# 2007 Annual Report on National Sustainable Development

行政院國家永續發展委員會 編印

Published by National Council for Sustainable Development , Taiwan, R. O. C

九十六年國家永續發展年報 2007 Annual Report on National Sustainable Development

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# 96年國家永續發展年報

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96年國家永續發展年報


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# 目錄

# 前言

1992年聯合國邀集171個國家代表於巴西里約熱內盧舉行「地球高峰會」，通過「21世紀議程」作為全球推動永續發展的藍圖，並呼籲各國共同行動，追求人類永續發展。10年後各國代表於2002年在南非約翰尼斯堡召開「永續發展世界高峰會」，通過「約翰尼斯堡永續發展高峰會行動計畫」，訂定推動永續發展的具體行動及目標期程。

行政院為將永續發展理念納入施政，於 民國86年8月23日 成立「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跨部會工作協調。永續會除先後完成「台灣永續發展宣言」、「台灣21世紀議程」及「永續發展行動計畫」等重要文件及推動工作規劃，96年度並召開首次的「2007國際永續發展論壇」，匯集各界共識，作為未來施政參考。

本年報彙集整理96年度我國政府及民間推動永續發展重要成果，包括永續會會務及成果（第一章）、2007國際永續發展論壇（第二章）、民間永續發展推動績優單位—96年度國家永續發展績優獎（第三章）、地方永續發展推動成果（第四章）、發布95年度台灣永續發展指標系統計算結果（第五章）以及國際永續發展相關公約動態（第六章）。永續會組織架構、委員名單及大事紀，則詳列於年報附錄。

透過「國家永續發展年報」之發行，希望國人及國際人士能更了解我國推動永續發展的努力及成果，並希望能藉此提升全民對永續發展的認知，進而為邁向永續發展願景共同努力。

▲張俊雄院長主持第22次永續委員會議。

# 第一章 永續會會務及成果

## 1.1 會務動態

**舉辦2007國際永續發展論壇**

為促進與國際永續發展之互動交流，行政院國家永續發展委員會（以下簡稱永續會），96年5月29至30日舉行「2007國際永續發展論壇」，共有來自國內外關心永續發展議題的學者、官方及民間等近四百位參加（詳細內容請參閱第二章）。

**張揆：**

**節能與再生能源，為當前施政重點。**

96年4月26日、7月13日與97年2月21日，已分別召開永續會第21-23次工作會議，由施能傑執行長主持。會中報告及討論案包括：「溫室氣體減量重要工作計畫（LPG車推廣策略、台電溫室氣體減量策略及電源開發計畫）」、「生質能源」推動策略、「東沙環礁國家公園成果報告」、「綠島國家公園執行報告」、「維持海岸線自然風貌、自然海岸線比例不再降低」、「人工魚礁計畫檢討」、「國土三法（國土計畫法、國土復育條例及海岸法）之立法策略與內容」等重要議案。

永續會第22次委員會議，由行政院長張俊雄主持。針對「節約能源及生質能源」推動策略，他

▲張院長與民間永續委員面對面交流。

於會中指示：「我國所須之能源98％皆仰賴進口，為減少進口能源依存度，以及因應國際高能源價格與溫室氣體減量趨勢，推動節約能源及再生能源為當前施政重點。

除經濟部積極推動各項節能工作外，也需要各部會的通力合作與全民共同的參與。此外，推動生質柴油、生質酒精可結合國內農業產製所需能源，進一步提高自產能源之比例。」

針對「維持自然海岸線比例不再降低」之推動，張院長指示：「行政院96年7月30日核定實施「永續海岸整體發展方案」，對政府捍衛海岸自然環境，具開創新局之指標意義。今後海岸地區重大建設計畫及相關工程之審議與施作，均應符合方案所訂之執行準則為前提」。

## 發表95年度台灣永續指標計算結果

永續會於96年6月5日世界環境日公布台灣永續發展指標系統之計算結果（詳細內容請參閱第五章）。

## 頒發96年度國家永續發展獎

「96年國家永續發展獎」96年12月3日於行政院大禮堂舉行頒獎典禮，由張俊雄院長親自頒獎表揚受獎單位。今年共有3社區、3家企業、3所學校及1個社會團體，以及3個永續發展行動計畫執行單位獲獎。各類獎項得獎單位如下頁表一：

## 政府與企業 攜手共進永續十年

適逢永續會成立十週年，永續種子於民間也萌芽十年，於96年12月4日舉辦的「永續十年—回顧與前瞻．實踐與行動」論壇，永續會執行長施能傑及前任執行長葉俊榮教授，均受邀致詞。

施能傑執行長於致詞表示，十年來，永續會的努力主要包括三大方向：

**一、制度性的架構：**

發布國家永續發展宣言、逐年發布台灣永續發展指標，

**二、參與性的架構：**

廣邀社會各族群多元化、多方面地參與，如永續會裡有2／3是來自民間的學者、專家或NGO，僅1／3來自政府；且永續發展獎的頒佈亦旨在表揚及獎勵表現績優的民間、學校、企業及社團等單位。

**三、行動性的架構：**

永續會制訂的永續發展行動計畫從200多項增加400多項，並分散到永續會之下的各個工作分組，挑出工作重點來加強推動中。


▲施能傑執行長於民間永續十年活動中致詞。

**表一：96年度國家永續發展獎得獎單位**

| 獎項 | 獲獎單位 |
|---|---|
| 社區永續發展獎 | 台北市北投區奇岩社區 （城市型） |
| | 台南縣北門鄉蚵寮社區 （鄉村型） |
| | 台南市安南區溪子墘社區（城市型） |
| 企業永續發展獎 | 華碩電腦股份有限公司（大型企業） |
| | 永信藥品工業股份有限公司（大型企業） |
| | 花蓮石材資源化處理公司 （中小企業） |
| 教育永續發展獎 | 台北縣雲海國民小學 |
| | 桃園縣楊心國民小學 |
| | 台北市麗山國民小學 |
| 社團永續發展獎 | 花蓮縣牛犁社區交流協會 |
| 行動計畫執行績優獎 | 內政部營建署：「東沙環礁國家公園計畫」 |
| | 衛生署疾病管制局：「加強各項傳染病之監測」 |
| | 環保署廢管處：「推動環保科技園區，建構循環型社會」 |

# 1.2工作分組成果介紹

## 1.2.1 永續願景工作分組


▲珊瑚礁岩遍布的屏東縣琉球鄉烏鬼洞。

協助縣市成立永續發展委員會、設立願景、分析議題、規劃策略、建立執行與追蹤機制、建立評量與修正機制、訂定績效評估辦法、建立資訊平台、推廣永續理念、檢討與整合現有工作計畫與資源、加強民眾參與之策略及作業模式等。本年度協助新竹市等8縣市辦理「推動地方永續發展計畫」，目前已完成全國25縣市之地方永續發展計畫。

### 強化永續發展推動機制

發佈95年「台灣永續發展指標」，共分生態、環境、社會、經濟、制度、都市發展等6領域，選擇各領域具有代表性指標，共計40項，如環境污染、社會壓力、經濟壓力、都市永續發展等綜合指標表現均較94年為佳，整體綜合指數趨勢較94年略佳。

依國家永續發展會議的重要共識，於本年度規劃辦理「永續發展行動營」，推動永續發展區域聯盟。本次以高雄縣市及屏東縣之高高屏永續發展區域聯盟為重心，進而將跨域合作的模式，逐次推廣至全國；持續編製綠色國民所得帳；外交部本年度成立環境永續外交小組，加強推動國際環境事務工作。


▲永續發展行動營（屏東縣）

## 1.2.2 國土與交通工作分組

### 永續海岸整體發展方案

內政部配合「國土利用監測計畫」，利用高科技衛星影像資料，每年定期公布各縣市自然海岸變化情形，並辦理變異點之現場查報與回報工作，以有效監督海岸線避免遭受不當開發利用。

為確保台灣自然海岸線不再損失，避免不當施設海岸工程，衝擊自然環境平衡，同時為順應國際趨勢，確保海岸永續發展，並以回復海岸自然風貌為基本理念，行政院於96年7 月30日核定實施「永續海岸整體發展方案」，以「漁港」、「海岸公路」、「海堤」、「觀光遊憩」、「海埔地」及「海岸規劃」等6項，作為優先提列實施計畫之主軸。

本方案之實施對於維持自然海岸線比例不再降低之實質意義為：政府對於自然海岸之關切，將由內政部營建署自然海岸線監測之「事後監控」，提升至各目的事業主管機關所推動建設計畫實質內容之「事前審議」。對於政府宣示捍衛海岸自然環境，具開創新局之指標意義。

### 推動永續交通運輸

花東線鐵路瓶頸路段雙軌化暨全線電氣化計畫：為提升東部鐵路運輸水準、平衡東西部鐵路運輸落差、大幅縮短鐵路旅運時間、構築全島快速運輸骨幹、滿足未來東部地區快速運輸需求，涵蓋30處車站，路線全長約155.46公里，進行鐵路全線電氣化及瓶頸路段雙軌化工程。

▲台灣高鐵。

台灣地區自然海岸與人工海岸示意圖


96年臺北都會區捷運建設路網規劃：路網發展分為三個階段，全部完成後，臺北都會區捷運路網長度將達270公里以上，平常日每日運量可達360萬人次以上。

便捷高鐵、完善大眾運輸：臺灣高鐵於96年1月5日起，自板橋車站至左營車站路段開始營運，同年3月2日板橋車站至台北車站路段亦加入營運，台北至高雄僅需90分鐘，西部走廊一日生活圈於焉誕生。配合高鐵通車，於各站區規劃分述如下：

一、**公路大眾運輸**：規劃高鐵各站區客運轉運站之興建及營運，並協調整合公路客運服務路線及班次，提供便捷的轉乘服務；且於高鐵嘉義車站首創「聯外BRT執行方案」。

二、**軌道大眾運輸**：於高鐵台北、桃園、台中、左營等站規劃有台鐵、捷運三鐵共站；於高鐵新竹、台南站亦規劃有台鐵支線配合轉乘服務。

## 1.2.3 資源與產業工作分組

### 積極辦理水庫淤積浚渫工作

水庫集水區上游受自然及人為因素影響，每年有相當數量泥砂流入水庫。為延長水庫壽命、提升防洪功能、恢復水庫容量、維持水庫設施，確保水庫供水，促進水庫永續利用，本年度已推動：

(一) 辦理水庫淤積浚渫工程，以改善水庫水質，恢復水庫容量，提升防洪蓄水功能及延長水庫壽命。

(二) 依各地區水庫淤積程度、供水環境等差異，評估清淤浚渫之優先順序，以陸挖、配合水中抽泥方式辦理。

(三) 預計清除阿公店、石門、澄清湖等11座水庫，合計2,000萬立方公尺淤砂。

### 訂定政府機關學校用電不成長目標

我國電力消費85～89年之年平均成長率8.3%、90～94年之年平均成長率4.3%。為落實節約能源，於95年、96年分別擬具「加強政府機關及學校節約能源措施」（以下簡稱「節能措施」）陳報行政院核定實施，明定行政院暨所屬中央、地方各級行政機關及公立學校用電量以不成長為原則，並逐年檢討。

節能措施規定執行單位採行之節約能源事項，計有汰舊換新或整體節能改造、節約用電，以及節約用油等，計3大類40項。具體成效：

**1. 95年夏月（8、9月）整體用電成長0.03%。**

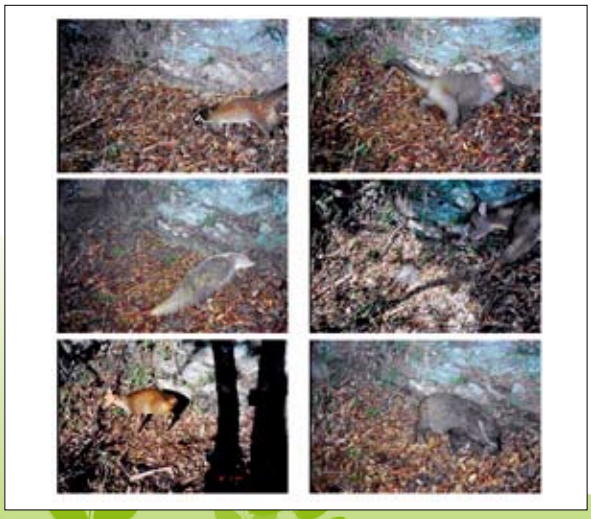
**2. 95年下半年各執行單位整體用電成長0.09%。**

**3. 96年夏月整體用電減少1.0%。**

## 1.2.4 生物多樣性工作分組

### 完備生物多樣性資料庫

台灣生物多樣性網站TaiBIF登錄物種統計，合計46760種。非本土種(歸化種)、栽培種、外來種、入侵種等之名錄已建置千餘筆；登錄台灣分類及生態專家695人；「台灣地區植群圖計畫」完成調查614個地面樣區，建置777篇文獻屬性資料，共計9081個樣區位置點；環保署環境資料庫建立資料定期更新機制，空氣品質、水質等監測數據公布於環境資料庫網站（網址：http://edb.epa.gov.tw/）；正式頒佈「基因轉殖植物遺傳特性調查及生物安全評估原則」；國科會97年起之計畫申請案，涉及基因改造生物田間試驗者，需先行風險評估。



▲各國家公園持續生物監測。

農委會國家作物種原保育及應用研究，取得作物種原組之ISO17025實驗室認證。維護6萬6千多份種子種原保存庫房之低溫保存環境；取得品種權之本土生物資源已完成技術移轉授權使用，包括菊花等12種作物。

### 保育生態 政策性獎勵休漁

公告「96年飛魚卵管理措施」，核准兼營漁船數及訂定總容許漁獲量，96年度鯨鯊捕獲量，於3月27日已達30尾限制數量，並公告禁止捕獲鯨鯊。核准27艘屏東縣兼營　鰆漁業漁船指定性休漁。完成6艘遠洋魷釣漁船辦理指定性休漁，核撥指定性休漁獎勵金。完成7573艘漁船辦理自願性休漁；策訂原住民族自然資源保育事業計畫，輔導原住民生物多樣性資源維護。

## 1.2.5 生活與生產工作分組

◀花蓮園區管理研究大樓及生態滯洪池。

### 獎勵及鼓勵民間興建綠建築

於建築技術規則建築設計施工篇增訂綠建築專章，爾後屬該專章之適用範圍者，自應依規定辦理綠建築設計；推廣促進民間既有建築物進行綠建築設計，訂定「內政部獎勵民間綠建築改善示範作業要點」，評選出本年度獲獎助案件共計13案。

### 推廣二手商品交易市集

「推廣二手商品交易市集甄選二手交易市集示範標竿輔導點—台北市永春以及南投縣集集2處，固定在每週六、日定期舉辦，皆為閒置空間再運用之新創立市集形式；另分別於台北市、苗栗、台南及高雄等縣市選出4家二手商店診斷輔導，改善其店內陳列、商品標示、環境動線、e化導入等；蒐集完成美、日、英、法、澳等5個已開發國家二手商品交易市集之案例，並據此研擬對國內二手市集經營上具體可行的方案；完成辦理地方政府二手業務研習營、二手業者經營管理培訓營人才培育課程；舉辦觀摩活動、示範標竿輔導點開幕行銷活動、成果及展示活動、電視媒體專訪及平面媒體報導、編印「消費大贏家」二手交易資訊手冊等，吸引並擴大民眾認同。」

### 環保科技園區　推動產業生態化鏈結

本計畫已有59家廠商進駐，包含多家外商及中外技術合作廠商，其中20家已完成設廠並開始營運，開始進行區內或與區外產業鏈結及物質、能源的循環，園區產業生態鏈結已逐漸成型。統計已入區廠商進駐面積已達 40公頃 ，投資金額133億元；預估年產值280億元，每年可循環再利用資源物166萬公噸、水再利用量66萬公噸，達本計畫目標300萬公噸/年之77%。

## 1.2.6 國際環保工作分組

### 推動與南太平洋國家環境合作

邀請吉里巴斯、馬紹爾群島、諾魯、帛琉、索羅門群島等南太友邦環境部會首長，於96年7月26日在台北召開「2007台灣與太平洋友邦環境部長會議」，友邦代表團長包括吉里巴斯歐泰瑪（Teima Onorio）副總統兼任環境部長、馬紹爾群島總統事務部長菲力浦（Witten Philippo）、帛琉環境品質保護委員會主席柯思巴（Jonathan

▲陳水扁總統(左四)接見2007年台灣與太平洋友邦環境部長會議與會代表。

▲環保署於薩爾瓦多成立「台灣駐中美洲環保聯絡處」。

Koshiba）及索羅門群島森林環境暨保育部長柯瑪克札（Mark Kemakeza）。

會議期間陳署長重信與友邦環境首長們召開多邊圓桌會談及雙邊會談，並安排與會外賓晉見陳總統及參觀國內資源回收環保設施。本次會議達成之共識結論，包括

(1) 建立國家間環境保護長期對話機制；

(2) 推展環境資源管理、海洋污染管制、廢棄物處理及永續發展之技術交流與經驗分享；

(3) 強化因應氣候變遷之能力建構，發展推動衝擊調適合作計畫。

環保署於96年9月下旬派遣3位專家赴帛琉，並規劃於97年春季赴馬紹爾群島、吉里巴斯、所羅門群島、諾魯及吐瓦魯等其他5個南太平洋友邦國家，協助解決當地環境問題。

### 推動與中美洲國家環境合作

環保署於96年6月11日於薩爾瓦多成立「台灣駐中美洲環保聯絡處」，作為我國與該區域友邦環境對話直接平台；並於96年6月派專家顧問團赴瓜地馬拉及薩爾瓦多，捐贈瓜地馬拉簡易空氣品質監測示範站。

## 1.2.7 健　康　風　險　工　作　分　組


▲衛生署獲頒行政院永續行動計畫執行績優獎。

### 加強監測 強化傳染病監測系統

「加強各項傳染病之監測：強化傳染病監測系統功能」計畫主要具體事蹟與成效如下：整合傳染病監測系統，杜絕疫情傳播，達到傳染病決戰境外目標；應用高科技強化傳染病監測系統，善盡國際公民職責，達到防疫無國界目標；傳染病監測系統全面自動化，即時主動回饋，達到防疫資訊零時差目標；提昇傳染病監測系統可近性，凝聚全民共識，達到全民防疫目標。

### 強化預防接種政策制定及實務執行

一、 嬰幼兒常規預防接種：執行各項常規預防接種項目之疫苗接種工作，積極提升接種完成率。現行國內幼兒的各項疫苗接種完成率經過多年的努力，目前一般基礎劑都可達95%以上。

二、 規劃及爭取新增常規預防接種疫苗：衛生署傳染病防治諮詢委員會預防接種組(ACIP)95年會議審慎評估決議，排定優先納入常規預防接種之項目及對象。

三、 推動機構內受照顧者及75歲以上老人肺炎鏈球菌疫苗接種計畫。

## 1.2.8 永　續　教　育　分　組

▼彭厝國小改造後。

### 活化空間 發展特色 落實永續校園

訂定96年度「推動國民中小學活化校園空間與發展特色學校計畫」全國25縣市已決選出100件為發展特色學校的示範模式，每校補助30～80萬，並核定補助金額新台幣4,455萬元；並核定於臺北縣屈尺國小建置發展特色學校資源中心；舉辦「2007全國中小學特色學校暨台灣遊學國際博覽會」。

### 其他成果

將節能減碳措施納入學校宣導策略；建置「校園二手制服、書籍、學用品等回收再使用」填報系統；研擬建置全國二手教科書交流平台；辦理<2007永續發展教育十年論壇；補助辦理環境教育推廣計畫活動範圍生物多樣性教育、永續發展教育；教育部安全衛生專業師資培育計畫；96年補助地方政府辦理環境教育輔導小組計畫，將「臺灣二十一世紀議程」永續發展內涵納入學校課程、社區宣導及社會教育；將永續教育有關之議題納入國民中小學九年一貫課程；推動「國立高中職老舊危險校舍改建及教育資源不足學校新建工程」計畫，訂有作業規範，規定工程發包之前，需取得候選綠建築證書，以落實永續校園。

### 推動生態工程．與環保團體座談

蒐集各類型生態工程案例編成教材，辦理設計顧問公司及施工廠商技師及機關人員訓練講習；全國生態工程入口網之營運維護；邀請全國性環保團體參加座談，環保署長與環保團體針對環保議題做直接對話，對強化政府與非政府組織間的合作關係具積極效果。

## 1.3 重要成果 環保科技園區推動計畫

▲高雄園區現況。

環保署民國90年起即開始進行設置環保科技園區規劃作業，行政院於91年9月9日核定「環保科技園區推動計畫」，計畫推動期間至民國100年底止，全國設置4座園區，總面積123公頃，總經費新台幣62億元，主要在促進物質之循環永續利用，強化國內外產業技術之整合，促進綠色產業，提昇國際綠色競爭力，建立永續發展社會。

本計畫選定於高雄縣本洲工業區、花蓮縣鳳林綜合產業區、桃園縣桃園科技工業區、台南縣柳營工業區，進行規劃及興建營運。目前4座園區之管理研究大樓暨實驗廠房設計皆依綠建築規範設計，花蓮及桃園園區已取得綠建築標章。

推動該計畫至今已有58家廠商進駐，其中包含多家外商及中外技術合作廠商，對我國環保技術提升助益極大，其中20家已完成進駐作業並開始營運，開始進行區內或與區外產業鏈結及物質、能源的循環，園區產業生態鏈結已逐漸成型。已入區廠商預計可提供循環再利用資源物166萬公噸/年，水再利用量66萬公噸/年，總計再利用量232萬公噸/年，達本計畫目標300萬公噸/年之77%。

環保科技園區推動計畫不僅可以促進綠色產業發展，推動綠色供應鏈，包括上游原料、零件供應，中游的製造及下游的組裝測試至終端客戶，建立跨企業的合作，並透過資源整合、循環利用，協助企業降低企業經營成本，創造經濟、環境、社會三方共贏的局面。

推動「環保科技園區」除可解決我國環保問題及提升環保技術外，未來也可成為新設工業區的範本及已設工業區改進之參考，希望藉此推動模式，推廣至其他的工業區及園區，帶動工業園區生態化之風潮。

## 1.4 重要成果 加強傳染病監測 強化傳染病監測系統

為保障全民健康，善盡國際公民之職責，疾病管制局積極建構即時且有效之傳染病監測系統，其具體事蹟如下：

**（一）達到傳染病決戰境外目標**

隨著國際交流與旅遊往來頻繁，各項境外傳染病更易傳播至國內，為有效監測境外疑似傳染病例，防杜疫情傳播，積極整合傳染病監測系統，對於有症狀之入境旅客能加強監測並督導就醫，避免境外移入之傳染病個案。

**（二）達到防疫無國界目標**

為配合世界衛生組織(WHO)國際衛生條例之施行，於原有通報系統中增加旅遊史、動物接觸史等重要通報資料欄位，以及早監測H5N1流感等新興及再浮現傳染疾病；當通報個案檢驗出H5N1流感時，即時發送手機簡訊通知防疫同仁，啟動相關防疫作為，並透過系統自動通報WHO。

**（三）達到防疫資訊零時差目標**

除建置零時差且全面性防疫監測網絡外，並藉由各監視通報系統間之資料自動串聯，以提昇疾病監測敏感度及特異性；佐以自動化資料分析之方式，以地理資訊系統（GIS）、倉儲系統即時呈現疾病整體現況，提供防疫決策制定參考。

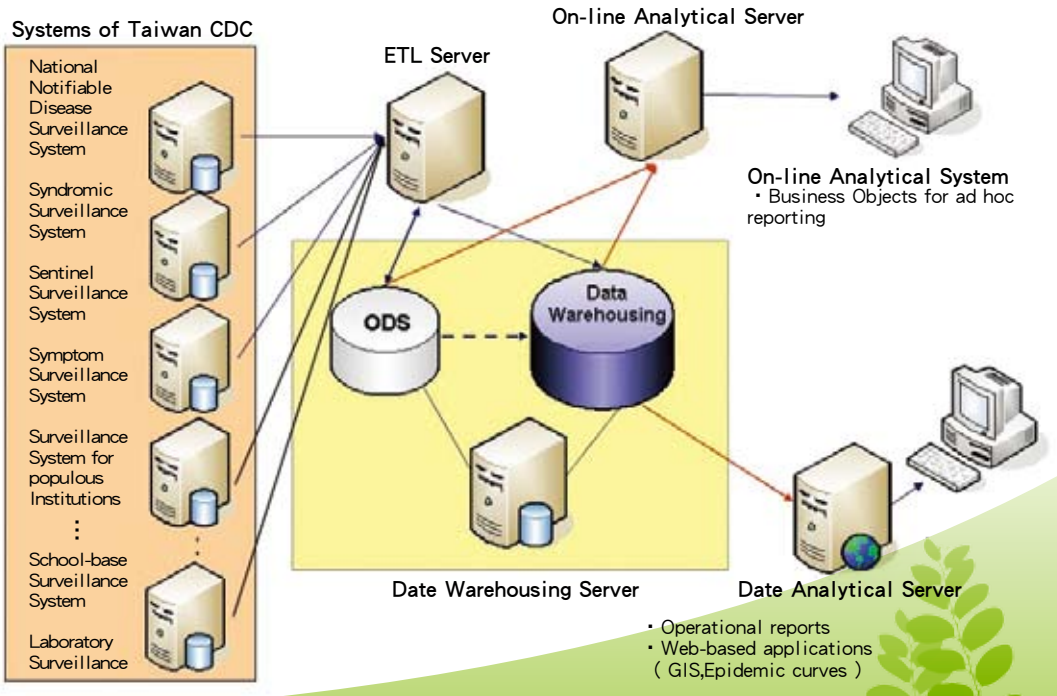
**（四）達到全民防疫目標**

醫療及公衛人員藉由網路及時通報疫情，凝聚防疫向心力，並可隨時取得資訊及採取必要的防疫作為，避免疫情擴大。民眾並可透過免費服務電話1922「民眾疫情通報及諮詢服務專線」通報或諮詢傳染病相關疫情及防治措施，及隨時透過本局網站擷取疫情相關資訊。

面對已知及未來新興疫病帶來之各種威脅，除持續引進防疫新科技，強化現有疾病監測系統，同時積極與國際接軌，與美國疾病管制中心、日本國立感染症研究所等機關密切合作，以建構更完整的疾病監測網絡。

積極整合相關防疫資源，提昇防疫專業能力，以危機總動員的機動性推動疫病防治，隨時做好防疫準備以迎接挑戰，積極參與跨國防疫事務，共同維護防疫安全，以達到國家永續發展。

**加強傳染病監測：強化傳染病監測系統**



# 1.5 重要成果 第一座海洋國家公園 東沙環礁

位於台灣高雄西南方240海浬的東沙環礁國家公園，是我國第一座海洋型國家公園。在歷經3年的調查、規劃和各界努力下，行政院於民國95年12月19日，核定東沙環礁國家公園計畫，內政部也在96年1月17日正式公告成立，其面積廣達35萬3千餘萬公頃，為西太平洋地區重要的環礁地景，孕育豐富的海洋生物資源，也是我國最大的國家公園，目前執行資源復育成果如下：

**一 、環礁復育（逐年提高活珊瑚覆蓋率）**

（一）珊瑚礁生態調查與監測

（二）珊瑚復育試驗與可行性評估

**二、東沙島自然海岸之恢復與監測（逐年移除人工設施）**

（一）東沙島海岸變遷數值分析及環境改善策略研究

（二）東沙遙測影像空間基礎資料處理

**三、東沙島生態復育（逐年提高原生植被覆蓋面積）**

（一）東沙島環境整理及原生植栽復育規劃

（二）東沙島苗圃建置和原生種植物辨識及外來種移除

（三）東沙島陸域生物資源調查研究

**四、東沙島水資源、能源及建築物調查與景觀改善（逐步降低外來能源的使用，並減少建築面積）**

（一）東沙能源替代及水資源多元化可行性評估

（二）東沙島道路雨水集水系統之規劃研究與設計

（三）東沙島景觀生態資源規劃研究

**五、海洋文史資源的研究與保存（提昇我國在海洋文史和水下考古的技術）**

（一）東沙海域古沉船遺蹟之調查研究

（二）東沙環礁國家公園海域文史及航海史資源調查研究

（三）東沙環礁國家公園陸域考古遺址調查

**六、增進民眾認知、促進民眾參與（塑造海洋文化及資源永續利用的觀念）**

（一）漁村中小學海洋環境教育活動

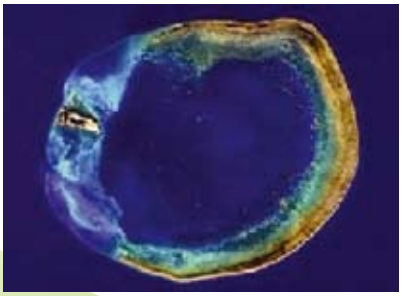
（二）東沙海域漁民訪談

（三）沿海島嶼可持續性發展與生態保育並行之研究

**七、國際海洋合作（提升海洋科研技術及善盡國際海洋保育責任）**

（一）加入聯合國海洋全覽和世界自然保育聯盟等組織

（二）進行國際海洋科學研究



▲福衛2號所攝之東沙環礁。

東沙環礁是我國第一座以保育海洋資源為主要目標的國家公園，它是以資源永續經營為理念，許多資訊將因為持續調查和研究，而獲得更明確管理效益，未來預期成效包括：

- **永續經營海洋生物資源**
- **進行長期生態研究，培育海洋科技人才**
- **保護人類的自然遺產，進行計畫性復育**
- **劃設海洋保護區，符合世界潮流**
- **東沙是海洋生物和鳥類遷移的中繼站**
- **設置海洋研究站，與世界海洋保育接軌**
- **建立西太平洋海洋保護區區域據點**
- **提供海洋環境教育，發展生態旅遊**
- **保護人類水下遺跡，培養水下考古人才**


▲2007永續發展國際論壇。

## 第二章

# 2007國際永續發展論壇

行政院國家永續發展委員會於96年5月29至30日舉行「2007國際永續發展論壇」，由環保署署長陳重信主持開幕，並邀請吐瓦魯國際環境及氣候變遷大使Enele Sosene Sopoaga以「永續發展與全球治理的共同利益」為題致詞，論壇共有關心永續發展議題的學者、官方及民間等近四百位參加。


永續會屆滿十年，
未來希望參與國際社群

### Sopoaga：聯合國應關注小島國家困境

環保署長陳重信於開幕致詞表示：「永續發展概念在國際上已有20年歷史，我國『國家永續發展委員會』亦屆滿十週年，十年來，台灣在永續發展上不僅已有諸多進展，並希望參與國際社群，協助其他國家與區域推動永續發展。他相信，這兩天的論壇將對台灣與國際社會的永續發展工作助益良多。

南太平洋島國吐瓦魯環境與氣候變遷大使、身兼小島國家聯盟主席Enele Sosene Sopoaga亦出席開幕儀式。索本嘉表示，對台灣與吐瓦魯這樣的島國而言，由於氣候暖化、海平面上升，國家安全與民眾生命財產備受威脅；但因資源有限，評估


**“吐瓦魯樂與台灣在永續發展議題上合作”**

能力與談判能力不足，在國際協商會議上無法爭取到應有的權利與支援，容易被邊緣化。這對小島國家很不公平，因為他們的碳排放很少，卻要承受海平面上升帶來的惡果。

Sopoaga指出，在永續發展議題上，除聯合國氣候變化綱要公約（UNFCCC）、聯合國並未特別關注小島國家獨特的困境，他呼籲聯合國應特別重視，並建議設立「小島國家氣候變遷卓越中心」，成立氣候變遷因應基金，僅開放小島國家申請補助。台灣也面臨和其他島國一樣的困境——被邊緣化、無法參與聯合國的對話機制。吐瓦魯樂見與台灣在永續發展議題上的合作，在國際上也會支持台灣。

## 政府與企業 攜手面對氣候變遷

行政院永續會前執行長、台大教授葉俊榮，於論壇中表示，在因應氣候變遷方面，立法院應儘速通過溫室氣體減量法草案，表達台灣對氣候變遷重視的立場，在溫室氣體減量作出具體行為，政府並應針對減量目標與期程，與企業明確溝通，從永續發展角度逐步調整工業結構，台灣才能長久發展。

永續會委員余範英則指出，台灣在2002年通過環境基本法，行政院也成立永續會，並擬定相關政策，但迄今還是有三大問題要面對，包括國際對台灣不公義的問題、台灣政府與企業對全球環境問題，欠缺認識與共識，以及台灣缺乏具有影響力的非政府組織。

受邀來台的前韓國總統府永續發展諮詢委員會分組召集人Dr. Moonkyu Kang、日本永續發展評議會(JCSD)秘書長 Ms. Miwako Kurosaka、芬蘭永續發展委員會秘書處代表Ms. Tuire Nikulainen及德國前柏林邦內政廳長 Prof. Dr. Dieter Heckelmann及WBCSD的Dr. Howard Klee則分別於會中介紹各國及WBCSD的永續發展策略，歐盟執委會環境總署國際事務處長Henrik Laursen則針對歐盟永續發展國際合作作精要介紹。芬蘭代表同時介紹芬蘭永續

▲來自國內外近四百位專家學者與會。

▲由左至右分別為與會的日本、芬蘭及美國代表Ms. Miwako Kurosaka、Ms. Tuire Nikulainen及Dr. Howard Klee

發展指標系統，美國耶魯大學的ESI與EPI研究團隊代表Dr. Christine Kim，則介紹ESI與EPI的計算方式及決策應用。

## 日：民間推動政府邁向永續
## 歐：永續融入政策立法

談到日本的永續經驗，Miwako Kurosaka指出，1997年擬定的《京都議定書》，是首次在日本舉辦的國際性環境會議，不只讓大家重視氣候變遷問題，更讓全民環保意識覺醒。2004年JCSD提出「環境基本計畫」供政府建立永續發展策略，從此成為推動日本永續發展的重要推手。

來自歐洲國家的經驗分享，Tuire Nikulainen指出，芬蘭的國家永續發展委員會為永續發展的主要協調者，並由首相擔任主席。自1987年起，將永續性置於政治議程中，使政府與各方利益相關者都能對話，將永續政策融入各部門的政策。Dieter Heckelmann博士強調，德國在1994年修正憲法，根據憲法的20a條款，政府必須為後代利益保護自然資源，且立法單位須制定規範，要求政府執行永續發展、保護資源等政策，同時司法單位也以永續發展為執法依歸。

永續發展指標已發展到第三代的芬蘭，自1997年聯合國永續指標(CSD)發表後，即主動要求參與成為測試國。在CSD 134個列出的指標中，芬蘭選出58個作為該國的永續發展指標進行測試，於2000年發展出第一代指標。至2006年發展出的第三代指標，在34個核心標題指標下各有約50個支持指標，並參與草擬國家永續發展策略的過程。

環境永續性指數（ESI）與環境績效指數（EPI）是由美國耶魯大學環境法律與政策中心研發出來的世界性環境績效評比。ESI測量全球146個國家環境永續性的相對指數，量化各國未來數十年內有效保存貴重環境資源的可能性。EPI則聚焦在各國接近國際決議之環境政策目標核心政策領域的程度，為絕對指數，以鑑定出世界永續發展的領先國、落後國與最佳措施。

## 汲取他國永續經驗 促成永續政策

在結束一天半的議程之後，並於5月30日下午邀請各國學者專家與永續會委員們進行面對面的圓桌會議，為整個活動劃下句點。而正如Dieter Heckelmann博士所強調，將永續政策融入憲法，方使促使行政、司法和立法三權的平衡發展與重視。借重他國的寶貴經驗，期許我國永續會未來定位與政策推動上，能有更長遠考量及朝向永續的發展策略。


▲永續發展圓桌會議。

▲規劃營造生態社區。

第三章

# 民間永續發展推動績優單位—96年度國家永續發展績優獎

## 3.1 踏實牛犁 深烙永續足印—花蓮縣牛犁社區交流協會

回顧台灣早期歷史，光復後，原先居住花蓮縣豐田鄉的日本人留下屋舍建築、田地，讓附近長期為日佃的客家人成為豐田的主人，豐田客家人也把在西部的親戚好友邀來豐田一同打拼，使此處成為一個客家村，撞擊出豐田特有的客家文化特色。

### 日式融合客家 獨特豐田文化

搭上社區營造的列車，1996年當地居民集結組成「牛犁工作群」，豐田地區擁有豐富人文背景，向遊客介紹日本移民村的遺跡，但在導覽過程中卻發現：解說都停留在台灣光復前的時空，與現今居住的客家村存在斷層，他們開始思考：身為豐田地區的當地居民，還可以做些什麼。

後續在花蓮師院教授及花蓮縣文化局共同推動之下，2001年正式立案，改稱為「牛犁社區交流協會」。「牛犁」象徵著勤勉努力的耕耘，協會自我期許如牛犁，一步步勤勞踏實的前進；希

望將自己的關懷觸角伸及村中的老人、婦女以及青少年，更關切自身的客家認同，透過對客家歷史、禮俗及生活紀事的追尋，逐漸為豐田勾勒出一個二次移民村的架構。

首先是辦理「兒童讀經班」，期間藉由「豐田有愛」、「畫荷競賽」、「民俗節慶」等活動的辦理及成立青少年服務隊，逐步凝聚居民情感與共識；並將「創造在地就業機會」、「關懷青少年教養教育」、「建構老人服務福利制度」，訂定為協會三大重點工作目標，然而面對地區文化資產的保存、環境的影響、產業的轉型與發展、社會議題的衝擊等議題，期盼能計畫性的去規劃解決，同時亦將推行「環境教育」，建構「環境教育學習中心」，列為協會永續發展目標。

這些年來，協會針對「人與生活文化」、「人與環境生態」、「生活文化與環境生態」等議題的聯結，在夥伴們戮力的推行及地區居民的配合與支持，同時亦在各方指導協助下，各項工作績效獲得肯定，而常態及計畫性工作，亦已逐步邁向專責營運管理的制度。協會近年獲得評鑑績效傲人，除最早於2002年獲文化建設委員會評定為全國七大優質社區；2007一年內，即獲國家文化總會評選獲得『總統文化獎』—「玉山獎類」、花蓮縣環保局評選為環保有功社會團體及花蓮縣教育局評選獲頒社會教育有功團體。

協會常態及計畫性工作：

**產業發展**：推行社區深度旅遊及戶外教學；

▲推行生態旅遊。

培育導覽解說人員；創意產品研發展售及DIY教作；季節及服務性產業開發；苗木培育販售。

**人文教育**：編印社區人文、鄉土教材；文史館、文物館、社區教育教室；成立社區青少年社區服務隊；人文教育課程；民俗節慶活動。

**社區治安**：安全防制營造中心；登錄、制定安全防制作為；編組社區環境維、搶修護小組。

**社福醫療**：老人及外配服務據點；青少年安親課輔；獨居老人送餐及居家服務

**環保生態**：環保志工隊及宣導、訓練；台灣夜鷹及人工濕地園區；推行生態旅遊；結合國中小推行環境教育；社區生態環境營造與維護；山林、環境巡守護人才培育及任務執行。

**環境景觀**：整治社區雜亂空間；社區綠美化、藝文空間營造；行道樹栽植；培育台灣具有特色的植物。

▲推行環境教育。

▲環境巡守護人員培育。

▲營造濕地教育園區。

### 聯結在地組織 拓實社區營造

從一個被輔導的地方組織，經12年實務工作的洗鍊，除已為社區及協會本身，奠立良好的整體發展基礎，目前亦與花蓮地區各社區、協會組織，建立社區家族聯誼及合作機制，且已逐步開創出共同發展願景。

未來除秉持既有作業基礎，將社區整體營造工作及環境教育概念，深層落實於豐田地區，逐步朝向「社會企業」架構發展，建立穩固的永續發展基石，同時亦將持續協助花蓮各社區，運用環境教育概念，推行各項營造事務，並以制定聯合運作機制，開創出社區營造的新思維、新作為。

## 3.2 落實永續 形塑綠色企業—華碩電腦股份有限公司

座落在台北關渡，一棟到深夜仍燈火通明的辦公大樓內，往來的行人或車輛很難不注意到那醒目的企業標誌「ASUS（華碩電腦股份有限公司）」，這家公司2006 年主機板出貨量達5,500萬片，當年全球所售出的桌上型電腦當中，每三台就有一台使用華碩主機板，讓台灣的ASUS在國際市場上揚眉吐氣。

### 啟動綠色華碩 擊出綠色安打

自1990年創立以來，華碩以擁有世界級的研發團隊和科技技術，秉持一貫的高品質科技創新而聞名，更致力擠身進世界級的綠色高科技領導群。企業精神重視環境保護，於2004年啟動GreenASUS （綠色華碩）Steering Committee，積極推動整合綠色設計、綠色採購、綠色製造、綠色行銷四支「綠色安打」，形塑華碩為綠色企業。同時，並導入社會環境責任管理系統，以建構環境與健康安全政策，朝向企業永續發展。

華碩不僅在產品的銷售成績傲人，在國際品牌形象及環保績效上，也是獲獎連連。歷經市場的肯定，華碩獲得2007年台灣十大國際品牌冠軍寶座，品牌價值高達11.96億美元，較2003年成長166%；獲2007年台灣精品獎「風雲獎」，以逾200個精品獎的成就獲頒台灣精品獎最高榮譽「成就獎」；而2007年參與德國Oekom國際環保績效評比，獲電腦與電腦週邊產品類同業中之第一名，更是50年來第一家榮獲“設計界奧斯卡”CeBIT國際論壇iF設計金牌獎的華人公司。屢獲世界大獎，足以映證其企業口號：「華碩品質，堅若磐石」。

### 導入綠色製程 與世界大廠同步

為了落實綠色供應鏈理念，華碩並致力建置產品回收系統及無鉛環保製程，為台灣第一家品牌企業於美國建置資訊產品回收體系，並提供消費者免費回收服務；開發出台灣第一片無鉛環保主

▲永續獎評選委員至華碩參訪之合影。

機板，榮獲94年度經濟部工業局主導性新產品開發計畫之特優成功精選開發案例。

同時，建立台灣第一套GPMS綠色產品資訊管理系統，榮獲95年度經濟部技術處示範性資訊運用特優開發計畫；建立臺灣第一套WEEE 易拆解、易回收再利用綠色產品設計及驗證系統；開發出台灣第一套自動化環保產品資訊系統，提供透明化且及時之環保產品資訊。

除了自我要求之外，華碩並於2007年7月正式加入國際組織「電子行業行為準則」，與HP、Dell、IBM、Microsoft、Sony等並列會員，建立溝通管道，分享企業社會責任經驗，共同為公司與電子產業之永續發展而努力。

在董事長施崇棠的領導下，企業的經營理念有四：「 培育、珍惜、關懷員工，讓其盡情發揮

▲華碩歷年獲得國內外獎項肯定。

▲評選委員實地參訪。

最高潛力」「 堅守誠信、勤儉、崇本、務實的正道」、「 無止境地追求世界第一的品質、速度、服務、創新、成本」及「躋身世界級的高科技領導群，對人類社會真正做出貢獻」

展望未來，華碩不僅將繼續秉持珍惜自然資源的精神，堅持「清潔生產、綠色製程」的作法。同時，將更關心員工的福祉與人類所生活的世界，充分發揮企業所應擔負的社會和環境責任，展現維護社會環境的決心。

## 3.3 綠映雲海 星空、童顏、笑嫣—
## 台北縣石碇鄉雲海國小

▲在鋪滿落葉的草地上嬉戲。

台北縣石碇鄉雲海國小，校區位於台北縣石碇鄉北宜公路24.5km半山腰的山林中，山中經常雲霧縹緲、寧靜安詳，同時是一個深富生物多樣性的生態社區。

### 多樣自然生態 豐富學生感受

在這個幽靜山區，隨著四季的變換，各有不同的風光可賞。初春，烏來山區的杜鵑，在蛙鳴和鳥兒齊唱中綻放；夏夜，一陣驟雨會讓地面佈滿爬出土壤呼吸的蚯蚓；秋天，學生在鋪滿楓紅落葉的草地上嬉戲；冬末，滿園盛開的山櫻花在微風中灑落一地的櫻花雨。雲海國小的小朋友們，在多樣性的自然生態校園，擁有較平地孩子們更多的時間和空間，去親自體驗生命的感動。

雲海國小的師生們，多年來努力建構一個生物多樣性的生態園區，逐步發展出貼近本土的特色課程，在環境與生態教育的永續上盡一份責任。所以，依物種生存環境規劃生態學習空間，實施校園自然生態維護法，保存雜樹林，讓物種多樣化；草原修剪時避開昆蟲繁殖期，提供昆蟲活動空間與學生觀察的良好教材。廣植食草、蜜源和寄主植物，設置昆蟲餵食平台。建置星月平台、阿波羅廣場、木屋平台、戶外體能遊具等多元教學功能學習空間。讓孩子接觸大自然，從觸碰中擁有記憶與感受，培養豐富的想像力和縝密的思考能力。

▲初春杜鵑綻放。

為鼓勵孩子從自然中挖掘更多生生不息的珍貴寶藏，同時有系統地成長學習，學校團隊共同編撰自然教材、生態遊戲手冊、校園步道自學摺頁、生態繪本、教學資源手冊，製作校園導覽暨植物解說牌。以生態工法防範山坡土石流，並補植山櫻、樟樹、台灣欒樹等台灣原生植物，


▲雲霧繚繞的山林間。


▲綠意盎然的校園。


▲藍染DIY課程。


▲恣意徜徉大自然的孩子們。

兼顧水土保持與校園植物的多樣性。跑道鋪設滲水管，導引雨水調節溼地。採用連鎖磚透水性鋪面、設置水撲滿，將雨水回收澆灌花木。

同時，利用風災斷木造就新的遊戲空間，將崩塌坡成為自然修復觀察站，讓生命教育融入學校教育，產生保護環境的意識與行為。活化與永續利用閒置校園永安分班，發展翡翠集水區課程，推動水資源教育與環境教育。結合社區教室：二格自然中心、小格頭苗圃、文山茶改場進行教學活動，積極進行螢火蟲復育，成為臺北縣擁有最佳賞螢環境的學校。

## 願景藍圖：人文、自然、精緻、卓越

雲海師生們，在校園之外，同時也努力盡一份社區責任，結合社區及家長師生廣植烏來杜鵑，共同作復育工作，成為台北縣烏來杜鵑戶外教學園區。發掘石碇鄉大青藍染的社區產業資源，廣植大青，營造學校成為大青園區。發展大青藍染特色課程，設計「藍染DIY」活動課程，提供都市型學校學習，分享學校教育資源。協助社區培訓人才，成功地協助社區人士成立個人藍染工作坊，成為社區推動永續發展的教育基地，傳承社區藍染產業文化。

多年來，雲海國小的每一項成果都是凝聚共識、長遠規劃、師生齊力、用心動手、點滴累積而成的，全體師生足堪自豪地說：「我們是用真心來經營教育的永續發展！」

而為了延續過去，傳承未來，雲海國小勾勒出未來的願景藍圖如下：

**人文：熱情參與、主動關懷；保護文化、包容多元。**
**自然：尊重生命、珍惜資源；向大自然學習、維護生物多樣性。**
**精緻：探索創新、精益求精；群策群力、團隊合作。**
**卓越：永續經營、環境再造；經驗傳承、國際接軌。**

## 3.4 日出奇岩 照耀生態人文社區—
## 台北市北投區奇岩社區

▲頂埤仔全景。

奇岩社區得天獨厚，難得的日出景觀，彷彿啟示社區人要迎著晨曦，樂觀進取。「奇岩日出最美」，居民樂於攜手維護社區的自然與人文環境。

1994年一群社區的媽媽們，從「讀書會、成長班」等學習過程中，凝聚社區情結和服務社區志念，成立『奇岩社區發展協會』，並付諸行動，關懷社區公共議題，團結一致，抗爭不當開發，成功禁止「山坡地濫墾」，共同為維護社區生活品質而努力。目前會員已成長為200多人，社區人口約1萬多人。

當前社區推展項目有：

（一）**人文教育**—永續經營共同成長的學習型社區。

（二）**社福醫療**—老人照顧關懷及婦女福利。

（三）**環保生態**－丹鳳山自然資源調查、山水奇岩夢公園、奇岩新社區計畫、綠色學校生態營造等。

（四）**社區互助產業**—奇岩取貨站、奇岩烘焙工坊、社區文化產業。

（五）**環境景觀**—社區閒置空間再利用、社區藝文展覽、社區藝文空間美化、社區藝術節。

### 群峰環繞 打造山水生態村

奇岩社區舊稱「牛稠內」，位於丹鳳山、哭哩岸山及奇巖山環繞之山麓，得天獨厚的天然環境，構成都會型社區難能可貴的景觀特色，因而有「山水奇岩生態村」催生計畫，計畫包括：

2002-2004進行自然資源調查，建立「丹鳳山自然步道導覽摺頁」、「奇岩社區綠色生活地圖」、「丹鳳山文化生態專輯」、「花飛丹鳳愛家話家DVD」等資料庫，並與社區鄰近學校共同推動生態環境教育—丹鳳山自然步道解說活動。

2004年北市府在丹鳳山上施工，社區發起成立「丹鳳山關懷聯盟」，居民主動關懷丹鳳山的浩劫與回復舊觀，邀約市府承辦單位召開說明會，發表申明、表達社區訴求，持續追蹤公部門之承諾及後續回復作業之落實。

2005～2006年「山水奇岩夢公園」計畫，強化團隊執行能力，更邀集學校、家長會、廟會等在地社團共同擬訂「親水願景地圖」，分期分區、逐年逐步執行社區水系空間環境改造，2006年完成第一期第二區的崇仰公園水泥池塘生態化，200多位民眾參與，開創社區生活共同記憶，人親土親嘉年華親子活動，共同完成「頂埤」生物棲地營造、「台灣原生種」水生植物栽種、生態

▲推廣丹鳳山自然步道解說導覽--清江國小。

▲頂埤仔生態池每月志工維護。

池解說活動、認養「頂埤」生態池維護與管理。

2006-2007年奇岩新社區計畫案：市府擬開發計畫，由本社區協助市府開發基地自然生態調查、出席都市審議委員會提出在地建言，辦理社區公共論壇等，成功搶救開發基地內濕地，而讓「野溪復育計畫與埤塘得於保留」，台北市政府於2007年5月10日發布台北首例優質生態社區－北投區奇岩新社區計畫案誕生！

2007永續校園「綠色學校」生態營造--塑造親水空間及週邊環境改造，思考水系空間以及校園環境的關聯性，並將水系空間應用至學校前庭的生態綠化、永續校園方案中，活化校園內空間成為社區的重要公共空間、塑造親水空間「校園生態池」等。

綠色生活廣場「奇岩取貨站」：2002年以綠色消費共同購買為企劃主軸，與台灣主婦聯盟生活消費合作社策略聯盟，成立了「奇岩取貨站」，獲得環保署全國環保示範社區，發展至今5年，以合作消費推廣、資源回收、重複使用等健康環保生活理念，發展成社區服務據點。

## 推動文化與保育 營造健康環保生活

奇岩以「人、生活、土地、空間」為主題，社區自主運作，以造福社區、永續經營為目的，凝聚社區意識，共同建立優質優美的社區生活環境。以社區景觀特色，建構『山水奇岩生態村』綠色社區，培力專業團隊推廣綠色生活觀念、環境教育、環境維護管理，推動社區文化與自然生態保育，營造社區健康環保生活與文化傳承。

### 奇岩的故事—社區營造地圖

5 1997抗爭財團二度濫墾遏止山坡地開發案

4 1996社區CIS甄選〈CIS陶版牆-白房子〉

3 1995關懷山坡地濫墾

2 1995環境改造計畫〈閒置空間利用-白房子〉

1 1994成立奇岩社區〈社區媽媽清江讀書會〉

12 2007奇岩社區開發計畫台北首座生態社區

13 2007～2008〈公民陪審團〉「綠色社區協力聯盟」

9 2005～2006奇岩生態村催生清水環境〈上埤仔生態地營造〉

8 2004～2005第二屆社區藝術節〈社區空間美化-清江國小藝術陶版〉

11 2007綠色學校〈校園生態池營造〉
2008〈生物多樣性〉

7 2003～2005社區總體營造〈丹鳳山自然步道、綠色生活地圖、丹鳳山關懷聯盟〉

6 2007環保示範社區〈綠色消費共同購買-奇岩取貨站〉

10 2006「日出奇岩創藝生活工坊」社區互助產業

▲台中縣港區藝術中心一景。

# 第四章

# 地方永續發展推動成果

永續發展乃指「人類的發展能滿足當代的需求，且不至危害到我們子孫滿足其需要」，這是一件整體性長遠性的工作，需要一步一步設立工作目標與內容循序推動，除了由中央（永續會）制訂未來發展方針，更需要和縣市政府公部門及地方居民的共同參與努力。

## 4.1 台南市 健康 永續 綠色 新府城

台南市定96年為「文化觀光年」，97年更以「健康安全年」作為施政重點工作，以彰顯打造「健康、永續、綠色、新府城」。依96年9月一項「幸福城市」民調排名顯示，在環境力面向「你覺得本市市長有沒有努力打造本市乾淨與美麗」，及教育力面向「每人出席藝文展演文化活動次數」兩項排名，皆為全國第1。

### 永續願景—健康・生態・科技・文化

台南市將永續發展願景設定為「健康・生態・科技・文化新府城」，並進一步以聯合國「二十一世紀議程（Agenda 21）」的核心價值架構作為基本指導方針，本計畫目標體系同時兼顧了「由上而下」以及「由下而上」兩種規劃分析面向，建立一具有行動力的架構，永續發展計畫分三大構面：

**一、健康城市**

為推動健康城市計畫，研訂21項健康城市示範計畫，分健康、環境及社會三個組來分頭進行。

**二、永續發展**

台南市永續發展白皮書於94年12月出版，以「健康、生態、科技、文化新府城」為總目標；永續會由市長擔任主任委員，設置委員29人，其下有7個工作分組。


▲舉辦2004～2005台灣燈會。


▲巴克禮紀念公園 獲獎5項。

化、垃圾不落地清運計畫；至95年底資源回收率平均值已達44.75%，居全國之冠；因針對環境生態保護、景觀改造工作不遺餘力，近年來許多公共建築及建設在國內外獲得佳績，如巴克禮紀念公園更榮獲不動產界的奧斯卡獎—「2007全球傑出建築金獎」殊榮。

相關環保措施包括：垃圾車改使用生質柴油；創全國之先推動反怠速行動，成為第一個推動廢氣減量的健康城市；規劃為全台唯一的「仙人掌自然保育區」；規劃台江黑水溝國家公園。

### 三、綠色城市

2005年6月許市長應邀參與聯合國「2005世界環境日」大會，並簽署「城市環境議定書」，未來台南市將與世界重要城市同步競爭世界一流「綠色城市」。

## 與世界同步 2040年前達到「零廢棄」

在環境議定書中，共分為能源、廢棄物減量、都市設計、自然都市、交通、環境健康、水等七大議題，每項議題各訂定有3行動方案，共計21行動方案；其中一項終極目標是，簽署的各城市在2040年比賽誰先達到零廢棄物。

為延續擴大推動健康城市工作，於2007年3月整併健康城市、永續發展及綠色城市三個推動委員會，簡化各委員組織以利於工作推動；重新整合指標為「台南市健康永續綠色城市指標」，總計132項。

為整合三大構面及落實共識，更分別採取「共識營、市府組織學習營」「健康永續綠色新府城與社區參與」「設定指標與執行計畫」「指標統計與專案考評」等措施。

環境改造具體成效包括：環境整理綠美亮

## 善用文化觀光資源 躋身亞洲魅力城市

在文化及觀光也顯見成效，赤崁樓躍登美國華盛頓郵報世界刊載2004世界十大值得一看景點；安平港國家歷史風景區榮獲美國Waterfront Center競賽首獎—亞洲唯一獲得此獎的城市。95年觀光人數及門票收入皆呈倍數成長；古蹟及歷史建築增至112處。


▲赤崁樓—華盛頓郵報刊載2004世界十大值得一看景點。


▲安平港觀夕平台。


▲許添財市長於2007年2月韓國首爾「e-participation」論壇。

在2006健康城市大調查中，台南市與台北市、台中市併列為臺灣最樂活的城市。更是台灣第一個正式取得國際認可的健康城市。許添財市長於2007年2月應邀參加韓國首爾「e-participation」論壇，與韓國春川等六城市簽署「赫爾辛基宣言」正式成為國際組織「全球城市對話」會員。在永續發展措施順利推展下，市政呈現穩定而持續的進步，讓台南府城奠定穩固基礎，將成亞洲最具潛力的城市。

## 4.2 桃園縣 科技 人文 桃花源

桃園縣永續發展願景的意涵，主要以「生活—生產—生態」三生為主；科技為該縣經濟發展的基礎，人文說明桃園族群多元的文化，桃花源則意涵該縣豐富的山水、草花與千塘的美名。未來規劃重點為科技與人文生態並重發展，企盼共同打造新世紀的桃花源。故「科技、人文、桃花源」融入三生一體的永續發展理念。

▲桃園縣石門水庫。

### 率地方之先 確定永續推動架構

為呼應國際永續發展潮流，配合國家永續發展綱領，桃園縣政府於92年率全國地方縣市之先，成立「桃園縣永續發展委員會」，開啟永續發展的新紀元。而為促進國際永續發展交流，該縣於92年10月及93年12月，各舉辦一場國際研討會。

為建構「繁榮、活動、新桃園」的桃花源，所規劃的發展遠景為：一空運中心（桃園國際航空城）、二個都市核心（桃園車站都市更新、中壢都市發展核心）、三個T產業（運輸、觀光、科技）、四個藝文園區（客家文化園區、部落文化園區、文化藝術園區、漁港休閒園區）以及五個發展面向（中政經、北運籌、南研發、東遊憩、西港產）規劃。

▲2006永續發展願景國際研討會。

▲桃園大圳灌溉專用渠道。

▲永安漁港。

## 七大分組 落實「繁榮、活動、新桃園」

除未來遠景的定調，桃園縣永續發展推動方向落實於七大議題，共成立永續教育、綠色交通、綠色社區、永續水資源、整合式污染管制、生態工業區及考核評量組。

水資源工作分組的發展目標為：整合現有水資源管理介面，使水資源規劃利用符合永續發展理念。發展策略有「推動多元供水、活化水源之水資源政策」「推展水資源教育宣導活動」「研議多元化的污水處理模式，提昇污水下水道普率及健全污水廠處理效能」及「降低洪水災害影響，進行水災害防治計畫」。

綠色交通的發展目標為「低污染、高安全、省能源及高效率、人性化」的綠色交通運輸系統與管理體系，發展目的包括「環境保護面—增進生活環境的保護」、「經濟效率面—提昇運輸系統」及「社會公平面—促進運輸服務的公平性」，指標項目則有提高「大眾運輸使用率」「自行車長度」「主要平均行駛速率」「偏遠地區大眾運輸服務水準」及降低「重大交通事故死亡人數」等五項。

生態工業區工作分組的任務有二：設置生態工業園區及既有工業生態化，96年的相關工作計畫包括：環保科技園區建置計畫；規劃建立環境污染源資料庫暨再利用資訊交換系統；訂定綠建築評鑑暨獎勵辦法；辦理生態化工業區教育宣導與種子人才培訓計畫；生態化評估指標系統實策略與進程確定程序；設定工業區生態化評鑑暨獎勵辦法。

永續教育組的發展目標為「推廣環境教育理念，深耕永續教育」，策略有：推展永續教育工作；推動中小學環境教育；打造校園生態環境、協助老校新生；發展環教課程模組；提昇師對學校周遭及社區的環境認識。

綠色社區組的組織策略為：「推廣綠建築」「深耕文化建設」「社區住戶廢棄物資源回收」「鄉村新風貌營造」及「都市景觀風貌改造」。

而最新成立的整合式污染管制組，其任務為：協調整合縣政府各相關局室與民間單位，共同推動整合式污染管制策略；並在兼顧環境與發展的前提下，以整合式的策略與方式管制污染。

## 邁向環保與經濟並重之生活大縣

而為了自我檢視與檢討永續發展推動進度，桃園縣定期進行管考及評估，期許逐步實現「降低現有污染量，減輕環境負荷」、「加強生態保育，美化生活環境」、「落實環保教育，擴大全民參與」、「提昇文化內涵，建構環保科技園區」等環保具體目標，及「科技的桃園矽谷、運籌中心的航空城、便捷的高鐵捷運驗院轄縣」等展望，進而建設該縣為一個以環保與生態為經濟發展主軸之生活大縣。

# 4.3 台中縣 文化 經濟 國際城

▶台中兒童藝術館。

◀港區藝術中心。

台中縣座落在於台中盆地北部，全縣面積為2,051.471km$^2$，佔臺灣土地面積5.74%。偏遠地區尚未充分開發，仍保持農村型態，惟近年來工商業發展迅速，用地需求日殷，且農業勞動力人口外流，農業經營已逐漸減少。

## 文化深耕．經濟發展．國際接軌

●每個城市一定要有一張臉孔，台中縣的那張臉就是文化；

●豐沃的自然資源維護，導引著台中縣的經濟發展方向；

●台中縣要把地球村當作舞台，想在國內傑出，最簡單的便捷之路就是在國際上出名。

扶植地方生活之文化產業、立定生態環保之經濟發展，以及經山、海、屯多方觸角延伸至國際舞台。

永續發展的願景目標有三，希望能達致「文化深耕、經濟發展、國際接軌」，期許建立台中縣為「文化．經濟．國際城」。

為落實永續發展，目前台中縣永續發展計劃的執行方向主要有六：

**(一)文化多樣性**：文化資產永續化、強化藝術展演場域。

**(二)永續社區總體營造**：強化社區照護與社區安全、推廣綠建築。

**(三)永續水資源管理**：提高污水下水道用戶接管率、強化水患災區治理、增進健康安全飲用水。

**(四)綠色產業**：推動科技園區產業研發及綠色生產、改善投資環境吸引廠商投資。

**(五)建構永續交通系統及E化城市**：大眾運輸系統便捷化、推動低污染交通運具、推廣低耗能交通號誌、建構無線寬頻網路系統。

**(六)永續環境教育**：推廣與落實永續教育。

台中縣現階段所面臨新的挑戰，包含有競爭全球化、生活資訊化、產業科技化、環境永續化、經濟自由化、兩岸正常化、社會高齡少子化、地方分權化等問題。

而為進一步瞭解台中縣未來與永續發展的關連，目前該縣的未來發展趨勢之優勢、劣勢、機會與威脅條列於表4.3.1：

**表4.3.1：台中縣情勢發展優劣分析表**

| 優勢 (Strength) | 劣勢 (Weakness) |
|---|---|
| 1.便捷的海陸空交通運輸網 | 1.缺少國際機場對外貿易管道 |
| 2.擁有豐富的產業結構以及土地資訊 | 2.現有產業規模小、技術層級待提升 |
| 3.兩岸間海空距離短 | 3.稅收增長停滯，發展建設財源減少 |
| 4.豐富自然景觀與地方文化特色 | 4.捷運等大眾運輸尚未成形 |
| 5.擁有宜人的氣候環境 | 5.年輕人口外流農村年齡結構老化 |
| 6.教育學術資源豐富 | 6.災區尚未重建完成 |
| **機會 (Opportunity)** | **威脅 (Threat)** |
| 1.台中縣合併升格或單獨升格之契機 | 1.區域發展競爭激烈 |
| 2.台中港逐漸轉型為兩岸經貿轉運基地 | 2.加入WTO下面臨國際競爭更加劇烈 |
| 3.中科的設置與高科技產業的導入 | 3.科技產業壓迫傳統產業生存空間 |
| 4.經濟自由化，國際資金及人才的吸引 | 4.中央財政困難，地方補助減少 |
| 5.高鐵建設及聯外交通路網之逐步改善 | 5.國際經濟不景氣民間投資意願下降 |
| 6.九二一震災後重建帶來發展契機 | 6.南北均衡下，中部有被邊緣化的危機 |

資料來源：台中縣綜合發展計畫，2004

**建立伙伴關係 落實民眾參與**

鑑於地方永續發展之重要性，台中縣自96年度著手推動地方永續發展相關工作；目前除組織架構完成建置外，其餘相關工作之推動皆為初始階段；惟永續發展並非一蹴可幾，其所強調的精神即是持續性滾動式改善的模式，在台中縣地方永續發展相關基礎完成建置後，地方永續發展推動組織的常態化運作，即為現階段台中縣永續發展的重要工作。茲將後續發展方向分述如下：

**一、宣導永續發展理念：**

全球環境變遷已為人類不可漠視之問題，為避免人類走向不可挽回之絕境，有志之士因此提倡永續發展的理念。在國際與我國中央層級，永續發展的概念已能逐漸落實於施政方針；惟部分地方縣市，仍欠缺永續發展之理念，導致推動相關業務之困難。因此，如何加強宣導永續發展理念，成為現階段台中縣永續發展當務之急。

**二、跨局室伙伴關係之建置：**

以往行政業務皆為單一屬性，亦即業務由單一局處室負責主導；惟永續發展相關工作之推動，往往涉及不同公務部門之共同參與，亟需建立跨局處室之合作機制，確保相關工作之推動。

**三、落實民眾參與機制：**

依據國際間地方永續發展相關成功範例，永續發展工作推動的執行績效與民眾的參與程度有極大的關連性。礙於台中縣居民現階段對永續發展的認知與國人較被動與保守的觀念，現中縣居民對地方永續發展之推動，仍有一段尚待努力之空間。

## 4.4 臺北縣 幸福 美麗 大都會

為落實永續發展理念，經濟、環境、社會三方平衡發展，臺北縣政府自2003年起開始規劃推動永續發展，冀望使永續發展成為全體縣民信仰及全縣施政的上位指導原則，在有限的資源下，分工合作、分進合擊，邁向該縣永續發展願景。

**全國第一大縣 環境負荷沈重**

臺北縣包含15鄉、4鎮及10市，總面積為2,052平方公里，佔全國面積6%，具有人口多、工廠多、車輛多現象；其中人口高達378萬人，佔全國17%；工廠數目前21,388家，工廠密度全國第三；車輛數高達302萬輛，佔居全國最高。

因工商產業繁榮，工廠林立，加上車輛數增高，平均約1.25人即擁有1部車輛，另全國4座核電廠中，就有3座位於本縣（營運中2座、興建中1座），導致環境負荷嚴重增加。

臺北縣自2003年11月10日成立「臺北縣永續發展推動小組」，辦理推動事宜與籌組臺北縣永續發展委員會，於2005年7月8日訂定本縣永續發展委員會設置要點，並於2007年6月1日正式成立臺北縣永續發展委員會，委員會組織下分為八大工作小組，並置委員31人，由縣長與副縣長擔任主

▲台北縣自行車步道。

▲野柳風景區一女王頭蕈狀石。

▲淡水河夜景。

任委員與副主任委員一職。

為建立共識，臺北縣政府多次邀請專家學者針對跨局處會人員辦理教育訓練及專題演講。並成立『本縣永續發展推動小組』，持續推動永續發展各項事宜，已召開22次相關會議，包括協商會議、分組工作小組會議與推動小組工作會議。

推動至此，已於96年10月22日邀請17位專家學者與產業界代表舉行【臺北縣推動地方永續發展】座談會。另於96年11月24日召開臺北縣永續發展委員會第一次會議。

## 擇定示範鄉鎮 逐步落實願景

目前，於縣政施政願景「幸福美麗大臺北」架構下，臺北縣政府已推行十大施政主軸及數項相關配套計畫。而永續發展的議題，需明白確立研究分析之範圍。配合臺北縣政府各項施政計畫，

▲關渡大橋。

於永續發展八大分組架構下，已擬定23項議題、58項策略與84項行動方案草案。

此外，為使永續發展落實至地方發展中，臺北縣政府初步規劃選定平溪鄉與雙溪鄉做為永續發展推動之示範鄉鎮；據臺北縣永續發展整體面、環境面、經濟面及社會面四大範疇相關議題為主，參考兩位鄉長之施政構想修改部分議題，例如整體面：以道路交通及河川整治替代大河之縣及縣市合作；經濟面增加觀光旅遊及基層建設；社會面增加藝文育樂及社會福利；針對鄉鎮之當地居民進行議題重要性問卷調查，以了解各地區之需求。

繼96年度完成臺北縣永續發展推動架構建置，97年度仍需持續推動永續發展各項行動方案。將於97年度選擇3處示範鄉鎮市，推動永續發展，並輔導該鄉鎮市建置地方永續發展策略計畫。

97年度將邀請國內外永續發展優良之社區、團體代表舉辦經驗交流座談會，並積極參與國內外永續發展相關事務，以提升競爭力；為提升縣民永續發展觀念，藉由製作永續發展願景與示範區影片及平面媒體、電視台刊登等宣導相關資訊；建置台北縣永續發展資訊交流網站，供民眾上網瀏覽與查詢、意見提供與資訊交流；撰寫「臺北縣永續發展白皮書」，以供後續推動之參考與檢討。

第五章

# 發布95年度台灣永續發展指標系統計算結果

為檢視我國推動永續發展的成效，行政院國家永續發展委員會積極推動國家永續發展指標系統的建置工作。由行政院經濟建設委員會負責之「永續願景組」，於民國91及92年邀集相關部會組成「建立永續指標系統跨部會工作小組」，自民國87年歷經4年努力篩選111項永續指標，最終選擇具有永續發展意義與代表性的42項指標，建立「台灣永續發展指標系統」，並於 92年 6月5日環境日公布計算結果。

94年起，行政院研究發展考核委員會接續辦理永續指標值計算及指標更新工作，藉以掌握台灣永續發展情況，並提供政府決策參考。

## 訂定指標 檢視永續發展現況

台灣永續發展指標自民國92年起每年定期發布，係參考聯合國永續發展指標「壓力-現況-回應（Pressure-State-Response）」架構，並將我國發展現況納入考量。指標系統分為「生態資源」、「環境污染」、「經濟壓力」、「社會壓力」、「制度回應」及「都市發展」6大領域，包含40項指標。

台灣永續發展指標系統，以民國77年為基準年，該年永續指標值為100。指標架構及各項指標趨勢，詳如行政院國家永續發展委員會全球資訊網站http://sta.epa.gov.tw/NSDN/。

## 六大領域評量永續發展趨勢

### （一）生態資源領域

生態資源綜合指數在民國77年至80年呈現逐年下降的趨勢，但民國80年至84年以及民國89年則因多處保護區的陸續成立而小幅提升。不過除了「生態敏感地」指標值因保護區成立而呈現階段性增加，以及「未受損失森林面積比」、「單位努力漁獲量」兩項指標變化不顯著或呈波動狀況外，其他生態資源指標值在近十餘年來大都呈現下降的趨勢。因此整體而言，我國生態資源的狀況在近年來是呈現背離永續的趨勢。就民國95年的資料趨勢而言，除了「未受損失森林面積比」一項指標值維持穩定外，其餘指標值仍較民國94年為低，致使民國95年綜合指數（97.17）低於民國94年（98.10）（見圖1），呈現背離永續的趨勢。

### （二）環境污染領域

環境污染綜合指數自93年至95年連續三年上升，顯示整體環境品質近年來已見趨向正面變化。以個別指標趨勢來看，因全國廢棄物資源回收工作持續推動中，廢棄物資源回收率指標值自基準年87年以來一路穩定改善，至今已上升達8%。但是，二氧化碳排放量自民國77年開始評估

以來，指標值即一路下降，至今降幅已接近15%，顯示台灣二氧化碳的排放量沒有獲得有效的控制。至於PSI平均值，除93年有明顯下降之外，其後迄今已呈現緩步上升。其餘受輕度以下污染川比率、水庫品質以及低放射性固化廢棄物成長率等指標長期以來呈現些微變化，但在過去三年中亦均呈微幅上揚之趨勢。民國95年指標值為99.24，為民國89年後的最佳表現（見圖2、圖3）。

**（三）社會壓力領域**

社會壓力綜合指數自民國77年至91年均呈現下降、背離永續的趨勢，但從92年起則逐漸攀升有稍微改善的趨勢。在個別指標方面，每人每日垃圾量，因為94年起資源回收措施的實施，使得每人垃圾量有顯著下降；檳榔種植面積自88年後逐漸減少；以及失業率自92年以來逐年下降，尚有其他指標：公害陳情案件、失業率、反應國民健康的癌症死亡分率及傳染病感染率皆有攀升的趨勢。整體而言，儘管整體永續指標攀升幅度不高，仍反應出台灣社會朝向邁進永續發展的方向，但是因應全

圖1　生態現況綜合指數趨勢圖

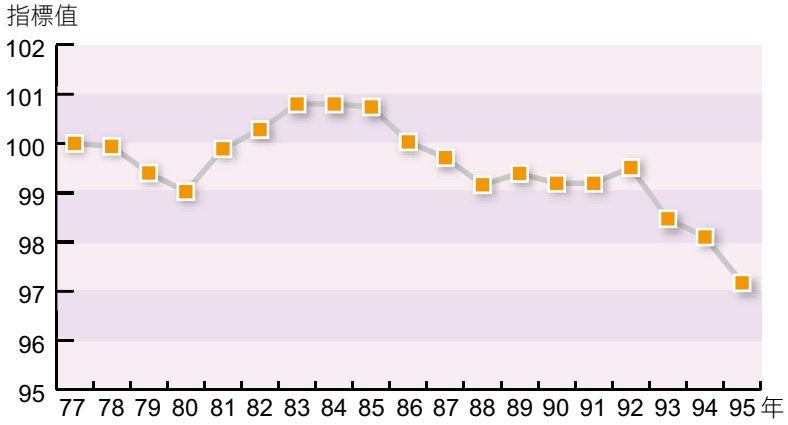



圖2　環境品質綜合指數趨勢圖

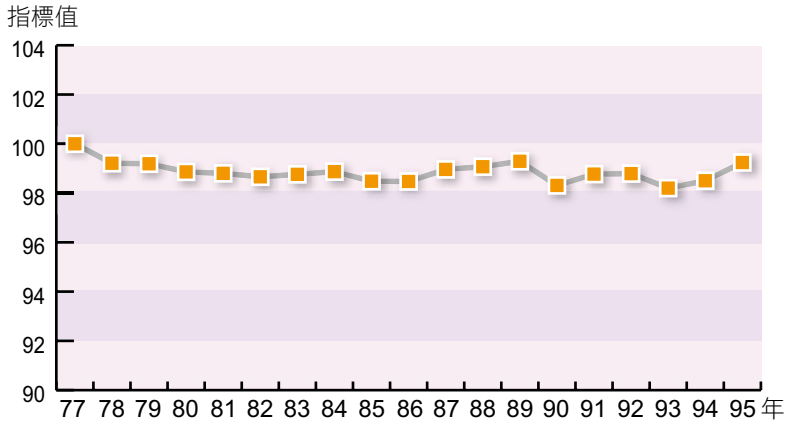



圖3　生態與環境綜合指數趨勢圖

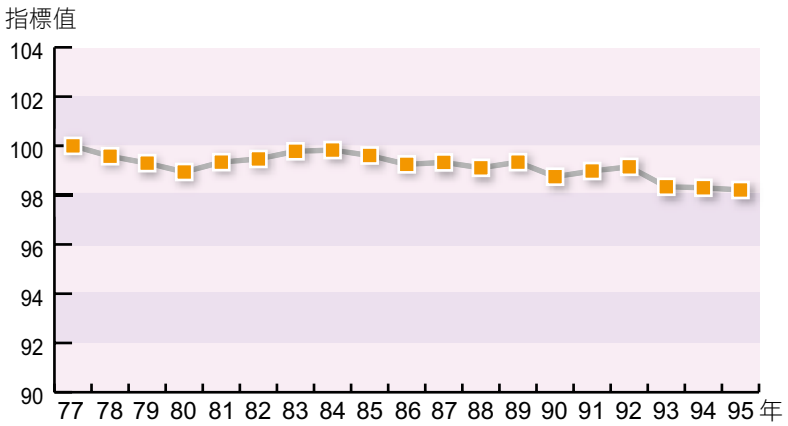
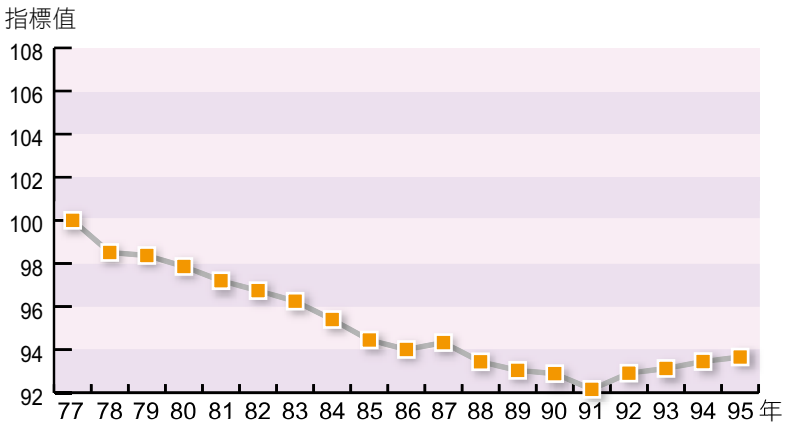


圖4　社會壓力綜合指數趨勢圖




球暖化所需要的低碳社會，仍有一大段距離。（見圖4）。

**（四）經濟壓力領域**

經濟壓力綜合指標自民國77年的100上升至106.58，代表台灣整體的經濟壓力持續下降，呈現邁向永續。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，造成環境負面的影響。但國內平均每人水泥生產量近年來持續減少、製造業用水的使用效率持續提高、製造業勞動生產力逐年提升，再加上科技的發展使得電腦使用越來越普及，總括來說，經濟面向持續朝永續邁進（見圖5）。

95年個別指標趨勢部分，除了製造業用水量佔製造業產值比例小幅增加外，其他指標均呈現有利於永續的趨勢。經濟壓力綜合指標因而自94年的106.43微幅上升至95年的106.58。

**（五）制度回應領域**

過去十幾年中，制度回應的指標值均在100之上，總體趨勢也是持續攀升，顯示歷年來政府對於環境議題的重視逐漸增加，從法規制度面引導政府、企業、與民間關注環境問題，政策的設計與執行對於永續發展均有正面幫助。自民國90年度以來，制度指標值均維持在107之間， 95年度則呈現下降，降回90年以前之水準 （見圖6）。

就制度回應個別指標來看，由政府主動提供資源（例如環保生態預算）小幅上升，但協助推動我國邁向永續發展的工作（例如財稅措施以及環評完成審查案件比例）於95年度則大幅下降。政策落實方面（如污水下水道處理率與制訂禁用或嚴格限用的化學品數量）近三年皆以約2-3%持續上升，顯現施政單位的持續作為。而民間落實

圖5　經濟壓力綜合指數趨勢圖

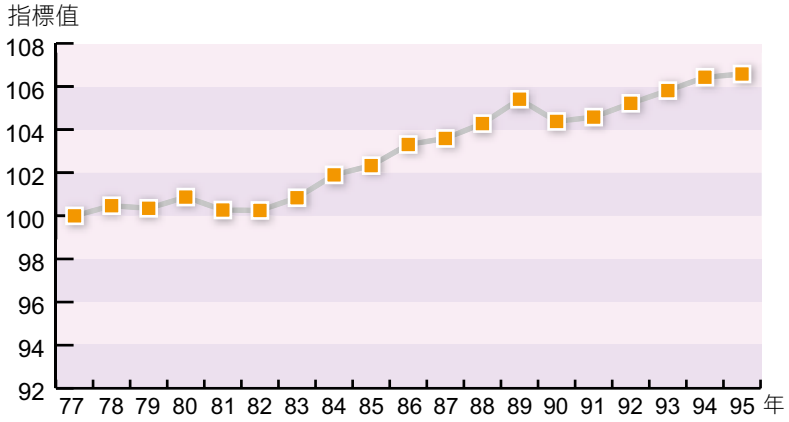


圖6　制度回應綜合指數趨勢圖

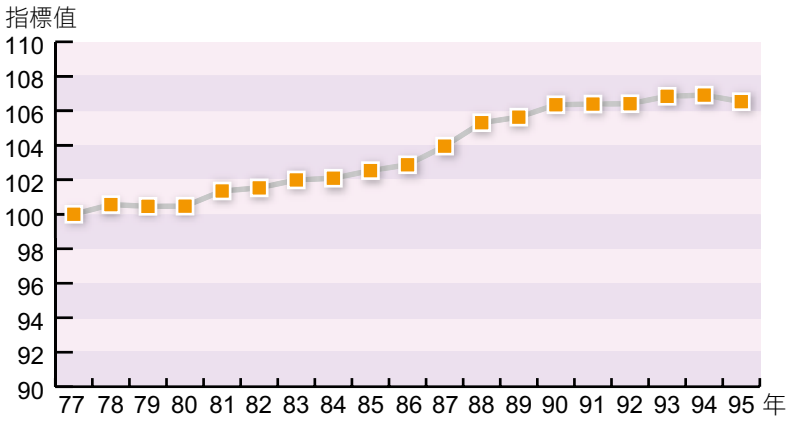
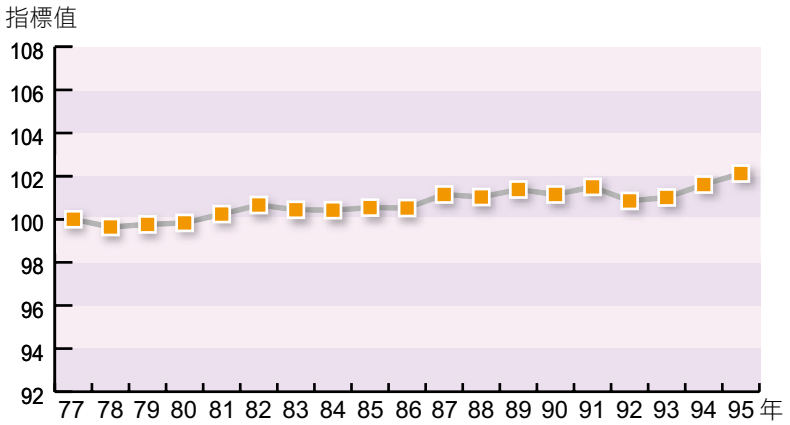



圖7　都市發展綜合指數趨勢圖




永續發展理念方面的指標則呈現一增一減的趨勢（環保標章的適用量持續增加，但民間參與生活環境改造計畫的數量大幅降低）。整體來說，政府制度之回應與民間方面的作為應可再提升。

**（六）都市永續發展領域**

都市台灣永續指標的綜合指標值維持上升的趨勢 （見圖7）。在個別指標方面，以「都市的平均每人所得」上升趨勢最為顯著；都會區每年空氣嚴重污染比率近年來有顯著的改善；而每人享有都市公園綠地面積也在逐步增加之中。

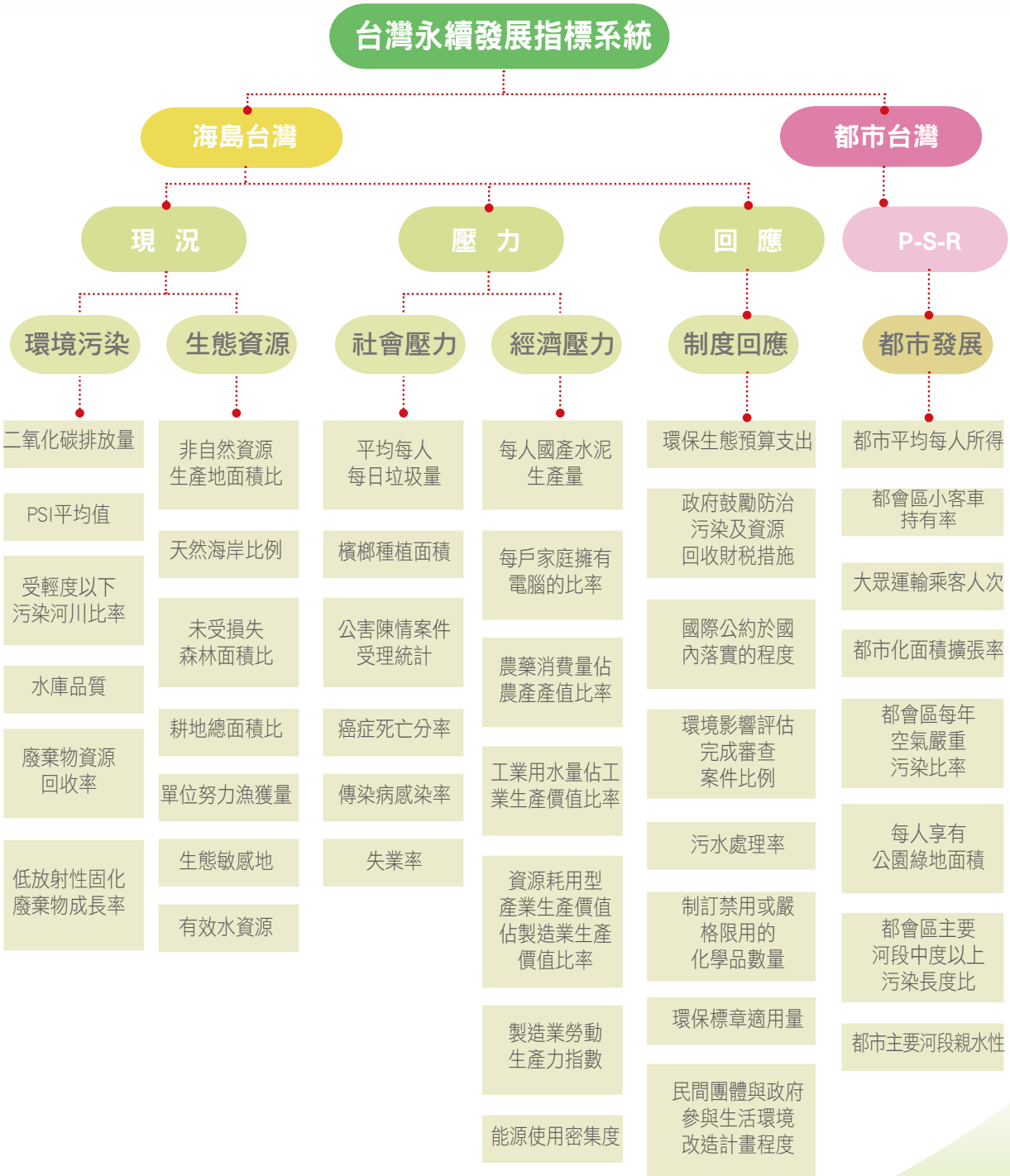
三大都會區小汽車持有率的趨勢呈現背離永續性（持有率持續增加），對都市永續發展較為不利，雖然大眾運輸乘客人次數值屢有增加，但是民眾倚賴私人運具的習慣仍有改善的空間，才能進一步解決都市交通擁擠與機動車輛污染物排放的問題。

**指標顯示政府落實永續決心**

以95年與94年相互比較，上面各組中的指標呈現改善、邁向永續包括PSI平均值等22項；呈現背離永續的指標包括二氧化碳排放量等15項。至於呈現持平的指標則為：未受損失森林面積比、都市平均每人所得。

由現況、壓力及回應三大領域的綜合分析，在生態與環境現況部分，由於生態資源領域近年表現偏向負面的程度較大，因此雖然在環境污染現況上已漸趨改善，但仍使得生態與環境整體現況朝向不永續。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，由回應指標也可以看得出政府在政策層面落實永續發展的努力及決心。

政府公布永續發展指標計算結果，顯示指標系統及其背後的政策意義已逐漸內化為政府施政，希望透過指標公布，能提升民眾認知，共同關心並參與永續發展工作，同時期待全民共同努力，攜手邁向永續發展的國家。


台灣永續發展指標系統
海島台灣
都市台灣
現 況
壓 力
回 應
P-S-R
環境污染
生態資源
社會壓力
經濟壓力
制度回應
都市發展
二氧化碳排放量
PSI平均值
受輕度以下污染河川比率
水庫品質
廢棄物資源回收率
低放射性固化廢棄物成長率
非自然資源生產地面積比
天然海岸比例
未受損失森林面積比
耕地總面積比
單位努力漁獲量
生態敏感地
有效水資源
平均每人每日垃圾量
檳榔種植面積
公害陳情案件受理統計
癌症死亡分率
傳染病感染率
失業率
每人國產水泥生產量
每戶家庭擁有電腦的比率
農藥消費量佔農產產值比率
工業用水量佔工業生產價值比率
資源耗用型產業生產價值佔製造業生產價值比率
製造業勞動生產力指數
能源使用密集度
環保生態預算支出
政府鼓勵防治污染及資源回收財稅措施
國際公約於國內落實的程度
環境影響評估完成審查案件比例
污水處理率
制訂禁用或嚴格限用的化學品數量
環保標章適用量
民間團體與政府參與生活環境改造計畫程度
都市平均每人所得
都會區小客車持有率
大眾運輸乘客人次
都市化面積擴張率
都會區每年空氣嚴重污染比率
每人享有公園綠地面積
都會區主要河段中度以上污染長度比
都市主要河段親水性

▲海洋棄置、廢棄物處理為國際公約關注焦點。

# 第六章 國際永續發展相關公約動態

## 6.1 氣候變化綱要公約與京都議定書

聯合國政府間氣候變遷問題小組（IPCC）第二階段氣候變遷報告於2007年4月公布，強調即使各國現在就強制降低CO2的排放量，未來數十年全球溫度仍將不斷上升。估計到2080年，全球將有11到32億人面臨水資源短缺的困境，二到六億人為飢荒所苦，受到沿岸低窪地區水災影響的災民每年也將以200到700萬的驚人速度增加。

「聯合國氣候變化綱要公約第十三屆締約國大會（COP13）暨京都議定書第三屆締約國會議（MOP3）」於2007年12月5日至15日假印尼峇里島舉行。大會在歷經延長時間協商下，於12月15日下午產生峇里島路線圖（Bali Roadmap），同意開始進行全球氣候變遷協議之談判及協商議程安排，並於2009年完成談判。會議雖未出現明確量化減量目標及時程，但已開發國家對於後京都的減量責任於2009年前將出現明確談判結果，且開發中國家也被要求將減量行動提供透明化、量化及可供檢證之資訊。

## 6.2 蒙特婁議定書

190個國家於2007年9月17日召開蒙特婁議定書第19次締約國大會，討論更改消除氟氯烴的時間表。會後聯合國環境規畫署表示，各國間已達成一項「歷史性」的協定，同意加快速度消除破壞臭氧層的化學物質。根據這項協議，各國同意HCFCs必須加速廢除時程，並通過數項重要具體減量目標。

## 6.3 巴塞爾公約

巴塞爾公約第八次締約方大會於2006年11月27日至12月1日召開，會議主要議題包括：象牙海岸傾倒事件、電子廢棄物議題、手機夥伴計畫、奈若比比宣言等。

經與會各國討論，達成決議包括：

**1. 加強區域中心的功能及重要性**

- 強調締約國跟利益團體增加電子廢棄物的財務支援共同來防止非法運輸。

**2. 鼓勵發展電子廢棄物夥伴關係及回收系統，尤其是開發中國家。**

**3. 要求締約國在捐贈電子電器設備時，確認該設備能夠使用。**

- 9月3日至9月7日期間，巴塞爾公約秘長處於瑞士日內瓦召開第6次開放性工作小組會議（Open-ended Working Group of the Basel Convention Sixth session 6）,我國代表團參與巴塞爾公約第六次開放性工作小組會議時，卻遭聯合國安全部門拒絕接受報到，在多次爭取無效後，代表團因而向公約秘書處遞交抗議聲明。

## 6.4 斯德哥爾摩公約

斯德哥爾摩公約第3次締約方大會（COP3），2007年4月30日召開5天的會議。會議的主要議程包括：繼續使用滴滴涕控制病媒和取代滴滴涕的替代戰略、特定物質豁免登記審查討論、國家實施計畫擬定心得交流與經驗分享等方面。同時另一項有關管制有害廢棄物越境轉移之巴塞爾公約，也在會中針對持久性有機污染物廢棄物處理問題提出報告。

## 6.5 鹿特丹公約

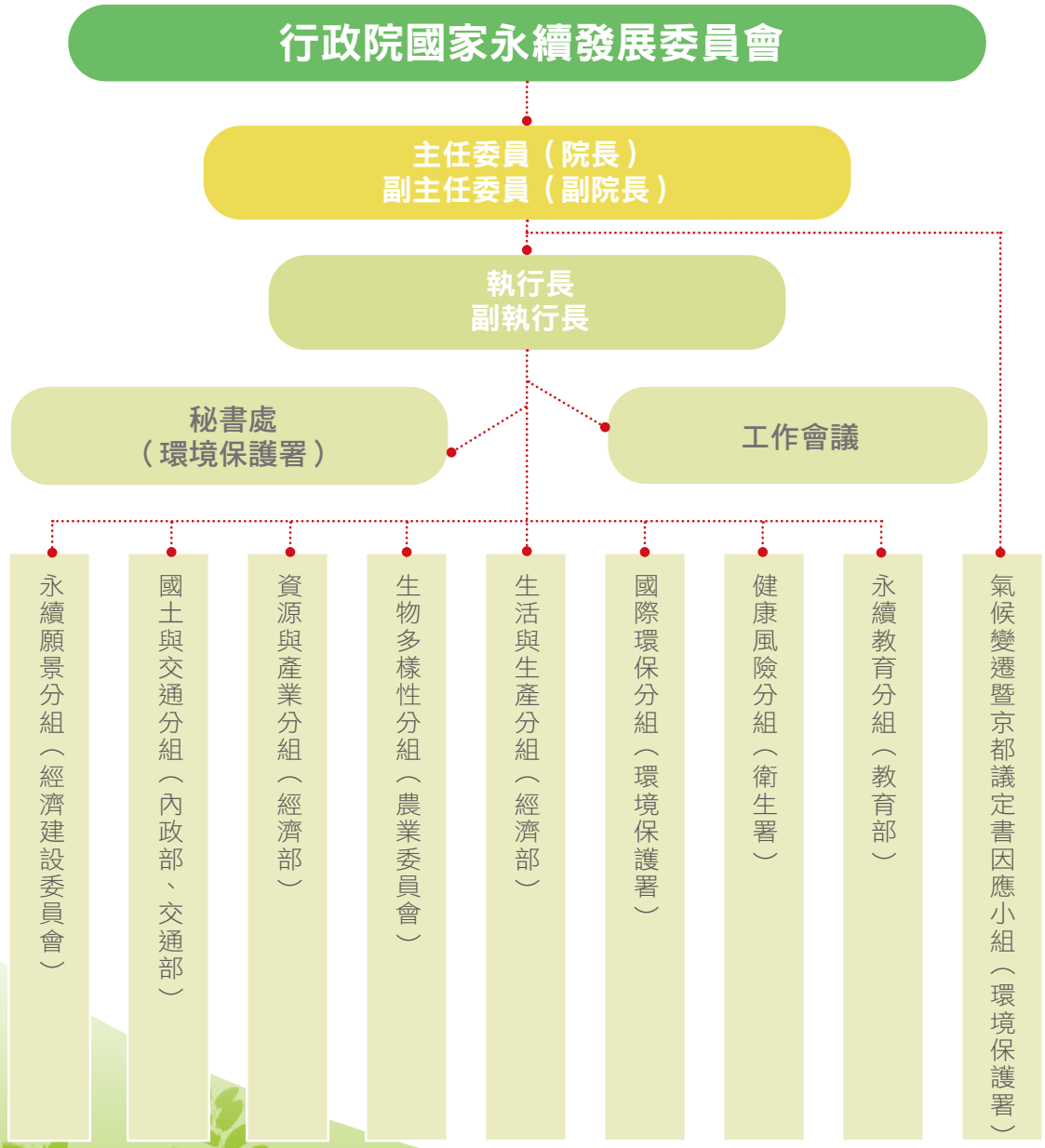
鹿特丹公約締約國於2007年10月間在日內瓦召開部長級會議，決定將14種農藥和化學品列入《鹿特丹公約》適用預先知情同意程序產品清單。包括以往已納入管制的項目，公約禁限清單上的農藥有毒化學品總已增加到41種。

## 6.6 生物多樣性公約

生物多樣性公約科學及技術諮詢機構（SBSTTA，以下簡稱科諮機構）第12次會議於2007年7月2日至6日於聯合國教科文組織總部召開，議題包括「深入檢討生態系做法的應用情形」、「全球植物保育策略的執行情形」、「千禧年生態系評估」、「全球生物多樣性展望」、「生物多樣性與氣候變遷」、「乾旱和半溼潤土地」、「生物燃料」等議題，大會最後通過八個決議案，將送在2008年5月19日至30日召開的《生物多樣性公約》第九次締約方大會審議。

## 附錄一

# 行政院國家永續發展委員會組織圖



附錄二

# 第十一屆 行政院永續發展委員會名單

## 非政府機關委員

| 專家學者 | |
|---|---|
| 姓名 | 職稱 |
| 李玲玲 | 台灣大學生命科學院生態學與演化生物學研究所　教授 |
| 林萬億 | 台灣大學社會工作系　教授 |
| 胡念祖 | 中山大學海洋政策研究中心　教授 |
| 胡淑貞 | 成功大學醫學院公共衛生研究所　副教授 |
| 范建得 | 政治大學科技管理研究所　教授兼所長 |
| 吳焜裕 | 清華大學科技法律研究所　研究員 |
| 洪德生 | 台灣經濟研究院 院長 |
| 施文真 | 政治大學國際經營與貿易學系　副教授 |
| 葉俊榮 | 台灣大學法律系　教授 |
| 黃宗煌 | 清華大學經濟系　教授 |
| 蕭代基 | 中華經濟研究院　院長 |
| 蘇慧貞 | 成功大學工業衛生學系暨環境醫學研究所　教授 |

| 社會團體代表 | |
|---|---|
| 姓名 | 職稱 |
| 尤哈尼.伊斯卡卡夫特 | 台灣原住民族部落永續發展協會　理事長 |
| 余範英 | 時報文教基金會　董事長 |
| 李偉文 | 荒野保護協會　理事長 |
| 林俊興 | 祐生研究基金會　董事長 |
| 吳玉琴 | 中華民國老人福利推動聯盟　秘書長 |
| 賀陳旦 | 中華電信公司　董事長 |

| 社會團體代表 | |
|---|---|
| 姓名 | 職稱 |
| 徐光蓉 | 台灣大學大氣科學系暨研究所　教授 |
| 殷允芃 | 天下雜誌　發行人兼總編輯 |
| 陳曼麗 | 台灣婦女團體全國聯合會　理事長 |
| 陳武雄 | 全國工業總會　理事長 |
| 黃茂雄 | 中華民國企業永續發展協會　理事長 |
| 歐陽嶠暉 | 台灣水環境再生協會　理事長 |

# 政府官員

| 姓名 | 職稱 |
|---|---|
| 張主任委員俊雄 | 行政院　院長 |
| 邱副主任委員義仁 | 行政院　副院長 |
| 施執行長能傑 | 研考會　主任委員 |
| 林委員錫耀 | 行政院　政務委員 |
| 何委員美玥 | 經濟建設委員會　主任委員 |
| 李委員逸洋 | 內政部　部長 |
| 杜委員正勝 | 教育部　部長 |
| 陳委員瑞隆 | 經濟部　部長 |
| 蔡堆委員 | 交通部　部長 |
| 蘇委員嘉全 | 農委會　主任委員 |
| 侯委員勝茂 | 衛生署　署長 |
| 陳委員重信 | 環保署　署長 |
| 林副執行長中森 | 內政部　次長 |
| 呂副執行長木琳 | 教育部　次長 |
| 謝副執行長發達 | 經濟部　次長 |
| 林副執行長宗男 | 農委會　副主委 |
| 張副執行長子敬 | 環保署　副署長 |

# 附錄三 大事紀

| 日期 | 單位 | 工作內容及成果 |
|---|---|---|
| 1月～12月 | 生活與生產組 | 工程會96年第8屆公共工程金質獎，生態工程類共有2個工程標案得獎。 |
| 1～3季 | 生活與生產組 | 派員出席WTO貿易與環境委員會相關會議，我常駐世界貿易組織代表團派員出席其他相關會議，並積極參與談判 |
| 1月1日 | 健康風險組 | 煉鋼業電弧爐戴奧辛管制及排放標準既存廠第二階段標準生效：0.5 ng I-TEQ/$Nm^3$；固定污染源戴奧辛排放標準既存廠標準生效：2.0 ng I-TEQ/$Nm^3$ |
| 1月12日 | 國土與交通分組 | 國土計畫法（草案）函請行政院審查。 |
| 1月15～18日 | 國際環保組 | 補助看守台灣協會赴印度出席「2007清淨亞洲論壇」。 |
| 1月17日 | 生物多樣性組 | 公告東沙環礁國家公園計畫書，包含8萬公頃的珊瑚礁生態系，和東沙島生態系以及環礁外圍12海浬海域 |
| 1月18日 | 健康風險組 | 召開4次「環境保護與食品安全協調會報」（暨「香山牡蠣專案」）之跨部會會議 |
| 1月29日 | 健康風險組 | 「農產品生產及驗證管理法」公布施行 |
| 2月 | 國土與交通分組 | 完成「水利建造物生命週期制度之建立」報告（含曾文水庫示範案例），提供水庫管理單位維護管理工作參考。 |
| 2月5日 | 健康風險組 | 召開「抗生素合理使用監測及研議小組」，以建立有效監測機制。 |
| 2月10～16日 | 生活與生產組 | 推動國家清潔週，發動各級政府機關及民眾共同參與清淨家園，彰顯清淨家園全民運動精神。 |
| 2月16～18日 | 國際環保組 | 補助台灣環境行動網協會赴日本出席「日本京都氣候變遷會議」。 |
| 3月 | 資源與產業 | 舉辦「國際太陽光電產業及生產設備研討會」 |
| 3月 | 資源與產業 | 經濟部能源局代表我國參加APEC第33屆能源工作組（EWG）會議 |
| 3月1日～12月28日 | 永續願景組 | 96年8月完成95年綠色國民所得初步統計，12月完成編製報告供各界參用。 |
| 3月2日 | 國土與交通分組 | 高速鐵路台北站至左營站於96年3月2日全線開始通車營運。 |
| 3月5日～9日 | 健康風險組 | 首度邀請美國司法、海巡及環保領域等6名專家參與「防止船舶污染海洋環境執法計畫」研討會 |
| 3月27日 | 生物多樣性組 | 農委會漁業署96年度鯨鯊捕獲量，於3月27日已達30尾限制數量，於3月27日公告禁止捕獲鯨鯊，並自96年6月27日起禁止販賣鯨鯊（肉）」，並鼓勵定置網捕獲活體鯨鯊經通報後配合辦理標誌放流科學研究。 |
| 4月 | 資源與產業 | 辦理全球報告書協會(GRI)的永續性報告綱領新版本(G3)說明會 |
| 4月6日～6月21日 | 國際環保組 | 補助台灣環境保護聯盟於台北舉辦「2007國際環境公共事務人才培訓」。 |
| 4月14～22日 | 國際環保組 | 補助亞熱帶生態學學會赴中國出席「第三屆全球植物園大會」。 |

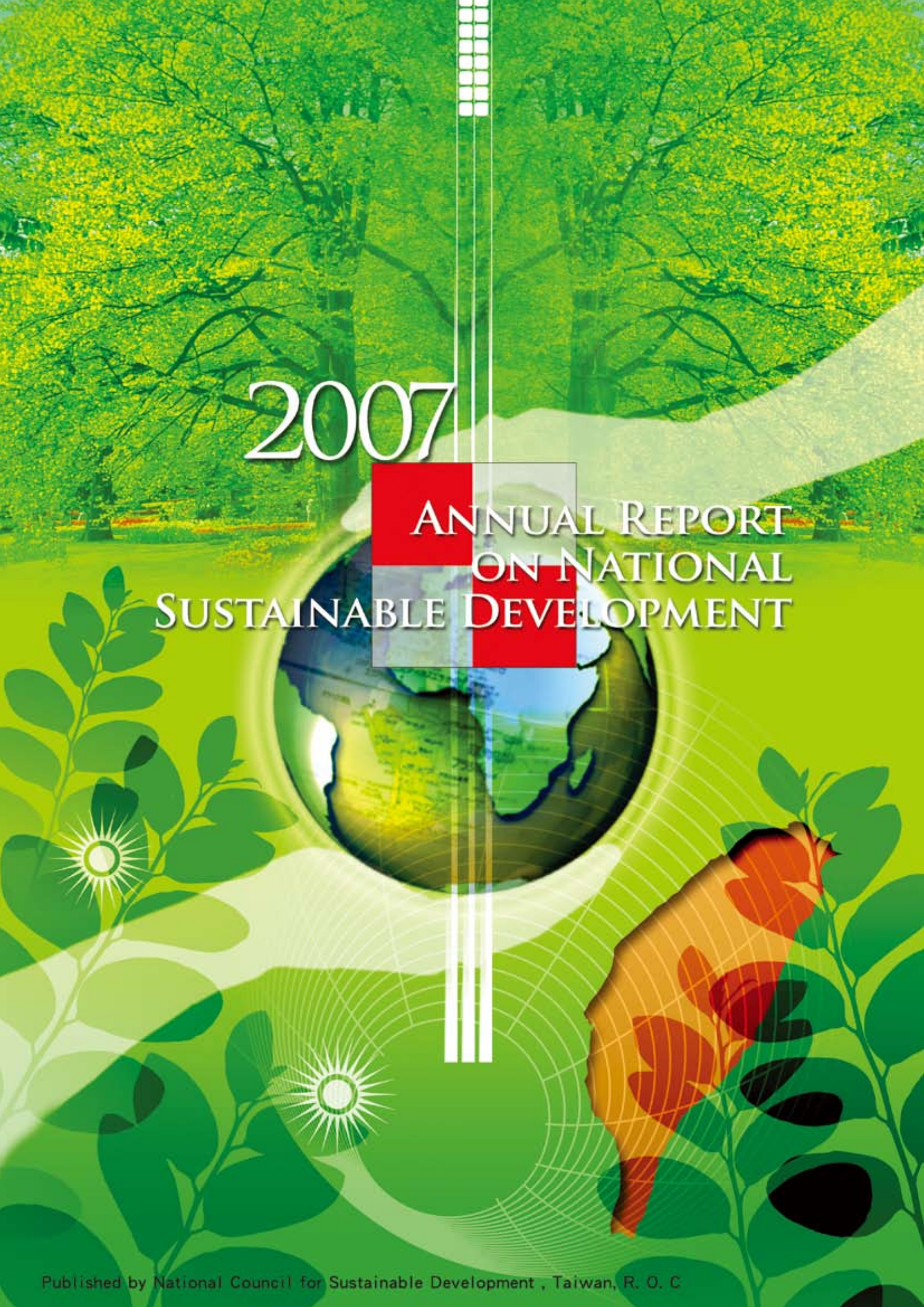
| 日期 | 單位 | 工作內容及成果 |
|---|---|---|
| 4月23～26日 | 國際環保組 | 派員赴澳洲出席「APEC海洋資源保育工作小組第20次會議」，報告我國巴里行動計畫成果，並參加職權範圍書討論。 |
| 4月26～27日 | 國際環保組 | 補助核能學會赴印尼出席「2007全球核能婦女會組織第15屆年會」。 |
| 4月27日～5月1日 | 生物多樣性組 | 參加「比利時2007年自然生態保育展」 |
| 4月29日～5月14日 | 國際環保組 | 派員赴美出席「聯合國永續發展委員會第15次年會」。 |
| 4月30日 | 國土與交通分組 | 發布「自然人文生態景觀區劃定作業要點」 |
| 5月 | 健康風險組 | 疾病管制局邀集相關單位，召開跨單位之「國家抗生素管制監測資料應用研商會議」。 |
| 5月7～10日 | 國際環保組 | 補助台灣蝙蝠學會赴泰國出席「國際鳥盟亞洲理事會」。 |
| 5月8～14日 | 國際環保組 | 補助野鳥學會赴香港出席「日本京都氣候變遷會議」。 |
| 5月14日 | 生物多樣性組 | 公告「96年飛魚卵管理措施」，核准兼營漁船數180艘及訂定總容許漁獲量，且兼營飛魚卵漁業之漁船主應填報及繳交漁撈日誌。 |
| 5月27～31日 | 國際環保組 | 經濟部長陳瑞隆率團赴澳洲出席「APEC能源部長會議」。 |
| 5月29～30日 | 國際環保組 | 辦理「2007永續發展國際論壇」，邀請日、韓、芬蘭、德國及歐盟等國永續發展委員會委員或專家來台。 |
| 5月31日 | 生活與生產組 | 啟用環保產品線上採購網（http://www.buygreentw.net） |
| 6月 | 生物多樣性組 | 已建置台灣社區通（sixstar.cca.gov.tw）提供社區全面、完整、便捷之社造資訊；建立環保生態及生物多樣性人才資料庫。提供民眾對社區環保及永續利用之資訊。 |
| 6月3～15日 | 國際環保組 | 組團赴荷蘭出席「華盛頓公約第14次大約方大會」。 |
| 6月5日 | 永續願景組 | 公布2006年台灣永續發展指標計算結果。 |
| 6月11日 | 國際環保組 | 中南美洲台灣環保聯絡處於薩爾瓦多成立。 |
| 6月11日 | 永續願景組 | 辦理全國性環保團體座談會，由環保署陳署長重信親自聽取各環保團體對環境永續議題之建言。 |
| 6月16～18日 | 國際環保組 | 補助荒野保護協會在台舉辦「亞洲綠色生活地圖研討會」。 |
| 6月20日及11月13日 | 生物多樣性組 | 96年6月20日邀請產、官、學界召開「人工魚礁政策檢討會」，及11月13日邀請學者進行「人工魚礁政策座談會」。 |
| 6月23日 | 生物多樣性組 | 舉辦「生物多樣性學者論壇」，會中決議加強建立溝通平台，強化政府與非政府組織間之對話及合作關係。 |
| 6月28日 | 健康風險組 | 加拿大駐台北貿易辦事處共同舉辦「白石綿國際研討會」相關研討意見作為未來對於白石綿的管制之參考。 |
| 7月 | 資源與產業 | 舉辦「經濟部能源局與集團量販店自願性節約能源合作意向書簽署大會」 |
| 7月2～6日 | 國際環保組 | 組團赴法國出席「生物多樣性公約科學技術暨諮詢機構第12次會議」。 |

| 日期 | 單位 | 工作內容及成果 |
|---|---|---|
| 7月6日 | 生活與生產組 | 發布「有機農產品及有機農產加工品驗證管理辦法」。 |
| 7月13日 | 永續願景組 | 環保署與美國太空總署（NASA）簽訂合作協議，我國的監測站（設於中央大學及鹿林山）加入美國太空總署（NASA）之全球微脈衝光達監測網（MPLNET），以及全球氣膠自動監測網（AERONET）。 |
| 7月23日 | 國土與交通分組 | 與法國馬賽水下考古研究中心簽署水下考古合作行政協議書，內容包括發展科學與教學合作；專家、出版及展覽交流；協助台灣尋找適宜原地培訓之遺址；接受台灣人員赴法培訓等。 |
| 7月26～29日 | 生活與生產組 | 於台北世貿中心辦理「綠色生活展覽會」，參觀人潮超過8萬人次。 |
| 7月27日 | 健康風險組 | 發布「進口有機農產品及有機農產加工品管理辦法」 |
| 7月28～29日 | 國際環保組 | 辦理「台灣與南太平洋友邦環境部長會議」，共5友邦13名代表與會議。 |
| 7月30日 | 國土與交通分組 | 行政院核定「永續海案整體發展方案」。 |
| 8月 | 資源與產業 | 經濟部能源局舉辦集團企業成立節能服務團授旗大會 |
| 8月11～19日 | 國際環保組 | 環保署長陳重信率團赴美出席「台美環境合作會議」。 |
| 8月14～26日 | 國際環保組 | 補助台灣國際觀鳥協會赴英國參與「2007 UK Birdfair」。 |
| 8月22日 | 生物多樣性組 | 正式頒佈「基因轉殖植物遺傳特性調查及生物安全評估原則」 |
| 9月 | 健康風險組 | 完成傳染病通報系統三期建置，統合「法定傳染病通報系統」、「新感染症症候群監視通報系統」與「症狀監視通報系統」提昇功能與便利性。 |
| 9月 | 資源與產業 | 經濟部能源局代表我國出席APEC第34屆能源工作組(EWG34) |
| 9月17～21日 | 生物多樣性組 | 舉辦「第二屆國際生命條碼學術會議暨東亞與南亞之區域性合作會議」，44國約400人參加。 |
| 9月29日 | 生活與生產組 | 啟用台南園區循環型永續生態城鄉建設-太陽能發電追日獨立型系統。 |
| 10～12月 | 健康風險組 | 為建立通報單一窗口，加強系統功能，以提升疾病通報防治時效，推動建置「傳染病通報系統與TB通報系統整併案」。 |
| 10月4日 | 生物多樣性組 | 成立海洋國家公園事務之海洋國家公園管理處。 |
| 10月4日 | 國土與交通分組 | 海洋國家公園管理處掛牌成立，統籌管理東沙環礁及其他可能設立的綠島、北方三島、澎湖群島等島嶼或海洋型國家公園。 |
| 10月15日 | 國際環保組 | 召開「國際環保工作分組會議」。 |
| 10月25～10月26日 | 生物多樣性組 | 國家植群圖建置計畫累計資料庫已建置1000篇文獻屬性資料，9304個樣區位置點 |
| 10月28日～11月5日 | 國際環保組 | 補助中華林產事業協會辦理「2007國際森林研究機構聯合會林產組世界會議」。 |
| 10月30日 | 國土與交通分組 | 舉辦「太武山區劃設為水質水量保護區」公聽會，廣納各方意見。 |

| 日期 | 單位 | 工作內容及成果 |
|---|---|---|
| 11月5～8日 | 國際環保組 | 於印尼雅加達與印尼政府共同舉辦「APEC衛星於漁業及海岸生態系統之應用研討會(Satellite Application on Fishery and Coastal Ecosystems, SAFE)」。 |
| 11月6～18日 | 國際環保組 | 於台北辦理APEC第8屆企業/私人部門參與海洋環境永續性圓桌會議，與APEC會員體交換意見。 |
| 11月17～18日 | 永續教育組 | 「2007全國中小學特色學校暨台灣遊學國際博覽會」，展示各特色學校活化利用既有閒置校舍校園空間等教育公共財與創意執行效益。 |
| 11月20～22日 | 國際環保組 | 受邀參加中美洲環境開發委員會(CCAD)能源與環境聯盟(EEP)在貝里斯舉辦之中美洲區域論壇。 |
| 11月28～30日 | 國際環保組 | 派員出席於印尼馬納都舉行之APEC巴里行動計畫研討會(Workshop on Implementation of Bali Plan of Action)。 |
| 11月29日 | 健康風險組 | 舉辦「台美殺蟲劑管理與焚化爐灰渣處理國際研討會」，邀請美國環境保署Mr. Frank T.Sanders及Dr. Chun C.Lee二位專家蒞臨專題演講，並邀國內產官學界參與討論 |
| 12月 | 資源與產業 | 完成桃園等11區共2740公里地層下陷水準檢測作業；辦理全台水庫清淤截至12月底止清淤405萬立方公尺。 |
| 12月 | 生物多樣性組 | 核准27艘屏東縣兼營魩鱙漁業漁船指定性休漁。完成6艘遠洋魷釣漁船辦理指定性休漁，核撥指定性休漁獎勵金474萬。 |
| 12月 | 生物多樣性組 | 建置台灣野生動物冷凍遺傳物質之典藏標本資料庫，目前已蒐集2,140種8,400件標本 |
| 12月5～15日 | 國際環保組 | 率團赴印尼出席「聯合國氣候變化綱要公約第13次締約方大會(COP13)暨京都議定書第3屆締約方會議(MOP3)」。 |
| 12月9～19日 | 健康風險組 | 環保署組團赴美國研習「海洋油及化學品污染緊急應變訓練」，參訪美國德州及其區域之緊急應變中心 |
| 12月13日 | 國土與交通分組 | 行政院第2次召會審查海岸法（草案）。 |
| 12月18日 | 健康風險組 | 發布「毒性化學物質標示及物質安全資料表管理辦法」及「申請解除毒化物限制或禁止事項審核辦法」。 |
| 12月18日 | 永續願景組 | 發布實施「原住民族地區自然資源共同管理辦法」。 |
| 12月18日 | 永續教育組 | 舉行「環境變遷與永續發展」數位學習示範課程成果發表會(http://environment.edu.tw) |
| 12月19～20日 | 國土與交通分組 | 舉辦「2007全國公園綠地會議」。 |
| 12月25～28日 | 國際環保組 | 環保署長陳重信率團赴日出席「第二屆台日環境會議」。 |
| 12月27日 | 國土與交通分組 | 辦理「台灣附近海域水下文化遺產歷史研究計畫」第一次成果報告。 |
| 12月31日 | 永續願景組 | 完成台灣野生動物資料庫查詢系統改版建置工作，目前野生動物資料庫共計累計116,970筆，照片數2,858張。 |
| 12月31日 | 國土與交通分組 | 96年間協助台北縣、台北市、苗栗縣、宜蘭縣、嘉義縣、高雄縣、台東縣等縣市新設自行車道，完成41公里自行車道。 |
| 12月31日 | 國土與交通分組 | 完成國有林地步道整建100公里，維護經管步道100公里工程，整理嘉明湖避難山屋，辦理塔山等20條步道周邊及沿線解說牌示更新等工程。 |

# 2007

# Annual Report on National Sustainable Development



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2007 Annual Report on National Sustainable Development

# Contents

# Preface

In 1992, the leaders and representatives of 171 nations convened in Rio de Janeiro , Brazil , to hold the Earth Summit. Participants agreed to implement Agenda 21, an action plan for promoting the sustainable development of our planet, as well as the Rio Declaration, which calls on all nations to join together in pursuing sustainable development of humanity. Representatives of the world's nations met again one decade later in 2002 in Johannesburg , South Africa , for the World Summit on Sustainable Development. This meeting produced the Sustainable Development Action Plan, providing an agenda for concrete measures and goals in promoting sustainable development.

The Executive Yuan established the National Council for Sustainable Development (NCSD) on 23 August 1997 to incorporate sustainable development concepts into government administration. The focus of the NCSD is to advise on sustainable development policy and coordinate work toward sustainable development. Important documents and plans drafted and implemented in 2006 include the Taiwan Sustainable Development Declaration, Taiwan Agenda 21, and the Sustainable Development Action Plan. In addition, the NCSD held the 2007 International Forum on Sustainable Development, which consolidated consensus among all circles on many items to serve as reference for future policy making.

This year's annual report compiles the significant achievements made by public, private and civil sectors toward sustainable development in 2007. Topics covered in this edition include an outline of NCSD Affairs and Achievements (Chapter 1); 2007 International Forum on Sustainable Development (Chapter 2); Shining Models of Grassroots Sustainable Development (Chapter 3); Local Achievements in Sustainable Development (Chapter 4); Announcing 2006 Sustainable Development Index (Chapter 5); and Global Sustainable Development Trends (Chapter 6). The appendix provides a chronicle of important events related to sustainable development, the organizational framework of the NCSD and the names of council members.

The Annual Report on National Sustainable Development is published each year for the purpose of providing the international community with a better understanding of our nation's efforts and achievements toward sustainable development. Another objective of the report is to raise public awareness of sustainable development and encourage more people to work together in attaining the vision of sustainable development.

▲Premier Chang presides over the 22nd NCSD Assembly.

# Chapter 1
# NCSD Affairs and Achievements

## 1.1 Developments

### 2007 International Forum on Sustainable Development

Working to promote mutual exchange regarding sustainable development with the international community, the National Council for Sustainable Development (NCSD) held the 2007 International Forum on Sustainable Development on 29~30 May 2007. Nearly 400 people attended, including scholars, officials and civil organizations concerned about sustainable development issues (please see chapter two for details).

The 21st~23rd NCSD Working Group meetings were held on 26 April 2007, 13 July 2007, and 21 February 2008, respectively, presided over by NCSD Chief Executive Officer Jay N. Shih(施能傑). The reports and topics of discussion included greenhouse gas reduction focal task plans (LPG promotion strategies, Taipower greenhouse gas reduction strategies, and energy source development plans), biofuel promotion strategies, the Dongsha Marine National Park Achievement Report, the Green Island National Park Executive Report, plans to maintain and preserve natural coastlines, discussions on coral reef plans, and the content and legislative strategies of three national land laws (the National Land Planning Act, the National Land Restoration Regulations and the Coast Act).

**Premier Chang**

Government Focus on Energy Conservation and Renewable Energy

The 22nd NCSD Assembly was

presided over by Executive Yuan Premier Chang Chun-hsiung (張俊雄). Addressing current energy conservation and biofuel promotion strategies, Chang explained that, "Taiwan relies on imports to supply 98% of its energy needs. To reduce our dependency on imported energy, and respond to high international energy prices and greenhouse gas reduction trends, the government is now focusing on promoting energy conservation and renewable energy."

While the Ministry of Economic Affairs is aggressively carrying out various energy conservation programs, cooperative effort and joint participation are also required of all government agencies and citizens. In addition, biodiesel and ethanol can integrate the energy needs of agriculture and industry, and further increase the ratio of self-supplied energy sources.

Addressing plans to maintain and preserve Taiwan's natural coastline, Premier Chang said, "The Executive Yuan set the 'Sustainable Coastline Development Plan' in action on 30 July 2007, signifying a new initiative in the government's efforts to protect the natural coastline. From now on, the review and execution of major development plans and construction work along the coastline must comply with specified principles."

▲Premier Chang exchange ideas with non-governmental members of NCSD face to face.

## 2006 Taiwan Sustainable Index

The NCSD announced Taiwan's Sustainable Development Index (SDI) on World Environment Day, 5 June 2007 (please see chapter five for details).

## 2007 National Sustainable Development Awards

The award ceremony for the 2007 National Sustainable Development Awards was held on 3 December 2007. Award recipients included three communities, three schools, three companies, three schools, one civil group, and three Sustainable Development Action Plan implementing agencies, as listed below:

## Decade of Sustainability Highlights Government and Corporate Cooperation

Already a decade since its establishment, the NCSD and the private sector have worked together to sow the seeds of sustainability. NCSD CEO Jay Shih and former CEO, professor Yeh Jiunn-rong, were both invited to speak at the "Decade of Sustainability: Review and Outlook of Practices and Action" forum.

In his speech, Jah Shih said that over the past decade, the NCSD has worked hard in the following three areas:

**1. Systematic framework:**

issued the Declaration on National Sustainable Development and gradually announced Taiwan's Sustainable Development Indicators

**2. Participatory framework:**

all-inclusive participation and representation of ethnic diversity through guidelines for two-thirds of the NCSD to be held by civil scholars, experts and NGOs, and one-third to be held by government officials. The Sustainable Development Awards exist to commend and encourage civil groups,


▲NCSD CEO Jay Shih delivers speech at the Decade of Sustainability event.

schools, and enterprises that show outstanding performance in sustainable development.

**3. Action-oriented framework:**

the Sustainable Development Action Plan compiled by the NSCD has increased from 200 pages to 400 pages. Actions are distributed among the various Working Groups, which strengthen promotion in focal work areas.

**2007 National Sustainable Development Award recipients:**

| Award category | Recipient |
|---|---|
| Sustainable Community | Chiyen Community, Beitou District, Taipei City (Urban) |
| | Keliao Community, Beimen Township, Tainan County (Rural) |
| | Sizaician Community, Annan District, Tainan City (Urban) |
| Sustainable Enterprise | ASUSTeK Computer Inc. (Large enterprise) |
| | Yung Shin Pharmaceutical Ind. Co., Ltd (Large enterprise) |
| | Hualien Stone Industry Resource System Com. (Medium sized enterprise) |
| Sustainable Education | Yunhai Elementary School, Taipei County |
| | Yang Shin Elementary School, Taoyuan County |
| | Lishan Elementary School, Taipei City |
| Sustainable NGO | Oxplow Community Exchange Association, Hualien County |
| Sustainable Development Action Plan Implementing Agency | Ministry of the Interior: Dongsha Marine National Park Plan |
| | Center for Disease Control, DOH: Strengthened Control of Infectious Diseases |
| | Department of Waste Management, EPA: Promoting Environmental Science and Technology Parks to Create a Cycling Society |

# 1.2 Working Group Achievements

## 1.2.1 Sustainable Vision Working Group


◀Coral distribution at Black Dwarf Cave, Liuchiu Township, Pingtung County.

This Working Group assists counties and municipalities to set up local sustainable development committees, establish visions, analyze issues, plan strategies, establish implementation and follow up mechanisms, establish evaluation and revision mechanisms, formulate performance evaluation rules, establish information platforms, promote sustainability concepts, review and integrate existing work plans and resources, and build up strategies and operating models of public participation.

### Strengthening Mechanisms to Promote Sustainable Development

After announcing the 2006 Taiwan Sustainable Development Indicators in the dimensions of ecological, environmental, societal, economic, institutional and urban development, the most representative indicators were chosen in each dimension. Overall results of composite index scores for each area, including environmental pollution, social pressure, economic pressure, and urban sustainable development showed improvements over 2005.

Based on the important items of consensus from the National Conference on Sustainable Development, the Sustainable Development Action Workshop was held this year to promote regional alliances toward sustainable development. The focus for this year centered on the regional alliance for sustainable development between Kaohsiung County, Kaohsiung City, and Pingtung County, known as the KKP region. This cross-regional cooperation model is widely drawn upon and promoted as model for the nation. Another important ongoing task for this working group is the compilation of the Green GDP. Also related to this working group, this year the Ministry of Foreign Affairs established an Environmental Sustainable Diplomacy Working Group to strengthen work on international environmental affairs.


▲Sustainable development actionworkshop(Pingtung County)

## 1.2.2 National Land and Transportation Working Group

### Sustainable Coast Comprehensive Development Plans

Complementing the Ministry of the Interior's National Land Use Surveillance Plan, high-tech satellite imagery is used to announce changes to natural coastline in each county and municipality on an annual basis. Onsite investigations are then conducted at places where changes have occurred and findings are reported. This plan effectively monitors coastline to prevent inappropriate development.

The Executive Yuan ratified and enacted the Sustainable Coast Comprehensive Development Plan on 30 July 2007 to ensure Taiwan loses no more of its natural coastline, to prevent inappropriate construction of facilities on the coast that could threaten ecological balance, to respond to international trends in assuring sustainable development of coastal areas, and to maintain attractive natural scenery along the coast. This plan prioritizes implementation of plans in six dimensions: fishing harbors, coastal roads, coast embankments, tourism, tideland, and coastal planning. The implementation of this plan is significant in terms of ensuring the ratio of natural coastline does not decrease. To protect the natural coast, in the future the Ministry of the Interior's natural coastline monitoring work will take the content of industry competent authorities' construction plans into account with an emphasis on "investigation before the fact" rather than "monitoring and control after the fact."

Natural and constructed coastline in Taiwan


### Promotion of Sustainable Transportation

Plan to make double tracks and electrify the whole Hualien-Taitung railway line: This plan has been devised to solve railway bottlenecks, raise the standards of the east coast railway transport, balance the differences in east-west railway transport, greatly shorten railway transport time, build the infrastructure for rapid islandwide transport, and satisfy east coast rapid transport requirements. The plan will put in double tracks and electrify the entire length of the track (155.46 km) including 30 railway stations.

2007 Taipei metropolis mass transport network construction plan: Network development will occur in three stages. After completion, the Taipei metropolis mass transit network will span 270 km and be able to carry over 3.6 million people per day.

High speed rail (HSR) comprehensive mass transit: The section from Banciao Station in the north to Zuoying Station in the south commenced operations from 5 January 2007. The section connecting Banciao Station to the Taipei Main Station was up and running on 2 March 2007. The system allows one to get from Taipei to Kaohsiung in just 90 minutes, enormously expanding the scope of a day's activities in western Taiwan. Plans

▲Taiwan High Speed Railway.

for other stations to tie into the HSR system include:

**1. Public road mass transit:**

A passenger transit station will be built at each HSR station and public road passenger service routes and cars will be adjusted and integrated to provide more convenient passenger service. The Chiayi Station will be the first to link with a bus rapid transit (BRT) system.

**2. Railway mass transportation:**

HSR stations in Taipei, Taoyuan, Taichung, and Zuoying directly connect with the Taiwan Railway system and local mass transit systems. HSR stations in Hsinchu and Tainan will have branches to connect with the with the Taiwan Railway system.

## 1.2.3 Resources and Industry Working Group

### Actively Promoting Reservoir Dredging

A great deal of silt enters Taiwan's reservoirs each year due to natural phenomena and human activities in Reservoir catchment areas. The following measures are underway to extend the life of reservoirs, increase flood prevention functions, recover reservoir capacity, maintain reservoir facilities, ensure reservoir water supply, and advance the sustainable use of reservoirs:

(1) Dredging of reservoir sedimentation to improve reservoir water quality, recover reservoir capacity, enhance flood prevention and water retention functions, and extend the life of the reservoir

(2) Based on the extent of reservoir sedimentation in each area and differences in water supply environments, evaluate cleaning and dredging priorities for excavation and pumping methods.

(3) Plans are drawn up to clean out sedimentation in eleven reservoirs including the Agongdiam, Shihmen, and Chengching Lake, for an expected total of 20 million cubic meters of silt.

### Goal Set for No Growth in Electricity Use by Government, Schools

Electricity consumption in Taiwan grew by a steady average of 8.3% each year from 1996 to 2000, and by 4.3% from 2001 to 2005. To practice energy conservation, the government drafted the Reinforced Energy Conservation Measures for the Government and Schools in 2006 and 2007. This was approved and enacted by the Executive Yuan, which stipulated a no-growth energy policy for all central and local government agencies, and public and private schools. The measure includes subsequent review of outcomes each year.

Energy conservation measures stipulate that energy conservation initiatives adopted by implementing agencies may fall under any of 40 items in three large categories: replacement of equipment or comprehensive energy-saving reforms, conservative use of electricity, and conservation of oil. Concrete results so far include:

1. **Overall increase in electricity consumption was 0.03% in the summer of 2006 (August and September)**
2. **Overall increase in electricity consumption by implementing agencies was 0.09% in the second half of 2006**
3. **Overall reduction in electricity consumption was 1.0% in the summer of 2007.**

## 1.2.4 Biodiversity Working Group

### Building a Complete Biodiversity Database

The Taiwan Biodiversity Information Facility (TaiBIF) has registered a total of 46,760 species. Over one thousand sets of data have been established for non-native species, cultivated species, exotic species, and invasive species. Taiwan has 695 registered taxonomists and ecologists. The Taiwan Region Vegetation Mapping Plan completed surveys of 614 land sampling areas, established 777 sets of documents, and set 9,081 sampling area points. The EPA's environmental information database established regular updating mechanisms. Air and water quality monitoring data is announced on the online environmental information database (http://edb.epa.gov.tw/). The EPA also formally announced the Genetic Transfer Vegetation Heritage Unique Characteristics Survey and Biosafety Assessment Principles. Starting in 2008, all plan applications with the National Science Council involving

▲Biological surveys are ongoing in each national park.


▲http://edb.epa.gov.tw/

genetically modified organism field tests will first require risk assessments.

The Council of Agriculture obtained crop seed stock ISO17025 laboratory certification for conservation and applied research of national crop seed stock. The COA maintains low temperature preservation seed banks to protect over 66,000 seed stock. Local biological resources for which plant variety rights (PVR) have been obtained have already been authorized for technology transfer, including 12 species of chrysanthemums.

### Ecological Conservation Policy Rewards Suspension of Fishing Activities

The 2007 Flying Fish Egg Management Measures was enacted to approve fishing boat numbers and set total allowable catch (TAC). For example, after the 2007 whale shark catch reached the limit of 30 animals on 27 March 2007, further catching of whale sharks was banned. The government allowed 27 boats in Pingtung County to receive subsidies for stopping to catch baby fish. Six far-sea squid boats were also designated as subsidy recipients for suspending fishing operations, and 7,573 fishing boats voluntary stopped fishing. Indigenous natural resource conservation industry plans were drawn up to provide guidance in protecting indigenous biodiversity resources.

## 1.2.5 Livelihood and Production Working Group

### Award and Encourage Civil Construction of Green Buildings

Green building codes were added to the building design and construction section of the building technology codes. Those under the applicable scope of these codes should follow the regulations in carrying out green building design. The “Ministry of the Interior Award for Private Sector Green Building Reform Model Operating Guidelines” were drafted to promote green building design on existing buildings in the private sector. Thirteen plans were selected to receive assistance this year.

### Promoting Second Hand Product Markets

Two second hand markets—Taipei City Yong Chun and Nantou County’s Jiji— were selected to serve as models. Open every Saturday and Sunday, the markets are an example of reusing open space to create markets. Additionally in Taipei City, Miaoli, Tainan and Kaohsiung, four second hand shops were chosen to receive guidance toward improving their shops in terms of product labeling, environmental product lines, and electronic methods. The government selected examples of second hand markets in five developed nations: US, Japan, England, France, Australia. These examples were referenced to provide concrete and feasible methods in the formulation of Taiwan’s second hand market. Local government second hand service training camps, and business management training skill cultivation courses were held for second hand enterprises. Other promotional initiatives included hands-on activities, demonstration and guidance spots to start marketing activities, achievement display events, television media feature stories and print media, and the publication of a guide to second hand markets to attract and expand citizen interest.

◀Hualien ESTP management and research building and ecological detention pond.

### ESTPs Promoting Ecological Webs in Industry

Already 59 firms have entered Taiwan's Environmental Science and Technology Parks (ESTPs), including many foreign firms and Taiwan-foreign technical cooperation factories. Twenty firms have already set up factories and commenced business, and are beginning to form links in materials and energy cycling both inside and outside of the parks. Ecological connections are gradually beginning to emerge among industries in the parks. Firms that have already entered the parks now cover over 40 hectares and have invested a total of NT$13.3 billion with a projected annual production output of NT$28 billion. These firms are expected to cycle around 1.66 million tonnes of resources per year and reuse 660,000 tonnes of water, already reaching 77% of the plan's target of 3 million tonnes of resources per year.

## 1.2.6 International Environmental Protection Working Group

### Promoting Environmental Cooperation among South Pacific Nations

Taiwan invited environmental administrators of South Pacific islands including Kiribati, Marshall Islands, Nauru, Palau, and Solomon Islands to the "2007 Taiwan-South Pacific Ally Environmental Ministers Meeting on 26 July 2007. Among the ally representatives to attend this meeting included Teima Onorio, Republic of Kiribati Vice President and Minister of Environment, Lands and Agricultural Development; Witten Philippo, Marshall Islands Minister in Assistance to the President; Jonathan Koshiba, Chairman of the Environmental Quality Protection Board of Palau; and Mark Kemakeza, Solomon Islands Minister for Forestry, Environment and Conservation.

EPA Minister Winston Dang convened several multilateral roundtables and bilateral discussions during the meeting and additionally arranged peripheral activities for the foreign representatives to meet with President Chen and visit Taiwan's resource recycling facilities. The meeting reached consensus to:

1) establish a mechanism for long-term dialogue between environmental administrators of the nations,

2) promote environmental resource management, marine pollution control, waste management and sustainable development technology exchange and experience sharing, and

3) strengthen capacity building in responding to climate change, and develop impact and adjustment cooperation plans.

In September 2007, the EPA sent three experts to Palau and has plans for 2008 to assist in solving local environmental problems in the Marshall Islands, Kiribati, Solomon Islands, Nauru, and Tuvalu.

▲President Chen Shui-bian (fourth from left) meets with representatives of the Taiwan-South Pacific Ally Environmental Ministers Meeting.

▲The EPA established the "Taiwan Environmental Liaison Office in Central America" in El Salvador.

### Environmental Cooperation with Central American Nations

The EPA established the "Taiwan Environmental Liaison Office in Central America" in El Salvador on 11 June 2007 to serve as a direct platform for environmental dialogue between Taiwan and regional allies. The EPA sent an advisory delegation to Guatemala and El Salvador in June 2007, and donated a simple air quality monitoring demonstration station to Guatemala.

## 1.2.7 Health Risks Working Group

### Strengthening Infectious Disease Surveillance System

Plans to strengthen the functions of the infectious disease surveillance system have had the following concrete outcomes and achievements: 1) integration of infectious disease surveillance system to stop the spread of epidemics and eliminate infectious disease transmission at the border; 2) increased use of high tech solutions in the infectious disease surveillance system to fulfill Taiwan's international responsibilities and achieve a Epidemic Control Without Borders; 3) full automation of the infectious disease surveillance system to provide instant feedback and achieve real-time epidemic control information; and 4) increased visibility of infectious disease surveillance system to consolidate citizen consensus and achieve self-regulating citizen epidemic control.

▲DOH receives the Award of Sustainable Development Action Plan Implementing Agency.

### Setting and Implementing Strengthened Vaccination Policy

1. Routine vaccination of children: implement immunization work including routine vaccination measures, and actively increase vaccination rates. After many years of hard work, children immunization rates are currently over 95%.

2. Plan and obtain additional routine vaccinations: the Advisory Committee on Immunization Practices of the Center for Disease Control, DOH, decided in 2006 to prioritize targets to include in routine vaccination work.
3. Include Pneumococcal Polysaccharide Vaccination plan in health care for seniors over 75 years old.

## 1.2.8 Sustainable Education Working Group

▲Green roof at Pengcuo Elementary School.

### Sustainable Campus Plan: Enlivening Space and Developing Unique Schools

The "Elementary School Plan to Enliven Campus Space and Develop Unique Schools" was carried out nationwide in 2007, resulting in the selection of 100 demonstration models for developing the unique features of each school. Subsidies ranging from NT$300,000~NT$800,000 were given to each school for a total subsidy budget of over NT$44.5 million. The plan also approved the establishment of a School Resource Center in Cyuchi Elementary School, Taipei County, and organized the "2007 International Forum on Taiwan's Unique Elementary and Junior High Schools and Study Tours."

Other achievements:

1) Advocacy of energy conservation and carbon reduction measures in schools;
2) Established the "School Second Hand Service, and Reuse of Books, School Supplies" application system, and researched the establishment of a nationwide exchange platform for second hand school books;
3) Held the 2007 Decade of Sustainable Development Education forum;
4) Subsidized environmental education promotion plan activities on biodiversity and sustainable development education;
5) Carried out the Ministry of Education's Safety and Health Professionals Training Plan;
6) Subsidized local governments to hold environmental education advisory group plans, and included the Taiwan Agenda 21 sustainable development plans in school curriculums and community education,
7) Included sustainable education related issues in the Nine-Year Integrated Curriculum,

8) Promoted the "National High School Old and Dangerous Dormitories Renovation and School Building Construction to Address Insufficient Educational Resources " plan, including setting standards according to the sustainable campus plan and requiring green building certification before construction begins.

### Promoting Ecological Engineering, Working with Environmental Groups

Various ecological engineering examples have been incorporated into teaching materials, and training workshops were held for design consultancies and construction company engineers and government official. This led to the operation of a nationwide ecological engineering portal website. Taiwan's environmental NGOs were invited to a forum for direct dialogue with the EPA Minister on environmental issues. This increases cooperative relations between the government and environmental organizations.

## 1.3 Important Achievements Environmental Science and Technology Park Promotion Plan

▲The Kaohsiung ESTP.

The Environmental Protection Administration began formulating the Environmental Science and Technology Park Promotion Plan in 2001. The Executive Yuan approved the plan on 9 September 2002. The plan entails investing NT$6.2 billion toward setting up four Environmental Science and Technology Parks (ESTPs) by the year 2011, covering a total area of 123 hectares. The ESTPs aim to provide models of cycling and reusing resources sustainably, strengthen the integration of national and domestic industrial technology, advance green production, raise international green competitiveness, and promote sustainable development

of society.

Four sites were chosen for the planning, construction and operation of these parks: Benjhou Industrial Park in Kaohsiung County, Fenglin Integrated Industrial Park in Hualien County, Taoyuan Industrial Park in Taoyuan County, and Liuying Industrial Park in Tainan County. The management and research buildings and laboratories of these four ESTPs have been designed according to green building codes, and the Hualien and Taoyuan parks have already obtained green building certification.

Already 58 firms have entered the ESTPs, including many foreign companies and Taiwan-foreign technical cooperation factories, greatly advancing Taiwan's environmental technology. Twenty firms have already completed entrance procedures and have commenced operations, setting up material and energy cycling production links inside and outside of the parks. Connections are gradually beginning to form between industry and the ecosystem. It is estimated that the firms already established at the parks will be able to cycle and reuse up to 1.66 million tonnes of resources and 660,000 tonnes of water per year for a total annual reuse volume of 2.32 million tonnes, already reaching 77% of the plan's target of 3 million tonnes per year.

The ESTPs promote the development of green production, and green supply chains, including upstream raw materials, component suppliers, midstream production processes, downstream fabrication and testing, and customer service. The establishment of cross-industry cooperation, resource integration and cycling will assist enterprises reduce business costs and create mutually beneficial gains for the economy, environment and society.

The ESTP Promotion Plan not only finds solutions to Taiwan's environmental problems and enhances environmental technology, but also provides a model for new and existing industrial parks to follow in the future. This model is anticipated to spread to other industrial parks and set the trend for ecological industrial parks.

## 1.4 Important Achievements
## Strengthening the Infectious Disease Surveillance System

To safeguard citizens' health and bear international responsibility, the Center for Disease Control is actively working to establish an instant and efficient infectious disease surveillance system. This entails the following affairs:

**1) Eliminate infectious disease transmission at the border**

Increasing frequency of international exchange and tourism makes it easier for various foreign infectious diseases to spread to Taiwan. To effectively monitor potential foreign infectious diseases, eliminate the spread of epidemics, and actively integrate infectious disease surveillance system, the CDC has stepped up surveillance and medical assistance toward infected travelers coming into the country. This will prevent individual cases of infectious disease from crossing the border.

**2) Epidemic Control Without Borders**

"Travel history" and "History of contact with animals" have been added to reporting requirements, bringing policies in compliance with the international health regulations stipulated by World Health Organization (WHO). This helps maintain early detection of the H5N1 flu, as well as any other emerging and reemerging infectious diseases. As soon as the infectious disease surveillance report alerts any possible cases of H5N1 flu, the system sends messages to infectious disease control units by mobile phone, initiates infectious disease control response, and automatically alerts the WHO.

**3) Real-Time Epidemic Control Information**

Apart from establishing a real-time and comprehensive infectious disease surveillance network, links are automatically established between data from different surveillance report systems, increasing the sensitivity and performance of infectious disease surveillance. Automatic data analysis and immediate report of general infectious disease situations by both GIS and warehouse systems provides the information needed to make decisions about epidemic control.

**4) Citizen Epidemic Control**

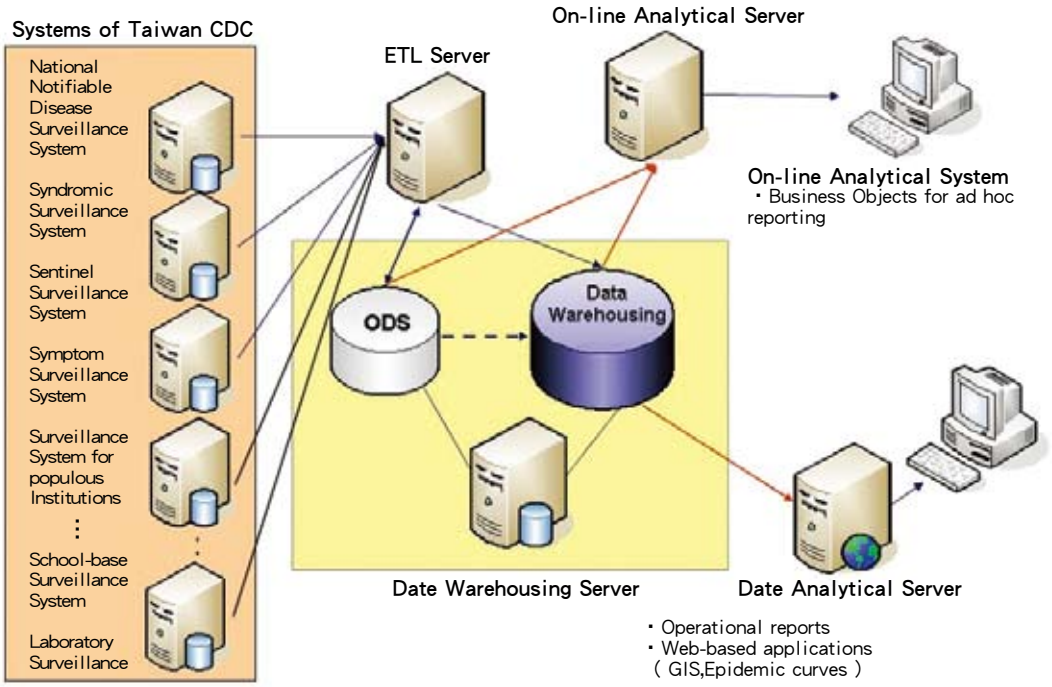
The infectious disease surveillance network and

real-time alert system helps medical and public health professionals gather the necessary information whenever needed and take appropriate epidemic control measures. The public is encouraged to use the toll free hotline 1922 “Public Epidemic Report and Counseling Service Hotline” to report epidemics and receive consultation regarding the status of epidemics and control measures. Citizens can also receive related information on the CDC website.

Confronted by the threat of various known and emerging infectious diseases, we not only need to continue introducing new disease controls to reinforce the current infectious disease surveillance system, but also actively keep in close cooperation with the international institutes, such as Center for Disease Control and Prevention in the US and the National Institute of Infectious Diseases in Japan so as to build a more complete infectious disease surveillance network.

Vigorous integration of information on infectious disease control and upgrading professional skills facilitates infectious disease prevention during general mobilization in crisis situations. Taiwan is prepared to take on the challenges of infectious disease control, actively participate in international affairs on infectious disease control, and work together to protect the safety of the public and achieve national sustainable development.

**Infectious disease surveillance system**




## 1.5 Important Achievements
## Dongsha Atoll the First Marine National Park

Dongsha Atoll is located 240 nautical miles southwest of Kaohsiung, Taiwan. The Dongsha Marine National Park is Taiwan’s first marine national park. With three years of investigation, planning and hard work, the Executive Yuan approved the Dongsha Marine National Park Plan on 19 December 2006, followed by the official designation made by the Ministry of the Interior on 17 January 2007. Encompassing 353,000 hectares, the marine national park safeguards this important atoll in the West Pacific, ensuring its abundant marine

resources are protected. Its immense range also makes it the nation's largest national park. Restoration achievements to date are as follows:

**I. Atoll Conservation - annual increase of area covered by live coral**

1.1 Coral reef ecosystem surveys and monitoring

1.2 Coral restoration experiment and feasibility assessment

**II. Rehabilitation and monitoring of the Dongsha island coast - gradual removal of artificial objects each year**

2.1 Analysis of Dongsha island coastal change parameters and studies on environmental improvement strategies

2.2 Spatial baseline data processing of Dongsha remote sensing images

**III. Ecological recovery of Dongsha Island - annual increase of native vegetation distribution**

3.1 Dongsha island environmental management and native plant restoration plans

3.2 Establish Dongsha Island nursery, identify native species and remove invasive species

3.3 Dongsha terrestrial biological resource investigation

**IV. Survey usage of water, energy and buildings and improve landscape - annual reduction of imported energy and building area**

4.1 Feasibility assessment on Dongsha's alternative energy resources and water resource diversification

4.2 Plan, research and design roadway rainwater catchment system

4.3 Landscape ecological resource management

**V. Maritime historic resource research and preservation - improve techniques of maritime historic research and underwater archaeology**

5.1 Ancient shipwreck investigation and research within Dongsha waters

5.2 Cultural and maritime historic resource survey at Dongsha Marine National Park

5.3 Investigation of archaeological sites on Dongsha Island

**VI. Enhance public awareness and participation - cultivate oceanic culture and sustainable use concepts**

6.1 Hold K-9 marine environmental education activities in fishery communities

6.2 Interview fishermen of Dongsha Atoll

6.3 Conduct studies on the coexistence of sustainable development and ecological conservation of off-shore islands

**VII. International marine research collaboration - promote marine scientific technology and fulfill international marine conservation responsibility**

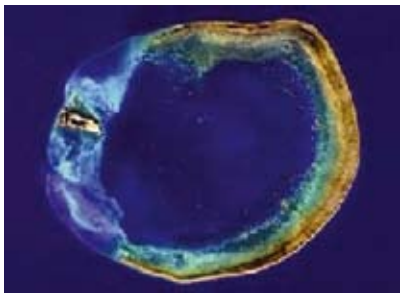
7.1 Join international organizations, such as the UN Atlas of the Oceans, and World Wide Fund

7.2 Conduct international oceanic scientific research

Conceived with the concept of sustainable operation, the Dongsha Marine National Park is the first national park in our country with the theme of marine resource protection. Ongoing investigation and research will aid in the effective management of vast amounts of information. Expected outcomes of the park:

Sustainable management of marine biological resources

- **Engage in long-term ecological studies and cultivate marine research professionals**
- **Protect natural heritage of mankind through planned recovery effort**
- **Designate a marine protected area to complement world trends**
- **Protect Dongsha as a resting place for migrating marine organisms and birds**
- **Establish a marine research station as part of international efforts in marine protection**
- **Establish a stronghold for marine protection in the West Pacific ocean**
- **Provide marine environmental education for the development of tourism**
- **Protect underwater historic remains and train submarine archeologists**



▲Formosat-2 image of Dongsha Atoll.


▲2007 International Forum on Sustainable Development.

Chapter2

# 2007 International Forum on Sustainable Development

The National Council for Sustainable Development (NCSD), Executive Yuan, held the 2007 International Forum on Sustainable Development from 29~30 May 2007. Taiwan EPA Minister Winston Dang presided over the opening ceremonies and invited Tuvalu's Ambassador for International Environmental Policy Issues and Climate Change, Enele Sosene Sopoaga, to deliver a speech on"Common Interest of Sustainable Development and Global Governance."Around 400 scholars, officials and civil representatives concerned about sustainable development issues attended the conference.

**Minister Winston Dang**

"Taiwan's NCSD has been over ten years, sought to participate in international affairs and assist other nations."

## Sopoaga:UN Should Address the Plight of Small Island States

At the opening ceremony, EPA Minister Winston Dang stated that the idea of sustainable development has been around for two decades, and Taiwan's National Council for Sustainable Development has been in existence for already ten years. Over these last ten years, Taiwan has not only made substantial advances toward sustainable development, but has also sought to participate in international affairs and assist other nations and regions promote sustainable development. Dang expressed his belief that this two-day forum will greatly benefit the sustainable development work in Taiwan and around the world.

Tuvalu's Ambassador for International Environmental Policy Issues and Climate Change, Enele Sosene Sopoaga, also serving as chairperson of the Alliance of Small Island States, gave the opening speech. Sopoaga stated that for island nations like Taiwan and Tuvalu, global warming and rising sea levels pose a threat to national security and people's livelihood. However, insufficient resources limit small island states' ability to appraise the situation and handle negotiations. In international talks they are unable to secure their due rights and support, making them prone to marginalization. This is unfair for small island nations

**Ambassador Sopoaga**

"Tuvalu is optimistic about future cooperation with Taiwan on sustainable development issues."

because although their carbon emissions are minimal, they are the ones that must bear the consequences of rising sea levels.

Sopoaga pointed out that in terms of sustainable development issues, apart from the United Nations Framework Convention on Climate Change (UNFCCC), the UN has not taken special notice of the unique predicament faced by small island states. He called on the UN to pay more attention and advised that it establish a "Small Island State Climate Change Center," and set up a climate change emergency response fund exclusively for small island states to apply for assistance. Taiwan also faces the same predicament as other island states—marginalization and inability to participate in UN dialogue mechanisms. Tuvalu is optimistic about future cooperation with Taiwan on sustainable development issues and will continue to support Taiwan in the international arena.

## Government and Industry Unite to Face Climate Change

Former NCSD CEO and National Taiwan University professor Dr. Yeh Jiunn-rong said during his talk at the conference that the Legislative Yuan should pass the Greenhouse Gas Reduction Act draft as soon as possible to provide a definitive response that clearly communicates Taiwan's concerns about the pressing issue of climate change. The government must also work hard to reduce greenhouse gases by clearly specifying reduction goals and timeframes for the industrial sector. The only way to ensure the future development of Taiwan is through gradual structural adjustment of industry with the guiding principles of sustainable development leading the way.

NCSD member Ms. Alice Yu pointed out that in 2002 Taiwan passed the Basic Environment Act, and the Executive Yuan also established the NCSD and drafted related policies. However, there are still three major issues which need to be addressed, including: 1) Taiwan's unfair treatment by the international community, 2) a lack of understanding and consensus on environmental issues between government and industry, and 3) Taiwan's NGOs lack the power to make an influential impact.

Among those invited to this conference to introduce their respective nation's sustainable development councils and WBCSD sustainable development policies included Former Member of the Presidential Commission on Sustainable Development of the Republic of Korea Dr. Moonkyu Kang, Japan Council for Sustainable Development Secretary General Ms. Miwako Kurosaka, Finnish National Commission on Sustainable Development Secretariat Representative Ms. Tuire Nikulainen, Former State Minister of the Interior for Berlin Prof. Dr. Dieter Heckelmann, and WBCSD's Dr. Howard Klee. The EC Environment Directorate-General International Affairs Director Henrik Laursen presented a detailed introduction

▲Nearly 400 scholars, officials and civil representatives attended

▲(Left to right) Ms. Miwako Kurosaka, Ms. Tuire Nikulainen and Dr. Howard Klee

on “European Union: Sustainable Development and International Cooperation.” Finland's delegate also introduced the Sustainable Development Indicators in Finland, and the Yale University's ESI and EPI research team representative Dr. Christine Kim introduced the ESI and EPI statistical methods and policy applications.

## Japan: Civil Push for Government to Move toward Sustainability
## Europe: Sustainability Integrated into Policy and Legislation

Remarking on Japan’s experience in sustainability, Miwako Kurosaka pointed out that the Kyoto Protocol drawn up in 1997 marked the first time Japan had held an international environmental meeting. This not only turned eyes toward the important issue of climate change but also awakened a sense of environmental awareness across the nation. The Japan Council for Sustainable Development put forth the Basic Environmental Plan in 2004 to assist the government establish sustainable development strategies, and ever since has become the main promoter of sustainable development in Japan.

Sharing the experience of European states, Tuire Nikulainen expressed that Finland’s national sustainable development commission is the primary coordinator of sustainable development affairs. From 1987, sustainability has been put on the political agenda so that the government and various interested parties can engage in dialogue to incorporate sustainability concepts into the policies of each department. Dr. Dieter Heckelmann emphasized that when Germany revised its constitution in 1994, Article 20a of the constitution stated that the government shall protect natural resources for the benefit of future generations. Legislative bodies shall determine standards and request the government to execute policies for sustainable development and resource protection. Meanwhile the juridical bodies administered laws based on sustainable development.

Finland has already developed a third generation of sustainable development indicators. From the 134 CSD indicators, Finland selected 58 to trial as national sustainable development indicators. The first group of indicators were developed in 2000. By 2006, already three groups of indicators had come out, with about 50 supporting indicators under 34 core indicator topics. and participated in the process of drafting national sustainable development strategies.

The Environmental Sustainability Index (ESI) and the Environmental Proficiency Index (EPI) were developed at Yale Center for Environmental Law and Policy as a way to evaluate world performance in sustainable development. ESI measures 146 related indexes of national environmental sustainability and quantifies the feasibility of each nation to effectively preserve precious environmental resources within the next ten years. EPI focuses on each nation’s progress on environmental policy objectives in core policy areas for which there is nearly international consensus. These decisive indicators are used to determine which nations are leading or falling behind in sustainable development as well as the best strategies being undertaken worldwide.

## Drawing on Other Nations’ Experience to Create Sustainable Policy

After finishing the day and a half agenda, on 30 May 2007, scholars and experts from various nations were invited to join a roundtable discussion with the NCSD and draw the conference to a closing. Just as Dr. Dieter Heckelmann emphasized, sustainable policies were infused into the constitution to ensure the balanced development and acknowledgement of the executive, judiciary and legislative authorities. In this way the valuable experience of other countries is assisting the NCSD to set the course for policies that are based on well thought-out sustainable development strategies.


▲Sustainable Development Roundtable Discussion

▲Planning and expanding ecological community.

Chapter3

# Shining Models of Grassroots Sustainable Development

## 3.1 Oxplow Community Exchange Association Cultivates Sustainable Development in Hualien County

The Japanese settled in Fengtien Township, Hualien County, during their occupation of Taiwan. At the onset of the post Restoration Period it was only natural for the Hakka people, whom had rented farmland in the area from the Japanese, to settle on the land and utilize the buildings left behind by the former occupants. The population of the township grew as the original Hakka settlers invited their relatives from the West to resettle in Fengtien. This is how the Hakka culture stamped its original brand on Fengtien.

### Fusion of Japanese and Hakka Creates Unique Fengtien Culture

In 1996, local residents gathered together to organize the "Oxplow Team" with the purpose of guiding visitors on tours of the abundant historical cultural relics left

behind in Fengtien by the Japanese. During these tours the team realized that their scope always focused upon the pre-Restoration Period, while little at all was attributed to the original Hakka settlers presence and their lineage up to the present day. Thus, the team began to think about what they could do to acknowledge the modern day occupants of Fengtien.

Backed by the support of professors from National Hualien Teachers College and representatives from the Hualien County Cultural Bureau, in 2001 the crew was officially renamed the "Oxplow Community Exchange Association." "Oxplow" symbolizes the arduous toil and efforts involved in the process of cultivating the farmland, and in this same vein the association has set high expectations, just like the ox plow, working hard and persistently to make headway. This association hopes their efforts can reach out to provide services to the elderly, women and youth of the community, and also instill a greater understanding and pride of the Hakka culture. Through the process of discovering Hakka history, ceremonies and customs, and lifestyles, the association believes that a clearer picture of the "second settlers" of this village will emerge.

The association began by organizing a "Children's Story Time Workshop," which includes "Love Fengtien," a "Lotus Drawing Contest," and "Folk Festival" activities, as well as forming a youth services group that has made progressive strides in harmonizing the community spirit of the residents. The association has set out to accomplish three major goals for the community: "create local job opportunities," "focus on youth education," and "establish an elderly social services system." At the same time, it also realizes the need to preserve the community's cultural assets, environmental integrity, industrial transformation and development, and address societal concerns. The association anticipates that

▲Promoting ecotourism.

organized planning and execution will be able to resolve these concerns. In addition, it also plans to promote environmental education and establish an environmental education study center as a part of the sustainable development goal.

Over the years this association has made exceptional progress in three areas: "humans and our living environment," "humans and environmental ecology," and "the living environment and environmental ecology." It has been able to gather the collective cooperation and support of the local residents and has progressively worked to establish a functional operational management system. In addition to being honored among the top seven outstanding communities by the Council for Cultural Affairs in 2002; in the year 2007 the association was awarded the "President's Cultural Award" and the "Jade Mountain Award" by the National Cultural Association, was honored by the Hualien County Environmental Protection Association for its contributions to environmental protection, and was awarded for its contributions in community education by the Hualien County Bureau of Education.

▲Environmental education in schools.

▲Training environmental patrol guards.

▲Building artificial wetlands park.

General affairs and plans of the association:

**Enterprise Development:**

Promote community tourism and outdoor education; develop tour guide specialists; create product research and development, sales, and DIY workshops; seasonal and service oriented business development; and botanical nursery cultivation and sales.

**Cultural Education:**

Publish community cultural and hometown teaching materials; a culture and history museum, a historical relic museum, and community educational resource center; establish a community youth community services team; cultural education courses, and folk festival events.

**Community Public Security:**

Safety prevention center; registration and establishment of safety prevention measures; forming community environmental cleanup and maintenance teams.

**Social Service and Medical Care:**

Foreign spouse matchmaking services for the elderly; youth daycare and school work assistance; meal catering services to the elderly living alone and in-home care provider services.

**Environmental Protection and Ecology:**

Environmental protection volunteer work crew, counseling and training; Taiwan nightjar and artificial wetlands park; promote ecotourism; integrate the promotion of environmental education in elementary and middle schools; community ecological environment construction and maintenance; and engage in the training and assignment of forest and environmental patrol guards.

Environmental Landscape: Cleanup disorderly space in the community; implement green beautification plans and create space for cultural arts; plant trees and vegetation; and encourage the cultivation of plants unique to Taiwan.

### Linking with Local Organizations to Expand Community Building

This association embarked on its mission 12 years ago, evolving from what once was a small, loosely-knit group that received guidance from other organizations up to what it is today—a well-organized association that is integrally united with the identity of its community. Today this association cooperates with communities and organizations throughout Hualien County working together to establish community organizations, and progressive steps are continually being realized in the actualization of the common visions of all.

In the future, aside from having authority over operational foundations, this association intends to work towards implementing a “societal enterprise” where the construction plans and environmental education concepts of Fengtien community rests in the hands of its residents, as well as the impetus set forth to establish a solid foundation for sustainable development. The association will continue providing assistance to other communities in Hualien County, proponing environmental education concepts to implement all types of community building work, and also establish a unified operational mechanism to plant the seeds for new concepts and methods in community building.

## 3.2 Sustainable Development and Green Enterprise

## ASUSTek Computer Inc.

With lights still on at night, a corporate building located in Guandu, Taipei, attracts people and cars with its big logo “ASUS.” The computer produced up to 55 million motherboards in 2006, installed in one in every three computers around the world, making ASUS one of the most famous Taiwanese brands in the global market.

### Launching “Green ASUS”

Since its establishment in 1991, ASUSTek COMPUTER is well known for its advanced R&D team,

◀National Sustainable Development Award evaluation committee visits ASUS.

technology, and high quality technical innovation, and has also been a leader of world's top green technology. With environmental protection as the top priority, ASUS launched the GreenASUS Steering Committee to actively pursue green design, green procurement, green production, and green marketing, as well as initiated the social and environmental responsibility management system to formulate an environmental and occupational health and safety policy, striving to achieve corporate sustainability.

ASUS has not only had outstanding performance on product sales but has also won numerous awards for its global brand image and efforts on environmental protection. With market recognition, ASUS became number one of Taiwan's Top 10 Global Brands in 2007 with brand value up to US$11.96 billion, having grown 166% since 2003. ASUS also won the 2007 TSMA Awards, receiving the most honorable Symbol of Excellence 2007 Achievement Award due to previously receiving more than 200 Symbol of Excellence Awards.

▲Various awards and recognition.

▲Evaluation committee members' onsite visiting.

In 2007 ASUS attended Oekom Environmental Rating Programme in Germany and won first place in the IT/ Computer, Peripherals and Office Electronics category and was also first Chinese company in the past 50 years to receive the CeBIT Gold Award for Production Design. These awards have shown that the company lives up to its corporate motto, "ASUS quality, strong as a rock."

## Following World Trends and Integrating Green Production

In order to implement the idea of green supply chain, ASUS has been dedicated to setting up a product recycling system and lead-free production process, becoming the first Taiwanese company to establish a free IT product take-back program. It also developed the first lead-free motherboard in Taiwan and therefore was selected by the Industrial Development Bureau, Ministry of Economic Affairs in 2005 for its excellent new leading product development plan.

Moreover, ASUS has built the first Green Product Management System (GPMS) in Taiwan and was chosen by the Department of Industrial Technology, Ministry of Economic Affairs in 2006 for its excellent demonstrative information utilization development plan. It established the first Green Design and Certification System for WEEE as well as developed the first automotive Environmental Product Profile System in Taiwan, providing transparent and prompt product information.

In addition to demanding top quality for its own products and services, ASUS has joined the Electronic Industry Code of Conduct (EICC) since July 2007, working alongside other top brands like HP, Dell, IBM, Microsoft, and Sony, to establish communication channels and share experiences of corporate social responsibility to strive for the sustainable development of the electronic industry.

Under the leadership of chairman Johnny Shih, ASUS continues to strive toward its corporate missions. ASUS cultivates and leads its employees to maximize their potential, maintain integrity and diligence, never stop pursuing top quality, speed, service, and innovation, and ultimately become top high-tech leaders who contribute to human society.

Looking forward, ASUS will continue its commitment to protect natural resources and insist on "clean production, green manufacturing." Moreover, ASUS promises to be more considerate of employee welfare and our living environment by taking full corporate social and environmental responsibility for our actions.

## 3.3 Sea of Clouds Embraces Stars, Children, and Smiles

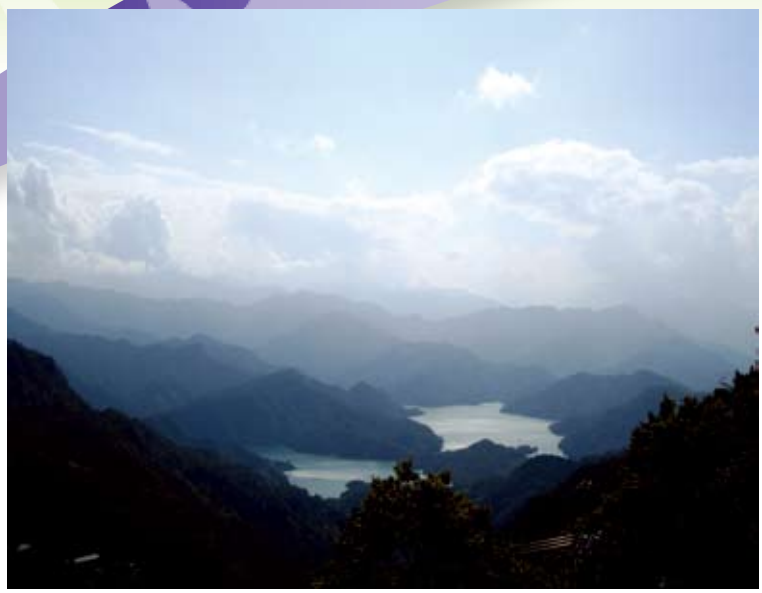
### Yunhai Elementary School Shihding Township, Taipei County

▲Children playing on the grass covered with maple leaves.

Yunhai ("Cloud Sea") Elementary School is located in the midst of forested mountains at the 24.5km mark along the Taipei-Yilan Highway, in Shihding Township, Taipei County. The surroundings are frequently foggy, peaceful and serene, providing a safe environment for a richly diverse ecological community.

#### Diverse Ecology Enriches Student Experience

The four seasons are distinct in this serene mountain area, each with different natural highlights to enjoy. In early spring, Wulai azaleas bloom to the symphony of frogs and birds; summer evenings bring on sudden rains



▲Yunhai located in frequently foggy mountains.

▲Richly diverse ecological campus.

▲DIY blue dyeing activity.

▲Children enjoy touching and experiencing nature.

that drive the earthworms from the ground to breathe the fresh air; autumn finds schoolchildren playing on the grass covered with colorful maple leaves; in winter, the pedals of cherry blossoms fall all over the ground just like rain is blown by the wind. Children at the ecologically diverse Yunhai Elementary School campus have relatively more time and space to experience the beauty of nature and life.

The teachers and students of Yunhai Elementary School have worked hard to create a diverse ecological community and gradually develop a curriculum based on local features to do their part for the advancement of environmental and ecological education. Learning spaces are designed to complement the natural living conditions of the species living here, and Campus Ecology Protection Regulations are established to protect the diversity of the school forest. For example, insect breeding periods are avoided when pruning to preserve their living space so that students can observe them more closely. Herbaceous and nectar producing plants and epiphytes are planted extensively and insect feeding platforms are built to facilitate observation. Other facilities include a night sky observatory platform, the Apollo Plaza, log cabins and decks, and an outdoor exercise playground to increase both learning and pleasure. Providing students with opportunities to touch and experience nature augments memory and feeling, and cultivates their imagination and cognitive ability.

To encourage the children about the precious treasures that can be found in nature, as well as promote systematic developmental learning, the school team has worked together to compile teaching materials, nature game manuals, a self-guided campus path booklet, picture books about nature, teaching resource manuals, campus tour guide, and plant introduction cards. Ecological engineering methods are used to prevent erosion, and cherry, camphor, and flamegold trees are grown amongst other native plants to conserve water and soil and diversify campus vegetation. The track field

▲Azaleas bloom in early spring.

is laid with drainpipes so the rains can be channeled to the wetland area. Open-celled permeable pavers and water tanks have been installed to recycle rains for irrigating plants.

Branches and logs brought down by typhoon winds are utilized for play equipment. Collapsed hillsides are transformed into nature restoration observation stations. School education is integrated with real life learning to instill consciousness and behaviors that care for the environment. The vacant Yong-an campus has been revitalized to develop a curriculum for the Feitsui Reservoir Catchment Area and promote water resource education and environmental education. The community serves as the greater classroom with resources including the K2 nature center, a nursery garden, and the Wenshan alternative tea plantation center. The school's active efforts to rehabilitate fireflies and provide the perfect environment have made it the best school in Taipei County for firefly observation.

### Blueprint of a Vision for Culture, Nature, Sophistication, Proficiency

The students and teachers at Yunhai are working hard to do their part for the community as well. Community members join parents, teachers and students to grow Wulai azalea and engage in restoration work. The campus is now known as the Taipei County Wulai azalia outdoor classroom garden. Work also goes toward developing the local natural indigo dye industry, including extensive plantings of assam indigo on the campus. The school has developed an indigo dyeing curriculum and designs DIY blue dyeing activities to share with the community. The school also trains and assists local residents to plan their own indigo dyeing workshops, making it a learning base for the community to promote sustainable development and pass on the community's traditional indigo dyeing industry.

Yunhai Elementary School attributes its achievements over the years to gradual consensus building, long-term planning, the efforts of teachers and students, and earnest actions. The whole school team is proud to say: "We have worked with all our hearts to promote sustainable development education!" Yunhai Elementary School has developed the following blueprint for its future vision:

**Culture:**
**participate with passion, show active concern; safeguard culture, embrace diversity**

**Nature:**
**respect life, cherish resources; learn from nature, protect biodiversity**

**Sophistication:**
**Excellence: exploration, innovation, creation, seek excellence, teamwork, cooperation**

**Proficiency:**
**sustainable management, environmental regeneration; pass on experience, international connection**

## 3.4 Chiyan Sunrise Shines on Ecological Culture in Taipei City, Beitou District

Endowed with the blessings of nature and a rare sunrise vista, everyday Chiyan Community residents welcome the dawn with beams of optimism. "Chiyan has the most beautiful sunrise," so say the residents who happily maintain the community's natural and humanistic environment.

It all began when a group of mothers began a self-study and personal development group in 1994, and learned about the importance of consolidating community spirit and serving the community. They eventually formed the Chiyen Community Development Association and began addressing issues of common concern in their community. The group holds a strong alliance in protest of inappropriate development. The group successfully banned cultivation of nearby hillsides and worked hard together to maintain the quality of life in the community. The association currently has 200 members in a community of over 10,000 people.

Chiyen Community is currently engaged in the following areas:

1) Cultural education to build an ever-learning and ever-growing community;

▲Dingpai ecological habitat area.

2) Social welfare and medicare with a special focus on the welfare of elderly and women;
3) Ecological and environmental protection, including surveillance of natural resources on Mt. Danfeng, the "Chiyen Dream Park," plans for a new Chiyen community, and the designing of a green school;
4) Mutually beneficial industries, including the establishment of the "Chiyen Delivery Pickup Station," the Chiyen bakery, and community cultural industry; and
5) Environmental landscaping, including the reuse of vacant space, art exhibitions, aesthetic design of a community art space, and a community art festival.

## A Mountain and Water Ecovillage Surrounded by Peaks

Known as "Niujhounei" (牛稠內) in ancient times, Chiyen is surrounded by Mt. Danfeng, Mt. Chilian and Mt. Chiyen, endowing a rich natural environment, and rare and precious scenery for an urban community. This has given rise to the "Mountain and Water Chiyen Ecovillage" plan, which has built up a database of resources including a natural resource survey conducted from 2002 to 2004, the Mt. Danfeng Nature Trail Brochure, the Chiyen Community Green Map, the

▲Mt. Danfeng Nature Trail promotion and interpretation (Chin-jiang Primary School)

▲Monthly maintenance of Dingpai ecopond by volunteer crew .

Mt. Danfeng Cultural Ecology Feature Column, and the Flowers of Danfeng Story DVD. The plan also promotes ecology and environmental education at neighboring schools through nature trail interpretation hikes on Mt. Danfeng.

When the Taipei City government began construction on Mt. Danfeng in 2004, the community established the "Mt. Danfeng Stewardship Alliance." Community residents proactively expressed their wishes for Mt. Danfeng to return to its original appearance, and asked the government to hold a public briefing. The community made a statement and expressed the community's request, following up to ensure the government kept its promise..

The "Mountain and Water Chiyen Dream Park" plan was carried out in 2005~2006, and this experience helped strengthen the team's execution skills. They invited local groups including schools, parent associations, and temples to draft the "Water Vision Map." Setting a different schedule for each area of the community, over the years this plan gradually manifested environmental reforms along the community's waterways. In 2006 the first stage was completed at Chongyang Park, featuring ecological design of a wetland and pond. Over 200 residents participated to create a memorable community

▲Mutually beneficial industries.

event topped off by a friendly festival for parents and children. The community created the Dingpai ecological habitat area, aquatic plantings of Taiwan endemic species, ecological interpretation activities, and the maintenance and management of the Dingpai ecopond.

The Chiyen new community plan was implemented from 2006~2007. The city government drew up development plans for this community to assist the government develop a site for natural resource surveys. The community attended the urban planning and review committee meeting to sound the local stance on this issue and further held a community public forum. The community successfully saved the wetland on the development site. On 10 May 2007, the Taipei City government announced Taipei's first first-rate ecological community—giving rise to the Beitou District Chiyen New Community Plan.

In 2007, the community promoted a sustainable campus Green School design to create places to come into contact with the water and reform the surrounding environment. Connections were sought between the waterways and campus environment, and ecological design was implemented at the waterway in front of the school. Part of the sustainable campus plan entailed revitalizing the campus space as an integral public space for community activities. The Campus Ecopond was therefore expressly created for people to get in touch with the water world.

The green life square "Chiyen Delivery Pickup Station" was planned in 2005 in conjunction with green consumption and cooperative purchasing initiatives. The Station was a result of a strategic alliance between the community and the Homemakers Alliance's consumer coop. This earned Chiyen the EPA's appraise as a national model environmental community. After five years of development, environmental living concepts were promoted, including cooperative consumption, resource recycling, and repeated use of materials, to provide a definitive example of community service.

## Promoting Culture and Conservation, Building Healthy and Green Lifestyles

Based on the themes of "People, Life, Land and Space," the community began to operate autonomously with the objective of creating community welfare and sustainability. An optimal, beautiful community living environment was jointly established through consolidation of community conscience. The community's natural scenery lent to the building of a "Mountain and Water Chiyen Ecovillage" green community, joining forces with expert groups to promote green living concepts, environmental education, environmental maintenance and management. Chiyen is an example of promoting community culture and natural ecological conservation, building community health and environmental living and culture.

▲Community-building map.

▲Taichung County Seaport Art Centre.

Chapter4

# Local Achievements in Sustainable Development

Sustainable development means that the development of human activities can satisfy the needs of the current generation without harming the needs of future generations. This involves comprehensive and long-term planning, setting of incremental goals and continual promotion. Apart from the NCSD's work of setting the future direction of development, the joint participation and effort of county and city government agencies and local residents is even more important.

## 4.1 Tainan City Healthy, Sustainable, Green, New City

Tainan City announced 2007 as the Year of Cultural Tourism and 2008 as the Year of Health and Security, and administrative work will focus on these themes while working to turn Tainan into a "Healthy, Sustainable, Green, New City." According to a "Fortune City" public opinion survey taken in September 2007, Tainan City ranks number one nationwide in terms of environmental efforts (survey question: "Do you think this city's mayor has worked hard to create a clean and beautiful city?") and educational achievements (survey question: "How many times have you visited art and cultural activities?").

### Sustainable Vision of Health, Ecology, Technology, Culture

Tainan City has set its vision for sustainable development as a "New City of Health, Ecology, Technology, and Culture," and has even gone a step further to adopt the UN's Agenda 21 core value framework as its basic guiding principle. The goals system of Tainan's plans adopts both "top-down" and "bottom-up" planning and analysis to establish a framework for action. The sustainable development plan is divided into three main areas:

**1. Healthy City**

The healthy city plan has set 21 healthy city demonstration projects to be carried out in the three areas of health, environment and society.

**2. Sustainable Development**

Tainan City's White Paper on Sustainable Development was published in December 2005 with the


▲The 2004-2005 Lantern Festival.


▲Bakeli memorial park has received five awards.

prime objective of a "Healthy, Ecological, Technological and Cultural New City." The city mayor chairs the local council for sustainable development, which comprises 29 members and is divided into seven working groups.

**3. Green City**

Mayor Hsu accepted the invitation to attend the UN's 2005 World Environment Day assembly in June 2005, where he signed the Urban Environmental Accords. In the future, Tainan City will strive alongside the world's major cities to become a Green City.

## Joining the World to Achieve Zero Waste before 2040

The Urban Environment Accords sets out seven key areas of Energy, Waste Reduction, Urban Design, Urban Nature, Transportation, Environmental Health and Water. Three action plans are set for each of these seven key areas for a total of 21 action plans. One of the ultimate aims of the Accords is for its signatory cities to engage in a friendly competition to achieve Zero Waste before 2040.

Working to expand the promotion of healthy city initiatives, in March 2007 the three promotion committees (Healthy City, Sustainable Development, and Green City) merged to streamline the organization of these committees and reintegrate its indicator system into the "Tainan City Healthy Sustainable Green City Indicators," with a total of 132 indicators.

Measures were then adopted to integrate the three main areas and gain consensus. These measures included: "Consensus workshop with city organizations," "Healthy sustainable green new city and community participation," "Setting indicators and implementation plans," "Indicator statistics and plan evaluation."

Concrete achievements of environmental reform included greening, cleaning and beautification of the environment, and the "keep-trash-off-the-ground" garbage collection plan. By the end of 2006, Tainan City's resource recycling rate reached an average of 44.75%, ranking highest in the nation. Sparing no effort in protecting the ecological environment and making the city more attractive, in recent years several public buildings have earned excellent performance awards from both domestic and foreign assessors. For example, the Bakeli Memorial Park received the "Oscar of real estate" the FIABCI Prix d'Excellence Award 2007.

Other environmental measures include converting garbage trucks to use biodiesel, launching the nation's first "idle-free zone" campaign, becoming the first healthy city to promote emission reductions, planning the nation's only natural protection area for cacti, and planning the Taijiang Black Current National Park.

## Optimizing Cultural Tourism to Become Asia's City of Charm

Tainan City has marked achievements in promoting cultural tourism. The Chihkan Tower was noted by the Washington Post in 2004 as one of the top ten sites in


▲Fort Provintia (Chihkan Tower) was noted by the Washington Post in 2004 as one of the top ten sites in the world worth visiting


▲Tainan City Mayor Hsu Tain-tsair speaking at Korea's first e-participation forum in February 2007.

the world worth visiting. The Anping Harbor National Historic Area was awarded first prize by the US' Waterfront Center contest, making Tainan the first city in Asia to receive this award. The number of tourists and income from admission tickets bounded in 2006, and the number of historic sites and buildings increased to 112.

In the Healthy City 2006 survey, Tainan City was listed alongside Taipei City and Taichung City as the most livable city in Taiwan. Tainan was also the first city in Taiwan to earn international recognition as a Healthy City. In February 2007, Mayor Hsu accepted an invitation to take part in Korea's first e-participation forum, and signed the Declaration of Helsinki with six other cities to become an official member of the international organization Global Cities Dialogue. Successful promotion of sustainable development measures and steady advancements have established a solid foundation for Tainan City to become the Asian city with the greatest potential.

## 4.2 Taoyuan County Technology, Humanity and Paradise

The vision of sustainable development in Taoyuan County revolves around life, production, and ecology, the three shengs, or livings. Technology is what the County's economical development is based on; humanity relates to the existing multi-ethnical culture in Taoyuan; while paradise implies the rich scenery, vegetation and ponds that abound in Taoyuan. Future planning will emphasize parallel development of technology, humanity and ecology, to create a new age wonderland. Therefore, the theme of technology, humanity and paradise has been incorporated into the perspective of the above-mentioned three livings to form the main idea for sustainable development.

▲Shihmen Reservoir, Taoyuan County.

### Leading Other Localities in Establishing the Promotional Framework for Sustainable Development

Embracing the international trend and conforming to the national guidelines for sustainable development, Taoyuan County Government established Taoyuan County Sustainable Development Committee ahead of other local governments in the country. To encourage international exchange of related topics, the County organized an international forum on sustainable

▲2006 International Forum on Sustainable Development.


▲Taoyuan Dazun Irrigation Canal.


▲Yong-an Fishery Harbor.

development in October 2003 and December 2004 respectively.

To build a "Prosperous, Mobile New Taoyuan", the following future developments have been planned: an air transportation center (Taoyuan International Air Transportation City), two city centers (Renovation of Taoyuan Railroad Station, Jhongli City Developing Center), three T industries (Transportation, Tourism, Technology), four art parks (Hakka Cultural Park, Indigenous Cultural Park, Culture and Art Park, Fishing Port Recreational Park) and five development directions (central administration, north logistics, south R&D, east recreation, west port industry).

## Seven Task Forces to Realize "Prosperous and Mobile New Taoyuan"

In addition to the existing vision for the future, the promotional directions of sustainability in Taoyuan will be realized through the following seven task forces: sustainable education, green transportation, green communities, sustainable water resources, integrated pollution control, ecological industrial park, and evaluation and assessment.

The developmental objectives of the water resource task force consist of integrating existing water resource management units, and making water resource planning and use accord with the concept of sustainable development. Development strategies include a water resource policy to promote diversification of water supplies and vitalization of water sources, promotional activities for water resource education, research and investigation of diversified wastewater treatment schemes, raising the sewer connection rate, fully developing the capacity of wastewater treatment plants, minimizing the damages caused by floods, and implementing flood prevention plans.

The development objectives for the green transportation task force focus on developing a green transportation network and management system. Development objectives include: environmental protection through improved protection of living environment, economic efficiency through upgraded transportation system, and social fairness through improved fairness of transportation services. Indicator-related goals include elevating mass transportation utilization rate, increasing bicycle path length, increasing main average driving speed, upgrading mass transportation service standards for remote areas, and lowering the number of casualties from accidents.

The missions of the ecological industrial park task force are to establish ecological industrial parks and integrate ecological functions of existing industrial parks. Plans in 2007 included: establishment of environmental technology parks, creation of a database for environmental pollution sources and reuse information exchange system, drafting of measures governing the evaluation and provision of subsidies for green buildings, educational promotion of the ecological industrial parks and training of seed personnel, implementation strategy for evaluation indicator system and progress monitoring for integrating ecological functions, and determining the measures governing the evaluation and provision of subsidies for the ecological design of industrial parks.

The development goals of the sustainable education task force entail promotion of environmental education and cultivation of sustainable education. Strategies are: promotion of sustainable education tasks, promotion of environmental education in elementary and secondary schools, forming ecological environments in schools, assisting the renovation of old schools, developing modular curriculum for environmental education, and enhancing teacher's understanding of the environment and communities around the schools.

The organizational strategies of the green community

task force are: promotion of green buildings, cultivation of cultural development, recycling of waste resources for community residents, development of new rural features, and reformation of the urban landscape.

The missions of the lastly formed integrated pollution control task force are: coordination and integration of the related county offices and non-governmental organizations to promote strategies for integrated pollution control, and pollution control using integrated strategies and means making sure environment and development are both taken into consideration.

### A County that Stresses Both Environmental Protection and Economical Development

To self-check and monitor the progress of promoting sustainability, Taoyuan County implements regular performance evaluations and assessments, hoping to gradually realize the concrete goals of lowering existing pollution and alleviating environment loading, strengthening ecological protection and beautifying the living environment, solidifying environmental education and broadening people's participation, elevating art content and establishing environmental technology parks, and to manifest the vision for a high-tech based Taoyuan silicon valley, an airport logistics center and an Executive-Yuan-governed county with convenient high speed rail and rapid transit networks. Taoyuan County is set to become an exceptional county that upholds environmental protection and ecological promotion as the core values for economical development.

## 4.3 Taichung County a Culturally and Economically Thriving International Hub

▶ Taichung Children's Art Museum

◀ Taichung County Seaport Art Centre

Taichung County is geographically located in the northern part of the Taichung Basin with a total area of 2,051.471km2, making up 5.74% of Taiwan's land area. The rural parts of the county have experienced relatively little development and are mostly still agricultural villages. Rapid industrial development in recent years has placed an increasingly strong demand on land use. Meanwhile the agricultural workforce has drained away to other areas and agricultural activities are steadily declining.

### Cultural Roots, Economic Development and International Trends

- Every land has its own particular image; the image of Taichung County is best represented by its cultural heritage
- Taichung County's prolific natural resources protect and guide the direction of economic development
- Taichung County targets the global village as its stage. The simplest and quickest route to gaining superior status on the domestic stage is to make headlines in the international arena.

The cultural industry nurtures local life and establishes stable economic development of the ecological environment, using the mountains and seas as antennas that extend out to the international stage.

The county's vision for sustainable development comprises three goals: strong cultural roots, economic development and unison with international trends. Thus the motto for Taichung County is to become a "Culturally and Economically Thriving International Hub."

Taichung County's sustainable development plans are progressing in the following six dimensions:

1) Cultural diversity: sustainability of cultural assets, strengthen art exhibition venues
2) Comprehensive development of sustainable communities: strengthen community care and community security, promote green building
3) Sustainable water resource management: increase sewer system hookup rate, strengthen water disaster area management, promote healthy and safe drinking water
4) Green industry: promote technology park industrial research and green production, improve investment

in environment to attract investment

5) Build a sustainable transportation system and e-center: make public transportation system more convenient, promote low-polluting vehicles, promote energy efficient traffic control equipment, establish wireless broadband internet system
6) Sustainable environmental education: promote and implement environmental education

Among the challenges that Taichung County faces at the current stage include competition spurred on by globalization, information intensive lifestyles, technological industry, environmental sustainability, economic liberalization, normalization of cross-strait relations, a growing generation gap, and local division of authority.

The following chart provides a SWOT (strengths-weaknesses-opportunities-threats) analysis of the county's future development trends to better understand the link between Taichung County's future and sustainable development.

## Establishing Partnerships and Involving Citizens

Aware of the importance of local sustainable development, Taichung County began promoting local sustainable development work since 2007. Apart from completing the organizational structure for this work, other tasks are in the preliminary stages. Sustainable development cannot be attained in one step, but rather plays itself out in a pattern of continually rolling improvements. After establishing foundations for local sustainable development, local organizations promoting sustainable development will begin routine operations. This is the important work at the current stage of promoting Taichung County's sustainable development. The future direction of development is as follows:

**1.Advocate sustainable development concepts:**

Global environmental change is a problem that cannot be overlooked by humanity. The ideal of sustainable development has emerged to prevent humans from walking down a path of no return. Sustainable development concepts have gradually been incorporated into administrative policy in the international arena and at the central government level in Taiwan. At the local level, counties and cities sometimes lack sustainable development concepts making it difficult to promote related affairs. For this reason it has become the urgent task at the current stage of Taichung County's sustainable development to find ways to strengthen promotion of sustainable development concepts.

**2.Establishment of cross-departmental partnerships**

Administrative affairs are usually tackled on a one-dimensional basis with single tasks relegated to separate divisions. Promotion of sustainable development concepts is one way to involve mutual participation of different departments. It is vitally important to establish cross-departmental cooperation mechanisms to ensure promotion of related work.

**3.Implementing participation mechanisms**

Successful models of local sustainable development in the international arena attest to a strong link between implementation performance and degree of citizen participation. Hindered by Taichung County residents' relatively low awareness regarding sustainable development as well as a generally passive and conservative stance, there is still considerable room for improvement and effort by Taichung County residents in promoting sustainable development.

**4.3.1 SWOT analysis of Taichung County's future development potential**

| Strengths | Weaknesses |
|---|---|
| 1.Convenient land, sea and air transport network<br>2.Rich production industry structure and land information<br>3.Close proximity to China via sea and air<br>4.Rich natural scenic and local cultural assets<br>5.Pleasant climate and environment<br>6.Rich education and academic resources | 1.Lacks international airport and direct trade via air<br>2.Existing industry small-scale, technology needs to be upgraded<br>3.Tax revenue stagnating and development material resources decreasing<br>4.Lacking mass transport system<br>5.Outflow of younger population, aging agricultural population<br>6.Former disaster areas still under repair |
| **Opportunities** | **Threats** |
| 1.Turning point for Taichung County to elevate status either independently or through a merge<br>2.Taichung Harbor gradually transforming into cross-strait trade transport hub<br>3.Establishment of the Central Taiwan Science Park and introduction of high-tech industry<br>4.Economic liberalization attracting international capital and talents<br>5.High-speed rail established and gradually improving transportation network<br>6.Developmental turning point with reconstruction since 921 Earthquake | 1.Intensive competition in terms of regional development<br>2.Intensified international competition since accession to WTO<br>3.Technology industry pressuring traditional industry's survival space<br>4.Central financial difficulties leading to less local subsidization<br>5.International economic straits leading to less willingness to invest<br>6.Threat of marginalization under the push to balance north and south |

Data source: Taichung County Integrated Development Plan, 2004

# 4.4 Taipei County Providential, Beautiful, Metropolitan

◀Taipei County Bicycle Trail.

The Taipei County government began promoting sustainable development since 2003 to put sustainable development concepts into practice and ensure balanced development of the economy, environment and society. It is anticipated that the concept of sustainable development will soon be wholeheartedly accepted by all county residents and adopted as the guiding principle for all county government affairs. Faced with limited resources, government and citizens can share the workload and together advance toward actualizing the county's vision for sustainable development.

## Heavy Environmental Loading for Taiwan's Largest County

Covering an area of 2,052 square kilometers and home to 15 rural townships, 4 urban townships, and 10 cities, Taipei County comprises 6% of Taiwan's land area and has a large population, and a profusion of factories and motor vehicles. The population has reached over 3.78 million, representing 17% of all the people in Taiwan. There are currently 21,388 factories, giving Taipei County the nation's third highest factory density. Industry thrives here as evidenced by factories standing side by side in many places. Motor vehicle density is also highest here with over 3.02 million vehicles on the roads and nearly one vehicle per 1.25 people. Three of the nation's four nuclear power plants are located here (two in operation, one under construction). These factors greatly add to this county's already heavy environmental loading.

Taipei County established the Taipei County Sustainable Development Working Group on 10 November 2003 to promote related affairs and organize the Taipei County Commission on Sustainable Development. The guidelines for setting up this commission were formulated on 8 July 2005 and the commission was officially inaugurated on 1 June 2007. Divided into eight working groups, the commission has a total of 31 members, with the county commissioner and deputy commissioner taking respective seats as director and deputy director.

With the objective of establishing consensus, the Taipei County government has invited experts and scholars to provide numerous cross-department educational training workshops and focus topic lectures. The Taipei County Sustainable Development Working Group was established to promote sustainable development affairs. The group has already convened 22 meetings including consultations, small group meetings and working meetings.

On 22 October 2007, the county government invited 17 experts and scholars and industry representatives to attend the "Taipei County Forum on Promoting Local Sustainable Development." Shortly thereafter, the Taipei County Commission on Sustainable Development held its first meeting on 24 November 2007.

## Model Townships Selected to Manifest County Vision

Following the county's administrative vision for a "Providential, Beautiful Taipei," the Taipei County government has developed ten administrative focal

▲Queen's Head in Ye-liu Scenic Area.

▲Night View of Tamshui River.

points and corresponding plans. Early on, the county recognized the need to firmly establish the scope of research and analysis on sustainable development issues. Working under the framework of the eight working groups, 23 issues, 58 strategies and 84 draft action plans have been formulated to complement Taipei County government's various administrative plans.

The Taipei County government preliminarily selected Pingsi Township and Shuangsi Township to serve as model townships for sustainable development at the local level. Sustainable development issues in Taipei County were organized in terms of four main themes concerning overall, environmental, economic and social aspects of development, and further revised after referring to the administrative concepts of these two township heads. For example, under the theme of overall development, the issues of roadway traffic and river remediation replaced the originally designed issue of "cooperation between counties and municipalities sharing major rivers." The topics of tourism and basic infrastructure were added under the theme of economic development. Cultural arts, entertainment and social welfare were added under the theme of social development. Local residents were surveyed to identify which themes they thought were most important and to better understand local needs.

▲Kuangdu Bridge.

Following last year's (2007) establishment of the framework for promoting sustainable development in Taipei County, the next step will be to commence implementation of various sustainable development projects in 2008. The commission will select three model townships in 2008 and provide assistance in developing local sustainable development policies and plans for these townships and their cities.

In 2008, Taipei County will invite domestic and foreign communities and organizations with outstanding performance in sustainable development to an experience sharing forum. The county will also continue to actively seek opportunities for participation in domestic and foreign sustainable development related affairs to increase competitiveness. Plans have been drawn up to use videos, publications, and television advertisements about the county's sustainable development vision and model townships in order to further develop county residents' concepts of sustainable development. A Taipei County sustainable development information exchange website provides the public with online browsing and search functions as well as a forum for exchange of views and information. The White Paper on Taipei County Sustainable Development was also published for reference and review of promotion efforts.

5

Chapter5

# Taiwan Sustainable Development Index 2006

The National Council for Sustainable Development, Executive Yuan (NCSD) began actively establishing a sustainable development indicator system to evaluate Taiwan's progress in promoting sustainable development. Responsible for convening the Sustainable Vision Working Group, the Council for Economic Planning and Development, Executive Yuan (CEPD), requested related ministries to organize the Sustainability Indicator System Cross-Ministerial Working Group in 2002 and 2003. This group evaluated 111 sustainability indicators established over four years since 1998, and finally selected 42 indicators most representative of sustainable development. These indicators formed the Taiwan Sustainable Development Index (SDI) system

The Research, Development and Evaluation Commission, Executive Yuan, has taken responsibility for computing and updating the SDI since the year 2005. This work helps understand the status of Taiwan's sustainable development, and is provided to the government for reference in policy-making.

## Setting Indicators to Check the Status of Sustainable Development

Promulgated in 2003, Taiwan's Sustainable Development Indicators were developed with reference to the UN's Pressure-State-Response (PSR) framework as well as Taiwan's current development status. A total of 40 core indicators are categorized under the following six dimensions: ecological resources, environmental pollution, economic pressure, social pressure, institutional response, and urban development.

Taiwan's SDI system adopts 1988 as the base year with sustainable indicator values set at 100 for that year. The indicator framework and the trends of each indicator are explained in detail on the NCSD website at http://ivy3.epa.gov.tw/NSDN/.

## Sustainable Development Trends in Six Dimensions

### (1) Ecological Resources

Composite index scores for ecological resources exhibited a continual downward trend from 1988 to 1991, however advanced slightly from 1991~1995 and in 2000 due to the establishment of several protected areas. With the exception of gradually rising indicator scores for ecologically sensitive areas due to the establishment of protected areas, and unclear changes or undulating indicator scores for undamaged forest area and unit pressure fish catch, all other ecological resource indicator scores have been on a decline for over a decade. Generally speaking, the status of ecological resources in Taiwan has deviated away from sustainability in recent years. Looking at data trends in 2006, aside from the steady indicator values for undamaged forest area, all other indicator values are lower than in 2005, This brought the composite index score down to 97.17 in 2006, compared to the 2005 score of 98.10 (see figure 1), showing a departure from sustainability.

### (2) Environmental Pollution

Composite index scores for environmental pollution took a turn for the better during the three years from 2004 to 2006, attesting to positive changes in overall environmental quality in recent years. Looking at trends of each indicator, continual promotion of national waste resource recycling has resulted in steadily improving values for the waste resource recycling rate indicator since 1998, for a cumulative increase of 8%. However, the carbon dioxide emissions indicator has steadily declined ever since this factor came under assessment in 1988, for a total decrease of 15%. This shows that Taiwan's CO2 emissions are not being effectively controlled. PSI (pollution standards index) average values have slowly increased since a marked setback in 2004. Only slight changes are evident for other indicators in this dimension including river segments with slight to no pollution, reservoir water quality, and the growth rate of low-level radioactive solidified waste. Nonetheless, all have shown a slight average increase over the past three years. The 2006 index score of 99.24 is the best yet since

**Figure 1**
**State of the ecology composite index trend**

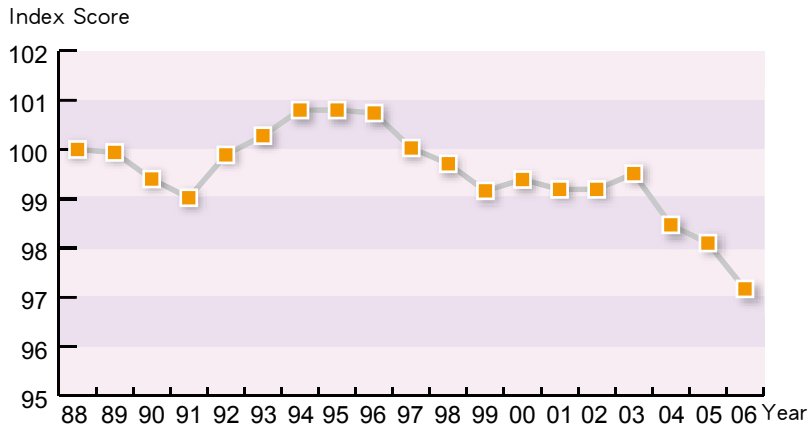



**Figure 2**
**Environmental quality composite index trend**

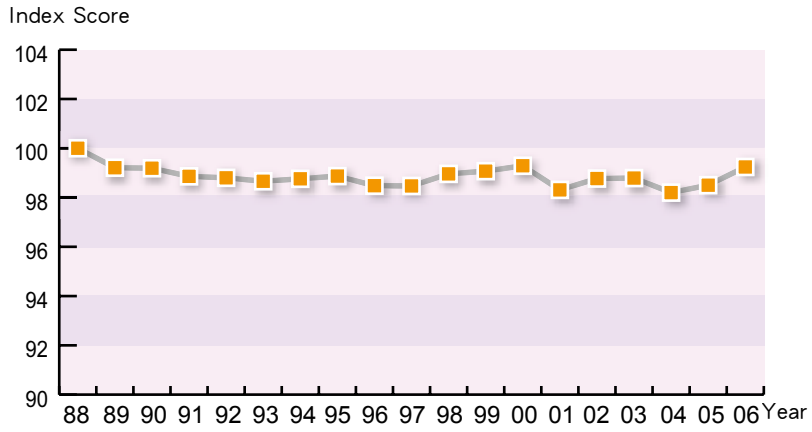
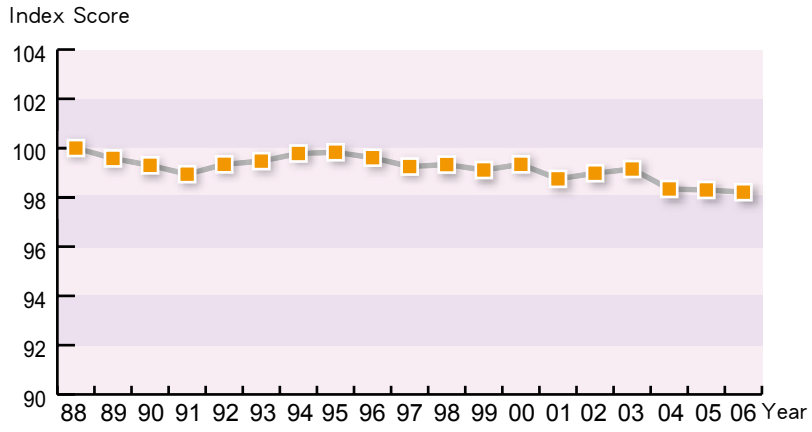



**Figure 3**
**Ecological and environmental composite index trend**




the year 2000 (see figure 2,3).

**(3) Social pressure**

Social pressure composite index scores continually dropped from 1988 to 2002, representing a divergence away from sustainability. However, a gradual comeback has been occurring since 2003. As for individual indicators, the daily per capita garbage volume has noticeably decreased due to resource recycling measures implemented in 2005. Betel nut plantation area has gradually decreased since 1999, as has the unemployment rate gone down since 2003. Other indicators including public nuisance reports, unemployment, death rate due to cancer and contagious disease infection rate, have all gone up. Generally speaking, even though overall sustainability indicator values have increased only slightly, the trends reflect progress toward sustainable development of society in Taiwan. Nonetheless, Taiwan is still far from responding adequately to the need for a low-carbon society in the face of global warming (see figure 4).

**(4) Economic pressure**

The composite index score for economic pressure has exceeded the 100 mark set in 1988, now already at 106.58. This represents a decline in overall economic pressure for Taiwan, and progress toward sustainable development. Pesticide consumption remains high and the ratio of total production output value by resource-intensive industries continues to rise, both of which have increased environmental loading. However, the average per capita production of cement

**Figure 4**
**Social pressure composite index trend**

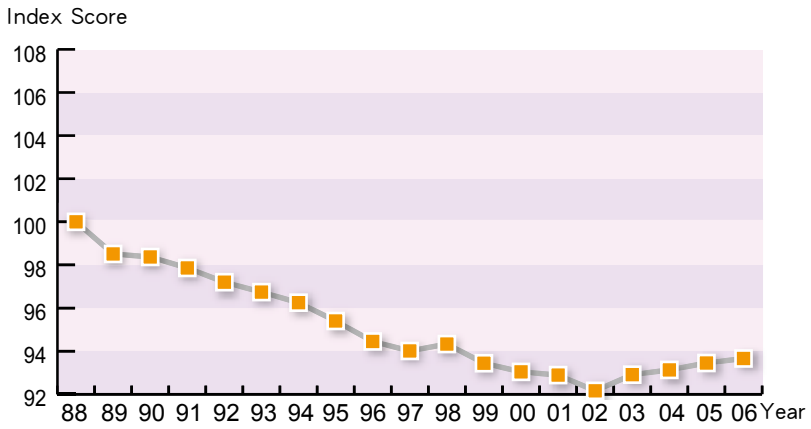
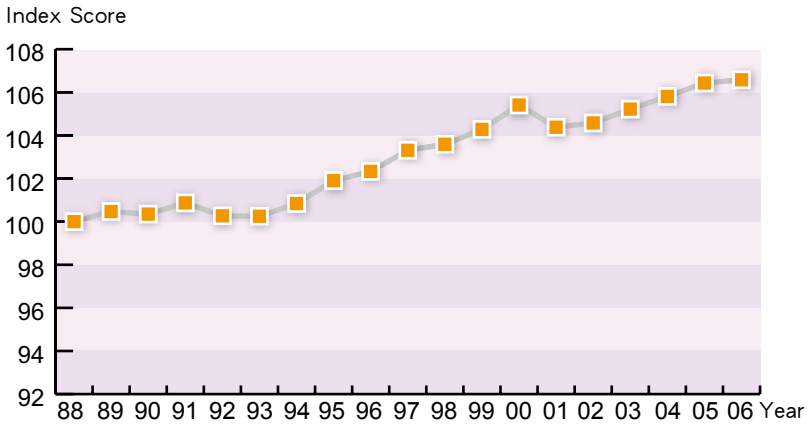



**Figure 5**
**Economic pressure composite index trend**




has continued to decrease in recent years, and the efficiency of water usage for manufacture has increased, along with increased productivity of manufacture labor. Technology development has made computer usage more universal. These trends indicate continual advances toward sustainability (see figure 5).

Individual indicator trends in 2006, apart from a small increase in the rate at which industrial water usage accounts for production value, all other indicators are pointed in the direction of sustainability. Economic pressure composite index scores therefore increased from 106.43 to 106.58 from the year 2005 to 2006.

### (5) Institutional response

Over the last several years, institutional response indicators have been above the baseline score of 100, and overall trends show a continual climb. The government is clearly placing increasingly more emphasis on environmental issues by implementing regulations and systems that encourage government, corporate and civil sector concern about environmental issues. Planning and execution of related policies is having a positive effect on sustainable development. Since 2001, institutional system indicators have remained at around 107, but experienced a decline in 2006, falling back to 2001 levels (see figure 6).

As for individual indicators, there was a small increase in the score for government-initiated provision of resources (for example, budget for the environment), however, the scores fell by a large margin in 2006 in terms of assistance given toward advancing sustainable development work (such as financial measures and ratio of completely reviewed environmental impact assessment cases). The policy implementation indicator value (for example, wastewater sewer treatment rate and banning or strictly limiting the use of chemical substances) has continued to rise by 2~3% over the last three years, indicating continuous efforts by implementing agencies. The indicator score for citizens putting sustainable development concepts into practice went up and down (the use of the Green Mark ecolabel continues to rise, but the number of citizens participating in living environment improvement plans has greatly decreased). Overall, there is still room for improvement

**Figure 6**
**Institutional response composite index trend**

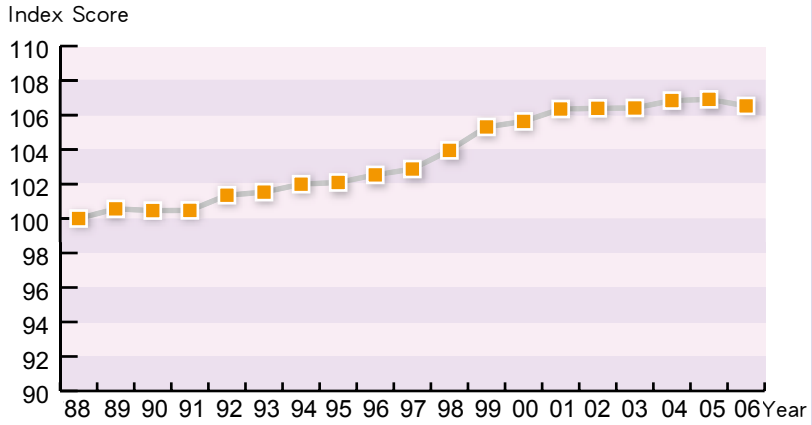
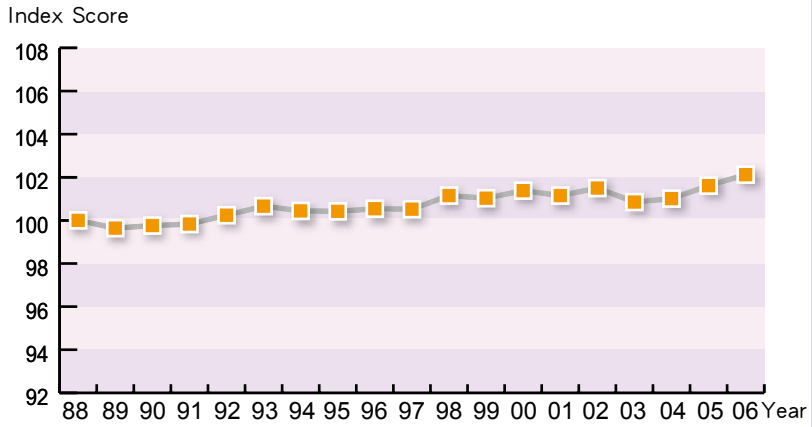



**Figure 7**
**Urban development composite index trend**




in terms of institutional response and citizen action.

**(6) Urban sustainable development**

Taiwan's urban sustainability composite index scores are on the rise (see figure 7). Looking at individual indicators, increasing urban average per capita income is the most noticeable. The annual rate of serious air pollution in urban areas has markedly improved in recent years, and per person area of urban park and green space is gradually increasing.

Car ownership in Taiwan's three largest cities shows a deviation from sustainability (increasing car ownership), hindering efforts toward urban sustainable development. While the number of passengers using mass transportation is increasing, there is still room for improvement in terms of people's reliance on private transportation. Only through progress in this area can Taiwan come closer to solving urban traffic congestion and pollution emissions from automobiles.

## Indicators Show Government Determination for Sustainable Development

A comparison of the years 2005 and 2006 shows progress toward sustainable development in 22 indicators, including PSI (pollution standards index) average value, and deviation from sustainable development in 15 indicators including carbon dioxide emissions. Scores remained the same for undamaged forest area and urban average per capita income.

A composite analysis of the state, pressure and response domains shows that the state of the ecology and environment has experienced an overall deviation away from sustainability, due to the greater loading on ecological resources in recent years despite improvements in environmental pollution. In terms of pressure, there is a growing gap between social and economic development, reflecting a transformation in Taiwan's economic structure over the past decade with little letup in the dimension of social pressure. Addressing Taiwan's challenges of state and pressure, the response indicators show the government's hard work and determination to implement policies that promote sustainable development.

The NCSD's announcement of the 2006 SDI shows that the significance of the system and its backing policies is gradually becoming internalized within government administration. It is hoped that the annual announcement of the SDI will increase citizen awareness, collective concern, and participation in sustainable development work. It is also anticipated that the entire citizenry will work collectively toward making Taiwan a model nation of sustainable development.

▲Marine dumping and waste treatment have been the focus of international conventions.

Chapter 6

# International Sustainable Development Agreements

## 6.1 UNFCCC and Kyoto Protocol

The United Nations' Intergovernmental Panel on Climate Change (IPCC) announced the release of the second volume on its climate change report in April 2007, emphasizing that even if each nation enforces reductions of CO2 emissions, the global temperature will continue to rise for dozens of years. By 2080 it is estimated that 1.1 to 3.2 billion people will face a shortage of water resources and 200 to 600 million people will be stricken with famine. The report also announced an astonishing increase in the number of people at risk of flooding at shorelines or low elevations. The number is currently estimated at 2 million, and expected to increase to 7 million.

The 13th Convention of the Parties (COP13) to the UN Framework Convention on Climate Change and the 3rd Meeting of the Parties (MOP3) to the Kyoto Protocol convened in Bali, Indonesia, from 5~15 December 2007. After a long period of negotiations, the Bali Roadmap was drawn up on the afternoon of 15 December 2007. An agreement was reached to set the agenda for global climate change negotiations and discussions, which shall be completed by 2009. Although the meeting did not produce clear-cut reduction objectives and timelines, developed nations agreed to come up with clear negotiation results regarding post-Kyoto reduction obligations before 2009. Developing countries were requested to provide transparent, measurable, and verifiable data on their reduction initiatives.

## 6.2 Montreal Protocol

A total of 190 countries convened for the 19th Meeting of the Parties to the Montreal Protocol on 17 September 2007 to discuss changes to the timeline for phasing out HCFCs. The UNEP announced that the nations made a historic agreement to accelerate the pace for eliminating ozone depleting substances (ODS). According to this agreement, all nations agreed on the necessity of expediting the elimination of HCFCs and agreed on several significant concrete reduction objectives.

## 6.3 Basel Convention

The 8th Conference of the Parties to the Basel Convention convened from 27 November 2006 to 1 December 2006. The main issues focused on during this meeting were dumping incidents on the Ivory Coast, electronics waste, the Mobile Phone Partnership Initiative, and the Nairobi Declaration. After discussion between the nations, the following resolutions were made:

- Strengthen the functions and importance of regional centers
- Emphasize that Parties to the Convention and interest groups should increase financial support to jointly prevent illegal transport of electronics waste
- Encourage development of electronics waste partnerships and recycling systems, especially for developing countries
- Request Parties to the Convention to confirm the usability of donated electric and electronic equipment

The Basel Convention secretariat in Geneva convened the sixth session of the Open-ended Working Group of the Basel Convention from 3~7 September 2007. The UN Department of Safety and Security refused to allow the Taiwan delegate to attend this event. After several failed attempts to rectify the situation, the delegate issued a statement of protest to the Secretariat.

## 6.4 Stockholm Convention

The 3rd Conference of the Parties to the Stockholm Convention convened for five days starting on 30 April 2007. The main topics of focus included: continued use of DDT to control disease vectors and alternative strategies to take the place of DDT, a review and discussion of designated substances exempt from registration, and exchange of views and experience sharing regarding national implementation plans. Also discussed was the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. A report was issued regarding the problems of disposing of persistent organic pollutants.

## 6.5 Rotterdam Convention

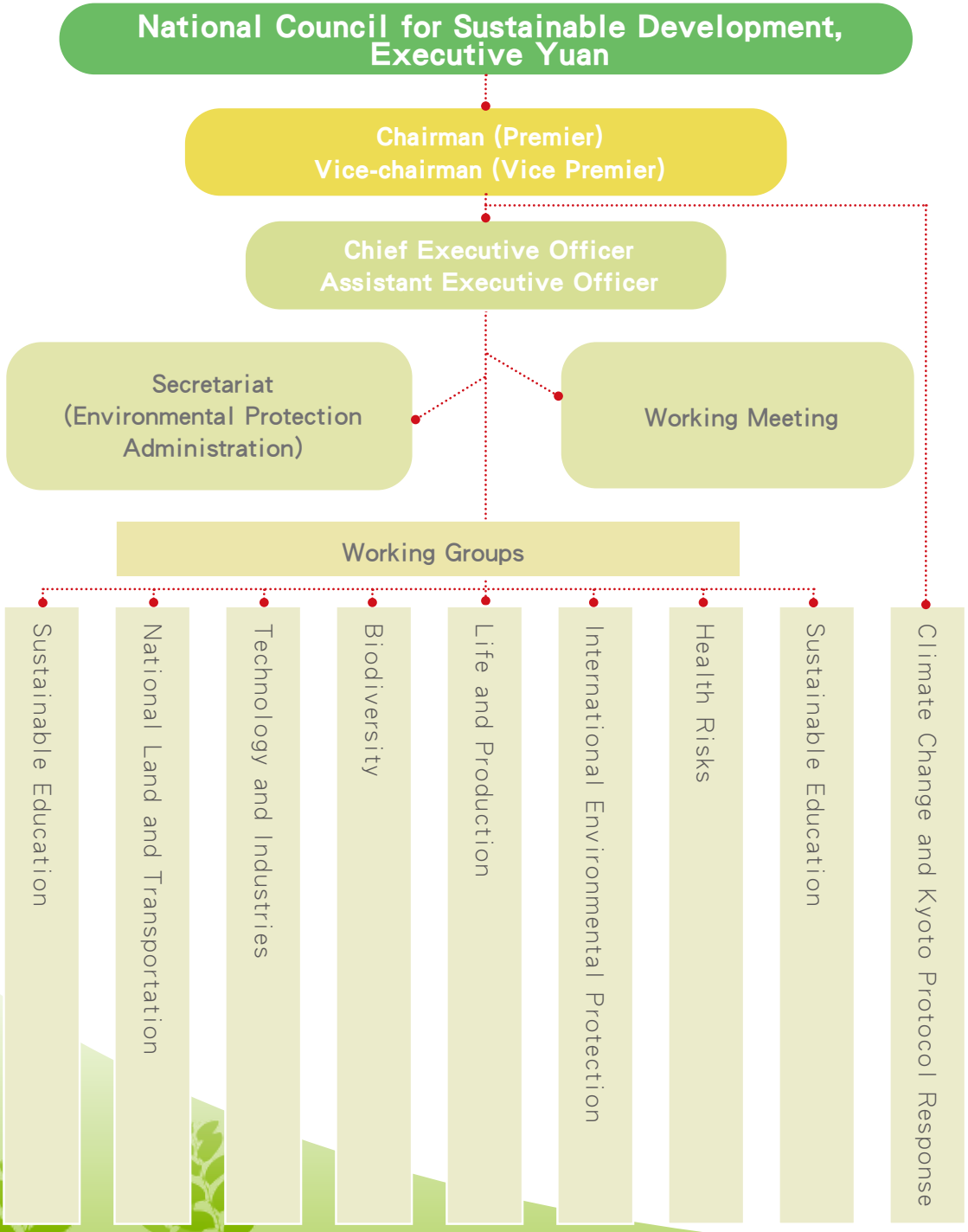
A ministerial level meeting was held for signatory nations to the Rotterdam Convention in October 2007, where it was decided to add 14 pesticides and chemicals to the Rotterdam Convention's list of hazardous substances requiring prior informed consent (PIC) procedures. This measure increased the number of listed pesticides and chemicals to 41.

## 6.6 Biodiversity Convention

The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) for the Convention on Biological Diversity held its 12th meeting from 2~6 July 2007 at the United Nations Educational Scientific and Cultural Organization (UNESCO) headquarters. Topics on the agenda included an in-depth review of the application of the ecosystem approach, implementation of the Global Strategy for Plant Conservation, review of the Millennium Ecosystem Assessment, lessons learned from the preparation of the second edition of the Global Biodiversity Outlook, biodiversity of dry and sub-humid lands, and biofuels. The meeting concluded with eight resolutions, which were submitted to the Ninth Meeting of the Conference of the Parties to the Convention on Biological Diversity to convene from 19~30 May 2008.

## Appendix I

# Organizational Structure of NCSD



**Appendix II**

# The 11th Members of the Tenth Council of the NCSD

## Non-Government officals Members

| Name | Position | Position Organization |
|---|---|---|
| Ling-Ling Lee | Professor | Institute of Ecology and Evolutionary Biology, NTU |
| Wan-I Lin | Professor | Department of Socialwork, National Taiwan University |
| Nien-Tsu A. Hu | Professor | Center for Marine Policy Studies, National Sun Yat-sen University |
| Susan C. Hu | Associate Professor | Department of Public Health, National Cheng Kung University |
| Chien-Te FAN | Professor and Director | Graduate Institute of Technology and Innovation Management, National Chengchi University |
| Kuen-Yuh Wu | Associate Principal Investigator | Institute of Law for Science and Technology, National Tsing Hua University |
| David-S. Hong | President | Taiwan Institute of Economic Research |
| Wen-chen Shih | Associate Professor | Department of International Business, National Chengchi University |
| Jiunn-Rong Yeh | Distinguished Professor | College of Law, National Taiwan University |
| Chung-Huang Huang | Professor | Department of Economics, National Tsing Hua University |
| Daigee Shaw | President | Chung Hua Institution for Economic Research |
| Huey-Jen Su | Professor | Dept. of Envi. And Occu. Health Medical College, NCKU |
| Yohaniisqaqavut | Chairman | Native Taiwanese Sustainable Development Association |
| Alice Yu | President | China Times Culture & Education Foundation |
| Wei-Wen Lee | President | The Society of Wilderness |
| Chun-Shin Lin | President | Archilife Research Foundation |
| Yu-Chin Wu | Secretary General | Federation for Welfare of the Elderly |
| Tan-Ho Chen | Chairman | Chunghwa Telecom Co., Ltd |

| Name | Position | Position Organization |
|---|---|---|
| Kuang-Jung Hsu | Chairperson | Taiwan Environmental Protection Union |
| Yun-Peng Ying | Chairman & Editor-in-Chief | Common Wealth Magazine |
| Man-Li Chen | President | National Alliance of Taiwan Women's Associations |
| Preston W.Chen | Chairman | Chinese National Federation of Industries |
| Theodore Mao-Hsiang Huang | Chairman | Chinese National Association of Industry and Commerce |
| Chaio-Fuei Ouyang | President | Taiwan Water Environmental Association |

## Government officals Members

| Name | Position | Position Organization |
|---|---|---|
| Chun-Hsiung Chang | Premier | The Executive Yuan of the Republic China |
| I-Jen Chiou | Vice Premier | The Executive Yuan of the Republic China |
| N.-Jay Shih | Minister without Portfolio | Research, Development and Evaluation Commission, Executive Yuan |
| Si-Yao Lin | Minister | The Executive Yuan of the Republic of China |
| Mei-Yueh Ho | Minister | Council For Economic Planning And Development Executive Yuan |
| Yi-Yang Lee | Minister | Ministry of the Interior |
| Cheng-Sheng Tu | Minister | Ministry of Education |
| Steve Ruey Long Chen | Minister | Ministry of Economic Affairs |
| Duei Tasi | Minister | Ministry of Transportation and Communications |
| Jia-Chyuan Su | Minister | Council of Agriculture, E.Y. |
| Sheng-Mou Hou | Minister | Department of Health, Executive Yuan |
| Winston Dang | Minister | Environment Protection Administration,Executive Yuan |
| Join-Sane Lin | Vice Minister | Ministry of the Interior |
| Mu-Lin LU | Vice Minister | Ministry of Education |
| Fadah Hsieh | Vice Minister | Ministry of Economic Affairs |
| Tsung-Nan Lin | Vice Minister | Council of Agriculture, Executive Yuan |
| Tzi-Chin Chang | Vice Minister | Environment Protection Administration, Executive Yuan |

## Appendix Ⅲ

# Chronicle of NCSD Events in 2007

| Date | Working Group | Activities and achievements |
|---|---|---|
| Jan-Dec | Livelihood and Production Working Group | Two construction projects awarded in the category of ecological engineering during the Eighth Public Construction Awards 2007 |
| Jan-Mar | Livelihood and Production Working Group | Delegates sent to attend WTO Committee on Trade and Environment meeting. Taiwan WTO representatives attended other related meetings and actively participated in negotiations |
| 1-Jan | Health Risk Working Group | Second stage dioxin emission standards effective for existing steel making electric arc furnaces, set at 0.5 ng I-TEQ/$Nm^3$; Dioxin emission standards effective for existing stationary pollution sources, set at 2.0 ng I-TEQ/$Nm^3$ |
| 12-Jan | National Land and Transportation Working Group | National Land Planning Act (draft) sent to Executive Yuan for review |
| Jan 15~18 | International Environmental Protection Working Group | Subsidized Taiwan Watch Association to attend the 2007 Waste Not Asia conference in India |
| 17-Jan | Biodiversity Working Group | Announced the Dongsha Marine National Park, covering over 80,000 hectares of coral reef ecosystem and the Dongsha island ecosystem, and extending 12 nautical miles around the atoll |
| 18-Jan | Health Risk Working Group | Fourth interministerial meeting on Environmental Protection and Food Safety Coordination Meeting (also discussing the "Mt. Siang oyster" case) |
| 29-Jan | Health Risk Working Group | Promulgated the Agricultural Production and Certification Regulations |
| Feb | National Land and Transportation Working Group | Completed report on "Establishing a Life Cycle System for Water Resources Construction Projects" (including Tsengwen Reservoir Demonstration Project), provided as a reference for reservoir management agencies in carrying out maintenance and management work |

# APPENDIX

| Date | Working Group | Activities and achievements |
|---|---|---|
| 5-Feb | Health Risk Working Group | Convened the "Antibiotic Reasonable Use Monitoring and Research Group" to establish effective monitoring mechanisms |
| Feb 10~16 | Livelihood and Production Working Group | Held National Cleanup Week, initiating joint particpation by government agencies and citizens to clean up residential areas, and allowing a channel for citizens to show their enthusiams toward cleaning up their own living environment |
| Feb 16~18 | International Environmental Protection Working Group | Subsidized Taiwan Environmental Action Network to attend the Kyoto Climate Change Meeting in Japan |
| Mar | Resources and Industry Working Group | Held the "National Forum on the Photovoltaic Industry and Production Equipment" |
| Mar | Resources and Industry Working Group | Bureau of Energy (Ministry of Economic Affairs) sent delegates to represent Taiwan in the 33rd meeting of the APEC Energy Working Group |
| Mar 1 ~ Dec 28 | Sustainable Vision Working Group | August 2007: completed preliminary calculations of the 2006 Green GDP; December 2007: comleted compilation of report and provided for reference |
| 2-Mar | National Land and Transportation Working Group | High Speed Rail commenced full service along entire length from Taipei Station to Zuoying Station |
| Mar 5~9 | Health Risk Working Group | Six US experts from legal, coast patrol and environmental fields were invited to participate in discussion on the "Plan to Stop Vessel Pollution of the Ocean Environment" |
| 27-Mar | Biodiversity Working Group | Fishery Agency (Council of Agriculture) announced ban on whale shark catch as soon as annual limit of 30 sharks was reached on 27 March 2007. Sale of whale shark meat was banned from 27 June 2007, and the agency encouraged reporting of netted live whale sharks to facilitate tag and release for scientific research |
| Apr | Resources and Industry Working Group | Held a briefing on the Global Reporting Initiative's (GRI) new Sustainability Reporting Guidelines (G3) |
| Apr 6 ~ Jun 21 | International Environmental Protection Working Group | Assisted Taiwan Environmental Protection Alliance in holding the "2007 International Environmental Public Affairs Personnel Training" in Taipei |

| Date | Working Group | Activities and achievements |
|---|---|---|
| Apr 14~22 | International Environmental Protection Working Group | Subsidized the Society of Subtropical Ecology to attend the 3rd Global Botanic Gardens Congress in China |
| Apr 23~26 | International Environmental Protection Working Group | Delegates sent to Australia to attend the 20th meeting of the APEC Marine Resource Conservation Working Group and report on Taiwan's Bali Action Plan results, and participate in discussion of a manual on the scope of jurisdiction |
| Apr 26~27 | International Environmental Protection Working Group | Subsidized the Chung-Hwa Nuclear Society to attend the 15th Annual Women in Nuclear (WIN) Global Meeting in India |
| Apr 27 ~ May 1 | Biodiversity Working Group | Participated in the "Belize 2007 Natural Ecological Conservation Exposition" |
| Apr 29 ~ May 14 | International Environmental Protection Working Group | Sent delegation to the US to attend the 15th commission of the UN Commission on Sustainable Development |
| 30-Apr | National Land and Transportation Working Group | Promulgated the "Natural, Cultural and Ecological Land Demarkation and Planning Guidelines" |
| May | Health Risk Working Group | The Center for Disease Control convened related agencies for the cross-agency "National Meeting on Antibiotics Control and Monitoring Information Applications" |
| May 7~10 | International Environmental Protection Working Group | Subsidized the Bat Association of Taiwan to attend the Birdlife Asia meeting in Thailand |
| May 8~14 | International Environmental Protection Working Group | Subsidized the Wild Bird Society to attend the Kyoto Climate Change Meeting in Hong Kong |
| 14-May | Biodiversity Working Group | Announced the 2007 Flying Fish Egg Management Measures, granting permits to 180 fishing boats and setting total allowable catch. Boats involved in the flying fish egg industry are required to report catch records. |
| May 27~31 | International Environmental Protection Working Group | The Minister of Economic Affairs, Chen Rui-long, led a delegation to attend the APEC Energy Ministers Meeting in Australia |

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| Date | Working Group | Activities and achievements |
|---|---|---|
| May 29~30 | International Environmental Protection Working Group | Held the 2007 International Forum on Sustainable Development, attended by sustainable development committee members and experts from Japan, Korea, Finland, Germany and the EU |
| 31-May | Livelihood and Production Working Group | Launched the Environmental Product Online Store (http://www.buygreentw.net) |
| Jun | Biodiversity Working Group | Established the Formosa Community website (sixstar.cca.gov.tw) to provide comprehensive community building information; established the environmental ecology and biodiversity personnel database. This information is made available to enhance environmental and sustainable communities. |
| Jun 3~15 | International Environmental Protection Working Group | Organized a delegation to attend the 14th Meeting of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in the Netherlands |
| 5-Jun | Sustainable Vision Working Group | Announced the results of the 2006 Taiwan Sustainable Index |
| 11-Jun | International Environmental Protection Working Group | Established the "Taiwan Environmental Protection Liaison Office in Central and South America" in El Salvador |
| 11-Jun | Sustainable Vision Working Group | Held the national Environmental NGO Forum, with EPA Minister Winston Dang present to hear the statements of environmental NGOs on sustainability issues |
| Jun 16~18 | International Environmental Protection Working Group | Subsidized the Society of Wilderness to hold the Asia Green Map Forum in Taiwan |
| Jun 20 ~ Nov 13 | Biodiversity Working Group | Industry, government and academic representatives were invited to the Artificial Reef Policy Review Meeting on 20 June 2007, and scholars were invited to the Artificial Reef Policy Forum on 13 November 2007 |
| 23-Jun | Biodiversity Working Group | Held the Biodiversity Scholars Forum, which resolved to strengthen communication platforms, dialogue and cooperative relations between the government and NGOs |
| 28-Jun | Health Risk Working Group | Jointly held the International Conference on Chrysotile with the Canadian Trade Office in Taipei, and provided the discussion results as reference for future control of chrysotile |

| Date | Working Group | Activities and achievements |
|---|---|---|
| July | Resources and Industry Working Group | Held the "Meeting to Sign the Letter of Intent on Cooperation to Voluntarily Conserve Energy Between Corporate Retailers and the Bureau of Energy, Ministry of Economic Affairs" |
| Jul 2~6 | International Environmental Protection Working Group | Organized a delegation to attend the 12th meeting of the Biodiversity Convention's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) |
| 4-Jul | Health Risk Working Group | Revised and promulgated the Mental Health Act, with measures to safeguard the rights and interests of patients and assist in medical, communication and follow-up protection. Revised regulations related to mental health medical care. |
| 6-Jul | Livelihood and Production Working Group | Promulgated the "Organic Agricultural Products and Organic Processed Foods Certification Management Regulations" |
| 13-Jul | Sustainable Vision Working Group | The Taiwan EPA and NASA signed a cooperation agreement for Taiwan's monitoring stations (on National Central University and Mt. Lulin) to join NASA, MPLNET and AERONET |
| 23-Jul | National Land and Transportation Working Group | Signed an administrative agreement on underwater archaeology with an underwater archaeology research center in Marseilles, France, including development of scientific and educational cooperation; exchange of experts, publications and expositions; assisting Taiwan to search for appropriate actual training sites; and arrange for Taiwan personnel to receive training in France. |
| Jul 26~29 | Livelihood and Production Working Group | Held the Green Living Forum at the Taipei World Trade Center, visited by over 80,000 people |
| 27-Jul | Health Risk Working Group | Promulgated the "Imported Organic Agricultural Product and Organic Processed Foods Management Regulations" |
| 30-Jul | National Land and Transportation Working Group | Executive Yuan ratified the "Sustainable Coastal Comprehensive Development Plan" |
| Aug 11~19 | International Environmental Protection Working Group | EPA Minister Winston Dang led a delegation to the US to attend the "Taiwan-US Environmental Cooperation Meeting" |
| Aug 14~26 | International Environmental Protection Working Group | Subsidized the Taiwan International Birding Association to attend 2007 UK Birdfair in Britain |

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| Date | Working Group | Activities and achievements |
|---|---|---|
| 22-Aug | Biodiversity Working Group | Announced the "Transgenic Plant Genetic Characteristics Survey and Biosafety Assessement Guidelines" |
| Sep | Health Risk Working Group | Completed the third stage of establishing the infectious disease report system, integrating and enhancing the funtions and usability of the "legally specified infectious disease report system," the "new infectious disease syndrome surveillance report system," and the "symptom surveillance report system." |
| Sep | Resources and Industry Working Group | Bureau of Energy (Ministry of Economic Affairs) represented Taiwan in attending APEC's 34th Energy Working Group meeting (EWG34) |
| Sep 17~21 | Biodiversity Working Group | Held the "Second International Barcode of Life Project and East Asia - South Asia Regional Cooperation Meeting" attended by 400 people representing 44 countries |
| 29-Sep | Livelihood and Production Working Group | Launched a project in a Tainan industrial park to build ecologically sustainable production cycles between urban and rural areas through a photovoltaic sun-tracking independent system |
| Oct~Dec | Health Risk Working Group | Launched the "Project to Merge the Infectious Disease Report System and TB Report System" to provide a single window, strengthen system functions and enhance effectiveness of disease report and control |
| 4-Oct | Biodiversity Working Group | Established the Marine National Park Management Office |
| 4-Oct | National Land and Transportation Working Group | Marine National Park Management Office commenced operations, organizing the management of Dongsha Atoll and other possible island or ocean national parks on Green Island, Beifangsan Island, and the Penghu Islands. |
| 15-Oct | International Environmental Protection Working Group | Convened the International Environmental Protection Working Group Meeting |
| Oct 25~26 | Biodiversity Working Group | Established 1,000 sets of information and set 9,304 sampling areas for the making of a database to plan a national vegetation map |
| Oct 28 ~ Nov 5 | International Environmental Protection Working Group | Subsidized the "Chung-Hwa Forest Product Industry Association" to hold the "International Union of Forest Research Organizations' Forest Product Division World Meeting 2007" |

| Date | Working Group | Activities and achievements |
|---|---|---|
| 30-Oct | National Land and Transportation Working Group | Held a public briefing on "Plans to Delineate Taiwu Area as a Water Quality Protection Area," and solicited views from all circles |
| Nov 5~8 | International Environmental Protection Working Group | Worked with the Indonesian government to jointly hold the APEC Satellite Application on Fishery and Coastal Ecosystems (SAFE) meeting in Jakarta |
| Nov 6~8 | International Environmental Protection Working Group | Held "8th APEC Roundtable Meeting on the Involvement of the Business/Private Sector in Sustainability of the Marine Environment," in Taipei to exchange views with other APEC member economies |
| Nov 17~18 | Sustainable Education Working Group | Held the "2007 National Elementary and Junior High School Unique Schools and Taiwan Tour International Expo," to show the efforts of unique schools in reusing vacant campus space and creatively using public education funds |
| Nov 20~22 | International Environmental Protection Working Group | "Invited to attend the Central America forum of the Energy and Environment Partnership (EEP), Central American Commission on Environment and Development (CCAD) in Belize" |
| Nov 28~30 | International Environmental Protection Working Group | Sent delegation to attend the APEC Workshop on Implementation of Bali Plan of Action in Manado, Indonesia |
| 29-Nov | Health Risk Working Group | Held the "Taiwan-US International Conference on the Management of Pesticides and Incinerator Ash," inviting USEPA experts Mr. Frank T. Sanders and Dr. Chun C. Lee to present special topic lectures. Taiwan's government, industry and academic members were invited to participate in discussion. |
| Dec | Biodiversity Working Group | Approved 27 boats in Pingtung County to receive subsidies for suspending baby fish catch. Six far-sea squid boats were designated as subsidy recipients for suspending fishing operations. A total of NT$4.74 million in subsidies was awarded to suspend fishing operations. |
| Dec | Biodiversity Working Group | Established a database on cryobanking of animal genetic materials in Taiwan, currently containing 8,400 specimen representing 2,140 species. |
| Dec | Resources and Industry Working Group | Completed tests on land subsidience on 2,740 km in eleven areas including Taoyuan County; cleared away 4.05 million cubic meters of sediment from Taiwan's reservoirs |

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| Date | Working Group | Activities and achievements |
|---|---|---|
| Dec 5~15 | International Environmental Protection Working Group | Led a delegation to attend the 13th Conference of the Parties to the UN FCCC and the 3rd Meeting of the Parties to the Kyoto Protocol |
| Dec 9~19 | Health Risk Working Group | The EPA organized a delegation to receive training in the US on ocean pollution and chemical pollution emergency response, and visit emergency response centers in Texas and other regions |
| 13-Dec | National Land and Transportation Working Group | Executive Yuan convened the second review of the Coastal Act (draft) |
| 18-Dec | Health Risk Working Group | Promulgated the "Toxic Chemical Substances Labeling and Material Safety Data Sheets Regulations" and the "Regulations on Reviewing Applications for Exemptions to Toxic Chemical Substance Restriction or Prohibitions" |
| 18-Dec | Sustainable Vision Working Group | Promulgated and enacted the "Regulations on the Joint Management of Natural Resources in Indigenous Regions" |
| 18-Dec | Sustainable Education Working Group | Held the "Environmental Change and Sustainable Development" to display results of digital research demonstration course (http://environment.edu.tw) |
| Dec 19~20 | National Land and Transportation Working Group | Held the "2007 Nationwide Parks Greening Meeting" |
| Dec 25~28 | International Environmental Protection Working Group | EPA Minister Winston Dang led delegation to attend the "Second Taiwan-Japan Environmental Meeting" in Japan |
| 27-Dec | National Land and Transportation Working Group | Held the first achievement report of the "Taiwan Area Waters Underwater Archaeology and History Research Plan" |
| 31-Dec | Sustainable Vision Working Group | Established the revised Taiwan Wildlife Database Search System, currently containing 116,970 sets of data and 2,858 photos of wildlife in Taiwan |
| 31-Dec | National Land and Transportation Working Group | Assisted Taipei County, Taipei City, Miaoli County, Yilan County, Chiayi County, Kaohsiung County and Taitung County with new designs for bicycle lanes covering a total of 41 kilometers |
| 31-Dec | National Land and Transportation Working Group | Established 100 km of trails on national forest lands and maintained 100 km of existing trails; renovated mountain shelter at Jiaming Lake; carried out construction work along 20 km of trailways and updated interpretive signs |