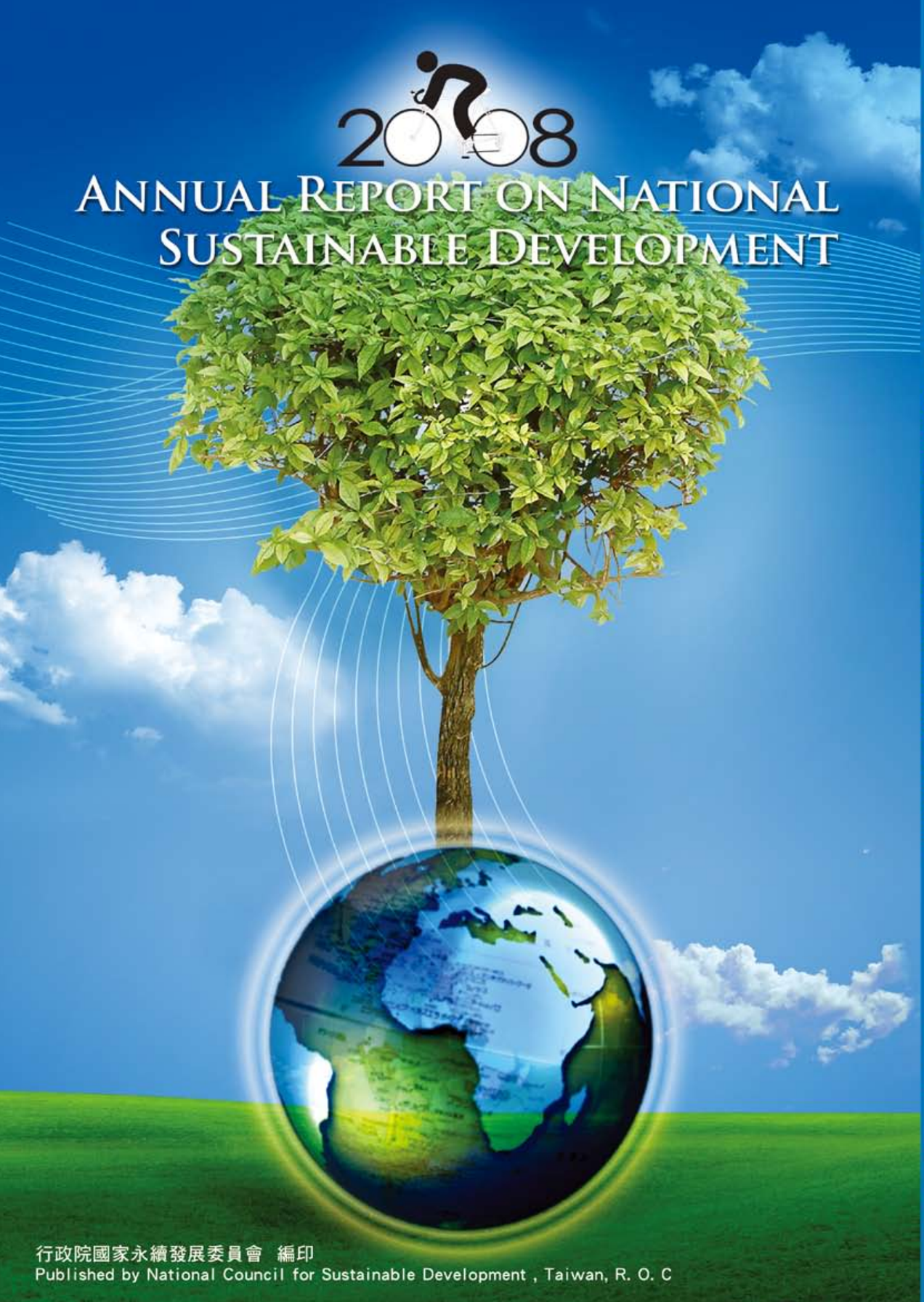

九十七年國家永續發展年報 2008 Annual Report on National Sustainable Development

行政院國家永續發展委員會 編印

97年 國家永續發展年報

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97年 國家永續發展年報

2008
ANNUAL REPORT ON NATIONAL SUSTAINABLE DEVELOPMENT

發行機關：行政院國家永續發展委員會秘書處
製作單位：惠國顧問股份有限公司
出版日期：98 年 3 月

目錄

前言 3

第一章 國家永續發展現況及成果 4

1.1會務動態 4

1.2重要成果——永續發展行動計畫績優獎 遴選生態旅遊地點及成立生態旅遊輔導團 6

1.3重要成果—— 永續發展行動計畫績優獎 2009世運會主場館新建工程屋頂太陽能光電板 7

1.4重要成果——永續發展行動計畫績優獎 經營學校達成「永續學校」的四個面向 9

第二章 國家永續會各工作分組績效 10

2.1永續願景組 10

2.2國土與交通組 11

2.3資源與產業組 12

2.4生物多樣性組 13

2.5生活與生產組 15

2.6國際環保組 17

2.7健康風險組 18

2-8永續教育組 20

第三章 發布96年度台灣永續發展指標 計算結果 22

1生態資源領域 22

2環境污染領域 23

3社會壓力領域 24

4經濟壓力領域 24

5制度回應領域 25

6都市永續發展領域 25

目錄

第四章 地方推動永續發展成果 **27**

4.1嘉義縣 27
永遠的家，嘉義就是美，幸福就在「嘉」

4.2雲林縣 30
農業首都 打造綠金文化新願景

4.3南投縣 33
美麗健康最中心，長住樂活新南投

第五章 民間永續發展推動績優單位—97年度國家永續發展獎 **36**

5.1台灣生態學會 36
紮根生態教育 培養環境種子

5.2苗栗石墻社區 38
落實全民參與 發展地方經濟

5.3友達光電 40
扮演綠色公民 創造曼妙生活

5.4宜蘭利澤國中 42
向大自然學習 形塑人本教育

附錄 **44**

附錄一 行政院國家永續發展委員會組織圖 44

附錄二 行政院國家永續發展委員會委員名單 46

附錄三 永續會97年度大事紀 47

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。永續會先後完成「21世紀議程—中華民國永續發展策略綱領」、「台灣永續發展宣言」、及「永續發展行動計畫」等重要文件及推動工作規劃，另亦於95年辦理「國家永續發展會議」，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97年度我國政府及民間推動永續發展重要成果，包括國家永續發展現況及成果（第一章）、永續會各工作分組績效（第二章）、96年台灣永續發展指標計算結果（第三章）、地方永續發展推動成果（第四章），以及永續發展推動績優單位（第五章）。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，進而實現永續發展的願景。

第一章

國家永續發展現況及成果

1.1 會務動態

一、召開永續會工作會議

行政院國家永續發展委員會（以下簡稱永續會），於民國97年2月21日、4月11日、12月25日召開永續會第23、24及25次工作會議，分別由前任執行長施能傑與現任執行長蔡勳雄主持。會中報告及討論議案包括：「國土三法」之立法策略與內容、「台灣永續發展指標系統之檢討」、研訂我國「永續發展政策綱領」、「碳足跡標示」及「碳標章」建置規劃等議題，相關會議紀錄請詳見永續會網站http://sta.epa.gov.tw/NSDN/CH/PRINT/MEETING.HTM

二、調整組織架構　落實分組功能

在組織調整方面，永續會於97年11月11日完成其設置要點及組織架構之修正，主要修正內容包括：（1）永續會任務；（2）行政院副院長免兼副主任委員；（3）委員人數為24至30人；（4）永續會副執行長改由內政部、經濟部及環保署等三位副首長兼任；（5）

委員會議每4至6個月召開1次；（6）強化秘書處任務與功能；（7）強化工作分組功能，分組召集人改為由機關首長兼任，並每3個月召開一次分組會議。

核定之永續會組織，將設置九個工作分組，環境層面包括：「節能減碳與氣候變遷分組（環保署召集）」、「國土資源分組（內政部召集）」、「生物多樣性分組（農委會召集）」三個分組；經濟層面包括：「能源與生產分組（經濟部召集）」、「交通與生活分組（交通部召集）」、「科技與評估分組（國科會召集）」三個分組；社會層面包括：「城鄉發展分組（內政部召集）」、「健康與福祉分組（衛生署召集）」、「教育與宣導分組（教育部召集）」三個分組。

三、修正台灣永續發展指標系統

永續會將根據第25次工作會議之決議，研擬修正「我國永續發展指標系統」，其結果並將作為擬定永續發展政策方針之重要參考。聯合國永續發展指標，從1996年，2001年到2007年，總計3版。我國目前指標系統係參照1996年第1版之架構建置，為求充分與國際前瞻趨勢接軌，並確實反應政府重大施政政策及永續發展行動計畫之成效，該指標系統從架構面做前瞻性規劃及修正。

四、修正永續發展行動計畫

永續會於民國91年12月完成永續會「永續發展行動計畫」。初期規劃264項具體工作，該計畫係採滾動式修正，工作項目約每半年更新一次；95年6月，將「國家永續發展會議」之共識結論納入行動計畫，進行大幅修正，期間並陸續進行滾動式修正。

97年7月各工作分組配合政府各項新政策之推動，進行行動計畫之修正，經修正後，具體工作計178項（修正後之「永續發展行動計畫」，請參閱網址http://sta.epa.gov.tw/NSDN/）。

蔡勳雄執行長主持工作會議。

五、公布「2007台灣永續發展指標」計算結果

永續會於民國97年6月5日世界環境日公布「2007台灣永續指標」的計算結果。

六、頒發97年國家永續發展獎

「97年國家永續發展獎」頒獎典禮於97年12月9日假行政院大禮堂舉行，由行政院劉兆玄院長親自頒獎表揚受獎單位。97年共有14個獲獎單位接受表揚，分別為3個社區、2家企業、3所學校、3個社會團體以及3個永續發展行動計畫執行單位。（各獎項第一名介紹，詳見第五章）

表一：97年國家永續發展獎得獎單位

獎項	獲獎單位
社區永續發展獎	苗栗縣公館鄉石墻社區發展協會（鄉村型）
	宜蘭縣礁溪鄉林美社區發展協會（鄉村型）
	花蓮縣花蓮市碧雲莊社區發展協會(都市型)
企業永續發展獎	友達光電股份有限公司（大型企業）
	華城電機股份有限公司（中小企業）
教育永續發展獎	宜蘭縣利澤國民中學
	南投縣新興國民小學
	台北縣崇德國民小學
社團永續發展獎	社團法人台灣生態學會
	社團法人台灣環境資訊協會
	南投縣牛屎崎鄉土文史促進協會
永續發展行動計畫績優獎	墾丁國家公園管理處：遴選生態旅遊地點及成立生態旅遊輔導團
	高雄市政府新建工程處：2009世運會主場館新建工程屋頂太陽能光電板
	教育部環保小組：經營學校達成「永續學校」的四個面向

1.2 重要成果——永續發展行動計畫績優獎 遴選生態旅遊地點及成立生態旅遊輔導團

墾丁國家公園管理處自民國73年成立以來，因管制嚴格素與在地居民關係緊張，期間雖經通盤檢討，期能更貼近民眾的需求，以降低與在地民眾之衝突，惟績效有限。該處自93年起依據行政院版生態旅遊白皮書之原則與精神，擇定社頂成為本園區第一個生態旅遊地，並於94至96年與學術機構合作，結合社區營造推廣生態旅遊，期以生態旅遊作為該處與社區建立長久穩定夥伴關係之藍海策略。

工作內容包括：（一）協助建立社頂自然及人文資料庫的建立。（二）從事社區培力，進行解說及管理人才培訓、資源巡守監測紀錄。（三）景觀改造以打造具在地文化特色之社區景觀。（四）協助遊客導入及異業結盟並健全服務體。（五）協助媒體行銷、搭設網站，並配合「與國家公園有約」活動廣為宣導。

經過3年努力，組成無給薪的社頂部落巡守隊，協助巡護及監測社頂區域

珍貴的生物資源，也促使園區內其他社區清楚認知生態環境的永續利用才是社區發展的唯一道路。有大光、水泉、港口、埔頂等社區亦相繼主動要求該處以此模式輔導其社區成為生態社區，自此，墾丁國家公園與在地居民的關係，正式由對立走向合作，創造公私雙贏之局面。

成立無薪資源巡守隊。

部落居民自行進行社區景觀再造。

1.3 重要成果——永續發展行動計畫績優獎
2009世運會主場館新建工程屋頂太陽能光電板

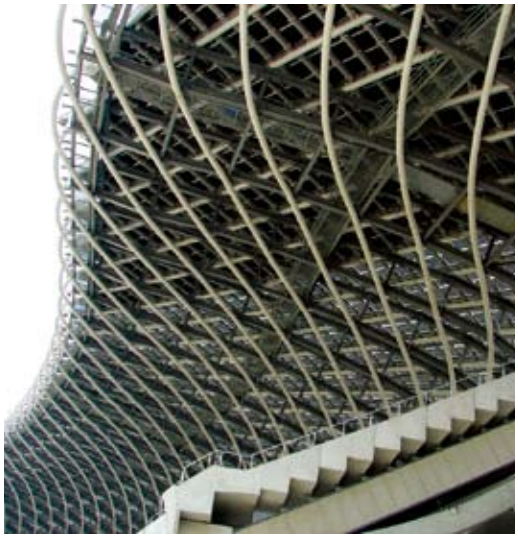
高雄市主辦2009年世界運動會，需要一座開、閉幕主場地及相關比賽項目場地，故於左營區中海路與軍校路的交叉口興建擁有40,000個座席，符合國際田徑總會（IAAF）一級認證及國際足球總會（FIFA）規範要求之400公尺田徑場兼足球場之國際性運動場館－「2009世運會主場館」，並預留未來增設15,000觀眾席次之臨時看台空間，以利未來增取大型國際賽會。

該場館在規劃時，利用南部年日照時間長的優點，採用取自自然、用之不竭的綠色電力－太陽光電發電系統，將光電板整合於屋頂一體設置（Building-integrated photovoltaic, BIPV），利用設計飛機外型之電腦軟

體，在3D曲面屋頂平順配置約8800片2D光電板片，使太陽光電可自由運用在建築體之上。

另考量管理便利性，隱藏施作噴水清潔系統，達到設置與維護之雙重規劃，除本身具有基本的屋頂遮蔽效果外，每年可提供110萬度以上發電量，效益等於減少660噸CO_2，有賽事時可提供場館用電需求80%電力，無賽事時多餘電力可回售台電，為國內體育場館利用太陽能設施最大規模的單一建築物，並與世界環保節能潮流同步。

該場館充分運用太陽能資源，不僅可突顯綠色科技，世運賽事期間，並可向國際來訪人士展示永續健康運動城市意象，各國參賽運動員及參訪之國內外遊客並能清楚觀察太陽能光電板，充分感受自然能源轉換為生活用電之現代科技，及台灣高科技產業之發展，達到宣傳台灣積極開發新能源，減輕石化污染負擔的美意。



世運會主場館屋頂結構與太陽能光電板片。

世運會主場館夜間模擬圖。

1.4 重要成果——永續發展行動計畫績優獎

經營學校達成「永續學校」的四個面向

永續校園計畫屬於行政院『挑戰2008國家發展計畫』，強調經由學校建築與空間改造，及設備的操作，以促進校園場域實踐永續發展的理念；永續校園的結構包括三個元素：校園生態、永續科技、及環境管理。

永續校園計畫藉由學校教學設施的改善及教學，促進學校教學環境的永續化；教育部所補助改造的項目分成四大類：資源流與能源流循環主題、基地永續對應主題、生態循環主題、及健康建築主題。

從校園出發推動社區再造方案，以校園公共空間作為示範，以居民參與方式獲致鄰里社區認同，具有凸顯地域特色、順應環境條件、凝聚社區意識等效益，創造各社區與校園緊密結合之永續發展教育示範社區。各縣市的永續校園，可提供生態旅遊參觀點，達到社區環境教育之目的。以「永續校園」為永續台灣跨部會整合的引爆點，除進行建築、環境與教育的改造，並配合數位網路工具與社區充分結合，使各地推展之永續概念、城鄉風貌相互流通、擴散蔓延，則台灣之環境生態、文化教育及產業經濟等各方面可望朝向永續發展。

台南縣永康國小-5千瓦風力發電機。

永續校園——彰化縣大西國小。

自91年迄今，獲得永續校園補助之學校已遍及各縣市，台灣319個鄉鎮中，162個鄉鎮建有永續校園。全國性永續發展相關獎項約7成以上是永續校園的學校；學術界漸將永續校園列入研究的主題，並曾有美國、瑞典、日本、大陸的專家學者來台參訪永續校園。更多資訊可上網(http://www.esdtaiwan.edu.tw/)查詢。

第二章

國家永續會各工作分組績效

2.1 永續願景組

持續推動永續發展願景

永續願景組民國97年依「台灣21世紀議程－國家永續發展願景與策略綱領」，持續推動各項工作，積極協助地方政府研訂、推動、評鑑及實施地方21世紀議程。

96年度完成全國25縣市之地方永續發展計畫。97年度辦理「地方永續發展運作機制之規劃專案工作計畫」，建立地方永續發展運作機制。另編撰「地方永續發展白皮書」，使民眾能了解各縣市辦理永續發展情形及未來目標。

台東知本地質圖。

強化永續發展推動機制

97年度辦理台灣永續發展指標系統檢討，以改善指標系統更能與國際接軌，並能切合台灣本土環境特色。發佈「2007年台灣永續發展指標現況」，以評量我國推動永續發展進程，回應聯合國要求各國建立指標評估推動成效。

此外，賡續辦理綠色國民所得帳編製，使帳表體系能更完整呈現環境永續發展現況。同時，也持續進行野生動植物資源調查資料庫建置工作，供研究參考使用。

2.2 國土與交通組

建置全國步道系統 推動無痕山林運動

為建置發展全國步道系統，推動無痕山林運動，已有如下成果：

一、建置完備之基礎步道設施及戶外環境場域：

完成14個區域步道系統、56個子區域步道系統之藍圖規劃；並整修、維護、監測與經營管理步道約120公里。

二、擴充並深化多元面向之環境教育：

編印出版「台灣的國家步道」出版品；完成計11梯次、200位無痕山林種子教師之培訓；編印高階種子教師手冊；擴充更新全國步道導覽網站，閱覽使用人數達200萬人次。

三、共同創造美好的登山環境：

辦理2梯次步道工作假期，招募40位步道志工，利用公私協力、民間志工合作模式，共同維護登山環境。

四、走繪台灣山林新地圖：

無痕山林種子教師培訓。

透過玉山、雪山山脈大縱走活動，走繪出台灣山林新地圖，記錄縱走踏勘路線、補給路線、登山口位置、叉路轉向、識別點、行程歷程、特殊景觀、植物相、人文史蹟等生態與環境資料，未來可應用作為山岳活動之資訊平台。

濕地科學家學會(SWS) 第一屆亞洲濕地大會

為明智使用濕地，營建署於96年底評選劃設了75處「國家重要濕地」，

並在97年2月2日加入「SWS國際濕地科學家學會」，成為國家會員，並在97年10月23至26日舉辦「濕地科學家學會(SWS)第一屆亞洲濕地大會」，全球知名專家學者及聯合國資深官員齊聚一堂，以「亞洲濕地，連結全球」為主題，探討全球濕地保育議題，透過國內外專家學者之互相交流，使台灣濕地保育運動與國際接軌。

我國雖非「濕地公約」簽約國，然而非常支持公約規定，期盼中華民國早日加入濕地公約組織，將台灣重要濕地納入公約管理名錄，為國際生態保育貢獻心力。

濕地科學家學會(SWS)第一屆亞洲濕地大會。

2.3 資源與產業組

積極推動工業節約用水盤查輔導作業

經濟部工業局自92年度協助廠商進行工業節約用水，6年輔導433家廠商，節約工業用水量累積達2,747萬噸/年，約當節約水費3.2億元，增加環保產業投資5.3億元，並節省水資源之原水成本6.8億元，除有效節約區域水資源消耗及工廠用水成本，更提升我國工業用水回收率，總計我國工業用水重複利用率由91年之46%提升至97年之61%。

另工業用水補充用水量91～97年逐年下降，減少3.16億噸，下降幅度17.9%；工業用水回收水量則於同期增加8.06億噸，上升幅度53.6%，顯示國內回收水量逐年上升。

太陽光電設置

經濟部能源局89～97年（至97/12/19止）累計已核備補助案件共計541件，補助內容如下：

（一）97年度一般設置補助申請案件共受理117件申設容量2,486瓩，完成核准補助112件（2,529瓩），完成簽約102件（2,346瓩）、完成系統設置141件（2,018瓩）、完成撥款146件27,172萬元。

（二）「陽光校園」計畫，配合教育部95年執行「國民中小學老舊校整建計畫」推動設置補助，共核准補助40件，設置容量131瓩，至本年度40件均已全數完成，實際設置量135.4瓩。

（三）設置補助案中，結合農委會所屬機關執行之96年農業應用設置補助，至本年度共完成簽約7件（53.56

瓩）、系統設置7件（54.16瓩）、撥款5件372萬元。

（四）陽光電城二案：二案預計98年6月前可完工。

（五）太陽光電經典現階段成果說明：行政院客家委員會-六堆客家文化園區案，已於三座傘架上完成75瓩太陽光電系統設置。

（六）偏遠離島緊急防災專案推動自94年起至95年二梯次申請，累計核准補助98件核准容量506瓩，完成簽約83件補助容量433瓩，完成設置70件（378瓩），完成撥款65件共撥12,840萬元。

太陽能熱水系統補助

經濟部能源局補助用戶安裝太陽能熱水系統，本島地區每平方公尺補助1,500元，離島地區每平方公尺補助3,000元。97年申請安裝數達22,389件，新增安裝面積達12萬平方公尺，創造出13億元產值。累積全國設置量已達177萬平方公尺，約43萬戶，普及率達4.84%，全年可節省450萬桶20公斤家用液化石油氣，減少30萬噸二氧化碳排放。安裝密度位居全球第3，僅次於以色列及塞浦路斯。

2.4 生物多樣性組

原住民傳統生物多樣性知識保護將法制化

原民會完成原住民族傳統生物多樣性知識保護條例草案，並召開生物學誌會議，邀請負責調查各族群的專家報告進度及討論草案內容，繼由行政院函送立法院內政委員會，並於97年4月14日完成第一次審議；召開生物學誌會議，邀請負責調查各族群的專家報告進度及討論；完成生物學誌資料庫改版，並與中央研究院台灣生物多樣性資訊入口網 - TaiBIF進行連結搜尋，與完成年度生物學誌草稿。10月15日前完成生物誌資料全面清查及補正，完成民族生物學誌13族群一校稿及賽德克族田野調查。

「國際生物多樣性日」活動。

「Djulis 穀類的紅寶石－紅藜」正名儀式。


2008台灣物種多樣性研究現況國際研討會。

發表台灣植群圖研究成果

97年度的生物多樣性推廣活動及成果豐碩。1月份即召開「國科會生物多樣性行動方案推動小組暨部會協調會議」，會中決議：建議熱點與監測地點及資料庫建構的原則；辦理生物多樣性行動方案委員會及部會協調會，討論生物多樣性監測資料之資訊管理系統的建構。

完成國家植群分類系統，統一台灣地區植群圖分類系統之形相名稱；與中華民國自然生態保育協會合辦「國際生物多樣性日」活動；舉辦「2008全球高山生物多樣性國際研討會」；辦理縣市政府及跨部會行政人員「生物多樣性推動方案研習班」。

農委會林務局與9個部會舉辦「啟動每一天　看顧每一刻」—生物多樣性工作嘉年華活動，並彙整22部會執行生物多樣性工作成果，於11月16日主辦「啟動每一天　看顧每一刻」—生物多樣性推動方案成果展。

在國際參與上，農委會林務局派代表於5月1-5日參加捷克舉行之歐洲植群研討會及發表論文，9月8-12日參加國際植群學會（IAVS）於南非開普敦舉辦之2008年會，並於會中發表台灣植群圖計畫成果。11月13日舉辦「第6屆台灣植群多樣性研討會」，發表6年執行總成果。

「啟動每一天　看顧每一刻」—生物多樣性工作嘉年華。

「第6屆台灣植群多樣性研討會」發表6年成果。

「地球急診室-生物多樣性教育巡迴展」。

澎湖海洋生態及漁業資源調查

在海洋生態方面，農委會漁業署於2月29日籌組「澎湖地區海洋生態及漁業資源自然復育調查監測小組」，成立6項分組全面進行澎湖地區寒災後生態資料之調查與收集，於8月29日完成「澎湖海域寒災後海洋生態及漁業資源調查報告」並對外發表；辦理「全民漁業教室」系列活動及5梯次「漁業資源種子教師研習營。

2.5 生活與生產組

獎勵及鼓勵民間興建綠建築

獎勵民間建築物參與綠建築改善示範工作，以委託辦理提供專業諮詢輔導方式，協助民間建築物進行設計及改善工作。評選97年度民間綠建築設計及改善示範案例，包括實踐大學、中原大學、德霖技術學院、中國醫藥大學、東方技術學院、台灣土地銀行股份有限公司…等12案辦理獎勵。

實踐大學屋頂綠化隔熱改善。

二手商品交易市集輔導計畫

97年度完成3處二手商品交易示範市集甄選，經現勘診斷後，分別依據其市集特色規劃經營發展定位，北區台北市永春二手市集，定位為都會型生活休閒市集、中區大台中環保市場為國際觀光二手市集、南區甲仙芋筍攤販集中區為觀光區創意特色二手市集。

此外，該年度計畫已輔導完成：二手視覺標誌延伸應用文宣品製作；出版二手交易市集店家資訊手冊及研訂【二手商品交易道德規範】；二手業者人才培訓；二手示範市集觀摩學習；記者會與成果展示，參與人數達2,000人次；主題行銷活動2場次，參與人數達4,400人次；平面、電視及其他媒體宣傳。

永春二手創意市集，民眾參與踴躍。

環保科技園區

本計畫執行至今，各項基礎建設陸續完成，並已核定70家廠商進駐；園區招商成果已顯現，產業生態鏈結逐漸成型。目前統計已入區廠商進駐面積已達43公頃，投資金額146億元，預估年產值333億元，每年可循環再利用資源物241萬公噸。

未來非但可解決我國環保問題及提升環保技術，也可成為新設工業區的範本及已設工業區改進之參考，帶動工業園區生態化之風潮。

台南環保科技園區。

2.6 國際環保組

我國與太平洋友邦環境部長會議達成合作共識

95年9月我國與南太平洋6友邦元首於帛琉舉行高峰會，共同簽署「帛琉宣言」。環保署依據該宣言之承諾，於96年7月在台北召開「2007台灣與太平洋友邦環境部長會議」，共5友邦13名代表與會。會後發表共識結論，將加強因應氣候變遷及環境保護之合作交流，包括建立國家間環境保護長期對話機制；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；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等。

組團評估環境合作可行方案

2007年環境部長會議除達成未來環保合作共識及推動方向，友邦國家並於會中提出環境合作計畫草案。為評估未來環境合作可行方案，環保署4個環境合作考察團，每團3人，分別於97年9月、98年2月、98年3月及98年5月，赴帛琉、馬紹爾群島、索羅門群島與諾魯，以及吐瓦魯與吉里巴斯，考察各國環境現況及相關基礎建設，以評估切合友邦需求且實際可行之合作方案。

廢棄物處理及區域性合作為優先合作項目

評估結果發現，除帛琉外，其餘5國

考察團拜會馬紹爾群島環境部門。

之廢棄物處理及相關能力建置問題亟待解決，宜優先處理。環保署隨後於97年5月29日邀集相關部會及學者專家，召開「我國與太平洋友邦環境合作考察評估建議研商會」，建議可一併考量推動區域性教育訓練、環境監測及氣候調適等合作計畫。評估建議將作為後續推動我國於南太平洋地區環保合作援助之規劃參考。

2.7 健康風險組

健康風險監測與管理

一、環保署等四部會共同制定「持久性有機污染物斯德哥爾摩公約國家實施計畫」，行政院備查在案；94至97年間積極參與締約國大會及審查委員會議；辦理「2008年持久性有機污染物研討會」。

二、全國57條流域環境水質監測（共318個水質監測站），定期執行採樣及檢測，建立全國長期河川環境水質監測資料，並落實監測資訊公開。

三、自91年起分批對老舊加油站及

斯德哥爾摩公約持久性有機污染物審查委員會議。

大型儲槽工廠進行土壤及地下水污染情形進行調查，目前已調查1,791座加油站。

四、針對有重金屬污染之虞農地進行細密調查，累計97年度達土壤污染管制標準受污染農地總面積約為491.96公頃，已依法公告2,011筆地號為污染控制場址。

五、更新於95年建置之健康風險評估模擬系統（http://sgw.epa.gov.tw/HRisk/）電腦計算程式。

推動健康永續效率農業

一、輔導有機農產品生產，已認證4家驗證機構，辦理有機農產品驗證，驗證合格農戶970戶，驗證面積2,326公頃，年產值達12.7億元。

二、農委會建置農產品產銷履歷資訊平台，公告制訂農產品「臺灣良好農業規範（TGAP）」，認證農產品產銷履歷驗證機構。輔導驗證通過有機農糧作物22生產單位、345.6公頃，農糧作物501生產單位、4,430.5公頃，畜禽產品299生產單位，水產品157生產單位。

通過產銷履歷驗證之雞肉產品。


河川水質監測採樣。

三、輔導茶葉廠農合作體制，落實安全用藥及共同防治，並加強茶葉安全監控，建立農工合作生產模式，以生產優質安全之茶葉。97年度參與之製茶廠127家，1,066戶，茶園面積1,577公頃。

四、協助農民擴大使用非農藥防治資材5種，建立3種整合性防治技術及研發3種生物性農藥劑型與量產流程。

建立本土化健康風險評估參數資料庫

一、建立本國暴露評估參數資料庫，並參考美國與日本的架構為藍本，編製完成「台灣一般民眾暴露參數彙編」。

二、辦理「基地台較密集地區附近居民健康情形探討」，研究結果並未發現充分證據顯示基地台密集地附近

居民有較一般人高的罹癌危險性，此與世界衛生組織之報告結果一致。

三、辦理「非游離輻射健康風險溝通計畫」，搜集各國相關資料，辦理社區健康風險溝通工作。

積極推動制定「國民營養法」

辦理「台灣國民營養政策」研討會或相關會議，並結合政府單位、學者專家及民間團體，做成具體規劃及建議資料，完成立法草案。

2.8 永續教育組

永續教育推動中心

教育部永續教育推動中心相關成果如下：

一、97年度教育部補助辦理環境教育推廣計畫活動，範圍包括生物多樣性教育、永續發展教育等。97年3月辦理公開徵求案申請，於5月公告補助32件，並辦理個案補助，截至97年9月30日，共19案進行環境議題推廣，部分推廣議題涵蓋生物多樣性教育、永續發展教育等議題，其中逾18個大專院校與民間團體辦理生物多樣性相關議題。

教育部補助大專學生協力地方推動永續校園(台南藝術大學)。

二、96年度補助10校次，97年度補助32所學校進行校園閒置空間改造，使其成為新生之「能（資）源教育中心」與環境教育學習空間。

三、「永續校園計畫」自91年6月開始推動，至96年度共補助618校次，全台319個鄉鎮中已有148個鄉鎮有永續校園的基地。

四、補助大專學生協力地方推動永續校園，協助單一校園環境改善與校園營造的推動，到多校合作的教育學習資源共享整合。

五、核定311個提案（388個社區）執行環境改造計畫及發展特色。

推廣綠色採購

97年環保產品線上採購網瀏覽人數達292,516人次，採購金額逾234萬元；97年綠色生活資訊網瀏覽人數逾265萬人次；97年12月11日完成旅館業環保標章規格標準公告，並完成8場

次規格標準說明會，共計250家旅館業者參加，另擇定15家業者進行專案輔導。97年各縣市環保局執行「民間企業與團體實施綠色採購計畫」成果，計輔導綠色商店1,551家，審查通過綠色商店816家，簽署綠色採購承諾書企業1,005家，宣導活動達234場次，逾31萬人次參加。

消保嘉年華會宣導綠色消費。

呼應節能減碳政策

推動「永續校園改造計畫」，並於94年度補助各校裝設數位電力監視系統，以有效管控建築物用電量；教育部部長暨部內全體同仁共同簽署響應「節能減碳十大無悔措施」；從97年度開始，由電力健檢輔導團逐年到校進行校園電力使用狀況檢視；針對國內30所國立高中職進行校園溫室氣體盤查輔導計畫，建立學校減量基線資料及校園節能減碳活動平台；研訂推動「節能減碳無悔措施全民行動方案」，召開會議邀集各界參與節能減碳活動，包括於「節能減碳全民行動網」簽署減碳宣言，俾達每人每日至少減碳1公斤之目標。

嘉義縣鐵馬大會師。

第三章

發布96年度台灣永續發展指標 計算結果

台灣永續發展指標系統係永續會永續願景組成立「建立永續指標系統跨部會工作小組」篩選具有永續發展意義與代表性的指標，於民國92年6月5日環境日公布計算結果，用以評估並檢視我國推動永續發展之績效。

行政院研究發展考核委員會自94年起接續辦理台灣永續指標值計算及指標更新工作，藉以提供最新的永續發展情形。本年度為第5次發布指標，除了讓各界瞭解台灣永續發展趨勢與變化，作為政府施政參考外，也讓國際瞭解我國在推動永續發展上所做的努力。

訂定指標 檢視永續發展現況

為宣示將國際永續發展理念轉化為台灣在地的實踐，作為衡量台灣永續發展現況及改進的依據，行政院發布2007年台灣永續發展指標現況，逐一解讀分析其邁向永續或背離永續。台灣永續發展指標系統的建置，係參考聯合國永續發展指標「壓力－現況－回應 （Pressure-State-Response）」架構，並將我國發展現況列入考量。

指標系統分為「生態資源」、「環境汙染」、「經濟壓力」、「社會壓力」、「制度回應」、「都市發展」6大領域，包含41項指標。指標架構及各項指標趨勢，另詳行政院國家永續發展委員會全球資訊網站http://ivy2.epa.gov.tw/NSDN/。

台灣永續發展指標系統於網站公布（http://sta.epa.gov.tw/NSDN/CH/DEVELOPMENT/INDEX.HTM）。

1 生態資源領域

生態資源綜合指數在民國77年至96年呈現下降的趨勢，整體而言，我國生態資源的狀況在近年來是呈現背離永續。就民國96年的資料，除了「未受損失森林面積比」一項指標值些微增加外，其餘指標值仍較民國95年為低，民國96年綜合指數略高於民國95年（見圖1），呈現邁向永續的趨勢。

圖1　生態現況綜合指數趨勢圖

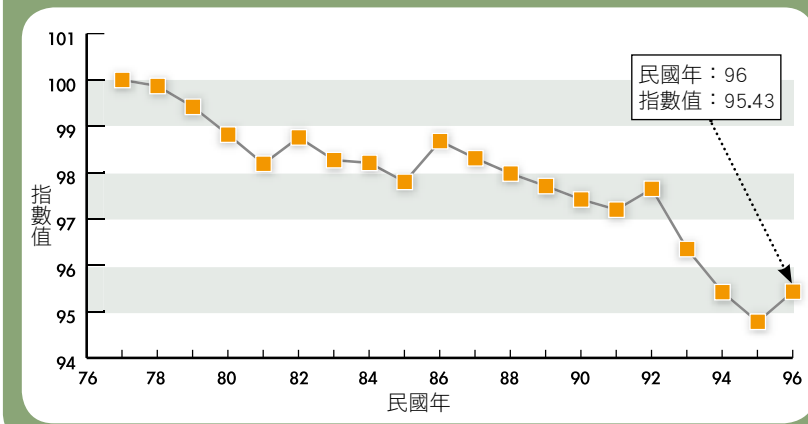


圖2　環境現況綜合指數趨勢圖

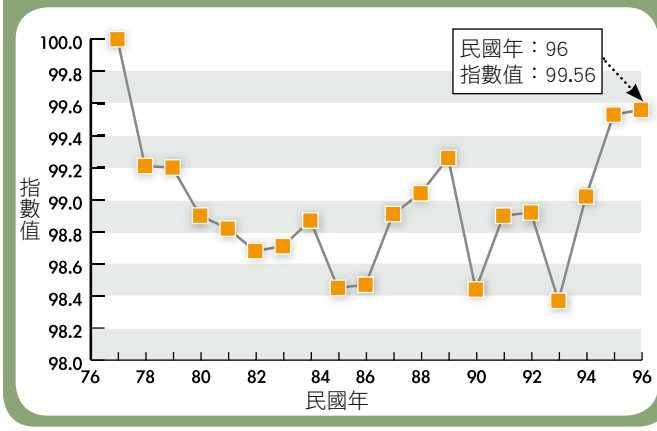
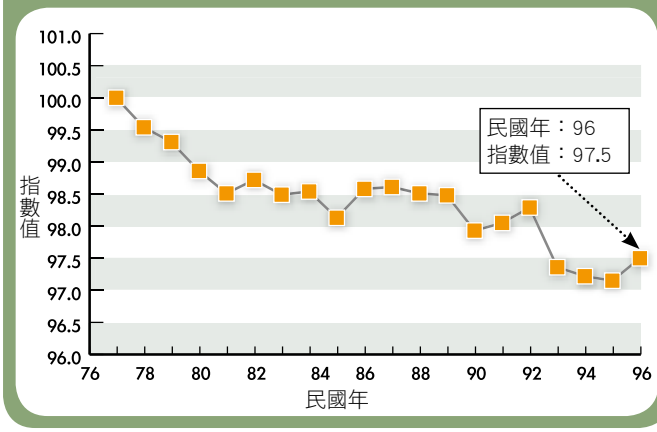


圖3　生態及環境現況綜合指數趨勢圖



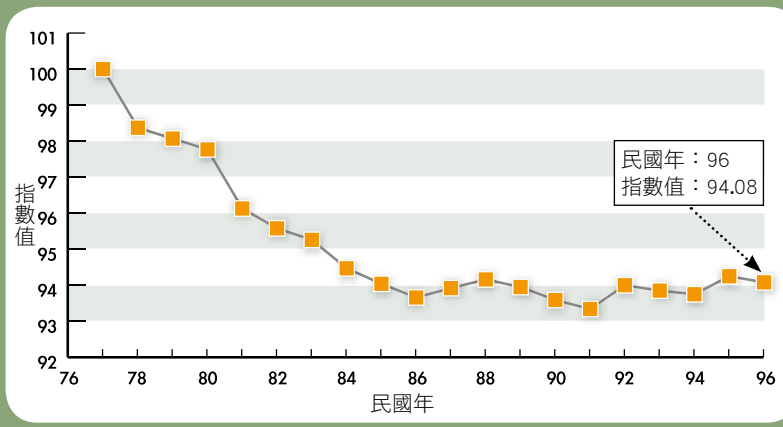
2 環境污染領域

民國77年至96年指數值呈現小於100微幅上下震盪趨勢，整體而言是逐漸緩降至93年的最低值，94年至96年連續三年上升。民國96年指標值為99.56，為民國77年基準年後最佳表現的一年（見圖2），顯示整體環境品質近年來已趨向正面。以個別指標趨勢來看，廢棄物資源回收率指標值呈現穩定改善的趨勢，至今已上升達9%。但是二氧化碳排放量指標值一路下降，至今降幅已超過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平均值迄今已呈現緩步上升，並無太大變化。

3 社會壓力領域

自民國77年至86年均呈現背離永續的趨勢，但民國87年至96年指數值則呈現94左右為上下震盪趨勢。在個別指標方面，每人每日垃圾產生量則在民國92年之後呈現緩慢增加的情形；檳榔種植面積自88年後逐漸減少；反應國民健康的癌症標準化死亡率及傳染病感染率皆為增加的趨勢；公害陳情案件受理量逐年增加；家戶所得五分位差於民國90年差值最高，之後逐漸縮小（見圖4）。

圖4　社會壓力綜合指數趨勢圖



4 經濟壓力領域

整體而言，雖然農藥消費量佔農產品產值比率持續增加造成環境負面的影響，不過由於工業用水使用效率持續提高、製造業勞動生產力逐年提升，再加上科技的發展使得電腦及網際網路使用越來越普及。因此總括來說，經濟壓力綜合指標持續朝永續的趨勢邁進（見圖5）。

圖5　經濟壓力綜合指數趨勢圖

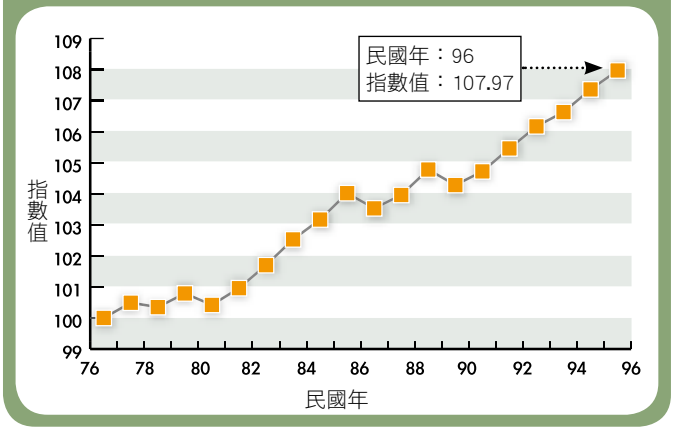
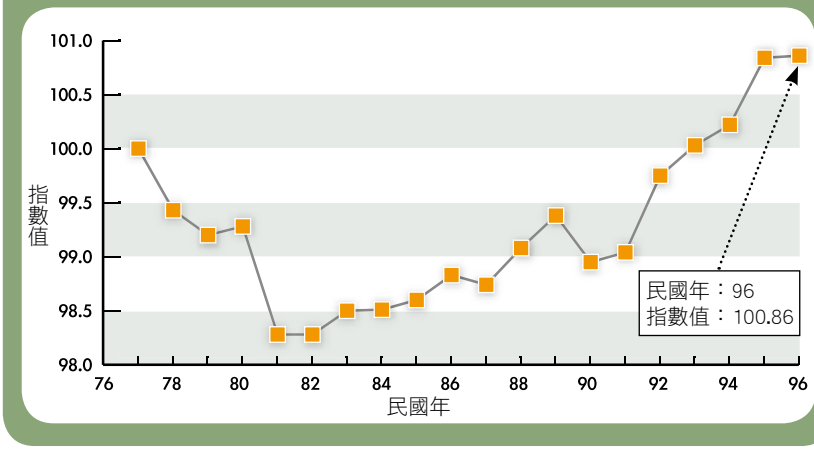


圖6　社會及經濟壓力綜合指數趨勢圖

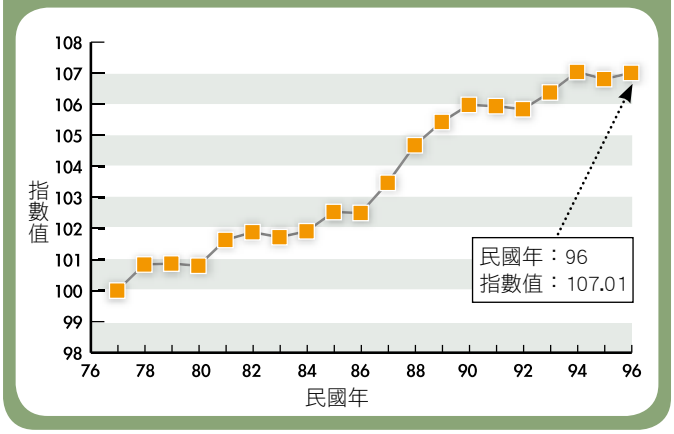


5 制度回應領域

自民國80年起整體制度量能逐步提升，呈現邁向永續。長期來看，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，自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（見圖7）。

就96年度的制度回應指標來看，政府主動提供資源下降，但協助推動邁向永續的工作於96年度則小幅上升。政策落實方面近三年皆以約2～3%持續上升，而民間落實永續發展理念方面的指標則呈現一增一減的趨勢，故整體來說，政府制度之回應與民間方面的作為應可再提升。

圖7　制度回應綜合指數趨勢圖

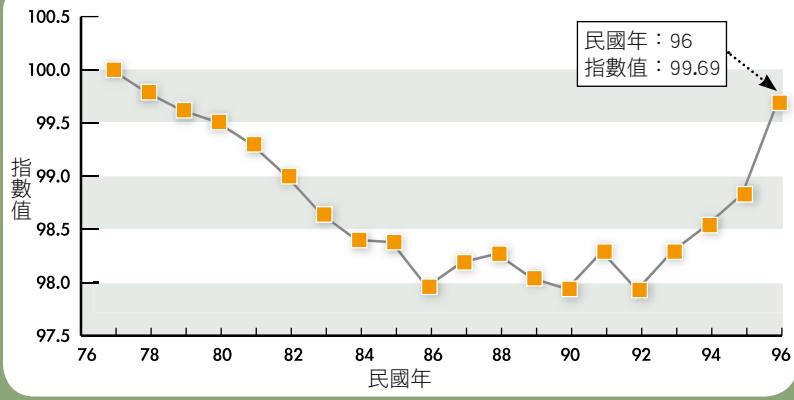


6 都市永續發展領域

就整體趨勢而言，近年來都市台灣永續綜合指標值維持上升的趨勢，持續朝向永續（見圖8）。在個別指標方面，各指標當中以「都市平均每人所

得」上升的趨勢最為顯著；此外，大眾運輸乘客人次、每人享有都市公園綠地面積也在逐步增加。但小汽車持有率持續增加的趨勢呈現背離永續，是對都市永續發展較為不利的一環，雖然大眾運輸乘客人次數值屢增，但是民眾倚賴私人運具的習慣仍有改善的空間。

圖8　都市發展綜合指數趨勢圖



永續發展落實有賴全民參與

除了災害敏感地及都市每年空氣品質不良比2項指標因資料收集機制尚未建立完成，故今年未能發布外，本年度發布的台灣永續發展指標共有41項個別指標，與95年度相較，其中改善之指標共計21項，惡化之指標共計15項。

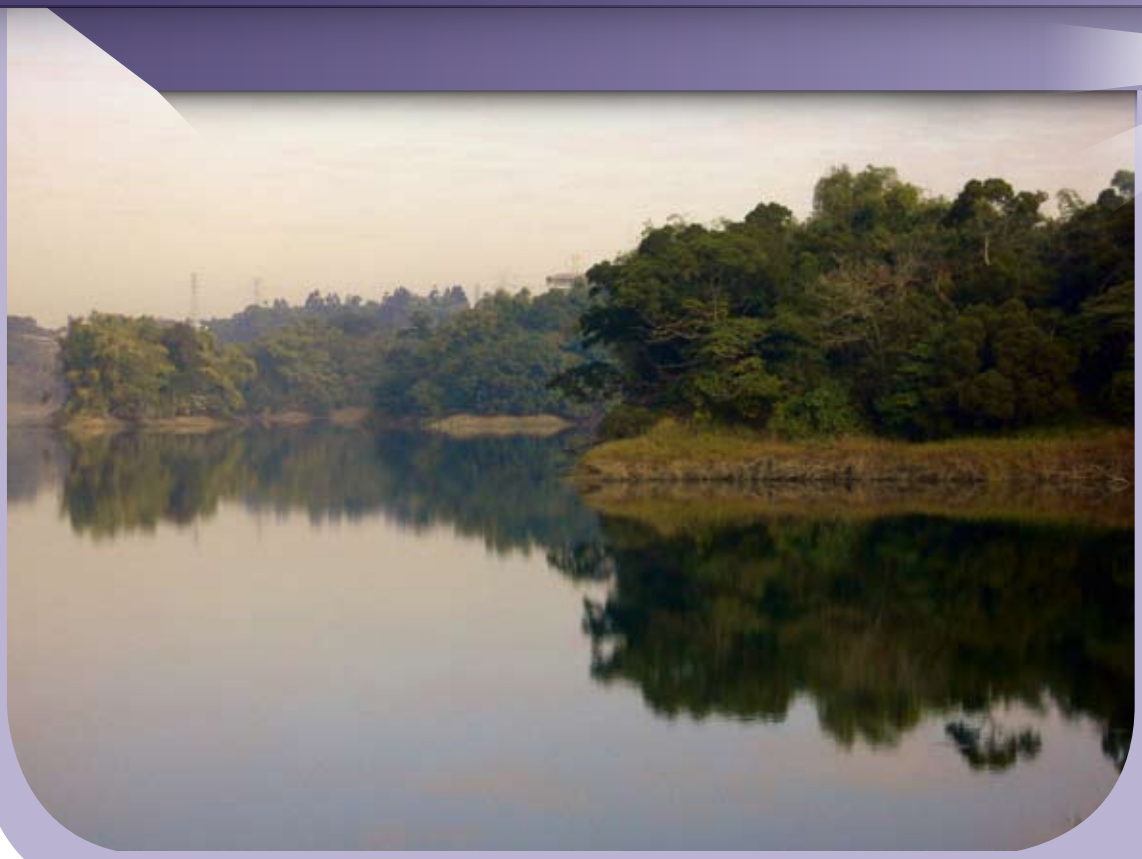
另有3項指標無96年資料，2項指標因基礎資料尚不完整，暫不納入綜合指數之計算。

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的趨勢發展。至於壓力部分，社會及經濟面向則呈現分歧的發展現象，反映出臺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。針對臺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。

政府每年公布永續發展指標及其現況數值，乃希望將這套指標系統以及背後的政策意義，轉化成政府具體的施政作為，但國家永續發展落實仍有賴全民的參與。藉由永續指標的發布，除了使政策主管機關定期檢討，也同時期待國民能共同來關心督促。

第四章

地方推動永續發展成果



蘭潭水庫。

4.1 嘉義縣 永遠的家，嘉義就是美，幸福就在「嘉」

期予居民永遠的美．幸福

「嘉義是我們永遠的家，嘉義就是美，幸福就在嘉。」嘉義就是美，意義在強調包括山林環境的美麗與河海環境的美麗。在經濟發展過程中能夠維持山海平原的美麗，就能確保整體施政方向是符合永續發展趨勢的。「幸福就在嘉」，意義在強調經濟發展、社會公平、關懷共生才會幸福。

嘉義縣推動永續發展計畫，自96年經由公眾參與過程建構永續發展組織、願景、目標、策略、行動計畫、指標評量系統等，已建立最基本的藍圖。經由多次工作小組會議的討論，永續發展委員會第一次委員會議於民國96年10月8日召開，會中並通過永續發展委員會設置要點、委員名單、永續發展願景、議題設定、各行動計畫與指標的局處歸屬等討論。

承諾永續發展　發布永續宣言

為落實永續發展觀念，97年10月5日召開永續宣言發表會對外說明研究成果及嘉義縣永續發展宣言，正式定調永續發展方向。

嘉義縣府承諾以下的永續發展宣言：

一、護水源、有效水資源開發及再利用

二、省能源、推動再生能源及節能減碳

三、保自然、捍衛自然資源及生態保育

四、活社區、活化社區並強化社區參與

五、顧安全、建構社會安全及治安網絡

六、拚觀光、發展在地特色的觀光產業

嘉義縣發布永續發展宣言。

永續發展宣言是縣府對縣民的承諾，更是嘉義縣永續發展的願景，縣府更宣示「好山好水好環境、產業升值好經濟、關懷共生好所在」作為嘉義縣永續發展的三大目標，並提出107項行動計畫，及72項指標做為考核依據。

嘉義縣表演藝術中心。

追求幸福經濟
讓「嘉」永遠存續

嘉義縣有好山好水環繞，為維持環境永續，不願大規模開發山坡地，破壞沿海的濕地與紅樹林。山林環境的永續，包括山林的保育與復育、生物多樣性的維持、未開發生態保護區域的維護、山坡地的保護等議題。維繫河海環境的美麗，則包括海岸生態的維護、紅樹林與溼地的保育、河川污染的防治、地層下陷控制等議題。

在推展經濟永續方面，嘉義縣正努力推動新農業運動：農漁業轉型、發展觀光、引入清潔能源產業，並爭取高價值產業的投資，促使產業升值；爭取科學園區、花園工業園區、或科技園區等較容易創造就業機會的產業進駐。

針對社會永續，對於老人、單親家庭、外籍配偶、原住民、偏遠地區等提供完整的教育與社會福利，減少社會落差，追求社會公平。社區網絡扮演社會議題相關重要的角色，透過社區活動的關懷讓民眾認同土地，彼此關懷共生，也才能成為幸福的所在。

『嘉義就是美，幸福就在嘉』不僅是對縣民的承諾，同樣更要讓這個「嘉」充滿幸福的感覺，因為美麗就是嘉義，嘉義就是美。而無論追求多少的幸福經濟，終究要讓這個「嘉」永續生存與生活下去。


姐妹潭。


東石漁人碼頭夕照。


阿里山神木。


梅園花海。

向日葵花田(雲林縣）。

4.2 雲林縣 農業首都 打造綠金文化新願景

雲林縣的發展甚早，早期北港為最繁榮地區，亦是產品出口港，近代因水利改良，成為重要甘蔗產地，製糖業為重要產業。並成為全國一級產業人口比重最高的縣份。

農業第一大縣 面臨轉型契機

但是隨著台灣整體經濟結構的改變，經濟重心逐漸由農業移轉到工業及商業、服務業等，一級產業在整個區域發展中的角色地位更形沒落，加上雲林縣原本即缺乏二、三級產業，在這種狀態下，更引發就業機會減少、人口外流、經濟惡化、生活設施建設緩慢等問題，以致區域地位淪為發展體系中的邊緣角色，也引發城鄉發展趨於停滯。

然而隨著時空的轉變，多年沈寂的雲林地區終於出現了再發展的契機。配合發展總目標，對於雲林縣未來之區域角色發展定位，永續發展計畫將之分成遠近兩期：近期之發展定位在於成為：台灣地區之農工發展重鎮。必須利用既有農業基礎加強精緻農業生產；配合相關的產業引入，成為臺灣地區基礎工業之重鎮以及高科技產業之新興地區。

長期則是成為：「亞太基礎工業中

心暨國際港灣城市」。在科技產業與貿易服務應配合未來趨勢，且藉由相關之港運優勢與產業條件，初步以大中國區域經濟為範疇，並經由重大基礎建設嘗試扮演著中間關鍵角色，在產業之水平與垂直分工上提升地位，進一步發展成為國際港灣城市。

富麗生態鄉城
國際農工商科技環境

在總體發展目標上，欲將雲林縣建設為構建交通、生活網絡，重塑富麗、生態鄉城，營造永續性國際化農工商科技發展環境。功能定位上，主要希望該縣能從在地豐富的人文氣息與悠閒的農村風情，進一步發展為發揮創意及地方特色之搖籃地，並提供區域性優質的休閒居住地。

針對雲林縣未來區域角色定位，並配合全縣之土地利用，在整體發展方向上，主要研擬以下七點：

一、加強城鄉行銷，重現雲林新形象

藉由城鄉行銷的推動，突破過往的格局，提昇本身的區域地位並強化競爭力，同時改造舊有形象，讓雲林縣成為農工商科技大縣。

二、產業結構的轉型與再造

因應台灣加入WTO後的衝擊，一級產業應朝向精緻化與高附加價值的經營型態，並加強產品運銷管道的流通：同時配合農地釋出，對於未來土地使用變更，更應妥善考量。二級產業方面，多項工業區設置計畫正進行中，可預見雲林縣將成為台灣地區的工業重鎮；隨著人口的成長，也將帶動三級產業的蓬勃發展。

三、區域新成長中心的建立

加強區域新成長中心的建立，包括斗六市、虎尾鎮、麥寮鄉及北港鎮等四個地區，分別依據其不同發展特性與條件，建立地區成長中心 。

斗六太平老街。

四、資訊立縣，永續發展

加速資訊網路工程的建構，推動各項相關工程，以奠定未來發展基礎；永續發展是每個都市必須有的認知，隨著各項重大建設的引進，雲林縣將可擺脫過去的貧窮，享受經濟成長所帶來的富裕與喜悅，然在經濟成長的背後，必須預先考量到對於環境可能的衝擊，因此，建構城鄉發展之成長管理系統是必要的，方能有效掌控環境品質，不致因過度發展而破壞環境的永續發展。

五、樹立民眾共同意識

藉由計畫之擬定與宣導，重建南投縣縣民之榮譽感與積極樂觀發展意識，使其對該縣未來發展具認同感與參與感，讓縣民有意願積極參與各項縣政建設，並共同為雲林未來發展努力打拚。

六、生活優先，重視環境

民生必需之基礎建設為優先考量推動對象，以提供給縣民一個便利舒適之生活環境；同時，環境品質的維護保育與經濟發展同樣是最重要之工作。

七、強化邁向國際化的基礎

配合現有基礎條件及未來發展定位，

台西夕照。

古坑綠色隧道。

擬定適當的國際化策略，推動雲林縣邁向國際化。

均衡城鄉發展
具全方位特色之縣市

未來，縣府將依據地方特有之自然地理環境、人文歷史脈絡與重要發展建設，彰顯雲林縣的地方特色，訂定近程：「環保和經濟共存共榮」，中程：「建立安全與健康的生活圈」，長程：「邁向桃花源政策」的環境永續及規劃策略，以期成為一個均衡城鄉發展，且具有全方位特色的地方縣市。

日月潭。

4.3 南投縣 美麗健康最中心，長住樂活新南投

921地震成發展分水嶺

南投縣長久以來一直是中台灣的後花園，之前因中央政府辦公處所疏遷到位於南投市北端的中興新村，都市建設一直平穩發展，直到廢省後才趨停滯，之後又遇上921大地震重創該縣，造成經濟環境萎縮及生活品質惡化，間接使人口大量外移。然而為重建家園，公部門積極投入災區重建、加強治安等措施，也為該縣的永續發展帶來正面影響。於是，921大地震成為該縣發展變革的分水嶺。

推動國際觀光　強化地方產業

近年來在李朝卿縣長的帶領下，提出以觀光發展為主軸及將南投縣打

東埔溫泉。

造為「國際健康花園城市」的施政目標，成果已漸展現，該縣的發展又步上新的里程。

除了推動國際觀光，縣府近期的發展重點與方向，尚包括加強國際農產品交流、爭取中部科學園區及精密機械園區、竹山埔里寬頻網路、4大鄉鎮下水道系統等設置，並希望發展集集鐵道沿線的觀光，用卡通火車頭、車廂，結合規劃水里至日月潭纜車，讓南投成為卡通新世界，帶動地方發展。此外，為提昇遊客對該縣的印象，陸續實施禁止使用生雞糞茶樹施肥、推動13鄉鎮環境清潔競賽及廁所評比等措施，成效斐然。

廣納各界意見　確立永續方向

永續發展是面向廣泛的理念，必須考慮地方的各種問題及既有條件，結合願景及各項觀光規劃，針對地方的特色量身打造。為了加強縣府相關人員對永續發展的認識，使其在施政作為上能體認到永續的重要，該縣為同仁舉辦「永續發展規劃共識營」，邀請專家學者主持，進行腦力激盪，協助各局室提出永續發展工作具體目標等。

同時，也為了廣納縣內社區、環保團體、社福與工商團體意見，促進各界相關參與者對話，先後辦理推動永續發展說明會及策略規劃座談會等，蒐集了大量針對該縣優缺點的各界意

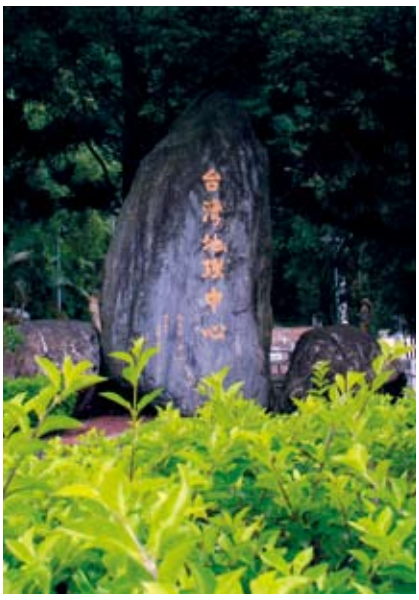
神木村。

埔里鯉魚潭。

見，對未來永續發展的推動預留清楚可循的方向。

以躍居台灣瑞士、蜜月縣自許

南投縣有豐富的景觀資源，縣境內公有土地高達八成以上，有豐富的林地面積及森林蓄積，城鄉景觀規劃的可塑性高，若能改善聯外交通網絡，將有機會發展成為國家級巨型公園。然而產業升級困難、地方財政短缺、農業人口的老化等問題，在在考驗施政者的智慧。



台灣地理中心。

隨著南投縣永續發展推動架構及運作機制的設置，各項永續發展指標的逐漸改善是可期的。據研究預估，在未來10年內，有機農業區面積比預估會提高10倍，河川未受污染長度將由247公里增長為360公里，而日月潭水質（CTSI）基於觀光需求，將力求保持在標準以內。整體而言，南投縣的永續發展推動已經起步，將會透過不斷的評量檢討與修正機制，朝「美麗健康最中心，長住樂活新南投」的總願景邁進。

第五章

97年度國家永續發展獎

民間永續發展推動績優單位—

楠溪樣區。

5.1 台灣生態學會 紮根生態教育 培養環境種子

台灣生態學會前身為1991年12月成立的台灣生態研究中心，十餘年來執行超過百項研究調查、社會告知、推廣教育、森林及環保運動。自1998年以來，已培育7期環境佈道師，培訓1500多名環境教育種子，並確認更普遍、更深入的長期教育是新世紀台灣之所需。

擴展成立宗旨 多面向提供生態資訊

2001年生態研究中心在靜宜大學開辦全國第一所結合價值哲學與生態學的「生態學研究所碩士班」；2003年度起，設置大學部「生態學系」，同時籌募基金於2003年10月建設「台灣生態暨人文資訊館」，為更積極進行社會服務，因而於2003年10月正式成立「台灣生態學會」。

台灣生態學會除擴展成立宗旨，從事多面向之社會關懷與教育工作，同時以出版季刊、通訊、電子報等管道，提供各界生態教育、

中華白海豚志工解說調查。

台灣百合 大肚山。（楊國楨攝）

研究、社會關懷的相關資訊。在環境教育方面，舉辦多屆環境教育人才、解說志工培訓與各種解說活動，累積培訓人數超過兩千人次。

環境議題朝向多元自許更廣闊與深化

如近年環境災難頻繁、環境議題更趨多元化、國際化，學會即以環境佈道師生態課程為基礎，針對各級學校教師及玉山國家公園解說員舉辦2007全國教師生態研習營，培訓更深入了解環境議題、更具有環境教育熱誠的生態解說師資。

群飛的黑面琵鷺。（陳秉亨攝）

在環境政策方面：學會除積極主辦各類型環境倡議行動，如2006與2007年環境苦行，亦參與國家重大開發案之環境影響評估與相關會議，為歷年環境NGO大會主辦單位之一，並協助95年國家永續發展會議之舉辦。

在生態研究方面：森林生態研究中心長期研究台灣中高海拔森林生態，以楠梓仙溪樣區為例，不只藉由多年的研究培養基礎研究人才，並將研究成果作為玉山國家公園保育工作之參考，多年來的成果，可說是社會有目共睹。

石墻社區的農特產品紅棗鮮果。

5.2 苗栗石墻社區 落實全民參與 發展地方經濟

位於苗栗縣公館鄉的石墻社區，典型的農村，98%居民為客家籍。當初先民為防禦蕃寇來襲，創築具狹隘性質的「石城」，石墻地名由此而來。

提升民眾自我成長 鼓勵全員多方參與

石墻社區發展協會在82年7月15日成立，15年來，致力落實推動維護社區總體營造工作，各團隊自我成長學習，積極研定規劃有效計畫，並考量社區民眾多元化的需求，全方位規劃讓社區民眾參與的各種可能。

在社會層面：藉著常態性居民座談，討論各項相關議題，如：社區人文、福利化、社區與小學合作電腦教學、社區環境、社區產業、社區總體營造人才培訓等全民參與議題；妥善運用社會資源的連結，促進社區老人生活、婦女、單親及外籍等福利，協助婦女專長再造及終身學習識字等，以落實福利化社區指標。

坐擁豐饒文化資產 開發農業觀光資源

此外，石墻社區擁有豐富的古蹟及產業文化，如：揆一樓（關帝廟）、石母祠、李家牌樓等及水圳文化、浣

衣文化、芋頭生產區及全國惟一的紅棗生產地等，將豐富的古蹟景點、地方農業、傳統特殊產業串連，規劃出極富深度的導覽圖，營造出最佳的農業觀光休閒資源。

在環境層面：透過環境自治、空間再造及社區綠美化為主要規劃，藉著有系統的規劃，引導社區居民自發性的參與，提昇社區優質生活環境，完成社區小型公園、停車場綠美化及街道植栽等工程。另外，多項先民開墾、生活的遺蹟，頗具地方歷史性，透過志工來認養維護，並利用社區文化調查，予以紀錄並裝訂成冊，分發社區民眾。

在經濟層面：社區保有許多地方文化技藝，如民俗稻草編織、手工藤椅、陶藝，並透過產業設計及推廣，達到內、外銷要求；同時辦理芋頭、紅棗風味餐及架設網站自我行銷，推動社區特色開發及產業的永續發展。

祈求小孩平安長大的石母祠。

李家牌樓。

揆一樓
社區的信仰中心。

社區數位學習。

友達光電企業。

5.3 友達光電 扮演綠色公民 創造曼妙生活

身為全球第三大的液晶面板設計、研發及製造公司，友達光電生產的系列產品涵蓋1.5吋至65吋的TFT-LCD面板，廣泛應用於各種領域，是全球少數供應大、中、小完整尺寸產品線之廠商。

倡導企業社會責任 落實溫室氣體減量

善盡企業社會責任，一直為友達光電所秉持的目標，因此長期致力於環境保護工作，期望能兼顧企業成長與生態保育；體認到確保員工安全健康為企業運作重要的一環，所以提供一切必要的資源來維護適切之工作環境。友達所有營運廠區皆已導入ISO 14001環境管理系統及OHSAS 18001職業衛生與安全管理系統，以持續改善為努力目標，並領先同業於2004年建置溫室氣體盤查制度，且通過ISO 14064-1第三者查證，成為TFT-LCD產業中第一個通過該認證的面板廠商；2008年提出「友達綠色承諾(AUO Green Solutions)」在創新研發、採購、製造、運輸、服務、回收處理以及員工親身參與等全方位的環保計畫，傑出表現多次獲得政府、業界及客戶的肯定。

實踐綠色承諾、創新生活、企業永續

長期以來，對內建立友達光電學院，定期提供專業領域的訓練，深耕同仁專業能力，並全面推行青山計畫，以協助員工在工作與生活間取得平衡，更秉持企業公民的精神，在維護社會文化、培養教育下一代等方面默默貢獻與付出，整合且發揮企業資源幫助社會，帶領縮小數位落差、鼓勵原創文化、關懷綠色大地等社會公益活動。

未來十年願景——「亮麗創新曼妙生活」：以創新、生活、環保為三大核心元素，引領公司的發展與成長，並創造更多商機及社會價值。而其中的「綠葉」亦即代表「友達綠色承諾」，除引領員工時時激發出亮麗的創新思考，為個人、社群及人類創造曼妙的生活型態，並落實綠色承諾、愛護地球。

西大墩窯。

植樹愛林活動。

友達快樂兒童週。

減碳小尖兵。

教學農園。

5.4 宜蘭利澤國中
向大自然學習　形塑人本教育

座落在蘭陽濱海沙丘上的宜蘭縣利澤國中，近年來，在全校師生共同努力下，不僅讓校園更多樣、生物組成更龐雜，也讓學生學習發展更多元，生活環境更妥適。

師生齊心投注 打造多元物種生態

在全體師生動員投入下，共同打造一座宛如天成的生態景觀池，透過多層次綠化，種植超過50種的本土植物，同時提供環境讓原生植物自然復育，校園裡可以找到不只百種的本土植物；多樣的環境，伴隨天候變化，不僅陶冶學生性情，達到環境教育的作用；龐雜的生物多樣性，也提供學生觀察學習的材料。

開闢農園，將農藝課納入學校正式課程；以廚餘、落葉製作堆肥，回收雨水、洗菜水作為澆灌水源，但不施用農藥，也不提供自動噴灑系統，一切都回歸最原始的栽種方式，老師教導學生：「得付出辛勞，才能有收穫」。將雨水、洗手水、及洗碗水等，加以回收，並經過人工濕地的淨化、貯存系統，造就一座台灣傳統的龍骨水車，以及一座西式的阿基米得抽水機，讓學生體驗如何將低處水引

自然復育的生態池一角。

牆角林蔭下整理成蕨類步道。

利用廢木頭進行藝術創作。

中水經過人工濕地淨化貯存，再經龍骨水車與阿基米得抽水機送至對岸農園澆灌。工業區大排水溝以絲瓜棚架覆蓋，兼具安全、美觀與實用。

至高處利用，以便澆灌他們的菜圃。

向大自然借鏡
身心健康、永續成長

學生利用廢木頭進行藝術創作；將工業區棧板回收利用，透過木工課製成孔明鎖、七巧板等益智玩具、書架等。將濱海公路拓寬擬欲剷除的大樹，師生總動員加以營救，並移植至操場邊，藉機將它設計成一系列的大樹教學活動。

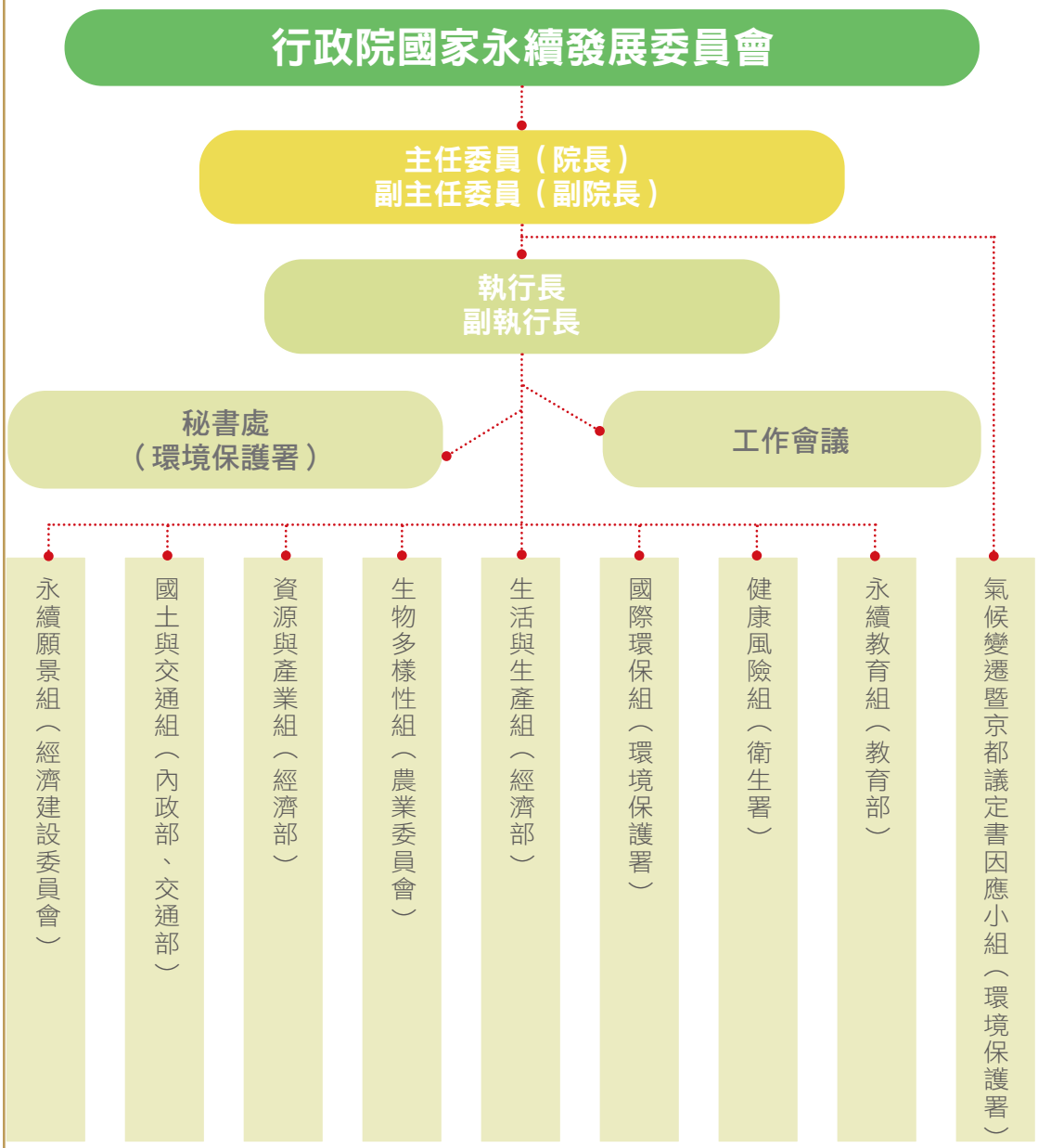
有別於都會學校，利澤的學生擁有多元發展的機會。資源班有學生在紐倫堡國際創意發明展中贏得銅牌獎；學校划船隊，出賽常得到校外冠軍；熱舞社經常參與演出及比賽獲得佳績。在受到充分關照的校園裡，兩年沒有中輟生、打架事件或惡意的公物破壞。這是全校師生努力的成果，「人」才是真正永續的關鍵。

附錄

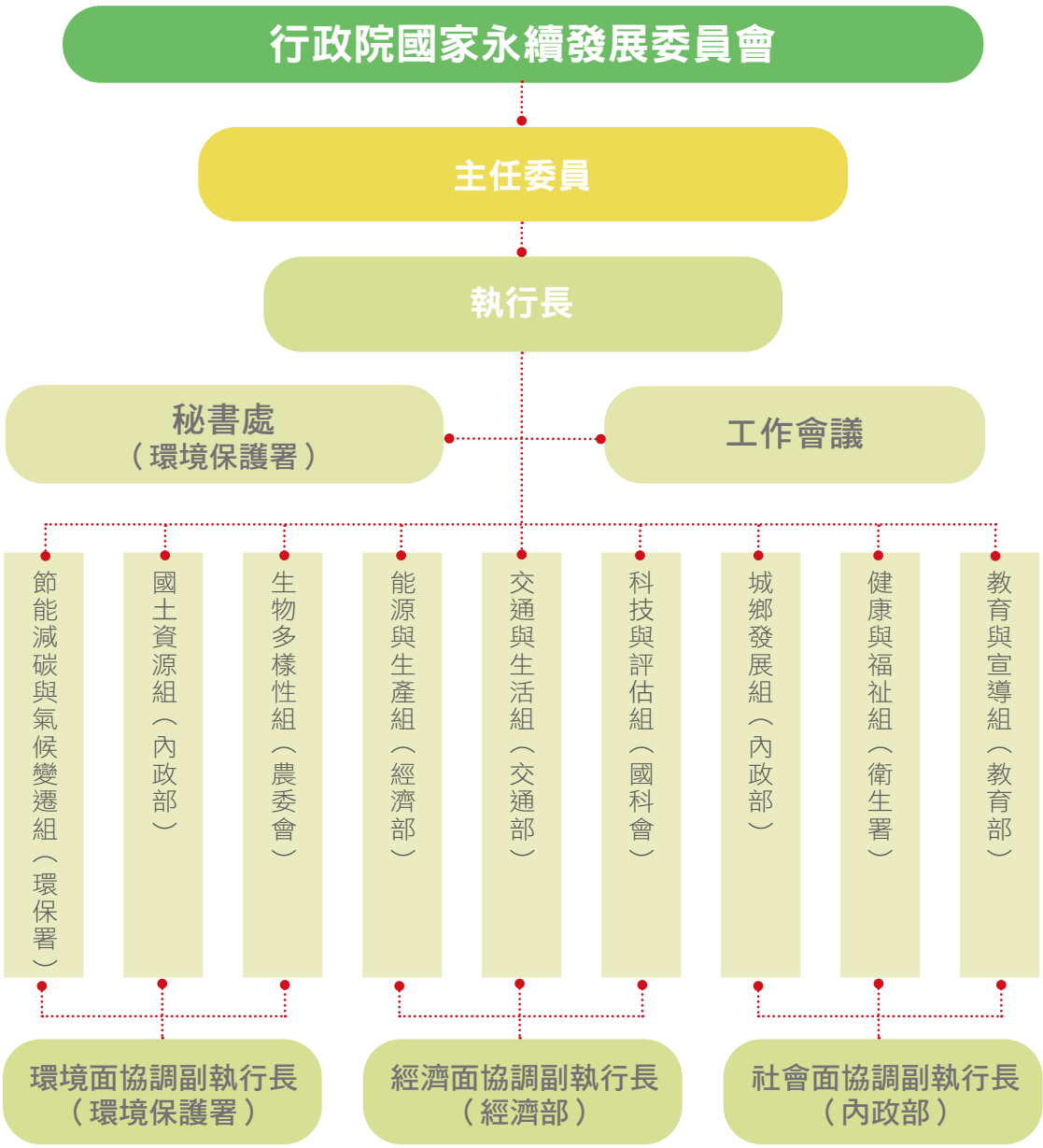
附錄一

行政院國家永續發展委員會組織圖

舊組織架構（～97年10月）



新組織架構（97年11月起）



附錄二

行政院國家永續發展委員會委員名單

政府官員

姓名	職稱	姓名	職稱
劉主任委員兆玄	行政院　院長	陳委員添枝	經濟建設委員會　主任委員
蔡委員兼執行長勳雄	行政院　政務委員	陳委員武雄	農委會　主任委員
廖委員了以	內政部　部長	李委員羅權	國科會　主任委員
鄭委員瑞城	教育部　部長	葉委員金川	衛生署　署長
尹委員啟銘	經濟部　部長	沈委員世宏	環保署　署長
毛委員治國	交通部　部長		

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
邵廣昭	中央研究院生物多樣性研究中心研究員
陸曉筠	國立中山大學海洋環境及工程學系　助理教授
張四立	國立台北大學自然資源與環境管理研究所　教授
張怡怡	台北醫學大學生化學科系教授
黃書禮	國立台北大學都市計劃研究所教授
蔣本基	國立台灣大學環境工程學研究所教授
蕭代基	中華經濟研究院　院長
蘇慧貞	成功大學環境醫學研究所教授兼所長
顧洋	國立台灣科技大學化學工程系研究所　教授

社會團體代表	
姓名	職稱
余範英	時報文教基金會　董事長
林正修	新台灣人文教基金會副執行長
林俊興	祐生研究基金會　董事長
林耀國	中華民國荒野保護協會理事長
吳玉琴	中華民國老人福利推動聯盟秘書長
周春娣	財團法人環保媽媽環境保護基金會　創辦人及董事長
周聖心	千里步道籌畫中心　執行長
陳士章	台灣原住民族人文關懷協會理事長
陳曼麗	台灣婦女團體全國聯合會理事長
黃茂雄	中華民國企業永續發展協會理事長

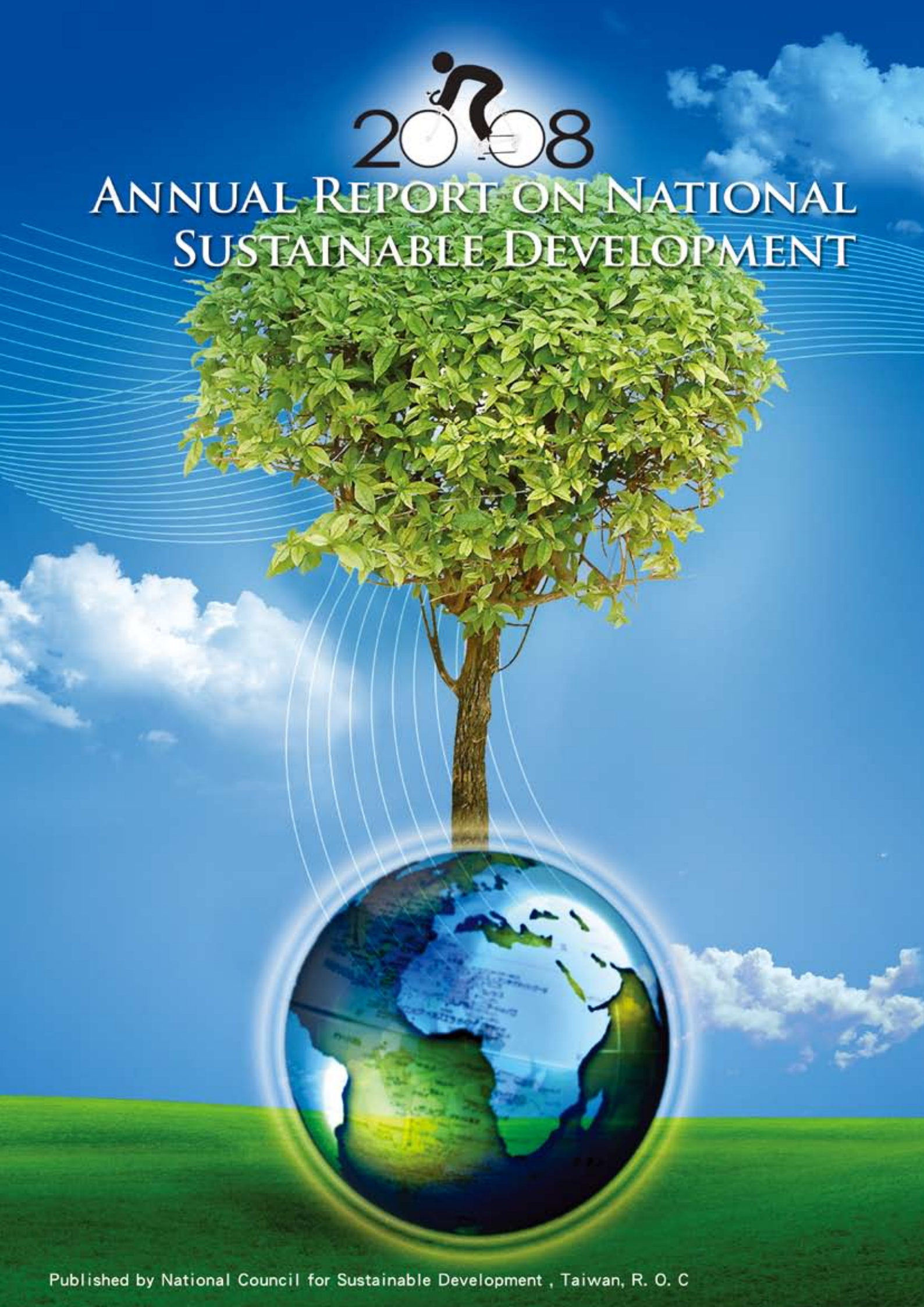
附錄三 永續會97年度大事紀

日期	單位	工作內容及成果
1月	健康風險組	鋼鐵業燒結工場戴奧辛管制及排放標準既存廠第二階段標準、固定污染源戴奧辛排放標準既存廠第二階段標準生效
1月1日	永續教育組	環保標章資訊網站即日起改版為綠色生活資訊網，至12月底上網人數超過265萬人次。
1月2日	健康風險組	修正發布「飲用水水質標準」增修管制內容：(1)修訂「鉛」最大限值(2)刪除「溴酸鹽」原適用範圍限制(3)增訂「亞氯酸鹽」管制項目最大限值 (4)增訂「戴奧辛」管制項目
1月10日	國際環保組	成立溫室氣體減量管理辦公室，同年8月18日擴編為「溫減管理室」藉以整合跨部會溫室氣體議題。
1月29日	資源與產業組	辦理第1次節能標章審議委員會，通過134款節能產品認證。
2月2日	國土與交通組	加入濕地科學家學會(SWS)為國家會員。
2月14日	永續教育組	函請各政府機關將相關政策性訓練課程，如永續發展、生物多樣性、消費者保護、性別主流化等納入年度訓練計畫辦理。
2月15日	生物多樣性組	完成原住民族傳統生物多樣性知識保護條例草案，函送立法院審議。
2月15日～21日	國際環保組	赴馬紹爾群島進行環境合作計畫評估考察，作為未來環境合作計畫規劃之依據。
2月20日	健康風險組	修正發布「有害事業廢棄物檢測及紀錄管理辦法」，增訂屬戴奧辛有害事業廢棄物之檢測項目。
3月3日	資源與產業組	出席亞太經濟合作會議 (APEC)第 35屆能源工作組會議。
3月7日	資源與產業組	召開我國白熾燈泡能源效率基準草案研訂座談會；完成公告「節能績效保證專案示範推廣補助要點」；第2次節能標章審議委員會，通過54款節能產品認證。
3月10日	生活與生產組	頒發「2007年綠色採購績優企業與團體獎」，計有富喬工業有限公司等61家民間企業及團體獲獎。
3月13日	生物多樣性組	完成國家植群分類系統，統一台灣地區植群圖分類系統之形相名稱。
3月25、28日	生物多樣性組	舉辦「飛吧，紫蝶！勇闖福爾摩沙！」全國記者會，英國BBC Asia Today新聞4月1日播出相關報導3次，日本NHK4月16日世界報導單元播出相關新聞2次。
3月26日	資源與產業組	發布「96年車輛油耗指南」。
3月27日	永續教育組	持續辦理「永續校園計畫」，公告今年獲補助學校名單，共計62校。
5月	健康風險組	辦理「我國成立財團法人國民營養基金會可行性之研究與建議」計畫。
5月9日	永續願景組	台灣永續發展指標檢討簽呈行政院長核定。

日期	單位	工作內容及成果
5月14日	資源與產業組	舉行第16屆台法工業合作會議，法方財經就業部企業總局Mr. Luc Rousseau局長率相關官員與會，就未來台法兩國之間在工業發展上合作之議題進行廣泛交流並尋求合作機會。
5月15～18日	生活與生產組	2008「新一代設計展」計有國內外107設計相關系校所參加 ，逾11萬人參觀。
6月	永續願景組	出版「新化圖幅」五萬分之一地質圖。
6月5日	永續願景組	發布「2007年台灣永續發展指標現況」。
6月5日	永續教育組	行政院通過「節能減碳無悔措施全民行動方案」，馬總統並響應簽署十大減碳宣言；各縣市環保局及綠色商店共同辦理綠色消費一起做與集標章換好禮活動，共計辦理37場次37,564人次參加。
6月14日	永續教育組	出席「第四屆亞太經濟合作會議（APEC）教育部長會議」，分享我國中小學校園落實環保教育及永續校園的成果。
6月25日	健康風險組	完成「台灣一般民眾暴露參數彙編」
7月起	生活與生產組	與4大連鎖便利商店合作推動「不主動提供免洗筷」，預計免洗筷可減少20%，每年可減少3,600萬雙。
7月-8月	永續願景組	舉辦2次「海洋部應具備的使命與任務座談會」。
7月2日	資源與產業組	舉辦「醫院、飯店、百貨集團自願性節能簽署活動」。
7月3日	健康風險組	組成跨部會小組共同制定「持久性有機污染物斯德哥爾摩公約國家實施計畫」
7月15日～8月6日	永續教育組	辦理「病媒防治業專技人員在職訓練」，計調訓500人，以加強病媒防治專技人員專業技能及施藥安全。
7月22-25日	資源與產業組	辦理「APEC工業廢棄物資源化技術暨管理研習班」，使國內外受訓人員深入瞭解資源化技術及未來發展趨勢，達到雙向交流經驗分享之目的。
7月24日	永續教育組	完成修正發布「病媒防治業管理辦法」
7月30日	國土與交通組	舉行「綠色運輸網站」建置完成開台記者會。
8月	健康風險組	「國民營養法」草案送衛生署法規委員會審議，委員會建議辦理「性別影響評估」。
8月5日	國土與交通組	舉辦「智慧型運輸系統－先進用路人資訊系統(ATIS)」研討會。
8月14日	健康風險組	環保署核定「高雄市鋼鐵業燒結工場戴奧辛管制及排放標準」，高雄市政府並於97年9月11日發布：排放標準自99年起加嚴為0.5 ng I-TEQ/Nm3。
8月21日～12月31日	健康風險組	完成毒性化學物質壬基酚聚乙氧基醇（NPEO）、氧化三丁錫（TBT）及鄰苯二甲酸酯類（PAEs）等疑似環境荷爾蒙商品之採樣及檢測，共計檢測35件，檢測結果均符合法令規定。
8月22日	永續教育組	辦理「永續公共工程與節能減碳研討會」，計566名學員參加。
8月27日	資源與產業組	舉辦「97年度集團企業成立節能服務團授旗大會」，國內 12大企業，成立集團內部「節約能源服務團」

日期	單位	工作內容及成果
8月29日	國土與交通組 生物多樣性組	完成「澎湖海域寒災後海洋生態及漁業資源調查」報告並對外發表。
9月	生活與生產組	在『97學年度全國技專校院總務主管會議』向各校主管宣導環保標章與節能減碳。
9月2日	生活與生產組	「2008綠色包裝設計評選活動」共有86 件作品參選，由環保署公開頒獎表揚10件優選作品。
9月4日	國土與交通組	行政院核定依據「永續能源政策綱領」提報之運輸部門「節能減碳行動方案」。
9月5日	健康風險組	衛生署結合衛生、農業、經濟等單位共同辦理「2008年持久性有機污染物研討會」
9月8-12日	生物多樣性組	參加國際植群學會（IAVS）於南非開普敦舉辦之2008年會，發表台灣植群圖計畫成果。
9月12日	資源與產業組	台灣玻璃(股)公司於彰濱工業區擴大太陽能投資，預計未來3年內增加投資新台幣20億元，預計可增加產值新台幣60億元。
9月12日	永續教育組	辦理97年度活化校園閒置空間總體計畫－能(資)源教育中心補助申請。
9月16日～ 10月15日	永續教育組	3家綠色商店業者辦理「綠色生活形象Logo票選活動」，計達6,134人參與票選活動。
10月	國土與交通組	完成「交通部推動自行車道系統政策芻議-願景、策略、實踐」
10月~11月	永續願景組	分別補助三大學舉辦「海洋事務管理機制與政策研討會、2008立足中台灣、航向新未來：海洋部應具備的使命與任務研討會、2008積極籌設海洋部應有之思維研討會」。
10月6日	資源與產業組	舉行第4屆台澳ICT產業合作會議，雙方針對汽車電子、RFID、電子展等議題進行合作。
10月7日	資源與產業組	舉辦「APEC太陽光電研討會」。
10月15日	國土與交通組	修正發布「都市更新建築容積獎勵辦法」，納入省能減碳、綠建築、智慧型建築、生態城市等項目，藉以改善都市環境品質。
10月21日	生活與生產組	花蓮環保科技園區正式啟用。
10月23日	生物多樣性組	舉辦「SWS(國際科學家學會)第一屆亞洲濕地大會」。
10月23、24日	國土與交通組	舉辦「2008年空間資訊基礎建設-國際研討會暨台灣地理資訊學會年會」
10月23~25日	國土與交通組	舉辦「濕地科學家學會(SWS)第一屆亞洲濕地大會」
10月24~27日	國土與交通組	辦理「出土(水)陶瓷保存修復國際交流研討會暨工作坊」
10月30日	永續教育組	與三區河川保育中心共同辦理「河川流域聯繫座談會議」，落實河川整體流域之維護及提升河川守護力。
10月30日	健康風險組	完成辦理查核240家之「自用加儲油設施」、「漁船加油站」及「定期監測紀錄申報審核結果異常加油站」之防止污染地下水設施及監測設備。

日期	單位	工作內容及成果
11月11日	國土與交通組	行政院核定「永續公共工程-節能減碳政策白皮書」
11月11、12日	健康風險組	辦理「97年度全國性公害糾紛處理工作檢討會」
11月13日	生物多樣性組	舉辦「第6屆台灣植群多樣性研討會」發表6年執行總成果。
11月13日	健康風險組	舉辦「環境中電磁波的量測方式國際研討會」，邀請國外專家蒞臨專題演講
11.16～17日	永續教育組	舉辦「生物多樣性推動方案工作嘉年華」。
11月19日	健康風險組	舉辦「從民眾如何參與國家實施計畫NIP到我國推動斯德哥爾摩公約成果」論壇，由環保署沈世宏署長主持，並邀請民間環保團體、專家學者與會
11月21日	健康風險組	輔導建立茶農及製茶廠合作制度，舉辦「2008台灣國際茶業博覽會」，設置「茶葉廠農合作優良茶品區」。
11月26日	永續教育組	召開二仁溪聯繫會報第11次會議，邀請地方環保團體及河川巡守志工共同參與，聽取地方民眾建言，有效推動二仁溪污染整治工作。
11月28日	生物多樣性組	公告劃設「雲林湖本八色鳥野生動物重要棲息環境」。
12月	永續願景組	出版「台東知本圖幅」及「嘉義圖幅」五萬分之一地質圖。
12月1日	國土與交通組	召開「98年度國家重要濕地生態環境調查及復育計畫申請補助須知說明會」
12月4日	永續願景組	召開「籌設海洋部跨部會協商會議」
12月5、6日	國土與交通組	辦理「2008水下考古國際研討會」
12月11日	永續教育組	完成旅館業環保標章規格標準公告作業，共計250家旅館業者參加，另擇定15家業者進行專案輔導。
12月12日	永續願景組	與屏東縣政府完成合辦「屏東縣地方永續發展白皮書」。
12月16日	永續教育組	各縣市環保局執行「民間企業與團體實施綠色採購計畫」年度成果，計輔導綠色商店1,551家，審查通過綠色商店816家，簽署綠色採購承諾書企業1,005家，宣導活動達234場次，逾31萬人次參加。
12月17日	永續願景組	完成「地方永續發展運作機制之規劃專案工作計畫」。
12月18日	健康風險組	已認證四家驗證機構，辦理有機農產品驗證，驗證合格農戶970戶，年產值達12.7億元。
12月18日	健康風險組	全國共計完成輔導建置33處稻米產銷專業區，計有26處專業區通過產銷履歷驗證，驗證人數約1,477人，驗證面積約2,400公頃。
12月21日	國土與交通組	辦理玉山、雪山山脈大縱走活動，走繪出台灣山林新地圖。
12月26日	永續願景組	海洋部組織法（草案）函請行政院審查。
12月31日	資源與產業組	完成11縣市（區）共2740公里地層下陷水準檢測作業。


2008
ANNUAL REPORT ON NATIONAL SUSTAINABLE DEVELOPMENT
Published by National Council for Sustainable Development , Taiwan, R. O. C

Contents

Preface 53

Chapter 1 National Sustainable Development Status and Achievements 54

1.1 Developments 54

1.2 Important Achievements - Selection of Ecotour Sites and Training for Local Management 57

1.3 Important Achievements - PV Installations at 2009 World Games Stadium 58

1.4 Important Achievements - Schools Achieving Sustainability in Four Dimensions 59

Chapter 2 Working Group Achievements 60

2.1 Sustainable Vision Working Group 60

2.2 National Land and Transportation Working Group 61

2.3 Resources and Industry Working Group 62

2.4 Biodiversity Working Group 63

2.5 Livelihood and Production Working Group 65

2.6 International Environmental Protection Working Group 67

2.7 Health Risks Working Group 68

2.8 Sustainable Education Working Group 70

Chapter 3 Sustainable Development Indicator 2007 72

Chapter 4 Leading Examples of Local Sustainable Development 77

4.1 Chiayi County - Providing Residents of Chiayi County a Home of Perpetual Beauty and Prosperity 77

4.2 Yunlin County - Agricultural Heartland Creates New Visions for a Green Economy and Culture 80

4.3 Nantou County - Beautiful and Healthy Heart of Taiwan 83

Chapter 5 Shining Models of Grassroots Sustainable Development 86

5.1 Taiwan Academy of Ecology 86
Cultivating Environmental Awareness from Ecological Education

5.2 Stonewall Community Development Association, Gongguan, Miaoli 87
Promoting Citizen Participation in Local Economic Development

5.3 AU Optronics Corp 88
Demonstrates Green Duties to Create A Green Living Environment

5.4 Lize Junior High School, Yilan County 90
Yilan County, Establishes Nature-bound Eco-Campus

Appendix 92

Appendix I Organizational Structure of NCSD 92

Appendix II The 12th Members of the Tenth Council of the NCSD 93

Appendix III Chronicle of NCSD Events in 2008 95

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.

This year's annual report compiles the significant achievements made by public, private and civil sectors toward sustainable development in 2008. Topics covered in this edition include National Sustainable Development Status and Achievements (Chapter 1); Working Group Achievements (Chapter 2); Sustainable Development Indicator 2007 (Chapter 3); Leading Examples of Local Sustainable Development (Chapter 4); and Shining Models of Grassroots Sustainable Development (Chapter 5). 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.

Chapter 1

Premier Liu Chao-shiuan speaks at National Sustainable Development Award Ceremony

National Sustainable Development Status and Achievements

1.1 Developments

1. NCSD Meetings

The National Council for Sustainable Development (NCSD) convened its 23rd, 24th, and 25th meetings on 21 February 2008, 11 April 2008, and 25 December 2008, respectively. These meetings were presided over by former CEO Shih Neng-jie and current CEO Tsai Tsun-hsiung. Among the reports and topics covered at these meetings included the legislative strategy and content of three new National Land Planning Acts, an evaluation of the Taiwan Sustainable Development Indicator System, the drafting of the Sustainable Development Policy Guidelines, and the planning and establishment of a Carbon Footprint Labeling system and the "Carbon Mark" for labeling low-carbon products. For a detailed report of all topics discussed at this meeting, please see the NCSD website: http://sta.epa.gov.tw/NSDN/CH/PRINT/MEETING.HTM.

2. Reorganization to Enhance Function of Working Groups

The NCSD finalized adjustments to its organizational structure on 11 November 2008. The main focus of revisions included: 1) the mission of the NCSD, 2) the vice premier need not serve as assistant executive officer of the NCSD, 3) the number of council members shall be from 24 to 30, 4) the deputy ministers of the Ministry of the Interior, the Ministry of Economic Affairs and the EPA shall serve as the assistant executive officers of the NCSD, 5) a Council meeting shall be held once every 4~6 months, 6) strengthened mission and function of the secretariat, and 7) strengthened functions of working groups, with the ministers of each related ministry serving as the conveners of each working group, which shall meet once every three months.

The new organizational structure of the NCSD has nine working groups with three groups under each of the three pillars of sustainable development as follows:

Environment:

- Energy Conservation, Carbon Reduction and Climate Change Working Group (EPA)
- National Land Resources Working Group (Ministry of the Interior)
- Biodiversity Working Group (Council of Agriculture)

Economy:

- Energy and Production Working Group (Ministry of Economic Affairs)
- Transportation and Living Working Group (Ministry of Transportation and Communications)
- Technology and Evaluation Working Group (National Science Council)

Society:

- Urban and Rural Development Working Group (Ministry of the Interior)
- Health and Welfare Working Group (Department of Health)
- Education and Outreach Working Group (Ministry of Education)

NCSD CEO Tsai Tsun-hsiung presides over NCSD meeting

3. Sustainable Development Indicator System Revised

The Taiwan Sustainable Development Indicator System has undergone review and revision as a result of decisions passed during the 25th NCSD meeting. UN sustainable development indicators have evolved over the years, with three different versions created in 1996, 2001, and 2007. Taiwan's current indicator system was established based on the first version in 1996. In the interest of staying on track with international trends and accurately reflecting the performance of important government policies and

sustainable development action plans, it was deemed necessary to carry out proactive planning and revisions to the framework of Taiwan's indicator system. The results of this revision process will serve as an important reference in setting the future course of sustainable development policy.

4. Revising the Sustainable Development Action Plans

The Sustainable Development Action Plans were finished in December 2002. These preliminary plans resulted in the drafting of 264 concrete plans. The Sustainable Development Action Plan has since been regularly revised with updated work plans every half year. In June 2006 the NCSD included items of consensus from the National Sustainable Development Meeting into the action plan. This resulted in major revisions and the plan still continues to undergo rolling revisions.

5. 2007 Taiwan Sustainable Development Indicator

The NCSD announced the 2007 Taiwan Sustainable Development Indicator on World Environment Day, 5 June 2008. Please see Chapter 3 for details.

6. 2008 National Sustainable Development Awards

The awarding ceremony for the 2008 National Sustainable Development Awards took place on 9 December 2008 at the Executive Yuan with awards personally granted by Premier Liu Chao-shiuan. The 14 award recipients included three communities, two companies, three schools, three civil organizations and three sustainable development action plan implementing agencies (please see Chapter 5 for an introduction to first place award recipients).

2008 National Sustainable Development Award recipients:

Award category	Recipient
Sustainable Community	Stonewall Community Development Association, Gongguan Township, Miaoli County (Rural)
	Li-Mei Community Development Association, Jiaosi Township, Yilan County (Rural)
	Pi-Yun Community Development Association, Hualien City, Hualien County (Urban)
Sustainable Enterprise	AUO Optronics Corp. (Large enterprise)
	Fortune Electric Co.,Ltd (Medium-sized enterprise)
Sustainable School	Lize Junior High School, Yilan County
	Shin-Shing Elementary School, Nantou County
	Chong-De Elementary School, Taipei County
Sustainable NGO	Taiwan Academy of Ecology
	Taiwan Environmental Information Association
	Niushiqi Rural Cultural Promoting Association, Nantou County
Sustainable Development Action Plan Implementing Agency	Kenting National Park Headquarters: Selection of ecotour sites and training for local management
	Public Works Bureau of Kaohsiung City Government: Photovoltaic installations at 2009 World Games Stadium
	Ministry of Education Environmental Protection Division: Schools achieving sustainability in four dimensions

1.2 Important Achievements

Selection of Ecotour Sites and Training for Local Management

The Kenting National Park Headquarters was established in 1984, and initial efforts to enforce strict regulations produced tense relations with local residents. Responding to this sentiment, comprehensive reviews were carried out in hopes of better accommodating the needs of the people and ameliorating the conflictive atmosphere. These efforts met with little success. In 2004, the headquarters began adopting the principles and spirit of the Executive Yuan's Ecotourism White Paper, selecting Sheding to become the park's first ecotour site. From 2005~2007, the headquarters engaged in cooperative efforts with academic institutions to promote community ecotourism with the goal of weaving ecotourism into the fabric of the community to form a cohesive, lasting partnership.

Efforts included: 1) Assisting establish Sheding's natural and cultural resources databank; 2) Organizing training programs that provide community residents with the skills to serve as guides, management personnel, and resource patrol monitoring; 3) Landscaping to reflect the unique cultural qualities of the community; 4) Assisting the promotion of ecotourism and encouraging the concerted efforts of diverse enterprises to provide comprehensive and integrated services; 5) Assisting media promotion, setting up a website, and coordinating with the "Visit National Parks" promotional drive.

Three years of hard work has produced the first volunteer community patrol—the Sheding patrol team. The team patrols and monitors the treasured biological resources of Sheding community; and also interacts with other communities within the park area, helping the people understand that a sustainable ecological environment is the only viable alternative for community development. Other communities in the area, such as Daguang, Shuichuan, Gangkou, and Puding have expressed their desire to receive assistance in becoming ecological communities. Progress is underway as Kenting National Park and local residents are working hand-in-hand to ensure a win-win situation for both public and private interests.

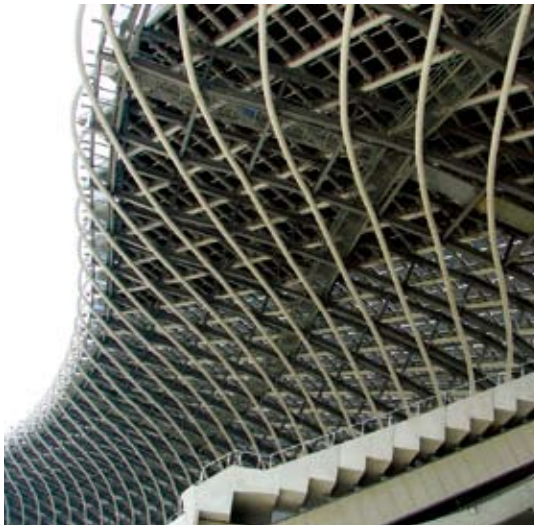
Village residents voluntarily lend a hand in giving their community a new look

1.3 Important Achievements
PV Installations at 2009 World Games Stadium

As the host of the 2009 World Games, Kaoshiung City required a venue that could accommodate for opening and closing ceremonies and competitive athletic events. A 40,000 seat stadium was constructed at the intersection of Zhong-hai Road and Jun-xiao Road in Zuoying District. The "2009 World Games Stadium" received class 1 athletics facility certification by the International Association of Athletics Federations (IAAF) and complies with the Federation of International Football Association (FIFA) standards that require an international quality athletic stadium with a 400 square meter track & field grounds. The stadium has the capacity to add 15,000 provisional seats to accommodate for major international events in the future.

The South's year-round sunshine was fully taken advantage of in the design of the venue by integrating a photovoltaic power system (completed August 2008) that taps one of nature's inexhaustible sources of green energy. A building-integrated photovoltaic (BIPV) system has been installed on the roof of the stadium. The system employed aircraft body design computer software to design the installation of 8800 photovoltaic panels on the structure's curved roof surface.

A concealed water spray cleaning system has also been seamlessly incorporated into the roof design to provide convenient cleaning and maintenance of the solar panels. Aside from the stadium roof being structurally designed to provide protection from the blazing, the photovoltaic power system can provide over 1.1 kilowatts of electricity annually, equating to a reduction of about 660 tonnes of CO_2. During competitive events it can provide 80% of the stadium facility's needs, and when there is no event the surplus electricity can be sold back to Taiwan Power Company. The stadium boasts the nation's largest scale solar power facility within a single architectural structure and is well astride with international environmental conservation trends.



Photovoltaic panels installed on the stadium roof

The stadium fully utilizes solar power equipped with state-of-the-art green technology that gives international guests a chance to experience a sustainable health and sports city. Competitors and spectators will be able to take a close up look at the photovoltaic panels and observe the modern technology that transforms the vital capacity of the sun into electrical power for human livelihood. This exposure will also publicize Taiwan's efforts to develop alternative energy resources and initiatives to reduce fossil fuel consumption and pollution.

1.4 Important Achievements
Schools Achieving Sustainability in Four Dimensions

The Taiwan Sustainable Campus Program (TSCP) is a part of the Executive Yuan's "Challenge 2008 National Development Plan." The Program emphasizes the application of sustainable development concepts on school campuses through the renovation of school buildings and space and facility operation reforms. The three core values of the Program are campus ecology, sustainable technology, and environmental management.

The Program focuses on improving teaching facilities and education to advance the sustainability of the school's overall educational environment. The Ministry of Education provides assistance for reforms in these four dimensions: resource and energy flow, site-based sustainable solutions, ecological cycling, and healthy buildings.

Five-kilowatt wind turbine at Yongkang Elementary School, Tainan County

School campuses function as models to encourage reforms throughout the greater community, encouraging participation by residents and garnering community consensus and a common identity. Part of this includes consolidating community awareness about unique regional qualities and environmental conditions to create closely integrated, model sustainable communities. Sustainable campuses also provide ecotourism sightseeing attractions and environmental education in the community. The Sustainable Campus program works to manifest integrated cross-ministerial efforts to promote building, environmental, and educational reforms. In addition, the Internet serves to integrate the community and promote exchanges of ideas among communities, promoting the sustainable development of the ecological environment, culture and education, and industrial economy.

Since the program's inception in 2002, schools in all counties and municipalities throughout the nation have received Sustainable Campus funding and assistance. Already 162 of Taiwan's 319 townships have schools under the Sustainable Campus program, and over 70% of schools receiving national sustainable development awards have been Sustainable Campus schools. The Sustainable Campus program is gradually gaining impetus in academic circles, and scholars from the U.S., Sweden, Japan, and China have made visits to Taiwan's sustainable campuses. More information can be found on this website: http://www.esdtaiwan.edu.tw/

Chapter 2

Working Group Achievements

208kWp PV System of I-Domian Industrial Co., Ltd. in Kaohsiung

2.1 Sustainable Vision Working Group

Promoting the Vision for Sustainable Development

The Sustainable Vision Working Group has been carrying out work in various areas in accordance with the Taiwan Agenda 21 – National Sustainable Development Vision and Strategic Guidelines since 2008. Through this plan, the working group actively assists local governments in compiling, promoting, evaluating and implementing their local Agenda 21 plans. All of Taiwan's 25 county and municipality governments had completed drawing up their local sustainable development plans in 2007. In 2008, operating mechanisms for local sustainable development were established through the "Plan to Draw Up Local Sustainable Development Operating Mechanisms." This led to the compilation of the Local Sustainable Development White Paper, which gives citizens a clear picture of the status and future objectives of sustainable development in each county and municipality.

Geological map of Jhihben, Taitung

Strengthening Sustainable Development Promotion Mechanisms

The Taiwan Sustainable Development Indicator System underwent evaluation in 2008 in order to make it adhere closer to international practices and make it more suited to Taiwan's particular environmental conditions. The NCSD issued the 2007 Taiwan Sustainable Development Index, which evaluates Taiwan's progress in promoting sustainable development, and complies with the UN request of each nation to establish indicators to evaluate their performance (please see Chapter 3)

Ongoing compilation of the Green GDP also provides a more complete picture of the current status of environmental sustainability. Meanwhile, the government continues to carry out wildlife and plant resource surveys and establish databases, both of which serve as a useful reference.

2.2 National Land and Transportation Working Group

Establishing a National Trail System and Promoting Leave No Trace

The following achievements have been made toward the establishment of a national trail system and promoting a Leave No Trace (LNT) movement:

1. A comprehensive foundation for trail infrastructure and outdoor environments was established including completed trail systems in 14 areas, blueprints for trail systems in 56 areas; and repair, maintenance, supervision and management of 120 kilometers of trail.
2. The scope of environmental education has been broadened and deepened through the publishing of the Taiwan National Trails; completion of eleven teacher training sessions for 200 people on the Leave No Trace concept; publishing of an advanced teacher training manual, and the expansion and updating of the national trail guide website, which has already received over two million visits.

Leave No Trace teacher training

3. Quality hiking environments have been created: two trail working-holiday events were held with 40 trail volunteers, drawing on public and private resources to help maintain quality hiking environments.
4. Creation of a Taiwan mountain forest map: A Yushan and Hsuehshan ridge hiking event resulted in the drafting of a new map of Taiwan's mountainous forests including recorded trail conditions and auxiliary trails, trailheads, intersections, distinguishing features, distances, scenic areas, plants, cultural, historical and ecological data. This

information can be used as a database for mountain activities in the future.

Society of Wetland Science Holds First Asia Wetlands Conference

In order to use wetlands wisely, the Construction and Planning Agency (CPA) selected 75 of Taiwan's most important wetlands in 2007 and joined the International Society of Wetland Science on 2 February 2008. The CPA held the SWS First Asia Wetland Conference from 23~26 October 2008, inviting eminent experts and scholars as well as UN officials to discuss wetlands in Asia and global interlinking of wetland issues. The forum discussed global wetland conservation issues and mutual exchange between domestic and foreign scholars and experts helped Taiwan's wetland conservation movement get on track with international trends. While Taiwan is not a signatory nation to the Wetland Convention, it strongly supports the convention rules and hopes to soon be admitted as a member to this convention. This would put Taiwan's important wetlands on the convention's management list and facilitate Taiwan's contributions toward international ecological conservation.

2.3 Resources and Industry Working Group

Guiding Industry on Water Inventories and Conservation

The Industrial Development Bureau, MOEA, has been assisting corporations with water conservation since 2003. In six years the IDB has counseled 433 businesses to achieve a cumulative savings of 27.47 million tonnes of water per year and roughly NT$320 million in water fees. This initiative has also brought about increased investment in environmental industries of NT$530 million and has saved a total of NT$680 million in terms of treating raw water sources. Apart from effectively conserving regional water resources and reducing factory costs, these measures have raised Taiwan's industrial water reuse rate from 46% in 2002 to 61% in 2008.

The amount of surplus water allocations to industry has also gone down by 316 million tonnes (17.9% decrease) from 2002 to 2008. Meanwhile, industrial use of water in the same period has increased 806 million tonnes (53.6% increase), attesting to the fact that the nation is reusing more water.

Photovoltaic Installations

The Bureau of Energy, MOEA, has provided 541 subsidies for photovoltaic installations from 2000 to 2008 (up to 19 December 2008).

1. In 2008, the Bureau received 117 applications for photovoltaic installation subsidies for a total power supply of 2,486 kWh. Of these, 112 applications have been approved (2,529 kWh), with contracts already signed for 102 cases (2,346 kWh), and installations completed for 141 cases (2,018 kWh), and subsidies remitted for 146 cases for a total of over NT$271.7 million.
2. The "Sunshine Campus" plan was carried out in coordination with the Ministry of Education's 2006 Elementary School Renovation Plan. A total of 40 subsidies were approved for photovoltaic systems with a total combined power output of 131 kWh. All systems have been installed and power output has actually reached 135.4 kWh.

3. Some of the subsidies for photovoltaic systems are integrated with the Council of Agriculture's 2007 subsidies for agricultural applications. So far (as of 19 December 2008) these include seven projects with power contracts totaling 53.56 kWh. With photovoltaic systems in these seven projects now completely installed, actual power output is 54.16 kWh and NT$3.72 million has already been remitted to five of the projects.
4. Sunlight City projects: These two photovoltaic projects are slated for completion by June 2009
5. The Council for Hakka Affairs, Executive Yuan has completed a project featuring solar panels installed on three gazebos at the Liudui Hakka Cultural Park for a total power output of 75 kWh.
6. Remote island emergency disaster prevention plans were submitted from 2005 to 2006 with 98 projects approved for a total capacity of 506 kWh. Contracts have been signed for 83 of these projects with a power output of 433 kWh. Seventy of these projects have been completed (378 kWh) and NT$128.4 billion has been remitted to 65 projects.

Solar Hot Water System Subsidies

The Bureau of Energy, MOEA, subsidizes the installation of solar hot water systems, providing NT$1,500 per square meter for projects on the island of Taiwan and NT$3,000 per square meter for projects on outlying islands. A total of 22,389 projects were completed in 2008 for a total surface area of 120,000 square meters, with a total economic value of NT$1.3 billion. The cumulative total surface area of all subsidized solar water heater systems in Taiwan is now up to 1.77 million square meters serving about 430,000 households, accounting for 4.84% of all households in the nation. The energy saved by these installations each year is equivalent to 4.5 million 20-kilogram tanks of LPG fuel, meaning a reduction of 300,000 tonnes of carbon dioxide. Taiwan has the world's third largest solar water heater installation density, just behind Israel and Cyprus.

2.4 Biodiversity Working Group

Indigenous and Traditional Knowledge on Protecting Biodiversity to Enter Legislation

The Council of Indigenous Peoples completed the drafting of regulations to include indigenous and traditional knowledge on protecting biodiversity. A meeting on biology was held inviting expert surveyors

International Biodiversity Day event

Djulis Name Correcting Ceremony

2008 International Symposium on Biodiversity Research in Taiwan

from each tribe to report and discuss the content of the draft regulation. The Executive Yuan sent the draft to the Legislative Yuan for review. The preliminary review was held on 14 April 2008. A biological database was updated and entered into the Academia Sinica TaiBIF (Taiwan Biodiversity Information Facility) system to facilitate interlinking and searching for information. All data was inventoried and revised on 15 October 2008. This resulted in the completion of biological data from 13 tribes and field surveys from the Sediq Nation.

Taiwan Flora Map Research Results Announced

A national flora species system was complete to create a unified mapping system for plant species in Taiwan. The following are just some of the results of events in 2008 to promote domestic biodiversity:

1. The "National Science Council Biodiversity Action Plan Promotion Working Group and Ministerial Coordination Meeting" was held in January 2008, during which principles on the database framework of biodiversity hotspots and monitoring areas were decided.
2. The biodiversity action plan committee and ministerial coordination meeting discussed the establishment of a data management system for biodiversity monitoring information.
3. International Biodiversity Day events were jointly held with the Society of Wildlife and Nature.
4. The 2008 Global High Mountain Biodiversity International Forum was held

"One Plant Per Day" biodiversity festivities

Held the Sixth Taiwan Plant Diversity Forum and issued six years of results

Biodiversity 911 Tour Exhibition

5. A workshop on biodiversity promotion plans was held as a cross-administration event between county and city governments
6. The Forestry Bureau, COA, coordinated nine ministries and twenty organizations to hold the "One Plant Per Day" biodiversity festivities. This entailed compiling the results of biodiversity work from 22 government agencies, which were displayed on 16 November 2008.

In terms of international participation, the Forestry Bureau, Council of Agriculture sent a delegation of representatives to the Czech Republic on 1~5 May 2008 to participate and issue reports in a european plant research forum. Another delegation attended the 2008 meeting of the International Association of Vegetation Science in Cape Town, South Africa from 8~12 September 2008, during which it reported on the plans to map vegetation in Taiwan. Then on 13 November 2008, the NCSD held the Sixth Taiwan Vegetation Diversity Forum to report the results of six years of work.

Penghu Marine Ecology and Fisheries Resources Survey

The Fisheries Agency, COA, convened the "Penghu Marine Ecology and Fisheries Resources Nature Restoration Survey Working Group" on 29 February 2008, which set up six comprehensive surveys in the Penghu region regarding ecological effects of the cold weather events. The conclusions were compiled in the "Penghu Maritime Cold Front Effects on Maritime Ecology and Fisheries Resources Survey" issued on 29 August 2008. A series of five "Aquaculture Classroom" events were held to raise awareness of fisheries resources.

2.5 Livelihood and Production Working Group

Awards Granted to Green Buildings in the Private Sector

The government grants awards to initiatives in the private sector to create model green buildings, first providing professional consulting through commissioned projects to assist people in designing and improving buildings. Among the twelve organizations selected to receive awards for green building designs in 2008 included Shih Chien University, Chung Yuan University, De Lin Institute of Technology, China Medical University, Tung Fang Institute of Technology, and Taiwan Land Bank.

Shih Chien University green roof project to provide better insulation from outdoor heat

Second Hand Market Promotion Plan

Three model second markets were selected in 2008 as part of a plan to provide assistance in the planning and developing of their business based on unique market themes. The three markets were the Taipei City Yongchun Second Hand Market in the north adopting the theme of urban recreation; the Taichung Environmental Market in central Taiwan, highlighted as a second hand market for international tourists; and the Jiasian Yusun Market in the south, promoted as a creative second hand market for tourists.

Assistance for these projects is still ongoing and includes the printing of second hand market promotional material, a code of conduct for selling second hand goods, personnel training for second hand markets, second hand market demonstration workshops, a press conference and exhibit of achievements with 2,000 participants, two theme-based sale events with 4,400 participants, as well as written, television and other promotional media.

Yongchun Second Hand Market bustling with shoppers

Environmental Science and Technology Parks

Foundations of the Environmental Science and Technology Park (ESTP) plan are successively being established and already 70 companies have set up operations. Recruitment results are starting to show and industrial ecological links are gradually starting to form. Current statistics show that the companies already set up in ESTPs cover an area of 43 hectares, with investment of NT$14.6 billion, and an estimated annual return of NT$33.3 billion. These companies will reuse 2.41 million tonnes of resources annually. This operations will not only help solve Taiwan's environmental problems and advance environmental technology, but will also become models for other industrial parks to work up to, leading to ecological trends in all industrial parks.

Tainan Environmental Science and Technology Park

2.6 International Environmental Protection Working Group

2007 Taiwan- Pacific Allies Environmental Ministerial Meeting : Consensus Team Evaluates Feasibility of Environmental Cooperation

Environmental ministers from Taiwan and six of its allies in the Pacific region met in Palau for a summit meeting in September 2006, resulting in the signing of the Palau Declaration. Making good on its declaration pledges, the EPA convened the 2007 Taiwan-Pacific Allies Environmental Ministerial Meeting in July 2007 with 13 representatives from 5 ally nations. This meeting resulted in a consensus on the direction of future environmental cooperation and ally nations proposed a draft environmental cooperation plan. In order to assess the feasibility of future environmental cooperation, the EPA formed four environmental cooperation evaluation teams of three people each to visit allies in

Taiwan evaluation team visits with Marshall Islands Environmental Protection Authority

Palau (September 2008), Marshall Islands (February 2009), Solomon Islands and Nauru (March 2009), and Tuvalu and Kiribati (May 2009). These teams will evaluate each nation's current state of the environment and related infrastructure to evaluate the feasibility of cooperation in areas appropriate to each nation's needs.

Waste Management : Regional Cooperation Prioritized

Evaluation results show that apart from Palau, the other five allies' waste management and related capacity building problems are in dire need of solutions and should be made top priority. The EPA convened the Taiwan-Pacific Allies Environmental Cooperation Evaluation and Recommendation Forum on 29 May 2008, inviting related authorities, scholars and experts to recommend cooperation plans for regional educational training, environmental monitoring and climate change adjustments. These recommendations will serve as the planning reference for future promotion of Taiwan environmental cooperation and assistance in the Southern Pacific region.

2.7 Health Risks Working Group

Health Risk Monitoring and Management

1. Four ministries together drafted the Stockholm Convention on Persistent Organic Pollutants National Implementation Plan for the Executive Yuan. This included active participation in conferences of parties to the convention from 2005 to 2008, the

Review committee meeting on persistent organic pollutants (POPs)

River water quality monitoring and sampling

convening of review committee meetings, and the hosting of the 2008 POPs Forum.

2. Monitoring of river water quality in 57 river environments (318 water quality monitoring stations), regular sampling and testing, establishment of nationwide long-term water quality monitoring data for river environments and public disclosure of monitoring data.
3. Inspections for soil and groundwater pollution at old gas stations and factories with large storage tanks have been carried out in batches since 2002. Already 1,791 gas stations have been inspected.
4. Detailed inspections have been carried out at farmland suspected of heavy metal contamination, finding 491.96 hectares of farmland with pollution in excess of soil pollution control standards. A total of 2,011 parcels of land have been listed as pollution control sites.
5. Computer calculations have been updated on health risk assessment simulation system set up in 2006 (http://sgw.epa.gov.tw/HRisk/).

Promoting Healthy and Sustainable Agriculture

1. Assistance to organic farm products, already accredited four accreditation organizations and handled organic product certification. Already 970 farmers have been certified for a total area of 2,326 hectares and representing annual value of NT$1.27 billion.
2. The Council of Agriculture has established an agricultural product history information platform, announced designated agricultural products based on the Taiwan Good Agricultural Practices (TGAP) system, and accredited farm product history accreditation organizations. The COA has assisted 22 producers to obtain organic grain accreditation for 345.6 hectares, and has also provided guidance to 501 grain growers on 4,430.5 hectares, 299 livestock farmers, and 157 aquaculture farms.
3. Guidance was provided on setting up cooperation between farmers and factories in the tea industry, including safe use of pesticides and a cooperative prevention mechanism, as well as strengthened safety controls for tea production. Cooperative production models have been established in the industry to produce high quality safe tea. In 2008, a total of 127 tea producers participated in this scheme, representing

Chicken products labeled to show history of production

1,066 workers and 1,577 hectares of tea farms.

4. Assistance was provided to farmers to expand the use of five kinds of non-pesticide practices, and to establish three kinds of integrated prevention technology. Research and development was conducted on three kinds of biopesticides and mass production processes.

Localized Health Risk Assessment Database Established

1. A national exposure assessment database was established based on similar frameworks used in the US and Japan. Completed the "Compilation of Exposure Factors of the Average Person in Taiwan."
2. The "Study on Health Status of Residents Near Dense Installations of Mobile Phone Base Stations" was held. Research conclusions showed no findings of ample evidence showing that residents near dense installations of base stations have higher risk of cancer. This finding is consistent with WHO report conclusions.
3. The "Non-ionizing Radiation Health Risk Communication Plan" gathered related data from other countries, and facilitated community health risk communication work.

Legislation of National Nutrition Act Underway

Held forums and related meetings on the Taiwan Citizen Nutrition Policy, and integrated government agencies, scholars, experts and civil organizations to create a concrete plan and recommend information to facilitate the legislation of this act.

2.8 Sustainable Education Working Group

Ministry of Education subsidized university students to assist with promoting Sustainable Campus plans (Tainan National University of the Arts)

Sustainable Education Promotion Center

1. In 2008 the Ministry of Education assisted in holding an environmental education promotion plan with activities promoting biodiversity education and sustainable development education. In March 2008, a public solicited applications and announced the granting of 32 subsidies in May. As of 30 September 2008, a total of 19 projects were held to promote environmental issues, including biodiversity education and sustainable development education. Eighteen of the projects were carried out by colleges and civil organizations on the topic of biodiversity education.
2. Ten schools were subsidized in 2007, and 32

school were subsidized in 2008 to renovate campus space and create Energy Education Centers and environmental education learning spaces.

3. Since the beginning of the Sustainable Campus plan in June 2002 to 2007, subsidies have been granted to 618 schools and 148 of Taiwan's 319 townships have established sustainable campus bases.
4. Subsidies have been granted to colleges to assist in promoting sustainable campus projects including improvement and management of campus environments. Schools are encouraged to cooperate and share education and learning resources.
5. A total of 311 projects in 388 communities have been approved. The projects feature environmental renovations and developing unique local qualities.

Green Procurement

In 2008, environmental product online procurement website received 292,516 visits and sold over NT$2.34 million of goods. In 2008, the Green Living Information Website received 2.65 million visits. On 11 December 2008, the hotel green mark specification standards were announced and eight briefings were held with the participation of 250 hotels. Fifteen hotels were selected to receive guidance.

In 2008, the Environmental Protection Bureaus of all counties and cities displayed the results of the "Private Corporation and Organization Green Procurement Plan," which provided guidance to 1,551 companies on becoming "Green Stores." A total of 816 Green Stores were approved and 1005 companies signed a green procurement pledge. Related events were held on 234 occasions with over 310,000 participants.

A bicycle gathering in Chiayi County

Energy Conservation and Carbon Reduction Policy

The NCSD promoted the Sustainable Campus Reform Plan.The Ministry of Education and all of its colleagues put their signatures on a "Energy Conservation and Carbon Reduction: Ten No Regrets Measures." Starting from 2008, an electricity use consulting team will be visiting schools to monitor electricity use. A greenhouse gas inventory and guidance plan will be conducted at 30 national colleges to establish reduction baseline data and a platform for energy conservation and carbon reduction measures on campus. The "Energy Conservation and Carbon Reduction No Regrets Measures for Civil Action" plan was drafted, convening meetings to draw on suggestions from all fields. This included the "Energy Conservation and Carbon Reduction Civil Action Network" which has collected signatures from people declaring their pledge to curb their carbon emissions by one kilogram per day.

Sustainable Development Indicator 2007

Taiwan's sustainable development indicator system was developed by the Sustainability Indicator System Cross-Ministerial Working Group, which was convened by the Council for Economic Planning and Development, Executive Yuan (CEPD). This Working Group selected the most meaningful and representative indicators of sustainable development, and announced the first results of their new system on Environment Day, 5 June 2003. The scores are used to evaluate and reflect on Taiwan's overall effort in promoting sustainable development. The Research, Development and Evaluation Commission, Executive Yuan, has taken responsibility for computing and updating the Sustainable Development Indicator (SDI) since 2005, annually providing the latest status of sustainable development in Taiwan. This report marks the sixth SDI, which is published annually to provide a clear picture of the trends and changes in Taiwan's sustainable development. This not only helps the government in policy-making but also helps the international community understand Taiwan's efforts in promoting sustainable development.

1 Ecological resources

Composite index scores for ecological resources have exhibited a continual downward trend from 1988 to 2007. Generally speaking, the status of ecological resources in Taiwan has deviated away from sustainability in recent years. Looking at data in 2007, aside from positive indicator scores in the category of 'undamaged forest areas," all other indicator values are lower than in 2006. Nonetheless, the composite index score is higher in 2007 than 2006 (see Figure 1), showing a step in the direction of sustainability.

2 Environmental pollution

From 1988 to 2007, index scores have fluctuated above and below the 100 mark, dropping to its lowest score in 2004 and showing an annual increase

Figure 1. State of the ecology composite index trend

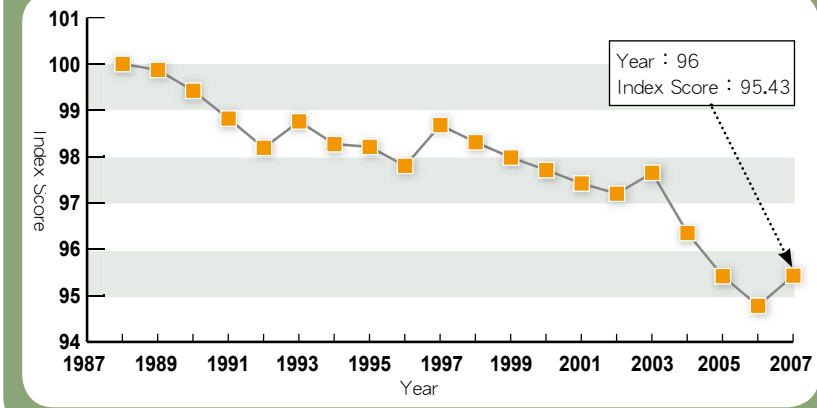


Figure 2.
Environmental quality composite index trend

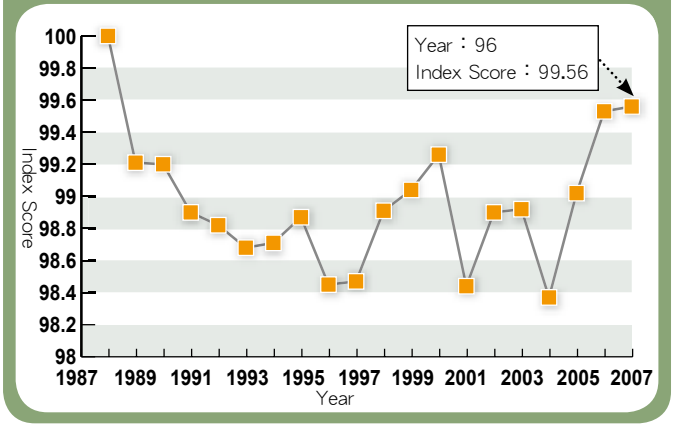
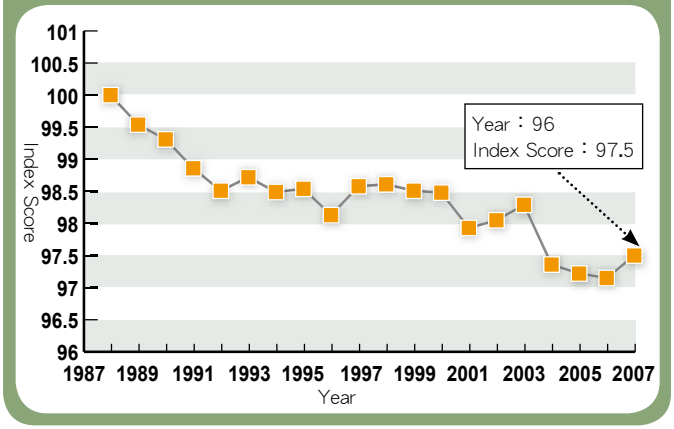


Figure 3.
Ecology and environment composite index trend

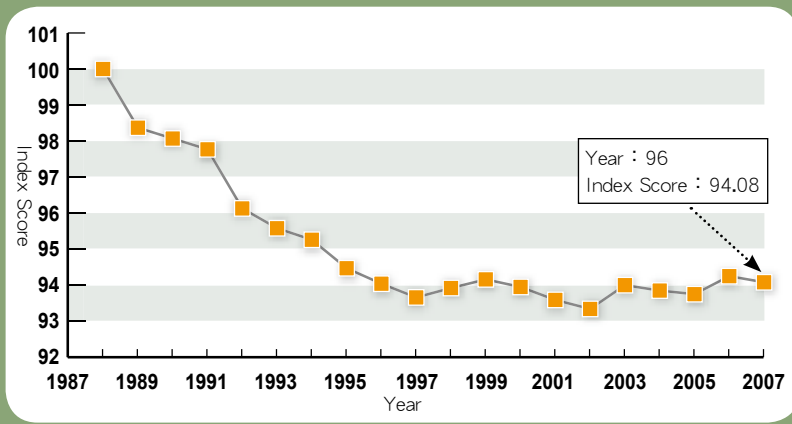


from the years 2005 to 2007. The 2007 index score of 99.56 is the best yet since the base year of 1988 (see Figure 2). These signs show environmental quality to be taking an overall turn for the better. Looking at trends in each indicator, resource recycling is showing a steadily improving trend, up 9% in 2007. The carbon dioxide emissions indicator has steadily fallen over the years, dropping by more than 15% in 2007. This means Taiwan's carbon dioxide emissions are still not under effective control. As for PSI (pollution standards index) average values have slowly increased but generally speaking have not changed greatly.

3 Social pressure

From 1988 to 1997, social pressure index scores have shown a departure from sustainability, however from 1998 to 2007 index scores have fluctuated around 94. In terms of individual indicators, daily per capita garbage volumes have slowly increased since 2003. Betel nut plantation area has gradually decreased since 1999, indicators of public health including death rate due to cancer and contagious disease infection rate have increased, and public nuisance complaints have gone up. Household income five-point reached their highest in 2001 and have since gradually decreased(see Figure 4).

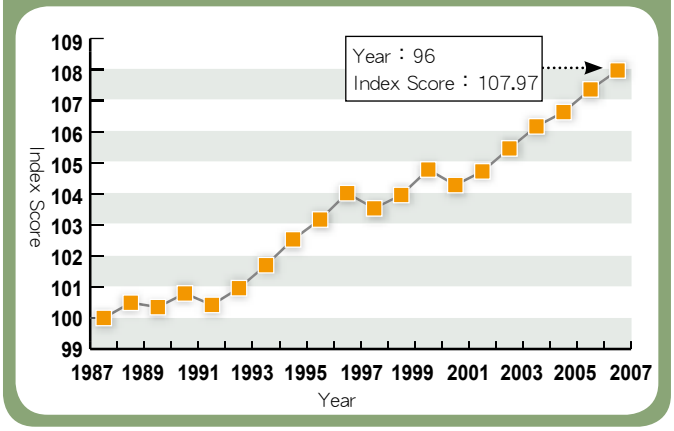
Figure 4. Social pressure composite index trend



4 Economic pressure

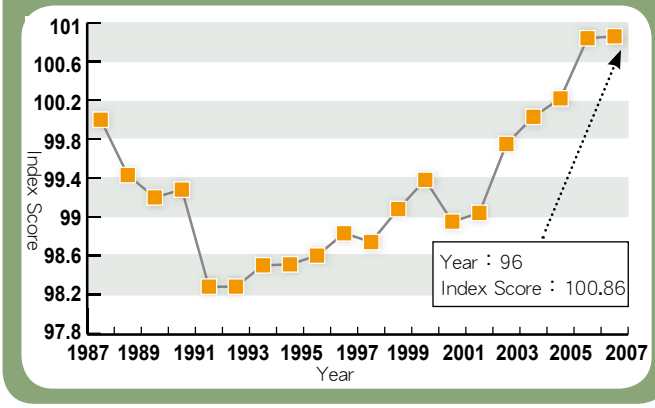
The ratio of pesticide consumption to agricultural production has continually increased, causing negative environmental impact. Industrial use of water continues to increase over the years along with increasing productivity of manufacture labor. Technological development has allowed increasingly universal use of computers and the Internet. Overall, economic pressure

Figure 5.
Economic pressure composite index trend



composite index scores are moving in the direction of sustainability (see Figure 5).

Figure 6.
Social and economic pressure composite index trend

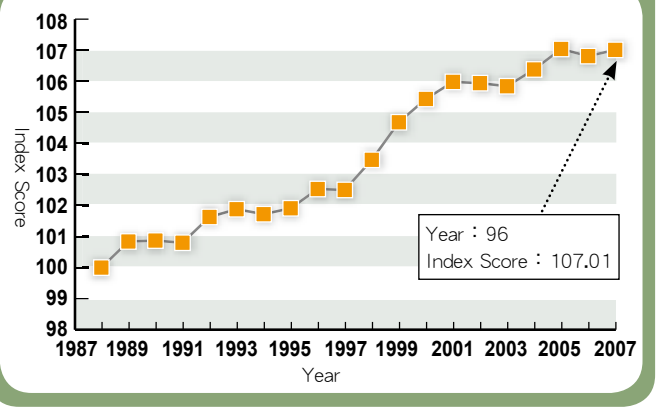


5 Institutional response

Since 1991, overall institutional response has shown a gradual improvement, showing steps toward sustainability. 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 increasing its emphasis on environmental issues by implementing regulations and systems that encourage government, corporate and civil sector concern for environmental issues. Planning and execution of related policies is having a positive effect on sustainable development (see Figure 7).

Institutional response indicators for 2007 show a decrease in government-initiated provision of resources, however assistance toward promoting sustainability have nonetheless increased slightly in 2007. Policy implementation has increased 2~3% over the last three years while indicators of citizens putting sustainable development concepts into practice have fluctuated. Overall, there is still room for improvement for both government response and citizen action.

Figure 7.
Institutional response composite index trend

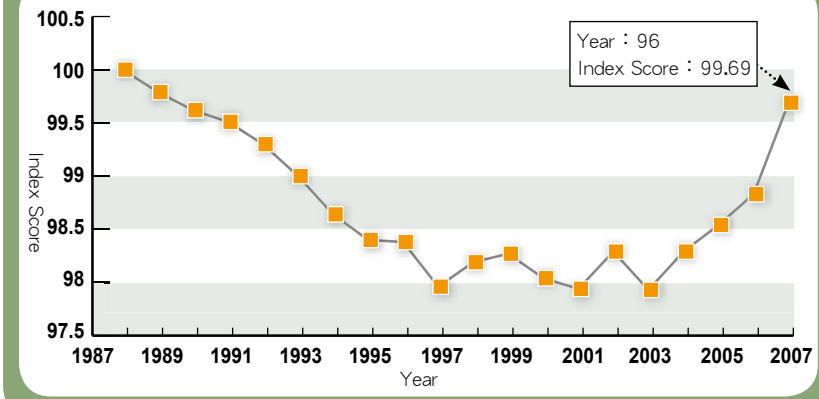


6 Urban sustainable development

Overall trends show urban sustainability composite index scores on a rising trend toward sustainability (see Figure 8). In terms of individual indicators, increasing “urban average per

capita income" is the most noticeable. Number of passengers using mass transportation and per person area of urban park and green space are both increasing. However, increasing car ownership shows a deviation from sustainability and one of the more unfavorable marks against urban sustainable development. While number of passengers using mass transportation is increasing, there is still room for improvement in terms of people's reliance on private transportation

Figure 8. Urban development composite index trend



Sustainable development depends on citizen participation

A comparison of 41 categories published in the Taiwan Sustainable Development Index in the years 2005 and 2006 shows progress toward sustainable development in 21 indicators, and deviation from sustainable development in 15 indicators. 2007 data is not ready for three indicators and data retrieval mechanisms have not yet been completed for two indicators showing areas prone to disaster and poor air quality in cities. These categories have therefore been excluded from this year's report.

A composite analysis of the state, pressure and response domains shows that the state of the ecology and environment has experienced an overall departure 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 gradual 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 government annually publishes the SDI and indicator scores in hopes that this system and its supporting policies will lead to real changes in government administration. However, the sustainable development of a nation relies on the participation of all citizens. The purpose of the SDI is to encourage ongoing reflection by policymakers and competent authorities, as well as encourage citizens to extend concern and supervision of related policy.

Chapter 4

Leading Examples of Local Sustainable Development

Lantan Reservoir, Chiayi County

4.1 Chiayi County
Providing Residents of Chiayi County a Home of Perpetual Beauty and Prosperity

"Chiayi is forever our beautiful and prosperous home." The essence of Chiayi's beauty is endowed in the splendor of its mountains, streams, and sea. The ability to implement comprehensive policies that comply with sustainable development trends has enabled Chiayi to preserve the natural beauty of its mountains, flatlands, and ocean amidst the process of economic development. The essence of Chiayi's prosperity is defined by its economic development, social equality, and harmonious balance with nature.

Chiayi County has been working through a public participation process to establish a sustainable development system, vision, goals, strategies, action plan, and target indicators since 2007; and has already completed a basic blueprint. Following extensive discussions amongst working groups, the sustainable development committee convened its first meeting on 8 October 2007. Topics addressed at the meeting involved the county's sustainable development committee founding principals, committee member list, sustainable development vision, selecting focal points for discussion, and determining who would have authority over action plans and target indicators.

Declaration of Commitment to Sustainable Development

On 5 October 2008 a public briefing was held during which Chiayi County declared its commitment to sustainable development and presented the results of their efforts. The county's sustainable development initiative was officially christened.

Chiayi County's declaration of commitment to sustainable development includes:

1. Water resource protection—efficient water resource development and reuse
2. Resource conservation—promoting reusable resources, energy conservation,and carbon reduction
3. Environmental protection—safeguarding natural resources and ecological preservation
4. Active community—increasing the level of community involvement
5. Emphasizing safety—setting up community safety and public security networks
6. Tourism promotion—working to develop the local tourism industry

Declaring a commitment to sustainable development is the county government's commitment to its people and represents Chiayi County's sustainable development vision. The county government has further declared its commitment to "preserving the integrity of the natural environment, promoting prosperous economic development, and living in harmony with nature."

Economic Prosperity Assures a Sustainable Future for Chiayi

Chiayi County is naturally endowed with beautiful mountains, rivers and ocean coastline. Taking measures to preserve environmental sustainability, the county prohibits large-scale development of slopeland and the destruction of coastal wetlands and mangroves. Efforts to preserve the sustainability of mountain forest areas include initiatives such as forest protection and reforestation; preservation of biodiversity; preservation of undeveloped, protected ecological areas; and protection of slopeland. Efforts to preserve the beauty of rivers and ocean environment include the protection of coastal ecology, mangrove forests,

Chiayi County Performing Arts Center

and wetlands; river pollution prevention measures; and controls devised to prevent land subsidence.

Working to promote economic sustainability, the county continues to actively promote the new agricultural movement, which entails the transformation of the fishing industry, development of tourism, and the introduction of the clean energy industry. It is also striving to encourage investment from high-value industries to stimulate industrial development. The development of a science industrial park, flower cultivation industrial park, and hi-tech industrial park are expected to create employment opportunities.

Addressing the issues of social sustainability, the county provides comprehensive educational and social welfare programs to the elderly, single-parent families, foreign spouses, indigenous peoples, and those living in remote areas. These efforts are helping to minimize social disparities in the pursuit of social equality. Social networks play an integral role in societal affairs as community activities reach out to embrace the public instilling a sense of oneness among the people and their environment. Only if people truly appreciate and are concerned about the communities can prosperity be actualized.

The essence of the saying “Chiayi is the home of beauty and prosperity” is more than just a promise to the residents of the county, it is a commitment to instill a sense of prosperity throughout the land. Regardless the degree of economic prosperity, the ultimate goal is to procure an environment conducive for sustainable living and subsistence.

Sisters Pond,Alishan

Sunset at Dongshi Fisherman's Wharf

Alishan Sacred Tree

Sea of flowers in the plum orchard

a field of sunflowers,Yunlin County

4.2 Yunlin County
Agricultural Heartland Creates New Visions for a Green Economy and Culture

Yunlin County's development began long ago, and in the early days Beigang Township was the region's most flourishing district serving as a major port for the export of goods. In recent years, improved water irrigation systems have enabled the area to evolve into a key sugar cane growing site with the sugar refineries the major industry. This has propelled the county to become the nation's highest per capita primary industry population ratio.

Largest Agricultural County Faces Changing Times

The evolution of Taiwan's overall economic structure has been shifting the focus away from the agricultural industry and over to the industrial, commercial, and service industries. Recently, the development of primary industry is in decline throughout the entire region. Adding to these woes is the fact that Yunlin County lacks secondary and tertiary industries, which has further exacerbated a decline in employment opportunities, population exodus, economic downturn, and slow development of public facilities and infrastructure. These conditions have relegated the area into a peripheral role and stagnated prospects for both rural and urban economic growth and development.

Residing for so long as the dormant vestige of Yunlin, the flux of changing times has spawned another period of development. In coordination with the overall developmental objectives, the sustainable development plan for the future of Yunlin County is divided into short-term and long-term objectives. The orientation of short-term development focuses on becoming a strategic agricultural and industrial center of Taiwan. To achieve this goal, the agricultural industry that forms the foundation of the economy must strengthen its output of refined agricultural products, a process that will seed the introduction and

growth of other industries. Through these developments the county can evolve into Taiwan's basic industry strategic center and an emerging hi-tech industrial region.

In the long term, the goal is to become the "Asia Pacific basic industrial center and an international port city." Efforts must be made to synergize the technology and business services industries with future trends. The advantages of being a port transportation site and its existing industrial specialties should be capitalized to initially advance into the greater China regional economic zone, and once a sufficient foundation has been laid then embark on attempts to occupy a pivotal intermediary role. Yunlin's position will continue evolving through horizontal industrial development and vertical division of labor driving development to become an international port city.

Beautiful Rural and Urban Ecology-International Hub for Agriculture, Industry, Business, and Technology

Yunlin County's economic development goals are to establish transportation and community networks that revitalize the natural beauty of the rural and urban ecology and promote the sustainable development of an international agricultural, industrial, business, and technology environment. The primary goal for the community is to rekindle the cultural spirit and relaxed rural atmosphere, providing a cradle of creativity and the cultivation of local culture, and establishing a pleasant, laid back living environment.

Below are seven key objectives for the comprehensive development of Yunlin County, including the use of land and the county's future role in the region:

1. Bolster rural and urban marketing efforts to revamp a fresh, new Yunlin image

Intensify the promotion of rural and urban areas to breakdown the staid perceptions and revamp a new image. These efforts will help elevate the county's regional status and strengthen competitiveness enabling Yunlin County to become a key player in the agricultural, industrial, business, and technology sectors.

2. Transformation and reconstruction of the industrial structure

In preparation for the impact of Taiwan's entrance in WTO, first tier industries must push towards sophistication and high added value operational models, as well as strengthening product marketing channels. Agricultural land should also be opened up to development to maintain pace with the changing nature of land use in the future. Plans for a variety of second tier industrial areas are currently underway, and it is anticipated that

Douliou Taiping Old Street

Yunlin County will increasingly become a strategic industrial center of Taiwan. Furthermore, continued population growth in the future will lead the way for flourishing third tier industrial development.

3. Establishment of new local growth centers

Advance the establishment of four new local growth centers in the region—Douliu City, Huwei Township, Mailiao Village, and Beigang Township. Development initiatives shall focus on the unique qualities and conditions of each location and regional development centers established there.

4. Information propelling county's sustainable development

Step up construction information network projects and promoting related projects to establish the foundation for future development. The importance of sustainable development must be recognized by all cities. With each major construction project Yunlin County is infused with the capacity to liberate itself from economic depravation, allowing residents to enjoy the affluence of economic growth. However, during the economic growth process careful considerations must be made concerning development's impact on the environment. It is essential to establish a rural and urban development growth management system that sets up effective controls preventing the wrath of excessive development from damaging the sustainable development of the environment.

Sunset in Taisi Township

5. Fueling public consensus

Draft and disseminate plans designed to rekindle the public's sense of pride in their community, motivating them to join hands and work together with the common initiative to develop the community for the future.

6. Living priorities that embrace the environment

The top priority is to establish the basic foundations of a comfortable living environment for the public to engage in their daily lives. At the same, the preservation and protection of the environment and economic development are equally important initiatives.

7. Bolster efforts to establish an internationalized base

Coordinate existing foundations with the developmental objectives set for the future and draft internationalization policies that enable the county to attain these goals.

Balanced Rural and Urban Development of a Uniquely Multifaceted County

In the future, the county government plans to focus on developing the unique geography and cultural history of Yunlin County. Plans to achieve these goals include: for the short term, "a harmonious balance between economic development and preserving environmental integrity;" for the mid term, "establish safe and healthy communities;" and for the long term, "utopic policies" in environmental sustainability and strategic planning with the vision of balanced development in rural and urban areas imbuing the unique local flavor of each location.

Sun Moon Lake, Nantou County

4.3 Nantou County
Beautiful and Healthy Heart of Taiwan

Developmental Watershed Effect of the 921 Earthquake

Nantou County has always been the proverbial backyard of central Taiwan. Since the Administrative Offices of the Central Government relocated to Chung-Hsing Village at the northern edge of Nantou City urban development had enjoyed steady development up until the abolishment of the provincial government system, which brought a halt to growth. Later the devastating 921 earthquake rocked the region, causing an economic recession and deterioration in quality of life and resulting in a major population exodus. In the aftermath of the quake, the Department of Public Works devoted aggressive efforts and extensive resources to rebuild the disaster area and improve public security. These efforts turned out to have a positive effect on the county's sustainable development initiative. Ironically, amidst all the disaster and tragedy of the massive 921 earthquake, it had a watershed effect on the county's developmental transformation.

Promoting International Tourism and Strengthening Local Industry

In recent years, under the leadership of

Dongpu Hot Spring, Nantou County

Nantou County Commissioner Lee Chao-ching, the county has made tourism development a major focus and drafted policy objectives directed at developing the county into a "healthy international garden city." The results of these initiatives have already been realized and the county continues to make strides towards achieving new milestones. In addition to promoting international tourism, the county government has set forth to achieve a number of short-term objectives: strengthening international agricultural product exchanges; attracting central region science park and precision machine industrial park development; setting up Chushan and Puli broadband networks; and constructing a four-township sanitary sewer system. Another goal is to develop tourism along the Jiji railway line, using a cartoon-themed design for the locomotive head and passenger carriages that integrate with plans for a Shuili—Sun Moon Lake cable car system. These initiatives will enable Nantou to become a cartoon world and stimulate local development. Also, restrictions will continue to be enforced prohibiting the use of unprocessed chicken manure as fertilizer in tea plant fields and the implementation of the thirteen town environmental cleanup contest and restroom evaluation project will continue, both of which have proved successful.

Vast Perspectives to Set Direction of Sustainable Development

Sustainable development is a far-reaching concept that incorporates a broad spectrum of local issues and conditions, and integrates tourism planning into the overall vision designed for the specific needs of the local community. To provide county government officials with a better understanding of the importance of sustainable development, the county organized a "sustainable development planning consensus workshop." The workshop was hosted by scholars and professionals from related fields whom led county officials through a brainstorm session that inspired each department come up with sustainable development work goals and objectives.

Extensive efforts were also made to promote interaction and dialogue among communities within the county, environmental groups, and social welfare and labor organizations so that a diverse range of views could be gathered. A series of introduction briefings and strategic planning forums were successively convened. These discussions resulted in a great deal of subjective inputs, both positive and negative, concerning the county's positions and will provide those involved in future sustainable development efforts with viable directions to follow.

Carp Lake at Puli, Nantou County

Swiss Alps of Taiwan- a Honeymoon Paradise

Nantou County is a land endowed with a wealth of magnificent natural beauty. Eighty percent of the land within the county boundaries is mountainous region filled with plush forests and excellent potential for landscape development of both rural and urban areas exists. If improvements can be made to the transportation networks, making the county more easily accessible to visitors, there is a good chance that it could develop into a large-scale national park. Actualizing its developmental potential would thus provide a means for the local government to effectively confront the pressing problems faced, such as difficulties of industrial upgrading, financial shortages, and an aging farming population.

Shenmu Village at Sinyi Township, Nantou County

Goals for each sustainable development indicator have been achieved in compliance with the county's sustainable development promotional framework and operational mechanisms. Based on research estimates, within the next decade the area used for organic farming will grow tenfold. The combined length of unpolluted river segments will expand from 247 km to 360 km, and great efforts will be made to maintain the water quality (CTSI) of Sun Moon Lake below 40. Overall, the county's promotion of sustainable development is well underway and the review and revision mechanisms established will allow for continued efforts to achieve the ultimate vision of "a beautiful and healthy Nantou County at the heart of Taiwan home to long life and happiness."

Chapter 5

Shining Models of Grassroots Sustainable Development

Nan-xi Forest Dynamics Plot in Yusun

5.1 Taiwan Academy of Ecology
Cultivating Environmental Awareness from Ecological Education

Diversifying Education Programs and Expanding Information Channels

Taiwan Academy of Ecology was founded as a non-governmental organization on Oct. 4th 2003. They have been contributing to environmental activities and education since the beginning. Take the environmental education as an example, they have published plenty of irregular e-newspaper, quarterly, and held conferences or workshops for free to provide general education and train volunteering interpreters every year.

And the most famous activities they originated are the "Walking Round Island 2006" & "Walking Round Island 2007". These two activities successfully awoke the public awareness of environmental crisis. As the research, they devoted a lot of human and financial resources for permanent research projects.

Introducing Multi-dimensional Environmental Issues

Future Visions:

1. Establishing a historic record of Taiwan's natural environment.
2. Providing concerns and actions for sexual, aboriginal, environmental issues with nature as the project focus.

Interpreter training and investigation of Chinese White Dolphin

3. Restoring young generation's awareness for land and environment.
4. Establishing database of Taiwan's natural environment.
5. Establishing plant specimen museum and civil environment research facility.
6. Design and promoting environmental training courses.
7. Carrying out research plans or projects.
8. Publishing.
9. Promoting conservative and environmental protecting movements.
10. Enhancing global connection and sharing Taiwan's experiences environmental protection experiences.

5.2 Stonewall Community Development Association, Gongguan, Miaoli

Promoting Citizen Participation in Local Economic Development

Stonewall (Shih Chiang) Community is typical farming village with a population of only 1,962, 98% of which are Hakka. The stonewall was initially built against the attacks from the indigenous people and became the origin of Shin Chiang Village.

Encouraging Full Public Participation for Self Growth and Improvement

Since its establishment in July 15, 1993, Stonewall Community Development Association has been devoted to community construction through self-growth of staff and planning various projects. Taking the residents' needs into consideration, the diverse community projects inspire people to come out and participate and identify themselves as part of the community, which focuses on family, self-sufficient enterprises, and welfare.

Other than cultural monuments, local industry investigation, old photo collections, and publishing village magazines, their projects include adult courses, ditch landscaping, stone coloring, parent-children activities, house calls for the needed and elders. A digital center has been set up to teach elders, teenagers and

Stone-mother Temple

Kuei-I Building (Guandi Temple)

children computer lessons. The association also promotes the Stonewall cultural industry and plans tourist routes through online marketing and combines agrotourism with internet to reduce the disparity between the rural and urban areas.

Expanding Cultural Heritages and Developing Local Agrotourism

Besides abundant cultural recourses like Guandi Temple and historical drainage systems and laundry facilities, Stonewall Community produces taros and also is the only place in Taiwan growing Chinese red dates. By combining historical sites, local agriculture, and traditional industries, Stonewall Community Development Association hopes to offers visitors in-depth touring routes with unique agrotourism resources.

Future visions

a. Strengthening association staff training
b. Increasing residents' understanding toward the community
c. Continuing execution of each project
d. Promoting sustainable development of local industry by creating new dry Chinese jujube snacks and taro snacks and dishes
e. Provide service for children, teenagers, women, and elders
f. Establish a happy homestead through environmental landscaping, environmental protection, reconstruction of vacant space, cultural education, and digital learning

5.3 AU Optronics Corp. Demonstrates Green Duties to Create A Green Living Environment

AU Optronics Corp. (AUO) is Taiwan's largest and a worldwide top 3 manufacturer of thin film transistor liquid crystal display panels (TFT-LCD). Additionally, AUO is the first pure TFT-LCD manufacturer to successfully list at the New York Stock Exchange (NYSE). AUO is able to provide customers a full range of panel sizes and comprehensive applications with high flexibility. With significantly increasing in the amount of intellectual property right ownership, AUO is committed to be the global leader and dedicated to the continuation of innovating TFT-LCD display technologies throughout its global operations.

Fulfilling Corporate Social Responsibility and Reducing Carbon Emission

AUO has always sought to fulfill its corporate social responsibilities (CSR).

They are committed to continuously exploring solutions to successfully balance economy and ecology. They also recognize that occupational safety and health is an integral part of all business operations. They therefore secure a safe and healthy working environment for our employees. All the AUO sites throughout the world have been introduced with certifications under ISO 14001 for an environmental management system, and OHSAS 18001 for an occupational health and safety management system.

AUO established the first greenhouse gases inventory system and became the first ISO 14064-1-vertified company in the TFT-LCD industry. In 2008, AUO unveiled its "AUO Green Solutions" initiative, a company-wide mission to practice green innovations, green procurement, green production, green logistics, green service, and green recycling that are all created and used in an environmentally friendly manner. The outstanding performance and contribution of AUO has been recognized from the governments, industry and clients with awards received every year.

As a world-class TFT-LCD manufacturer, the major objectives of this policy are to propagate the AUO long-term enterprise citizen principles on legal compliance and social accountability. AUO has established a professional in-house learning association, the ALC (AUO Learning College), to plan and provide high quality training programs. They also provide a high quality recreational environment to help our employees achieve balance between work and family life. It is important for us to care for the communities in which they live and operate. Along with the company's dedication to employees' cultivation as well as technology research and development, they are also very much devoted to being a good corporate citizen. They continuously endeavor to enhance ways to positively influence next generation with cultural perseverance. Through a variety of communication channels and interaction activities, they not only share our great stories of success and learn from our business partners' experiences in CSR, but they also carry the dream of inspiring and

Building of AU Optronics Corp.

Tree-planting activity

encouraging our supply chain, industry, and the community to do the same as AUO does.

Green Promises, Innovative Life, and Corporate Sustainability

The new vision of AUO for the next decade, "Bright Innovation Amazing Life", demonstrating the company is moving forward to a new stage. By focusing on 3 core elements, innovation, life and caring for the environment, this new vision is leading AUO to a sustainable growth that creates values for society through its employees and products. The "green leaf", an integral part of the vision, symbolizes "AUO Green Solutions"1. The purpose of this new vision is to inspire every employee to innovative thinking, to create amazing lives for people and to love our globe by executing "Green Solutions".

Carbon-reduction Little Warrior

In the past decade, execution and speed have been essential for AUO to meet the demands of a dramatically changing environment. However, for the upcoming decade, AUO will bring innovation, life and caring for the environment into our corporate culture. This new vision will lead employees and our business to a new stage via an innovative organization atmosphere, diversified talent and a borderless platform.

5.4 Lize Junior High School, Yilan County Establishes Nature-bound Eco-Campus

Lize Junior High School, a small school with only 12 classes, is located near the coastline in Yilan County. The teachers and students together have worked hard to enrich plant species variety on campus as well as offer our students a stimulating environment to develop multiple intelligences.

Constructing A Diverse Eco-campus with Joint Efforts from Teachers and Students

They dug an ecological pond with over 50 native plants and made every effort to create a rejuvenating setting for the indigenous species. The campus is filled with over 100 kinds of native plants, perfect for students to develop well-rounded temperament and for teachers to use as teaching materials. Besides, students take mandatory farming classes to learn how to grow plants and vegetables by using leftovers and leaves as fertilizers and pumping water with a traditional waterwheel. They also create various art works and projects from scrap woods. The whole school even saved a few big trees by the highway and relocated them to our school. As a result, the students learn not only from books but also from all the practical experiences real life offers.

Learning from the Nature for Health and Sustainable Growth

It is true that Lize Junior High School does

Teaching farmland

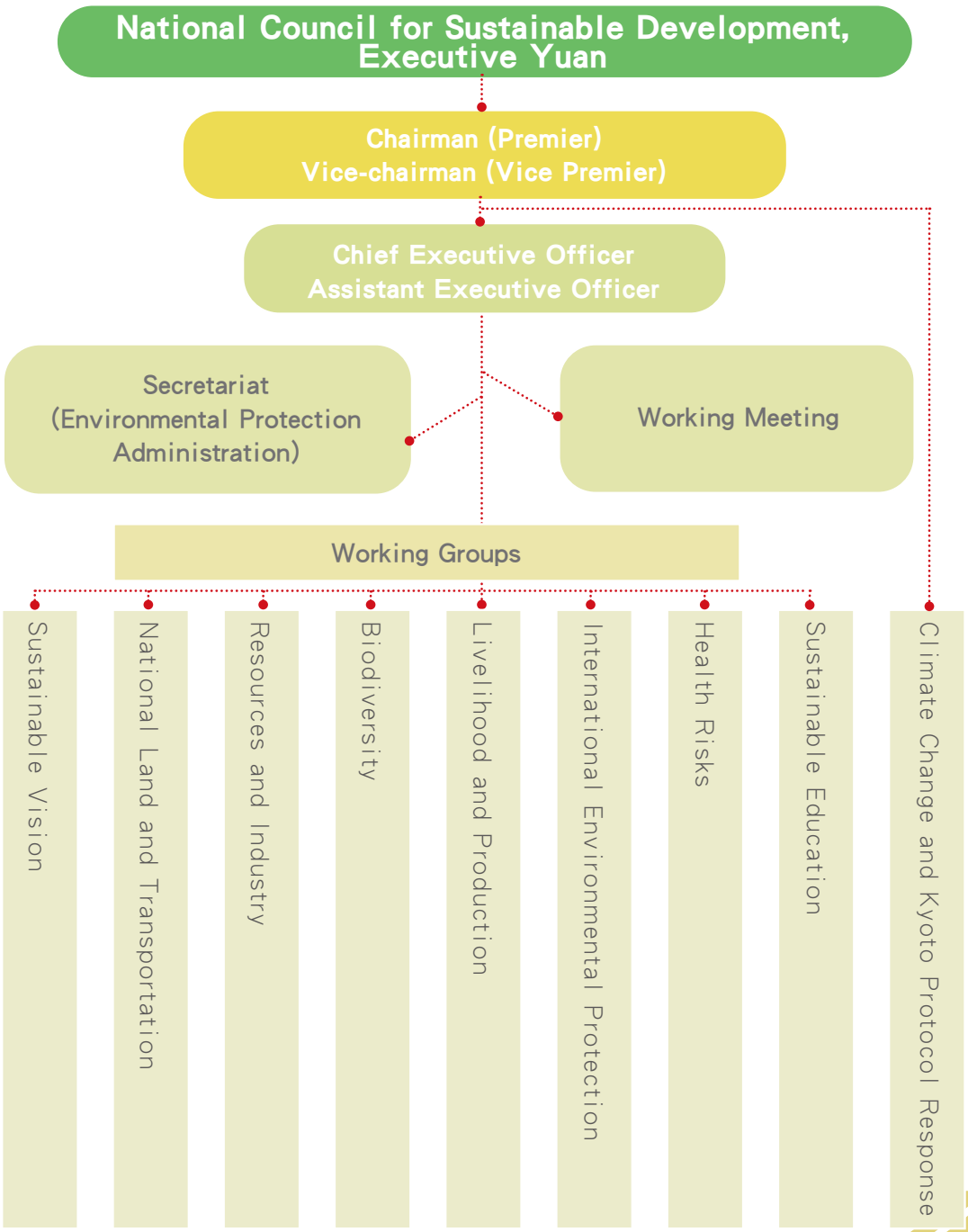
not possess strong academic strength compared with others, but they encourage students to learn from their hearts and interests and to reach outside the classrooms. Those with physical disability always greet everyday's challenges with great smiles and confidence. The school had won 2 bronze medals at IENA. The rowing team had won at least 5 gold medals consecutively, and so had the dance team. One student even became the champion in a literature competition held by Yilan County Government. There is no juvenile delinquency like fighting, smoking, and vandalizing in the school, nor has there been a drop-out in the past 3 years. They believe all is due to having "human" as the focus in its sustainable development plan.

At Lize Junior High School, they encourage students to explore and to discover in preparation for their lifelong learning. They emphasize the need of every student, so no one is left behind. They push students to overcome themselves in order to help them make better achievements and hope they obtain a positive attitude toward their life so that they will be able to face any difficulties in the future with competence and smiling faces.

Ecological pond under environmentalrehabilitation

Appendix I

Organizational Structure of NCSD



Appendix II

The Members of the 12th Council of the NCSD

Government officals Members

Name	Position Organization
Liu Chao-shiuan	Premier, Executive Yuan
Tsai Tsun-hsiung	Minister without Portfolio, Executive Yuan
Liao Liao-yi	Minister, Ministry of the Interior
Cheng Jei-cheng	Minister, Ministry of Education
Yiin Chii-ming	Minister, Ministry of Economic Affairs
Mao, Chi-Kuo	Minister, Ministry of Transportation and Communications
Chen Tain-jy	Chairman, Council for Economic Planning and Developm
Chen Wu-hsiung	Minister, Council of Agriculture
Lee Lou-chuang	Minister, National Science Council
Yeh Chin-chuan	Minister, Department of Health
Stephen Shu-hung Shen	Minister, Environmental Protection Administration

Non-Government officals Members

Name	Position Organization
Lee Ling-Ling	Professor, Graduate Institute of Ecology and Evolutionary Biology, College of Life Science
Shao Kwang-Tsao	Researcher, Research Center for Biodiversity, Academia Sinica

Name	Position Organization
Lu Shiau-Yun	Assistant Professor, Department of Marine Environment and Engineering,National Sun Yat-sen Universit
Chang E-E	Professor, Department of Biochemical Science, Taipei Medical University
Chang Ssu-Li	Professor, Institute of Natural Resource Management National Taipei University
Huang Shu-li	Professor, Graduate School Of Urban Planning, National Taipei University
Jian Ben-Chi	Professor, Graduate Institute of Environmental Engineering, National Taiwan University
Shaw Daigee	President, Chung-Hua Institution for Economic Research
Su Huey-Jen	Professor and Dean, Graduate Institute of Environmental Medicine, NCKU
Gu Yang	Professor, Dept. of Chemical Engineering, National Taiwan University of Science and Technology

NGO representative members

Name	Position Organization
Yu Fan-ying	President, Yu Chi-Chung Cultural and Educational Foundation
Lin Chun-Shin	Chairman, Archilife Research Foundation
Lin Cheng-Hsiu	Deputy Director, New Taiwanese Cultural Foundation
Lin Yao-guo	President, Society of Wilderness
Wu Yu-chin	Secretariat, Alliance for Our Elders' Welfare
Zhou Sheng-hsin	Director, Thousand-mile Trail Planning Center
Zhou Chun-di	Founder and President, Conservation Mothers Foundation
Chen Man-li	President, National Alliance of Taiwan Women's Associations
Chen Shih-chang	Chairman, Formosan Society for Indigenous Sustainability
Theodore MH Huang	Chairman, Business Council for Sustainable Development

Appendix III

Chronicle of NCSD Affairs in 2008

Date	Working Group	Activities and achievements
Jan-08	Health Risk Working Group	Second stage dioxin controls and emission standards effective for existing steel smelting plants; Second stage dioxin emission standards effective for existing stationary pollution sources
1-Jan	Sustainable Education Working Group	Green Mark Information Website reestablished as the Green Living Information Website, which received 2.65 million visits by Dec 2008
2-Jan	Health Risk Working Group	Drinking Water Quality Standards were revised as follows: 1) Revised maximum value for lead ; 2) Deleted original scope of restrictions on bromate; 3) Added maximum control values for chlorite; 4) added dioxin to control list
10-Jan	International Environmental Protection Working Group	Established the Greenhouse Gas Reduction Management Office; expanded functions of this office on August 18 by integrating cross-ministerial efforts toward greenhouse gas reductions
29-Jan	Resources and Industry Working Group	Held the first energy conservation label review committee meeting and approved 134 energy saving products
2-Feb	National Land and Transportation Working Group	Entered the Society of Wetland Science (SWS) as a nation
14-Feb	Sustainable Education Working Group	Sent letters to all government agencies to ask that policy-related training workshops such as sustainable development, biodiversity, consumer protection and gender mainstreaming be including in the planning of annual training courses
15-Feb	Biodiversity Working Group	Finished drafting Statutes on the Protection of Indigenous and Traditional Knowledge on Protecting Biodiversity
15~21 Feb	International Environmental Protection Working Group	Sent team to Marshall Islands to evaluate feasibility of environmental cooperation plans, which will serve as a reference in the planning of environmental cooperation plans in the future
20-Feb	Health Risk Working Group	Revised the Hazardous Industrial Waste Testing and Recording Management Act, adding dioxin to the list of testing items
3-Mar	Resources and Industry Working Group	Attended APEC's 35th meeting of the Energy Working Group

Date	Working Group	Activities and achievements
7-Mar	Resources and Industry Working Group	Held a forum on the drafting of incandescent bulb energy efficiency standards; Announced the Guidelines on Demonstrating, Promoting and Subsidizing Projects to Guarantee Energy Performance; Convened the second energy labeling review committee meeting and certified 54 energy saving products
10-Mar	Livelihood and Production Working Group	Granted the 2007 Green Procurement Performance Awards to 61 corporations and civil organizations including Fulltech Fiber Glass Corp
13-Mar	Biodiversity Working Group	Completed the national plant catalogue system, including a mapping system with unified format and names of Taiwan's plant species
25~28 Mar	Biodiversity Working Group	Held the "Let Butterflies Fly over Formosa!" national press conference; the topic was broadcast three times on 1 April 2008 on BBC Asia Today, and twice on 16 April 2008 on Japan's NHK news channel.
26-Mar	Resources and Industry Working Group	Published the 2007 Automobile Fuel Consumption Directory
27-Mar	Sustainable Education Working Group	Continued to hold the Sustainable Campus Program and announced a list of 62 schools to receive subsidies this year
May	Health Risk Working Group	Conducted the Study and Recommendations on the Feasibility of Establishing a National Nutrition Foundation
9-May	Sustainable Vision Working Group	The Premier approved a review of Taiwan's sustainable development indicators
14-May	Resources and Industry Working Group	Held the 16th Taiwan-France Industrial Cooperation Meeting. Mr. Luc Rousseau, DGE, Ministry for the Economy, Industry and Employment (France) led a delegation of French officials. The meeting fostered exchanges between both sides and explored cooperation opportunities for industrial development
15-18 May	Livelihood and Production Working Group	The 2008 New Generation Design Exhibition was held with 107 designs for schools here and abroad, attracting over 110,000 visitors
June	Sustainable Vision Working Group	Published a new series of 50,000 geological maps
5-Jun	Sustainable Vision Working Group	Issued the 2007 Taiwan Sustainable Development Index
5-Jun	Sustainable Education Working Group	The Executive Yuan approved the Energy Conservation and Carbon Reduction No Regrets Measures for Citizen Action; President Ma signed a declaration on 16 carbon reduction measures; environmental protection bureaus nationwide coordinated a green consumption event with Green Stores entailing free gifts for purchasing indicated products. Some 37 events were held attracting 37,564 visitors.
14-Jun	Sustainable Education Working Group	Attended the Fourth APEC Education Ministerial Meeting and shared the achievements of Taiwan's elementary and junior high schools in implementing environmental education and sustainable campus plans

Date	Working Group	Activities and achievements
25-Jun	Health Risk Working Group	Completed the Compilation of Exposure Factors for Residents in Taiwan
July~	Livelihood and Production Working Group	Cooperated with four large convenience chain stores to promote a policy of not automatically giving away disposible chopsticks to shoppers, leading to a 20% reduction of chopstick use and a reduction of 36 million pairs of chopsticks per year
July~ August	Sustainable Vision Working Group	Held the second Forum on the Duties and Mission of the Ministry of Marine Affairs
2-Jul	Resources and Industry Working Group	Held a petition-signing activity for voluntary energy conservation in hospitals, restaurants and shopping malls
3-July	Health Risk Working Group	Organized a cross-ministerial working group to draw up the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants
July 15~ August 6	Sustainable Education Working Group	Held the On-the-Job Training for Vector Control Professionals for 500 personnel to strengthen their skills and safety during application
22~25 July	Resources and Industry Working Group	Held the APEC Industrial Waste Resource Reuse Technology and Management Workshop to increase domestic and foreign trainers' understanding of resource reuse technology and future development trends and provide a channel for mutual exchange and experience sharing
24-Jul	Sustainable Education Working Group	Revised and promulgated the Vector Control Industry Management Act
30-Jul	National Land and Transportation Working Group	Held a press conference for the launch of the Green Transportation Website
August	Health Risk Working Group	Sent the draft National Nutrition Act to the Department of Health regulations committee for review, which recommended holding a gender influence assessment
5-Aug	National Land and Transportation Working Group	Held the Smart Transportation Systems - Advanced Traveler Information System (ATIS) Forum
14-Aug	Health Risk Working Group	The EPA approved the Kaohsiung City Steel Smelting Factory Dioxin Controls and Emission Standards, which was promulgated by Kaohsiung City on 11 Sept 2008, tightening standards to 0.5 ng I-TEQ/Nm3 from 2010
21 Aug~ 31 Dec	Health Risk Working Group	Completed sampling and analysis on 35 products with suspected environmental hormones including NPEO, TBT and PAEs; all products complied with regulations
22-Aug	Sustainable Education Working Group	Held the Sustainable Public Construction - Energy Conservation and Carbon Reduction Forum, attended by 566 scholars
27-Aug	Resources and Industry Working Group	Held the 2008 Corporate Established Energy Conservation Service Team Meeting

Date	Working Group	Activities and achievements
29-Aug	National Land and Transportation Working Group, Biodiversity Working Group	Completed and publicly announced the Survey on the Effects of Cold Weather Events on Penghu Marine Ecology and Fisheries Resources
Sept	Livelihood and Production Working Group	Promoted the Green Mark, energy conservation and carbon reduction to all schools participating in the 2008 Nationwide Technical University Administrative Personnel Meeting
2-Sep	Livelihood and Production Working Group	Held the 2008 Green Packaging Design Contest with 86 entries, from which ten of the best designs were chosen by the EPA
4-Sep	National Land and Transportation Working Group	The Executive Yuan approved the transportation authorities' energy conservation and carbon reduction action plans, which followed the Sustainable Energy Policy Guidelines
5-Sep	Health Risk Working Group	The Department of Health coordinated efforts with health, agriculture and economic authorities to jointly hold the 2008 Persistent Organic Pollutants Forum
8~12 Sep	Biodiversity Working Group	Participated in the International Association for Vegetation Science 2008 annual meeting in Cape Town, South Africa; shared the results of Taiwan's vegetation mapping projects
12-Sep	Resources and Industry Working Group	Taiwan Glass Ind Corp increased its investment in photovoltaics at the Changbin Industrial Park to NT$2 billion over the next three years; this is expected to increase production value by NT$6 billion
12-Sep	Sustainable Education Working Group	Held the 2008 Campus Space Revitalization Plan and accepted applications for subsidies to establish energy and resource education centers
16 Sep ~ 15 Oct	Sustainable Education Working Group	Three Green Stores held the Green Living Logo Creation Contest, receiving 6,134 entries
Oct	National Land and Transportation Working Group	Completed the Ministry of Transportation and Communications (MOTC) Principles, Strategies and Implementation of Policy to Promote Bike Lane Systems
Oct~Nov	Sustainable Vision Working Group	Subsidized three universities to hold four forums on: 1) maritime affairs management mechanisms and policy, 2) establishing operations in central Taiwan in 2008, 3) New duties and missions for the Ministry of Marine Affairs, and 4) important concepts for planning the Ministry of Marine Affairs in 2008
6-Oct	Resources and Industry Working Group	Held the fourth Taiwan ICT industry cooperation meeting to promote bilateral cooperation in automobile electronics, RFID, and electronics displays
7-Oct	Resources and Industry Working Group	Held the APEC Photovoltaics Forum

Date	Working Group	Activities and achievements
15-Oct	National Land and Transportation Working Group	Revised and promulgated the Urban Building Retrofit Award Regulations specifying categories for improving urban environmental quality including energy conservation, carbon reduction, green buildings, smart buildings, and eco-cities.
21-Oct	Livelihood and Production Working Group	Inaugurated the Hualien Environmental Science and Technology Park
23-Oct	Biodiversity Working Group	Held the Society for Wetland Science First Asian Wetlands Forum
23~24 Oct	National Land and Transportation Working Group	Held the 2008 Foundations for Spatial Information - International Forum and annual meeting for the Taiwan Society for Geographical Information
23~25 Oct	National Land and Transportation Working Group	Held the Society for Wetland Science First Asian Wetlands Forum
24~27 Oct	National Land and Transportation Working Group	Held the Excavated Ceramics Preservation and Restoration Internatioanl Exchange Forum and Workshop
30-Oct	Sustainable Education Working Group	Held the Riverway Interlinking Forum with three river conservation centers to promote comprehensive maintenance and protection of rivers
30-Oct	Health Risk Working Group	Approved of groundwater pollution prevention measures and monitoring equipment including private oil storage tanks, fishing boat fueling stations and regular monitoring, reporting and review of gas stations with abnormal findings
11-Nov	National Land and Transportation Working Group	The Executive Yuan approved the Sustainable Public Construction - Energy Conservation and Carbon Reduction Policy White Paper
11~12Nov	Health Risk Working Group	Held the 2008 Nationwide Public Nuisance Complaint Handling Evaluation Meeting
13-Nov	Biodiversity Working Group	Held the Sixth Taiwan Plant Diversity Forum and issued six years of results
13-Nov	Health Risk Working Group	Held the International Forum on Environmental Electromagnetism Measuring Methods, inviting foreign experts to hold special topic lectures
16~17Nov	Sustainable Education Working Group	Held the Biodiversity Promotion Plan Celebration
19-Nov	Health Risk Working Group	Held a forum on how citizens can participate in national implementation plans and national promotion of the Stockholm Convention, presided over by EPA Minister Stephen Shu-hung Shen, and attended by civil organizations, scholars and experts

Date	Working Group	Activities and achievements
21-Nov	Health Risk Working Group	Provided guidance on setting up cooperation systems between tea farms and factories; held the 2008 Taiwan International Tea Industry Expo; established the Tea Factory-Farm Cooperation and Quality Tea Product District
26-Nov	Sustainable Education Working Group	Held the 11th Erren River Liaison Meeting, inviting local environmental NGOs and river patrol volunteers to listen to local recommendations and more effectively carry out remediation work on the Erren River
28-Nov	Biodiversity Working Group	Announced the planning of the Yunlin-Huben Fairy Pitta Important Wildlife Habitat
Dec	Sustainable Vision Working Group	Published 50,000 geological maps of the Jhihben, Taitung Area and the Chiayi Area
1-Dec	National Land and Transportation Working Group	Convened the Briefing on Applying for Subsidies in the 2009 National Important Wetland Ecology Survey and Rehabilitation Plan
4-Dec	Sustainable Vision Working Group	Convened the Cross-Ministerial Coordination Meeting for Establishing the Ministry of Marine Affairs
5~6 Dec	National Land and Transportation Working Group	Held the 2008 International Forum Underwater Archeology
11-Dec	Sustainable Education Working Group	Announced the Hotel Industry Green Mark Specification Standards, inviting 250 hotels to participate, from which 15 hotels were selected to receive professional guidance
12-Dec	Sustainable Vision Working Group	Cooperated with the Pingtung County Government to hold the Pingtung County Local Sustainable Development White Paper
16-Dec	Sustainable Education Working Group	Implemented the county and city environmental protection bureau Private Corporation and Organization Implementation of Green Procurement Plans, providing 1,551 entities guidance on becoming Green Stores; 816 of these passed the review, while 1,005 corporations signed green procurement declarations; promotion activities were held 234 times, attended by over 310,000 people
17-Dec	Sustainable Vision Working Group	Completed the Local Sustainable Development Operating Mechanisms Planning Projects Working Plan
18-Dec	Health Risk Working Group	Accreditated four testing organizations to test organic products from 970 farms worth an annual value of NT$1.27 billion
18-Dec	Health Risk Working Group	Provided guidance to establish 33 rice marketing districts nationwide, 26 of which have approved product history certification for a total of 1,477 farmers on approximately 2,400 hectares of land
21-Dec	National Land and Transportation Working Group	Held the Jade Mountain - Snow Mountain Hiking Activity resulting in new maps of Taiwan's mountains and forests
26-Dec	Sustainable Vision Working Group	Sent the draft Ministry of Marine Affairs Organization Act to the Executive Yuan for review
31-Dec	Resources and Industry Working Group	Completed land subsidience monitoring along 2,740 kilometers of coastal land in 11 counties and cities