology curricula for schools and pilots projects including long term sponsorship of the "Cool Bee" Nature Scouts program and periodic sponsorship of family eco-camps.

To spread the concepts of ecological conservation, any group of at least twenty people can request a SOW volunteer nature interpreter to come and share their knowledge about the ecology. The Society also works to spread the Green Map concept and currently has dozens of lecturers and over 200 volunteers throughout Taiwan assisting communities to map out the green resources in their own neighborhoods.

Action Strategy: Education-Monitoring - Management

The Society of WiSOW's actions are directed toward the following three main objectives:

1. Education: SOW believes people must first have direct contact with nature and get to know nature before they can work to protect nature. In the field of environmental education, every year the Society holds an average of over 280 lectures and over 150 outdoor nature experience activities.
2. Monitoring: Taiwan's diverse landscape and varying climatic zones give rise to a high level of biodiversity. Yet such biodiversity is vulnerable to careless development and cultivation, which invariably leads to permanent destruction. Monitoring is therefore urgently required for large parcels of public land.
3. Management: Only through the agility and volunteerism of NGOs can all aspects of environmental protection be fully coordinated.

建立夥伴關係 打造永續環境

野生動植物棲息地保育為荒野成立的重要工作，荒野亦投入大量人力。如連接中央山脈與雪山山脈的「思源埡口生態廊道計畫」、「棲蘭檜木國家公園」催生、成立「雙連埤自然野生動物重要棲息環境」等，都是長期努力的倡議。

荒野鼓勵民眾參與荒野保護事務，以理性的溝通與辯論、立場聲明、政策批判、公共事務監督、陳情連署、議題宣導與倡議等民主體制方式，與企業和政府建立夥伴關係，並往往於居間溝通多時的努力下，創出多贏結果，藉以建構公民社會及永續發展。

正如一個平衡穩定的生態系，生物的多樣性及活潑性，才能使其永續發展。理事長李偉文指出，台灣的非營利環境團體，除吸引社會中堅份子、走溫和漸進路線的荒野外，也應有源自不同族群的環保團體存在。除可齊頭並進成長、互為夥伴，同時也代表社會不同的聲音，以及各自從不同角度關懷環境的寶貴力量。



▲ 荒野炫蜂團的小小成員，參與「水水地球」活動 荒野提供
"Cool Bee" Nature Scouts taking part in "Water Planet" activity

Establishing Partnerships for a Sustainable Environment

Conservation of native plant and animal habitat is one of SOW's most important tasks and a great deal of effort has been invested toward this. The group is engaged in several long-term actions to protect habitat along the Central Mountain Range and Hsuehshan Mountain, such as promoting the "Siyuanyakou Ecological Corridor Plan," and advocating the establishment of the Magao National Park and the "Twin Ponds Nature and Wildlife Vital Habitat Area."

SOW encourages the public to participate in wilderness conservation affairs. SOW endeavors to establish partnerships with the private sector and the government, and through democratic processes engage in rational dialogue and debate, assert the public's standpoint, criticize policies, monitor public affairs, draw up petitions, and popularize issues. Often through two-way dialogue and perseverance on issues over a long period of time, the group has been able to bring about win-win solutions in the interest of democracy and sustainable development.

Diversity and vitality are required for a balanced ecosystem; they are also required for sustainable development. SOW President Lee Wei-wen believes that Taiwan should have a diversity of non-profit environmental organizations that are able to reach all corners of society. For example, while SOW is able to attract a core of society members through moderate but progressive action, other environmental groups may be better at gaining support from various different social and cultural groups. By uniting forces, all groups can advance side by side and form mutual partnerships to represent different voices in society, all showing concern from a multitude of perspectives toward our common environment.



▲ 台灣積極參與國際環保活動 財團法人環境資源研究發展基金會提供

Taiwan actively participates in international environmental protection activities (photo: Environmental Resources Research and Development Foundation)

六、國際永續發展動態

Chapter 6. International Sustainable Development

聯合國永續發展委員會第12屆會議於2004年4月14-30日於紐約聯合國總部舉行，會期前三天為準備會議，隨後兩週則為正式議程。

一、世界水、衛生、人類居所發展進程

本次會議與會者包括八十餘國政府部門首長、聯合國機構首長、以及非政府組織代表，議題則以全球飲用水、衛生及人類居所為主題，重要結論包括：

水：飲用水污染為開發中國家疾病及死亡主因，亞洲許多國家正努力實現2015年前無安全飲用水人數減半目標，但其他區域之多數國家尚未走上正軌。

The 12th Session of the United Nations Commission on Sustainable Development (UNCSD-12) was held from 14-30 April 2004 at the UN Headquarters in New York. The first three days of the event was a preparatory meeting for the ten-year review of the Barbados Plan of Action for the Small Island Developing States. The official session resumed in the following two weeks.

1. Global Progress in Water, Sanitation and Human Settlements

Participants at UNCSD-12 included government department heads, UN commission directors and NGO representatives from over 80 countries. The major themes of discussion were water, sanitation and human settlements, for which the following conclusions were reached.

Water: Polluted drinking water is one of

為實現此目標，2015年需提供16億人口安全飲用水，估計供水支出需增加一倍。其餘如水源污染、水泵及供水系統保養不善及管線漏水等，均為急需解決的問題。

衛生：1990年代，開發中國家使用獲改善的環衛設施人數增加10億，但若要實現「於2015年底前將無基本環衛設施人數減半」的國際環境衛生目標，則須於2015年前再提供20億人口環衛設施，亦即年投資額需增加至70億美元。有關環衛設施設計部份，須將目前及未來預期之需求納入考量，同時環衛設施於使用壽命內，其操作及維修亦須簡單價廉。除硬體投資外，提升環衛認知亦不可或缺。鑒於良好的環衛及衛生習慣常仰賴學校及婦女灌輸，因此大會認為學校及婦女於環衛工作推動十分重要。

人類居所：於「世界高峰會永續發展行動計畫」及里約宣言中，人類居所相關議題集中於改善貧民區及居所、公共服務和及區域廢物管理系統取得、改善環境健康、發展永續運輸系統以及創造經濟機會等。未來數十年，全球人口增加長幾乎均發生於開發中國家城市，各國政府需採取果斷行動，鼓勵擴大正規的廉價住宅發展。惟如何取得可負擔的土地卻是一大障礙，因此公共發展團體將扮演重要角色，可提前規劃取得土地建造廉價住房。

the leading causes of death in developing countries, and many Asian nations are currently working hard to realize the 2015 goal to halve the number of people without access to safe drinking water. Numerous countries in many other regions however have yet to change course in the right direction. It is estimated that a doubling of the present investment in water is required per year to meet the goal of ensuring safe drinking water for 1.6 billion more people by 2015. Among the other critical water problems that urgently need solutions are polluted water sources, improper maintenance of pumps and water supply systems, and leaky pipes.

Sanitation: The number of people in developing countries with access to improved environmental sanitation facilities increased by one billion in the 1990s. However if we are to fulfill the international environmental sanitation objective to reduce by half the number of people without access to basic environmental sanitation facilities before the end of 2015, we will need to provide 2 billion people with environmental sanitation facilities, requiring an increase of US\$7 billion in investments per year. Both current and future expected demands should be taken into consideration in choosing environmental sanitation facilities so that operating and maintenance costs are kept minimal during the lifetime of facilities. Apart from investments on hardware, effort should also be taken to increase public awareness of environmental sanitation.

Human Settlements: In the Johannesburg Plan of Implementation and the Johannesburg Declaration, most issues on human settlements centered on improving impoverished districts and buildings, and equipping all areas with public services and regional waste management systems, so as to improve environmental health, develop sustainable transportation systems and create



▲ 聯合國環境規劃署會議 財團法人環境資源
研究發展基金會提供
United Nations Environmental Programme
meeting (photo: Environmental Resources
Research and Development Foundation)

二、全球永續發展現況與挑戰

受2002年聯合國永續發展世界高峰會的影響，大多數人均贊成改變現行政策以促進永續發展，但如何強化永續發展創造基本條件之多邊機構，及如何處理全球環境議題方面，仍面臨重大挑戰。

撒哈拉沙漠以南之中非地區：因愛滋病流行，以及貧窮及營養不良現象普遍存在，加上基礎設施不足，使許多國家永續發展基礎薄弱。不過仍有令人鼓舞之處，除建立非洲發展新夥伴關係，部份區域組織及國家決心改善貧窮，具體做法包括貿易能力建置、吸引更多外國直接投資、推動改善措施等。

亞洲地區：依近期發展趨勢，亞洲將提前達成2015年貧窮人口減半千年發展

economic opportunity. In the coming decade, global population growth will almost exclusively occur in the cities of developing countries, and all national governments should adopt decisive action to encourage expansion of standard low-priced housing development. However, finding ways to obtain land to house all these people is still a major obstacle, and therefore public development groups will play a vital role in marking out land for the construction of low-cost housing in advance.

2. Current Status and Challenges of Global Sustainable Development

Conclusions reached at UNCSD-12 have persuaded a majority of people that existing policies need to be changed in the interest of furthering sustainable development. However, we still face monumental challenges in finding ways to manage global environmental problems and reinforce the multilateral mechanisms that can create basic conditions for sustainable development.

Central Africa south of the Sahara Desert: Widespread AIDS, poverty and malnutrition, exacerbated by inadequate infrastructure, are undercutting the groundwork for sustainable development in many nations. However there are still some encouraging trends such as establishment of the New Partnership for Africa's Development (NEPAD), and some regional organizations and nations are determined to reduce poverty through concrete actions such as establishing trade skills, attracting more foreign direct investment, and implementing improvement measures.

Asia: Based on recent development trends, Asia will meet its 2015 goal in advance to halve the number of people living in poverty. While Asia's economic prosperity will contribute to investments in education, health, and basic

目標。亞洲經濟繁榮雖有助於教育、保健及基本環境設施投資，但亦帶來重大環境挑戰，包括有害廢棄物及毒化物污染、森林及生物多樣性消失、溫室氣體排放快速增加等。但隨著經濟開放，相對有助於取得最新清潔技術，競爭壓力亦有助於提高資源效率。但如執法不力，則會鼓勵民眾躲避規章制約，導致永續發展政策無法落實。

拉丁美洲及加勒比海地區：過去五年該地區中學入學率大幅提高，且部份國家於環境政策方面採取之新措施，亦開始展現成果。惟因所得分配嚴重不均，使經濟改革難以獲得廣泛支持，迄今成長有限。此外，該區域雖有龐大的工業部門，但與亞洲相比，其製成品出口僅佔總出口極小比例，且過度依賴部份產品，亦使發展易受價格波動及不利趨勢影響。此外，自然災害仍是中美洲及加勒比海國家主要問題。

西亞地區：過去十年，西亞地區女性入學率顯著提高，但因區域人口成長預估率高，需持續投資方能維持未來教育領域之發展。除此之外，過去十年該地區成長有限。如國際社會採取減少溫室氣體排放行動，對此嚴重依賴礦物燃料出口之區域將造成衝擊。而該區域政治不穩定，亦嚴重阻礙其他行業投資。

environmental facilities, it will also bring with it grave environmental challenges such as hazardous waste and toxic chemical pollution, vanishing forests and biodiversity, and a sharp rise in greenhouse gas emissions. Economic development however will also facilitate the attainment of the latest clean technology, and intense competition will help to increase resource efficiency. Nevertheless, ineffective law administration will only encourage the private sector to dodge regulations and stand in the way of sustainable development.

Latin America and the Caribbean Sea: Enrollment in secondary school has greatly increased over the past five years and some countries have adopted new environmental policies that are beginning to show results. Acutely disproportionate distribution of income makes it difficult for economic reform policies to receive widespread support and growth is limited. While this region is endowed with a huge industry sector, compared to Asia, manufactured exports account for only a small proportion of total exports. Also, excessive dependency on just a few products makes the region susceptible to price fluctuations and adverse trends. Natural disasters are still a major problem for countries in Central America and the Caribbean Sea.

Western Asia: There has been an evident increase in enrollment of females at schools in the Western Asia region within the last ten years. However as regional population growth is expected to soar, continual investment will be required to support future development of education. Economic growth in the region has been limited over the past decade. The international community's actions to curtail greenhouse gas emissions have detrimentally impacted regions here that desperately rely on mineral fuel exports. Political instability in the region also seriously impedes investments in other industries.



▲ 葉執行長主持永續會與民間團體座談
NCSD CEO Yeh presides over the "NCSD and NGO Forum"

七、未來展望—專訪葉執行長俊榮

Chapter 7. Future Prospects - Exclusive Interview with Chief Executive Officer Yeh Jiunn Rong

永續會葉執行長俊榮表示，永續會自91年改組以來，即積極針對有利於台灣永續的工作，展開跨部會總動員，並落實到各部會業務中，調整不符合永續觀念的政策，使國家整體發展能依循永續的軌道前進。在這條漫長道路上，永續會不僅提供台灣永續的願景，也挑起部會間協調的重擔。

延續這樣的精神，在永續會的領航下，過去一年政府推動了許多永續相關政策，這些政策內容頗為廣泛，經過永續會的努力也產生相當的效果。例如發表「台灣21世紀議程」，更明確地描繪永續的願景；持續推動永續指標，使政

National Council for Sustainable Development (NCSD) CEO Yeh Jiunn-rong indicates that since the reorganization of the NCSD in 2002, the Council has actively promoted sustainable development in Taiwan by facilitating cross-ministerial mobilization, bringing theory into practice in each ministry's business affairs, and adjusting policies to accord with sustainability concepts. These efforts ensure that the nation's overall development progresses along the path toward sustainability. On this long path, the NCSD not only provides the vision for Taiwan's sustainable development, but also takes on the monumental task of interministerial coordination.

The government has carried out numerous policies in the interest of sustainable development over the past year under the guidance and hard work of the NCSD. These policies extend over a

府有更充分的環境資訊，以確保政策的永續性；推動永續校園觀念，讓孩子培養尊重環境的價值觀等等。而「環境基本法」制訂以及政府改造成立環境資源部等，更為台灣永續發展奠定了制度性保障的基礎。面對這些工作，就比較有特色的工作項目進行說明。



▲ 葉執行長說明永續會未來工作展望

Yeh elucidates the Council's prospects for the future

一、研訂「永續發展行動計畫」外之重點工作

在今(2004)年委員會議中，為了讓民眾能察覺政府施政重心，經過社會團體與專家學者委員討論後，永續會除繼續執行「永續發展行動計畫」中各項工作，同時選定五大重點項目，作為下一年度的推動目標，包括放生行為的管理及勸導、推動重大政策環境影響評估、加強民眾參與永續政策的規劃、協助縣市推動地方永續發展，以及加強推動環保外交。

broad scope of issues and have brought about considerable results. Some of the achievements include 1) the drafting of Taiwan Agenda 21 to provide a clear vision of sustainability; 2) continual advancements in defining sustainability indicators, giving the government adequate environmental information to formulate sustainable policies; and 3) promoting sustainable school grounds so that children cultivate values of respect toward the environment. Both the formulation of the Basic Environmental Act and the government reorganization measure to establish a Ministry of Environmental Resources have laid down the foundation for a systematic guarantee of Taiwan's sustainable development. Some of the more exceptional accomplishments and works in progress are described below.

1. Focal Tasks Outside of Formulating the Sustainable Development Action Plan

To make citizens aware of our administrative focus, this year's (2004) annual NCSD Assembly invited discussion with important groups, experts and scholars from all fields of society. Various work areas of the Sustainable Development Action Plan were discussed, and five significant work areas were chosen as primary objectives for 2005. The five work areas are: 1) control and educate on the practice of releasing captured animals into the wild; 2) carry out environmental impact assessments of major policies; 3) strengthen citizen participation in planning sustainable development policies; 4) assist county/city governments in promoting local

二、管理及輔導放生行為， 建構尊重生命的永續價 值觀

在這五大重點工作中，放生行為的管理別具意義，它涉及過去台灣特殊的民間傳統與宗教信仰，也代表某種程度的環境意識。而對於放生行為的管理與輔導，則是希望藉由政府的引導，慢慢改變舊式的行為，培養民眾認知到生物多樣性的重要、對於動物權尊重以及外來種入侵對於本土生態的威脅等觀念。

三、重新檢討開發政策，形 成整體性的國土規劃

過去台灣偏重開發政策，欠缺完整性思維，使得人民一再面對環境帶來的衝擊，諸如水資源日漸枯竭以及頻繁天災造成生命傷亡與資源損耗。這些衝擊都使國人不得不重新反省，體認到重新檢視國土開發政策的迫切性。在游院長指示由永續會擬訂因應方向及政策下，目前已成立工作小組來研擬規劃，不論是短期如調節水資源的供需以及天然災害的應變與舒緩；或者是長期的研擬國土資源行動計畫或者是山林資源開發管理，都將是未來環境政策的焦點。

sustainable development; and 5) advance environmental diplomacy.

2. Control and Educate on Release of Captured Animals - Building Values to Encourage Respect for All Life

Control over the ill-considered practice of releasing captured animals in the wild is of great importance among the five focal work areas. This popular "animal liberation" practice stems from folklore and religious beliefs particular to the region, and viewed in a positive light, may represent the embryonic beginnings of an environmental consciousness. The objective of this work area is to control and educate on this practice through government guidance, gradually change this outdated tradition and get citizens to understand the importance of biodiversity. Education will concentrate on fostering respect for animal rights and realizing the threats that exotic invasive species have on the local ecology.

3. Reevaluate Development Policies - Holistic National Land Planning

Education to change people's minds about releasing captured animals into the wild emphasizes the ecology as a whole. Likewise, development policies must also view the environment as an integrated whole. Development is never an isolated activity, and must consider management and integration of water, soil, and forest resources. Much care should be taken to formulate a holistic policy that considers the sensitive issue of national land development, and strives for harmony

四、因應全球溫室效應議題，進行能源及相關政策調整

全球溫室效應議題也是未來永續會的焦點，特別是在京都議定書於2005年即將生效之際，游院長親自擔任「氣候變遷暨京都議定書因應小組」召集人，彰顯該項議題將由永續會主導的意義。作為全球環境議題，溫室氣體減量絕非完全是產業界的責任，而是在符合國際環保標準，及兼顧台灣自主性發展之間，如何取得平衡的議題。特別是面對台灣參與國際活動空間被壓縮的情勢下，透過永續會這樣較能被國際間接受的機制，在行政院的分級之下與各部會力量結合共同推動，不僅能尋求生態與經濟間的平衡，在實際運作上也較為可行。

葉執行長同時強調，溫室效應議題與國家能源政策息息相關。未來永續會將會依循四個方向，包括落實非核家園政策、致力節約能源、提升再生能源比重，以及產業結構的因應調整等，作為規劃能源政策的主軸。

between different groups of people. In the past, Taiwan's development policy has lacked holistic thinking. This has led to frequent environmental repercussions such as dwindling water resources or loss of human lives and wasted resources due to "natural disasters." Such severe consequences behoove people to reconsider past ways and sense the urgency for a new national land development policy. Premier Yu has instructed the NCSD to develop response measures and policies, and several working groups have already been established to draw up detailed plans. Future environmental policy must focus on both short-term and long-term planning, whether it is emergency response to natural disasters, adjusting supply and demand of water resources, formulating national land resource action plans, or managing the development of mountain and forest resources.

4. Mitigating the Global Greenhouse Effect through Policy Adjustments

The global greenhouse effect is another focal issue for the NCSD, especially now that the Kyoto Protocol is to take effect in 2005. Premier Yu has taken personal responsibility to convene the Climate Change and Kyoto Protocol Response Taskforce, asserting the NCSD's leading role in addressing this issue. Now a global environmental issue, greenhouse gas reductions are by no means the responsibility of industry alone; effective response requires compliance with international environmental standards, with equal emphasis on sustaining Taiwan's autonomous development. Especially now as Taiwan has ever less



五、積極參與國際永續活動，彰顯地球公民的責任



▲ 葉執行長：「台灣推動永續發展的努力，讓國際人士感受到我們是認真在實踐永續理念。」
Yeh Jiunn-rong: "We hope our efforts to promote sustainable development show the international community Taiwan's commitment to put sustainability concepts into practice."

從全球溫室效應議題上，可以看到台灣儘管處於外交困境，但是我國仍在善盡地球公民的責任，這也是台灣積極參與國際永續活動的原因。所以除了前述重大政策，國際組織的參與也成為永續會重要目標之一。葉執行長因此同意於2002年11月應「東南亞區域全球變遷研究委員會」邀請至越南擔任會議主持人，2003年9月又應「永續發展國家論壇」的邀請到馬來西亞擔任報告人。在兩次的會議中，台灣積極推動永續發展的努力都受到高度的肯定。例如台灣每年定期公佈永續發展指標及工作進度，讓國際人士感受到我們是認真在實踐永續理想。

room to participate in international activities, the most feasible option is to pursue a balance between ecology and economy, and put sustainability concepts into action through the more internationally acceptable mechanism of the NCSD, a body of the Executive Yuan designed to integrate the forces of each department.

Chief Executive Officer Yeh emphasizes the connection between the greenhouse effect and the national energy policy. In planning a new energy policy, the NCSD will work toward four core objectives to actualize the Nuclear-Free Homeland Policy, conserve energy, increase the ratio of renewable energy, and make structural adjustments to industry. Framework for this policy is nearly in place; the next step is to integrate resources of related government departments and put the policy into practice.

5. Active Participation in International Sustainable Development Is the Duty of Every Global Citizen

Taiwan's response to the global greenhouse effect shows that even when diplomacy is unfavorable, as a nation we can still uphold our responsibility to fellow citizens of our planet. This is the drive behind Taiwan's dedication to active participation in international sustainable development activities. Apart from the major policies mentioned above, we also regard active participation in international organizations as one of the important goals in promoting sustainable development. Chief Executive Officer Yeh accepted an invitation to preside over the November 2002 Southeast Asia Regional Committee for START (SARCS) in Vietnam, and again accepted an invitation to

第七章 國家永續發展推動現況

Chapter 7 : Future Prospects -Exclusive Interview with Chief Executive Officer Yeh Jiunn Rong



▲ 葉執行長於永續績優獎頒獎典禮致詞

Yeh speaking at the awarding ceremony of the National Sustainable Development Awards

積極參與國際活動是永續會重要目標，未來永續會不僅對內持續相關永續政策，更將致力扮演國際間溝通與互動的角色，將成果與國際分享，也讓國際間更認識與肯定台灣的努力。

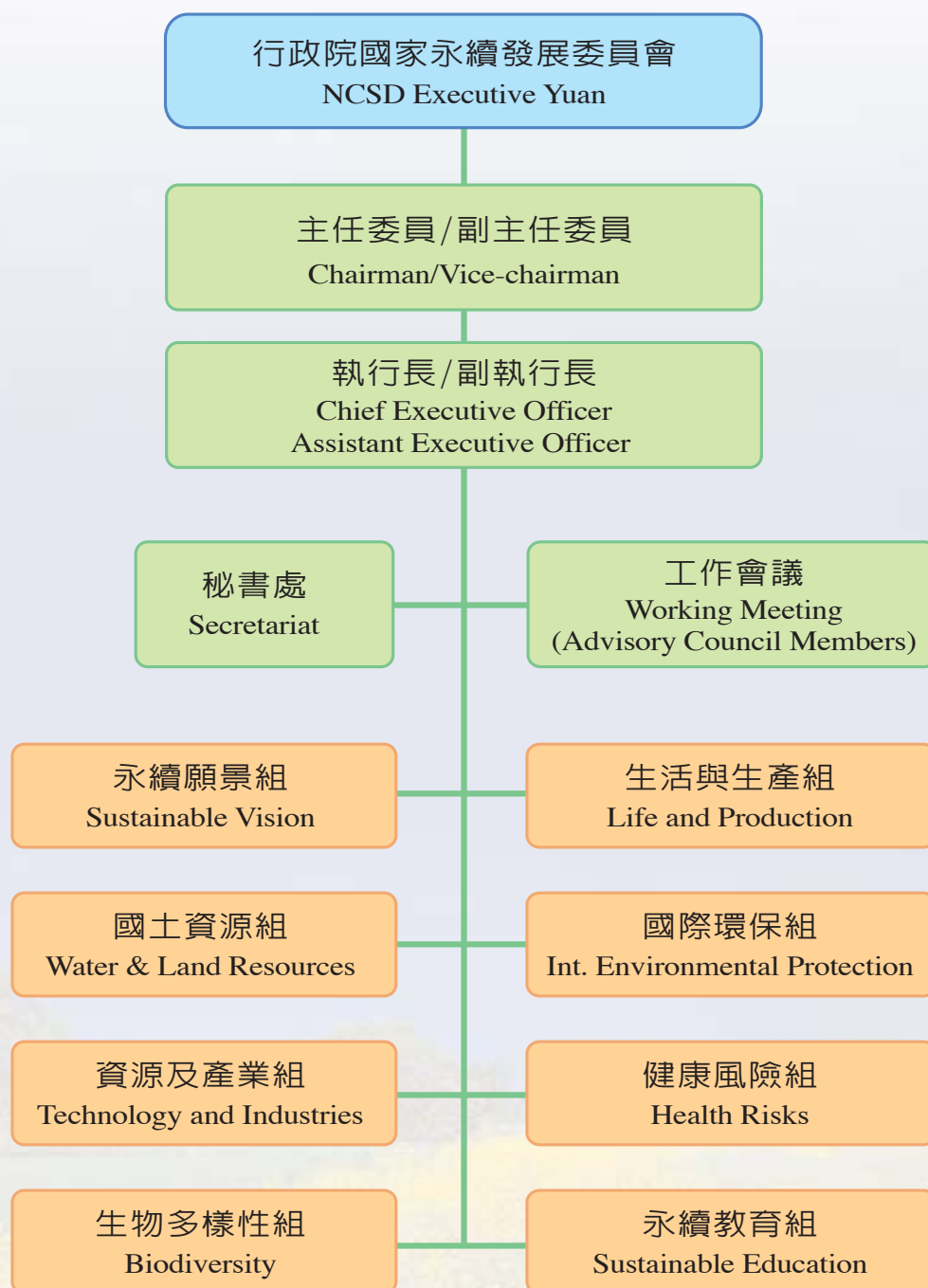
由於永續發展議題的政治色彩較淡，永續會因此能凝聚及統合國內資源，不論是公部門、私部門或第三部門。例如永續會於2002年8月率團到南非約翰尼斯堡參與聯合國永續發展世界高峰會（WSSD），就是結合各個部門力量的成功經驗。面對國內政治脈絡及外交困境的限制，這種無論於國內或國際，對台灣都是雙贏的參與模式，將會是永續會值得耕耘及繼續採取的方向。

deliver a report at the International Roundtable on Sustainable Development in Malaysia in September 2003. Taiwan's endeavors to actively promote sustainable development received strong affirmation by the international community during these two meetings. Taiwan regularly announces sustainable development indicators and work progress every year to let the international community know our resolve to put the ideals of

sustainability into action.

Active participation in international activities is an important objective, and the NCSD not only continues to support sustainability policies domestically, but also strives to play an important role in facilitating international dialogue and interaction. We regularly share our achievements with the international community in hopes that the world will recognize our efforts and gain from our experience.

The notion of sustainable development rarely conflicts with political ideals, making it relatively easy for the NCSD to consolidate and integrate domestic resources be they from public, private or civil sectors. The NCSD-led delegation to the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa in August 2002 exemplifies successful integration of each sector's strengths and powers. In the face of limitations set by the domestic political climate and constraints on diplomacy, the Johannesburg delegation presents a win-win participatory model for Taiwan in both domestic and international settings. The NCSD highly values this experience and eagerly continues to promote similar models of participation.



附錄二 行政院國家永續發展委員會委員名單

Appendix II Members of NCSD

中 文	職 稱	機 構	英文姓名
游主任委員錫堃	院長	行政院	Hsyi-Kun yu
葉副主任委員菊蘭	副院長	行政院	Chu-Lan Yeh
葉執行長俊榮	主任委員	研考會	Jiunn-Rong Yeh
林委員盛豐	政務委員	行政院	Sheng-Fong Lin
蘇委員嘉全	部長	內政部	Jia-Chyuan Su
陳委員唐山	部長	外交部	Tan-Sun Chen
杜委員正勝	部長	教育部	Cheng-Sheng Tu
何委員美玥	部長	經濟部	Mei-Yueh Ho
胡委員勝正	主任委員	經建會	Seng-Cheng Hu
李委員金龍	主任委員	農委會	Ching-Lung Lee
陳委員建仁	署長	衛生署	Chien-Jen Chen
張委員祖恩	署長	環保署	Juu-En Chang
王委員鑫	教授	國立台灣大學	Shin Wang
王委員塗發	教授	國立台灣大學	To-Far Wang
李委員玲玲	教授	國立台灣大學	Ling-Ling Lee
於委員幼華	教授	國立台灣大學	Yue-Hwa Yu
林委員國峰	教授	國立台灣大學	Gwo-Fong Lin
胡委員念祖	教授	國立中山大學	Nien-Tsu A. Hu
紀委員駿傑	教授	國立東華大學	Chun-Chieh Chi
賀陳委員旦	董事長	中華電信股份有限公司	Tan Hochen
詹委員長權	教授	國立台灣大學	Chang-Chuan James Chan
劉委員錦添	教授	國立台灣大學	Jin-Tan Liu
蕭委員新煌	教授	中央研究院	Hsin-Huang Michael Hsiao
蘇委員慧貞	教授	國立成功大學	Huey-Jen Su
尤委員美女	理事長	台灣婦女團體全國聯合會	Dagmar Mei-Nu Yu
余委員範英	董事長	時報文教基金會	Alice Yu
李委員偉文	理事長	荒野保護協會	Wei-Wen Lee
李委員永展	理事長	台灣環境資訊協會	Yung-Jaan Lee
林委員俊興	董事長	佑生研究基金會	Chun-Shin Lin
紀委員惠容	理事長	台灣少年權益與福利促進聯盟	Hui-Jung Chi
高委員志明	執行長	義美環境保護基金會	Luis Ko
陳委員曼麗	董事長	主婦聯盟環境保護基金會	Man-Li Chen
黃委員茂雄	理事長	中華民國企業永續發展協會	Theodore Mao-Hsiang Huang
楊委員智偉	理事長	台灣原住民族政策協會	Chih-Wei Yang
劉委員小如	理事長	中華民國國家公園學會	Severinghaus, Lucia Liu
林副執行長中森	次長	內政部	Join-Sane Lin
范副執行長巽綠	次長	教育部	Sun-Lu Fan
施副執行長顏祥	次長	經濟部	Yen-Shiang Shih
戴副執行長振耀	副主委	農委會	Chen-Yao Tai
蔡副執行長丁貴	副署長	環保署	Ting-Kuei Tsay

英文機構名	職稱
The Executive Yuan of the Republic of China	Premier
The Executive Yuan of the Republic of China	Vice Premier
Research, Development, and Evaluation Commission, E.Y.	Minister
The Executive Yuan of the Republic of China	Minister of State
Ministry of Education He Interior	Minister
Ministry of Foreign Affairs	Minister
Ministry of Education	Minister
Ministry of Economic Affairs	Minister
Council for Economic Planning and Development, E.Y.	Minister
Council of Agriculture, E.Y.	Minister
Department of Health, Executive Yuan	Minister
Environmental Protection Administration, Executive Yuan	Minister
Department of Geography, National Taiwan University	Professor
Department of Economics, National Taiwan University	Professor
Institute of Ecology and Evolutionary Biology, NTU	Professor
Graduate Institute of Environmental Engineering, NTU	Professor
Department of Civil Engineering, National Taiwan University	Professor
Center for Marine Policy Studies, National Sun Yat-sen University	Professor
Institute of Ethnic Relations and Culture, NDHU	Professor
Chunghwa Telecom Co., Ltd.	Chairman
Institute of Occupational Medicine and Industrial Hygiene, NTU	Professor
Department of Economics, National Taiwan University	Professor
Institute of Sociology, Academia Sinica	Research Fellow
Dept. of Envi. and Occu. Health Medical College, NCKU	Professor
National Union of Taiwan Women Association	President
China Times Culture & Education Foundation	President
The Society of Wilderness	President
Taiwan Environment Information Association	President
Archilife Research Foundation	President
The Garden of Hope Foundation	Chief Executive
I-Mei Environmental Protection Foundation	CEO
Homemakers' Union and Foundation	President
Chinese National Association of Industry and Commerce	Chairman
Association for Taiwan Indigenous Peoples' Policy	President
National Park Association in Taiwan	President
Ministry of the Interior	Vice Minister
Ministry of Education	Vice Minister
Ministry of Economic Affairs	Vice Minister
Council of Agriculture, Executive Yuan	Vice Minister
Environmental Protection Administration, E.Y.	Vice Minister

附錄三 93年度永續會大事紀

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期程 Dates	工作內容及成果 Events and Achievements
01.05	召開「國土保育地區工作圈」第2次研商會議，修正完成國土保育地區土地利用基本政策（草案）修正。 Convened the second “National Land Conservation Area Taskforce Task” discussion meeting and finalized revisions to the draft “Basic Policy on Land Utilization in National Land Conservation Areas”
01.05~06	辦理「推動地方永續發展計畫策略規劃第一階段研討會」，邀集25個縣(市)相關局處主管與承辦人員以及負責六縣市規劃研究團隊，共計115人參加出席，說明協助地方推動永續發展補助計畫內容。 Held the “First Forum on Strategic Planning of Local Sustainable Development Plans,” inviting related county/city authorities to discuss contents of plan to subsidize local governments promoting sustainable development.
01.09	辦理「SARS與永續發展研討會」，邀請各領域專家共30位，針對SARS疫病期間發生於台灣社會之種種公共衛生、經濟、民生、政治、社會等問題深入分析。 Held the “SARS and Sustainable Development Symposium,” probing consequences of the problems triggered by the SARS outbreak in the areas of public health, economy, livelihood, politics and society.
01.16	召開國土資源組第10次分組會議，檢討生態旅遊辦理推動情形，並就大會所交辦協助農委會建立「造林及伐木現勘計畫及監督機制」，進行討論及安排現勘。 The NCSD National Water and Land Resources Working Group convened its the 10 th group meeting, during which it reviewed the progress of ecotourism promotion efforts, and assisted with the establishment of the “Reforestation and Logging Onsite Planning and Supervisory Mechanism.”
01.31~02.14	辦理「推動地方永續發展計畫策略規劃第二階段研討會」，協助獲補助之11個縣市研擬地方永續發展策略綱領。 Held the “Second Forum on Strategic Planning of the Local Sustainable Development Promotion Plan,” to assist 11 subsidized counties/cities draw up local sustainable development strategy guidelines.
03.04	召開永續教育組第3次小組工作會議，討論永續發展師資培育計畫、開放閒置空間、永續校園、環境教育列入綠色國民所得帳之可行性等。 The NCSD Sustainable Education Working Group convened its 3 rd task meeting to discuss a sustainable development teacher training program, the issue of making unused space available to the public, the Sustainable Campus program, and the feasibility of including environmental education expenses in the Green GDP.
03.05	內政部修正「非都市土地使用管制規則」部分條文，將再生能源相關設施（非屬公用事業之風力發電及太陽光發電）納入農牧、林業及國土保安等三種用地之容許試用項目。 Revised the “Non-urban Land Use Control Regulations” to permit installation of renewable energy facilities on the land zoned for agriculture, forestry and national land security purposes.
3.8	頒發「第一屆國家永續發展績優獎」，表揚推動永續發展成效卓越之20個社區、企業、學校、社團及「永續發展行動計畫」執行機關。 Granted the “First National Sustainable Development Awards” to commend 20 communities, enterprises, schools, civic groups and “Sustainable Development Action Plan”

期程 Dates	工作內容及成果 Events and Achievements
	projects carried out by public agencies, for their outstanding contributions toward sustainable development.
03.08~09	辦理「地方永續發展國際研討會－舊金山灣區經驗分享」，邀請各縣市相關人員參加。 Held the “International Forum on Local Sustainable Development—San Francisco Bay Area Experience Sharing Session,” inviting related county/city officials authorities to attend.
03.11	召開國土資源組第11次分組會議，檢討國土保育地區工作圈推動情形並報告國土保育地區土地利用基本政策（草案），及依據工作會議決議討論修正本組行動計畫表，另並補助台南市政府辦理永續都市實驗方案。 The NCSD National Water and Land Resources Working Group convened the 11 th group meeting, during which it to reevaluated the progress of the “National Land Conservation Area Taskforce.” The group also awarded the Tainan City Government a grant to conduct a sustainable city experimental project.
	擴大推動奉行政院核定環保科技園區計畫，園區區增為4座，推動計劃修正計劃，園區設置總面積由原來100公頃增為123公頃，總經費由50.8億增加為62.05億，並擴大計劃辦理規模增為四座園區。 Expanded the scope of the Environmental Science and Technology Park Plan, increasing the number of parks to four, the area of parks from 100 hectares to 123 hectares, and the total funding from NT\$5.08 billion to over NT\$6.20 billion.
03.30	舉辦「台美雙邊生物技術座談」，邀請美國聯邦政府農業部、環保署、食品藥物管理局生技主管及美國在台協會官員進行雙邊高階會談，就兩國基因改造食品政策及安全評估技術等各項議題交換意見。 Held the “Taiwan-US Bilateral Biotechnology Symposium” to exchange views on genetically modified food policies and safety assessment technology.
03.31	發行「92年度國家永續發展年報」，提供各級政府施政參考，並提供國內外人士我國最新永續發展推動現況。 Issued the “2003 Annual Report on National Sustainable Development” to serve as a reference for all levels of government administration, and to inform people here and abroad about the latest actions taken to promote sustainable development in Taiwan.
04.12	補助辦理「93年度野生動物國際救援暨外送合作計畫」。 Sponsored the “2004 International Cooperation Plan for Wildlife Rescue and Transport.”
04.16	舉辦「台灣包裝之星」包裝設計競賽活動，以競賽方式提升包裝技術，並於評選標準中加重環保設計之比重，以引導廠商及包裝設計師於設計產品包裝時，注重包裝簡易化及環保。 Held the “Taiwan Packaging Star” (TP Star) packaging design contest, encouraging factories and package designers to emphasize simple and environmental packaging.
05	於國立台灣科技大學辦理「與環境共舞的永續校園－永續校園成果展」。 Organized the “Sustainable Campus Expo” with National Taiwan Technology University.
05.16	經濟部通過「陽光電城評選及補助作業實施計畫書」，並函知各縣市政府並提供陽光電城申請表格，供縣市政府下載使用。辦理北中南地區陽光電城說明會，積極協助各縣市政府了解陽光電城評選及申設作業流程推廣太陽能。 Endorsed the “Solar City Selection and Subsidy Implementation Plan” and held Solar City briefings in northern, central, and southern Taiwan to popularize the use of solar power.
	農委會撥款捐助11項國際保育計畫，金額計274,750美元。

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期程 Dates	工作內容及成果 Events and Achievements
06.06	The Council of Agriculture contributed a total of US\$274,750 to 11 international conservation projects.
06.03	與行政院海洋事務推動委員會共同公告「國際環保公約管制之易致空氣污染物質」，並發布「氟氯烴消費量管理辦法」，明訂我國氟氯烴（HCFCs）消費量削減時程及工業製程禁用項目。辦理「海洋及海岸永續發展論壇」，邀請80餘位產官學專家，對海洋海岸環境資源保護及永續利用，以及相關產業發展交換意見。 Jointly sponsored the “Ocean and Coastal Sustainable Development Forum” with the Cabinet Committee on Maritime and Ocean Affairs (CCMOA) Executive Yuan, inviting over 80 industry, government, academic and expert representatives to exchange views on protection and sustainable use of maritime and coastal environmental resources, and development of related industries.
06.04	舉辦「第二屆台灣植群多樣性研討會」，發表「國家植群多樣性調查及製圖計畫」第一年調查成果，並與日籍專家分享日本植群圖繪製經驗。 Held the “2 nd Symposium on Plant Diversity in Taiwan” and issued the first year’s survey report for the “National Plant Diversity Survey and Mapping Plan.” Japanese experts attended to share Japan’s plant species map-making experience.
6.05	評決於高雄縣本州工業區及花蓮縣鳳林鄉優先設置「環保科技園區」，建構資源循環型社會辦理「永續會與民間團體座談會」，與百餘位社會團體代表針對永續發展政策交換意見，並由相關部會副首長級以上官員與會回應。 Held the “NCSD and NGO Forum” to exchange views on sustainable development policies with over 100 NGO representatives. Officials, vice-Minister level and above, were present to hear citizen concerns.
6.07	召開國土資源組第12次分組會議，討論生態旅遊白皮書推動情形，並由王委員鑫報告聽取「全國綠資源調查」研究成果報告，並協助經建會研提短期推動初步方案。 The NCSD Water and Land Resources Working Group convened its 12 th group meeting to discuss on the progress of the Ecotourism White Paper. The Working Group drew on recommendations in the “National Green Resources Survey” and assisted the Council for Economic Planning and Development in proposing a short-term provisional program.
06.21~22	派員出席WTO貿易與環境委員會（CTE）例會及特別會議，就WTO與多邊環保公約特定貿易義務關係，提出我國立場文件（TN/TE/W/41）。 Attended regular sessions and special meetings of the WTO Committee on Trade and Environment, during which the Taiwan delegation presented a paper on Taiwan’s stance regarding the relation between the WTO and multilateral environmental agreements on specific trade obligations.
06.24	我國首座舉辦「花蓮固態廢棄物衍生燃料再生燃料示範廠啓用典禮」於花蓮啓用。 The nation’s first “Densified Refuse Derived Fuel Demonstration Plant” was inaugurated in Hualien.
06.30	完成完成8大行業共16家工廠基線調查與與用水效率提升輔導，並完成辦理「工業用水回收座談」及「工業用水回收技術研習會」之舉辦。 Completed a baseline survey of 16 factories in eight major industries and provided guidance on increasing efficiency of water use. Held the “Forum on Industrial Water Recycling” and the “Seminar on Industrial Water Recycling Technology.”
	於台北世貿大樓舉辦「台北國際環保暨能源展」，展示環保科技園區推動計劃，介紹環

期程 Dates	工作內容及成果 Events and Achievements
06.30~07.03	保科技園區推動現況，吸引廠商進駐。 Held the “Taipei International Environmental Protection and Energy Expo,” and displayed the Environmental Science and Technology Park Promotion Plan to attract firms to set up factories in the park.
07	辦理「電力事業六氟化硫使用排放減量宣導觀摩會」。 Held the “Workshop on Reducing Sulfur Hexafluoride (SF ₆) Use and Emissions in the Electricity Industry.
07.01	完成「糖果、糕餅、化妝品、光碟、酒及加工食品之包裝空間比例、層數、使用材質之種類及數量限制」草案公告並舉辦公聽會。 Announced the “Restrictions on Packaging Space Volume Ratio, Layers of Packaging, Type and Amount of Packaging for Confectionaries, Pastries, Cosmetics, CDs, Alcohol and Processed Foods” (Draft) and held the first public hearing on this restriction measure.
07.09	召開「台灣健康報告—降低風險、促進健康」研討會，發表「建構國家健康指標—西太平洋地區健康評比」，並辦理「健康風險評估指引」及風險溝通方法講習。 Held a forum entitled “Taiwan Health Report—Reducing Risks and Advancing Health” and held a discussion on “Health Risk Evaluation Index” and risk communication methods.
07.13	行政院會議同意訂定「環境教育法」，法案內容由環保署修正中。 The Executive Yuan agreed to draft the Environmental Education Act, the content of which is currently being revised by the EPA.
07.15	完成永續會設置要點修正，委員人數增加至29-35人，並完成新任委員遴聘，包括機關委員12位、專家委員12位，及社團委員11位。 Completed revision of the “Guidelines on the Organization of the NCSD” increasing the number of Council members from 29 to 35. The new Council members were also selected at this time, including 12 officials, 12 experts and 11 non-public sector organization representatives.
07.15	舉辦「93年度節能標章北、中、南區系列講習會」，計邀請政府機關採購人員、生產廠商及賣場第一線銷售人員 126人出席，參與研討介紹節能標章認證制度、節能標章產品效率標準及相關優惠措施。 Held the “Energy Label Workshop—Northern Taiwan,” inviting government procurement personnel, manufacturers and retailers to attend. Attendees were introduced to the Energy Label certification system, product efficiency standards and related incentive measures.
07.29	召開永續會第12次工作會議，確認各分組召集委員，並決議於「永續發展行動計畫」外，選擇重大議題作為年度推動重點工作。 Held the 12 th NCSD Task Meeting. Confirmed that all working groups had summoned their members. Chose the major issues that would become focal tasks for the coming year.
07.29~30	辦理「精神醫療及心理衛生共識營研討會」，建立心理健康網絡機制，以加強心理健康教育暨提高民眾心理健康為目標，研習推展精神衛生及心理衛生管理策略。 Held the “Consensus Forum on Psychiatric Treatment and Mental Health” to develop management strategies for psychiatric treatment and mental health.
08	環保署與台灣薄膜電晶體液晶顯示器產業協會(TTLA)簽署全氟化物排放減量合作備忘錄。 The EPA and the Taiwan TFT LCD Association (TTLA) signed memorandum of cooperation

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期程 Dates	工作內容及成果 Events and Achievements
	to reduce PFCs emissions.
	辦理「廢棄物衍生燃料（RDF）國家標準規範（CNS）草案」專家學者座談會。 Held forum with experts and scholars on the “National Standards for Refuse Derived Fuel (draft).”
08.10	召開「畜牧業搭排專案申請相關事宜」會議，檢討畜牧業搭排之水質標準。 Held a meeting on “Special Case Permit Applications by Livestock Industry to Discharge Effluent into Irrigation Systems” to reevaluate effluent standards for the livestock industry.
08.11	召開「抗生素抗藥性之監測與臨床現況討論會議」，邀請專家就醫療環境變遷後抗生素使用管制政策進行討論交換意見，期以使醫院落實適當使用抗生素適當使用，並防範抗藥性細菌在醫院內之傳播。 Convened the “Conference on Antibiotic Resistance Monitoring and Clinical Status,” inviting experts to exchange views on antibiotics control policy and discuss appropriate use of antibiotics to prevent the spread of resistant bacteria strains in hospitals.
08.12	完成「93年綠色國民所得帳」，摘要併同中央政府總預算送立法院備查外，預定12月研編結果報告送各界參用。 Completed the “2004 Green GDP” of the central government’s general budget and sent to the Legislative Yuan for reference.
08.17~19	辦理能源教育種子教師初階及進階研習班，共計培訓58位推動能源教育種子教師。 Held the first session of elementary and advanced forums to train seed teachers of energy education.
08.27	舉辦「節能標章中區講習會」。 Held the “Energy Label Workshop—Central Taiwan”
08.31	公告「開飲機與電磁爐節能標章能源效率基準」。 Promulgated the “Energy Label Energy Efficiency Standards for Drinking Water Machines and Electric Stoves.”
09	函請各師資培育大學將永續發展課程融入教育學程，另辦理「水資源師資研習暨水環境教育資源與遠距教學網站建置計畫」、「校園能源教育宣導與種子師資培訓」。 Asked all universities with teacher education to incorporate sustainable development lessons in their curriculums. Carried out “Plan to Train Teachers in Water Resources and Establish Websites for Water Environmental Education Resources and Correspondence Learning” and the “Campus Energy Education Guidance and Seed Teacher Training.”
	辦理「清淨河川考核計畫」不定期考核，完成24縣市28條重點河川與水庫現場考核作業，並推動河川環境教育。 Held the “Clean River Assessment Plan” to administer unscheduled onsite assessments of 28 focal rivers and reservoirs in 24 counties/cities, as well as promote river environmental education.
	補助辦理「第十屆鯨豚生態與保育國際研討會：許鯨豚一個永續未來」 Sponsored the “10 th International Symposium on Cetacean Ecology and Conservation — Toward A Sustainable Future of Whale Watching”。
09.03~06	舉辦「溫室氣體之衝擊與對策」研討會。 Held the symposium, “Greenhouse Gases: Impacts and Countermeasures”
	辦理「蒙特婁議定書列管化學物質緝私講習訓練課程」。

期程 Dates	工作內容及成果 Events and Achievements
09.07	Held the “Anti-Smuggling Training Seminar for Chemical Substances Listed in the Montreal Protocol.”
09.16	補助辦理「國際生物能源與生物復育環境技術研討會」，邀請多位國際專家學者，推廣生物能源及生物復育技術，提升我國推動清潔能源國際地位。 Sponsored the “International Bioenergy and Bioremediation Symposium” as part of efforts to promote bioenergy and bioremediation.
09.20	召開永續會非機關委員工作會議，針對未來一年重點推動工作交換意見。 Convened a task meeting with non-governmental NCSD members, to exchange views on the Council’s focal tasks for the coming year.
09.23	召開永續教育組第4次小組工作會議，決議永續教育以環境議題為主，並將原住民族委員會納入小組。 The NCSD Sustainable Education Working Group convened its fourth meeting, during which it was decided that the group should principally focus on environmental issues, and incorporate the Council of Indigenous People into the Sustainable Education Working Group.
09.29	公告「台中縣高美野生動物保護區」及「台中縣高美野生動物重要棲息環境」，面積701.3公頃。 Inaugurated the “Taichung County Gaomei Wildlife Conservation Area” and the “Taichung County Gaomei Wildlife Important Habitat Area,” protecting a total of 701.3 hectares of land.
09.29~10.01	辦理第二次能源教育種子教師初階及進階研習班。 Held the second session of elementary and advanced forums to train seed teachers of energy education.
09.30	舉辦「節能標章南區講習會」。 Sponsored the “Energy Label Forum for Southern Taiwan”
10	參加「華盛頓公約(CITES)第13次締約國大會」。 Participated in the 13 th Meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species (CITES) 補助辦理「國際穿山甲族群及棲地永續力分析研討會」。 Sponsored the “International Workshop on Pangolin Population and Habitat Viability Analysis (PHVA)”
	辦理「2004年世界動物園暨水族館協會(WAZA)」暨「保育繁殖專家群(CBSG)聯合年會」。 Held the “2004 World Association of Zoo and Aquarium (WAZA) and Conservation Breeding Specialist Group (CBSG) Annual Meeting.”
10.04	舉辦「溫室氣體之衝擊與對策」研討會 Held the symposium “Greenhouse Gases: Impacts and Countermeasures.”
10.05	設置「中央防治紅火蟻工作會報」，由相關部會及學者專家組成，統籌協調並推動執行入侵紅火蟻防治計畫。 Installed the “Central Government Working Group on the Control of Imported Red Fire Ants,” comprised of relevant government departments, scholars and experts. The group prepared, coordinated and executed a plan to control the Imported Red Fire Ant.
10.07	辦理「蒙特婁議定書列管化學物質緝私講習訓練課程」。 Held the “Anti-Smuggling Training Seminar for Chemical Substances Listed in the Montreal Protocol.”

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Appendix III Chronicle of NCSD Events in 2004

期程 Dates	工作內容及成果 Events and Achievements
10.12~13	出席WTO貿易與環境委員會（CTE）例會及特別會議，就杜哈宣言第31.3段提出我國立場文件。 Attended regular sessions and special meetings of the WTO Committee on Trade and Environment, and submitted a document on Taiwan's stance of paragraph 31.3 of the Doha Declaration
10.15	辦理「亞洲沙塵國際研討會」，邀請日本、韓國、中國及與國內專家學者100餘人，交換沙塵監測分析結果及心得。 Held the "International Symposium on Asian Dust Storms," inviting over 100 scholars and experts from Taiwan, Japan, Korea, and China to exchange views on monitoring and analysis of regional dust storms.
10.20	行政院核定將「出版台灣原住民族生物學誌」列入中程施政計畫內，具體計畫並將於94年3月底完成。 The Executive Yuan approved a proposal to include the publication of a periodical, "Taiwan Indigenous Ethnobiology," in intermediate range administrative plans.
10.23~24	舉辦「高雄市洲仔溼地暨溪高雄生態廊道」生態工法覽會。 Held an ecological engineering exposition at the "Kaohsiung City Zhouzai Wetland and River—Kaohsiung Ecological Corridor"
10.29	辦理「93年經濟部節約能源表揚大會」，係結合表揚17家「節約能源績優廠商表揚」與及16所「推動能源教育優良學校表揚」兩項活動所舉行之頒獎典禮。 Held the "2004 Ministry of Economic Affairs Energy Conservation Commendation Ceremony" to commend 17 companies for outstanding efforts to conserve energy and 16 schools for excellent efforts to promote energy education. 召開「刪減含藥物飼料添加物品目事宜會議」，決議決議刪減除德畜黴素等四項品目，減少家畜禽飼料添加抗生素添加。 Held the "Conference on Eliminating Drug Additives from Livestock Feed" during which it was decided to prohibit four additives as a measure to reduce antibiotic additives in livestock feed.
10.30-11.13	舉辦「高屏溪舊鐵橋人工溼地」生態工法博覽會。 Held the "Kaoping River Old Steel Bridge Constructed Wetland" ecological engineering exposition.
11	補助辦理「2004台北關渡國際賞鳥博覽會」及「國際生態旅遊研討會」。 Sponsored the "2004 Taipei Guandu International Bird Watching Exposition" and the "International Ecotourism Forum." 出席「蒙特婁議定書第16次締約國大會」 Attended the 16 th Meeting of the Parties to the Montreal Protocol.
11.01	成立由學者專家組成之「國家紅火蟻防治中心」，由國內相關大學之學者專家，協調整合全國紅火蟻防治資源、進行開發與示範防治技術開發示範，並、協助各部會及地方政府執行防治工作。 Established the "National Imported Red Fire Ant Control Center," comprised of scholars and experts working to develop models for control technology and assist with executing control work.
11.06	舉辦「台灣長期生態研究研討會」及「國家生物多樣性推動計畫成果研討會」，並出版成果報告。 Held the "Forum on Long-term Ecological Research in Taiwan" and the "National Forum

期程 Dates	工作內容及成果 Events and Achievements
	on the Progress of Biodiversity Promotion Plans,” and published a report of achievements to date.
11.06~07	舉辦「竹南海口人工溼地」生態工法博覽會。 Held the “Jhunan Estuary Constructed Wetland” ecological engineering exposition.
11.08	永續會第18次委員會議通過「台灣21世紀議程－國家永續發展策略綱領」，並成立「氣候變遷暨京都議定書因應小組」，由行政院院長兼永續會主任委員兼任召集人。 The 18 th Assembly of the NCSD endorsed the “Taiwan Agenda 21—Guidelines for the National Sustainable Development Strategy” and established the “Climate Change and Kyoto Protocol Response Taskforce,” which will be convened by Executive Yuan Premier and NCSD Chairman Yu.
11.12	辦理「第三屆環境荷爾蒙及持久性有機污染物研討會」，作為施政參考。 Held the “3 rd Symposium on Environmental Hormones and Persistent Organic Pollutants,” the proceedings of which were published to provide reference for policy administration.
11.13~14	舉辦「五股溼地、新海橋下溼地」生態工法博覽會。 Held the “Wugu Wetland and Sinhai Bridge Wetland” ecological engineering exposition.
11.16	召開全國疫苗冷運冷藏研習營，加強各縣市疫苗冷運冷藏管理。 Convened workshops nationwide on the transport and refrigeration of vaccines in the interest of strengthening local government management in this area.
11.19~20	召開「全人健康照護工作研討會暨93年度全國精神醫療網會議」，以提供整體性、連續性強化之精神疾病防治工作，並加強及精神醫療網院際協調聯繫工作。 Convened the “Complete Health Care Work Seminar and 2004 National Psychiatric Treatment Network Meeting” to strengthen control of mental illnesses and coordination of a hospital psychiatric treatment network.
11.24	辦理「生物多樣性之財物誘因」座談會，就國內外實施經驗與相關議題進行探討。 Held the “Biodiversity Conservation Financial Incentive Forum” to discuss domestic and foreign implementation experience and related issues.
12.07	辦理國土資源組第13次分組會議，聽取生態旅遊白皮書（草案）。 The Water and Land Resources Working Group held its 13 th meeting to discuss the Ecotourism White Paper (draft).
12.10	完成臺灣沿岸海域8區（台灣東北角、宜蘭、台灣東部、澎湖、小琉球、恆春半島、蘭嶼、綠島）32處調查點之珊瑚礁生態總整體檢及分布圖。 Completed overall assessment and distribution maps of 32 coral reef ecology survey sites in eight coastal and marine areas (the Northeast Horn, Ilan, the East Coast, Penghu, Siao Liuciou, Hengchun Peninsula, Orchid Island, and Green Island)
12.12~20	出席「聯合國氣候變化綱要公約第十次締約國大會」。 Attended the 10 th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 10).
12.24	執行「綠島暨澎湖青灣海洋保護區規劃」計畫，整合漁業、生物多樣性、人文、觀光等資源等，使兼顧海洋漁業及生物資源得以妥善保育及，陸域人文觀光亦能永續發展。 Executed the “Green Island and Penghu Cingwan Marine Protected Area Planning Project,” which integrates fisheries, biological, cultural and tourism resources, and places equal emphasis on conservation of biological resources and sustainable development of cultural tourism. 辦理「海洋保護區劃設經營及管理研討會」，邀集縣市政府及漁業團體參與，強化海洋

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期程 Dates	工作內容及成果 Events and Achievements
	<p>保護區生態保育與觀光資源結合理念。</p> <p>Held the “Forum on Delimitation and Management of Marine Protected Areas,” inviting county and city governments and fishing industry associations to help strengthen integration of ecological conservation and tourism resources in marine protected areas.</p>
12.27	<p>辦理永續會委員「東沙國家公園」實地訪察，聽取委員對我國首座海洋國家公園未來規劃及管理方式之建議。</p> <p>Arranged an onsite survey of the proposed Dongsha Island National Park and listened to individual NCSD members’ recommendations toward the future planning and management of Taiwan’s first marine national park.</p>
12.30	<p>完成「完成重要濕地與珊瑚礁區域分布圖」及「劃設沿岸濕地保育軸」工作，將建置圖檔資料庫，並以圖說的方式呈現成果。</p> <p>Completed regional distribution maps for important wetlands and coral reefs and demarcated important coastal wetland conservation hubs. These projects established image databases that include descriptive headings for each image.</p>
	<p>完成「微粒空氣污染物研究與修訂空氣品質標準之可行性評估」，提供作為修訂空氣品質標準之參考。</p> <p>Completed the “Feasibility Assessment on Researching Particulate Matter Air Pollutants and Revising Air Quality Standards” to serve as a reference for future revisions to air quality standards.</p>
	<p>完成台北縣、雲林縣及台東縣3座大型焚化廠周界空氣、植物及土壤中戴奧辛含量調查。</p> <p>Completed surveys of dioxin concentrations in air, plants and soil near three municipal waste incinerators in Taipei County, Yunlin County and Taitung County.</p>
12-31	<p>完成頭前溪、朴子溪及曾文溪魚類及底棲生物生物相調查，以及水樣底泥及生物樣品無機及有機污染物檢測。</p> <p>Completed biota surveys on fish and benthos as well as analysis of inorganic and organic pollutants in benthic substrate and biological samples from the Toucian River, the Puzih River and the Cengwun River.</p>
	<p>完成一般環境中多氯聯苯等6種毒性化學物質質量測調查。</p> <p>Completed surveys on measurements of PCBs and five other toxic chemical substances in the environment.</p>
	<p>完成「台灣地區環境風險地圖」建置規劃。</p> <p>Completed the “Taiwan Area Environmental Risk Map.”</p>
	<p>完成93年度「永續校園改造計畫」，共補助93所學校，並舉辦多場次「永續校園永續發展改造」相關研習及培訓。</p> <p>Completed the 2004 “Sustainable Campus Reform Plan,” which provided subsidies for 93 schools. Held several forums and training workshops on “Campus Reform for Sustainable Development.”</p>

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93年國家永續發展年報

