

國土空間發展—公共建設成果

GREAT LEAP

National Spatial Development
Infrastructure Projects

躍進

訂

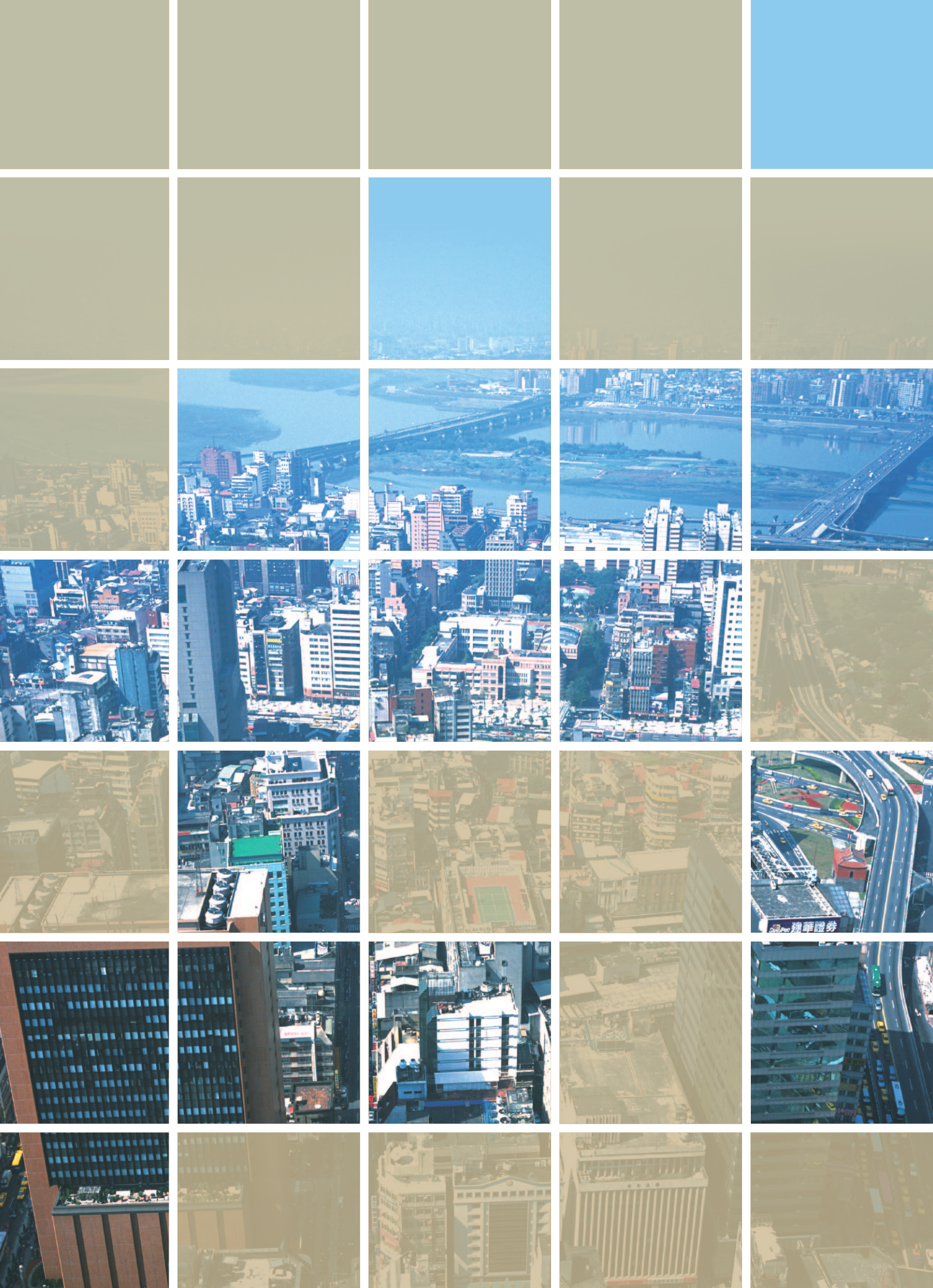
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國土空間發展—公共建設成果

GREAT LEAP

National Spatial Development
Infrastructure Projects

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前瞻擘劃 領航國家再躍升

公共建設的工程品質、投入規模與區位分布，不僅影響企業投資決策以及國民生活福祉，更攸關國家的整體發展。政府一向秉持永續發展的理念，進行國土空間策略規劃，以空間來整合及協調各部門發展需求，有次序的導引公共建設的投入，達成促進經濟成長、社會公平以及環境永續的目標。

本會兼負審議、協調及導引政府重大公共建設政策之使命，以國家長程發展願景為目標，持續整合推動各類計畫與方案。因此，本人自任職以來，即不斷期許同仁要「勇於創新、敢於突破、善於主動、長於效率」，同時更要從國家發展的高度與廣度出發，主動提出具戰略性的公共建設規劃方向與藍圖。

在全球化激烈競爭的挑戰下，我們國家要能持續進步，必須仰賴公共建設為國家不斷地注入新的動能與新的活力。本書透過高解析照片與精練文字的引領，希望能藉此讓社會大眾進一步瞭解近年來相關重大建設的推動內容與績效，以及臺灣變化的軌跡。我們很高興能將這本書呈現給大家，也期待得到大家的指正。

A Vision for Leading the Nation to Leap Forward Again

The quality, scale of investment and distribution of public works significantly affects business investment decisions. It also has a major impact on people's livelihoods and well-being, and a vital bearing on the nation's overall development. Our government has long adhered to the ideals of sustainable development in mapping out Taiwan's spatial planning strategy. We aim to integrate and coordinate the spatial development needs of all sectors, to lead investment in public construction along a well ordered course. Thus we can more fully and effectively meet our goals for economic growth, social justice, and environmental sustainability.

The CEPD is responsible for reviewing, coordinating and piloting major infrastructure policy. We carry out this task with sights set on realizing long-term national development visions, as we continuously integrate the implementation of diverse plans and projects. Therefore, since taking up my position as minister of the CEPD, I have ceaselessly impressed upon my colleagues the need for being "bold in innovation, intrepid in breaking new ground, strong in initiative, and masterful in efficiency." At the same time, I have stressed the overarching importance of taking a high and wide view of national development, in generating plans and blueprints for public works projects of a strategic nature.

Faced with the challenge of intense competition resulting from globalization, it is vital for our country to continuously move forward. We must rely on public works for the unceasing injection of new energy and vigor into our nation. I hope that the photographs and descriptions in this booklet can give the general public a better understanding of the substance and benefits of major public construction projects that we have launched and implemented in recent years, and the track of Taiwan's progress. I am very glad to present this booklet for everyone's perusal, and look forward to receiving comments and suggestions from all.



永續公共建設 展現躍升新動能

公共建設是國家發展的磐石，也是保持國際競爭力的要素。政府為促進經濟成長，提升民衆生活品質，持續推動各項公共建設計畫。而各項計畫的成果，亦是臺灣經濟得以持續成長與轉型的根本。

近年，由於國家財政日益艱鉅，公共建設推動的挑戰越來越大，本會嘗試以跨域加值的理念，藉由公共建設帶動都市發展，創造公共建設新興財源。並以創新思維之財務規劃方式，以跨區域、跨領域、跨主體、跨時程、跨財務等多元面向，提高計畫自償率，同時也逐步納入節能減碳、綠色經濟與因應氣候變遷調適等新思維。

本書彙集 2008 到 2013 年重大公共建設成果，並透過精美影像與摘要性解說，具體展現各類公共建設的進程、目標與成效，俾使民衆瞭解當前國家各項重大建設與施政目標。透過影像與文字的紀錄，我們看見在迎向全球化挑戰，不斷向上「躍升」的國家力量，同時也發現另一種屬於臺灣的新生命力。

Sustainable Public Construction and New Impetus for National Ascent

Infrastructure is the bedrock of a nation's development and an essential factor in its retention of international competitiveness. To advance economic development and raise quality of life, the government constantly launches new infrastructure projects. How these projects turn out has a major impact on whether Taiwan's economy can keep up its growth and transformation.

In recent years, fiscal constraints have made it increasingly challenging to carry out infrastructure projects. The CEPD has responded by trying out the concept of cross-regional value adding, using public works projects to spur urban development and create new funding sources for future infrastructure projects. It has also adopted innovative approaches to financial planning, seeking to raise self-liquidation ratios through synergies and gains across regions, domains, subjects, schedules and finances. At the same time, it has gradually incorporated new ideas of energy conservation, carbon reduction, green economy, and adaptation to climate change into project planning.

This book contains a compilation of major infrastructure achievements between 2008 and 2013. It uses carefully selected images and concise descriptions to present the progress, goals and effects of all kinds of infrastructure development, enabling the public to understand the nature and purposes of the nation's current major infrastructure projects. These pictures and words create a record of how Taiwan is meeting the challenges of globalization, continuously boosting its national strength, and discovering another kind of new vitality within itself.

行政院經濟建設委員會 副主任委員

黃萬翔



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自國土保育邁向國土美學

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From Land Conservation to Land Esthetics

Monica Kuo, Director and Dean

Department of Landscape Architecture, Chinese Culture University

國父 孫中山在「實業計畫」中闡明：「土地為國家之本」，而無論自然資源或人文資源而言，國家邁向興盛、富裕、安定與永續發展，必然需針對人民所賴以生活的「國土」有健全保育、明智利用以及適宜的建設與經營管理。臺灣島位於環太平洋地震帶上，擁有山高水急的特性，地質環境敏感脆弱且地震與颱風頻繁，在近年全球氣候急遽變遷，極端降雨增加影響下，包括周邊離島、西部海岸、低地、河口溼地、山坡林地等，為此應有更宏觀的國土治理策略。而作為一個現代化國民，對於所居所棲之國土，亦應有下列正確的思維與科學認知：

一、宏觀的國土保育觀念

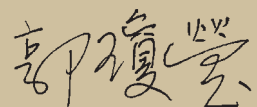
國土是自然資源以及人文資源之組成，而「吾人」亦必須視為這個大系統中的一環。年輕而不斷上升隆起的地殼活動造就了臺灣山區脆弱的地質、地形、地貌，自然災害如地震、颱風、豪暴雨，影響了集水區上游之坡地，森林中游之農地與部落城鎮，以及下游之河口溼地、平原城市與低地農田。上中下游之人類活動與自然災害影響是連鎖性的，是牽一髮動全身的；是以國土保育必須由上游到下游，而執行單位也必須由中央到地方甚至深入生活社區。政府部門與專業者之合作，更必須跨領域跨部門，橫向與縱向之整合均屬必要。

二、前瞻的專業整合作為

國土治理必須先釐清優先順序，吾人亦必須有風險觀，亦即沒有「絕對的保護」，但在國家財政合理分配下對於災害防治有「相對的保護與復育」之作為。為此災後重建、治山、治水不僅須運用現代科學工程技術，且必須同時兼顧整體生態系統與人類宜居之安全與適意性。應用「生態工法」考量在地文化傳統，引入藝術美學，同時提升城鄉風貌品質與生活環境素質。另臺灣再生能源有限，在營造環境過程中，尤需導入「綠色建設」價值觀，運用「綠營建」、「綠建築」技術營造「綠色城鄉」、「低碳社區」與「生態社區」，以臻永續之國土標的。

三、休戚與共之責任感

國土保育是營造宜居生活環境的手段，而非僅治國目標。生活於中的每一個國民，對於其所棲所之國土環境，必須有正確的環境倫理與責任感。為此除了公部門之作為外，吾人參與社區營造、部落改造、透過社區林業機制參與造林，透過農村再生機制參與河川巡守，淨化河川，遵循法規避免超抽地下水、污染水源、節約能源、防範地層下陷、保護溼地及野生動植物棲地、實踐垃圾減量，運用綠色能源共同建置一個兼蓄生態、生產、生活以及提升到生命（安全）與生趣（盎然）的生活網絡，這是全民的責任，也是促成國土美學、國民幸福的坦途。



In the "The International Development of China," Sun Yat-sen, founder of the Republic of China, wrote: "Land is the root of a nation." Land is the source of a country's natural and manmade resources, its prosperity, well-being and stability, along with its potential for stable development. The land that people depend on for survival and life needs to be conserved, utilized intelligently, and built upon and managed properly. Then, we can live and work in peace. Taiwan is an island along the Circum-Pacific Seismic Belt. It features high elevation mountains and rushing rivers. Its sensitive geology and environment are strongly affected by frequent earthquakes and typhoons, recent rapid changes to the global climate, and an increase in extreme rain events. Nowhere is immune, from the outlying islands to the west coast, low-lying regions, river mouth wetlands, or mountain forests. Faced with such challenging conditions, government agencies need comprehensive land management strategies. And as citizens of a modern nation, Taiwanese must have proper insight and scientific knowledge related to the land they live on. Such wisdom lets us fulfill the responsibilities of modern citizens while providing the objective foundation needed to supervise the government. Below are guidelines for fulfilling these goals:

1. Comprehensive Land Conservation Ideas

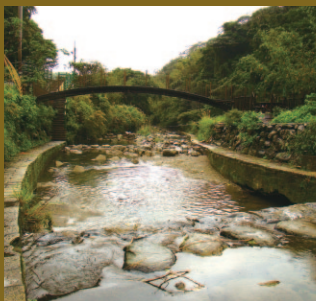
Land consists of natural and manmade resources. People such as you and I should be considered part of this grand system. A relatively young, active crust that constantly rises and swells is behind the fragile geology, terrain and landforms that compose Taiwan's mountainous areas. Natural disasters such as earthquakes, typhoons and torrential rain impact the slopes in the upstream sections of watersheds, farmland and aboriginal villages beside the midstream forests, as well as the river mouth wetlands, cities and low-lying agricultural fields found downstream. Human activities in watersheds have a chain effect that determines the extent of natural disasters. A small action at any point can affect the entire system. Land conservation must therefore take into account all points of the watershed, and public agencies must interact with central and local governments as well as communities. Proper management requires cross-departmental cooperation in the government aided by experts from a variety of fields, so horizontal and vertical integration can be achieved.

2. Action Guided by Professional Vision

Land management requires determining priorities and ensuring that everyone with a stake in the project understands the risks. "Absolute protection" is impossible. But reasonable distribution of national resources can let disaster prevention provide relatively strong protection while assisting with environmental restoration. Disaster rebuilding, watershed management and water management require more than just modern scientific engineering and techniques. They must take into account the overall ecological system while building safe, livable communities. Plans must rely on ecological engineering techniques while integrating local culture and tradition, arts and aesthetics. This type of comprehensive approach can improve the appearance of affected areas and the quality of the living environment. Because renewable resources in Taiwan are limited, new infrastructure must incorporate environmental construction values. Application of green building and techniques will let Taiwan foster the green cities and towns, low carbon communities and ecological communities needed to achieve sustainability.

3. Shared Responsibility, in Good Times and Bad

Land conservation is more than just an administrative goal: it is a method for building a livable environment. Every person who lives on this land must have proper environmental principles and a sense of responsibility. The responsibility to take action goes beyond public agencies to include each of us. We must participate in community building and reconstruction. Through local forestry mechanisms we should help with forestation, and in farming villages we should assist with riverbed patrols. We should keep rivers clean, respect restrictions on underground water pumping, and not contaminate water sources. We also must conserve resources, prevent land subsidence, and protect wetlands and other habitats, while reducing waste. Using green energy, together we can build a lifestyle network that promotes ecology, manufacturing and life while improving safety and prosperity. This is a responsibility we all share. It is also the path to promoting an aesthetic land and happy people.



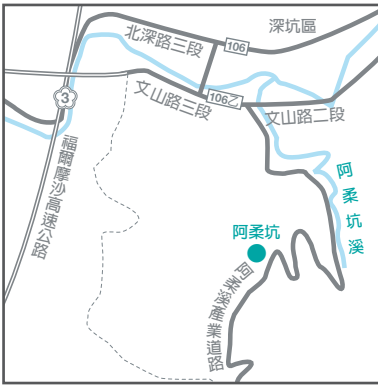
因應氣候變遷之國土保安

Climate Change Adaptation for
Land Safety

隨著全球溫室效應的影響日益明顯，如何因應氣候變遷的衝擊，維持自然系統的穩定平衡，以達國土保安及永續發展的願景，乃是當前必須積極面對的挑戰。

目前世界各國，除了透過節能、發展溫室氣體減量等技術外，也強調透過社會與經濟發展模式的「調適」策略，導入災害風險控管機制，降低災害損失。本文以「整體性治山防災」、「森林永續經營」、「國家公園與重要溼地」等單元，摘錄近年政府在因應氣候變遷與國土保安的努力與成效。

As the greenhouse effect and the climate changes that it brings intensify globally, Taiwan must find ways to keep natural systems stable so it can ensure land safety and sustainable development. Besides relying on energy-saving techniques and new methods of reducing greenhouse gases, countries around the world are adopting adaptable social and economic development models. By integrating these models into disaster risk management, they are reducing losses. This chapter looks at three main topics — comprehensive watershed management and flood control, sustainable forest management, and national parks and major wetlands — to describe the government's land protection efforts and achievements in the face of climate change.



整體性治山防災

阿柔坑溪棲地改善工程

位於深坑的阿柔坑溪，以尊重自然的「生態工法」，配合阿柔坑溪的河道，營造出深流、深潭、淺流、淺瀨、岸邊緩流等五種水域型態；並打造魚梯，暢通生態走廊，讓魚群得以洄游繁殖、穩定河床、回復當地多元生態。

於施工期審慎調查當地生態的過程中，吸引了相關研究團隊與在地居民的志工參與，凝聚社區公民意識；而完工後的護岸工程，也成功發揮防災效果，減緩溪岸基腳侵蝕，強化邊坡穩定性；同時因採用生態工法，得以維持生態環境平衡，配合周邊植生美化，成為民眾遊憩的好去處，兼具保育與休閒等效益。

The Overall Slopeland Treatment and Disaster Prevention

Habitat Improvement in Aroukeng River

The natural environment and river course were central to this project situated in Shenkeng's Aroukeng River. Using ecological engineering techniques the project solidified river banks and added stone retaining walls. It built five hydraulic biotypes: runs, pools, glides, riffles and slacks while also erecting free-flowing fish ladders so fish could migrate for reproductive purposes. The work not only created a stable riverbed but also restored the diverse local ecology.





阿柔坑溪透過「生態工法」，不僅達到穩定河床的功能，也回復當地多元生態。
The project used ecological engineering techniques to stabilize the Aroukeng River riverbed and restore the area's diverse ecology.



韭菜湖溪護岸整治工程

位在地震能量爆破點的南投縣國姓鄉南港村澀仔坑一帶，九份二山發生岩層大崩坍，形成韭菜湖溪與澀仔坑溪兩處堰塞湖，只要雨勢稍大就可能潰堤，對下游社區產生嚴重威脅。韭菜湖溪整治工程，主要是將溢流口降低，有效減少堰塞湖蓄水容量，減輕潛在危險；崩塌區內局部整地增加坡址的穩定性，挖出的土方就地填入堰塞湖與附近水潭，並無廢棄土方的環保問題。

走過震殤，在社區居民齊心經營之下，九份二山區域已成著名的地震教材，堰塞湖旁亦開闢步道，提供民衆散步賞景，尤其元旦前後梅花盛開，更是別具風情，成為休閒新去處。

Bank Protection Along Jiucaihu River

Located near the epicenter was the Sezikeng region, found in Nangang Village, Guoshing Township, Nantou County. Here a landslide that swept away a layer of rock strata on Jiufen-er Mountain created two barrier lakes, one each in the Jiucaihu River and Sezikeng River. This project sought to repair the Jiucaihu River by stabilizing its barrier lake. The main technique for mitigating potential dangers was to lower the barrier lake's overflow outlet to reduce its water holding capacity. Localized work in the landslide area stabilized slope zones while excavated soil filled in the barrier lake and nearby pools. Now the Jiufen-er Mountain area is a popular site for teaching about earthquakes.





韭菜湖溪整治工程，有效減少堰塞湖蓄水容量，減輕潛在危險。
 Restoration work on the Jiucaihu River reduced potential danger by lowering the water holding capacity of the barrier lake.



喜樹抽水站

臺南市南區沿海地區地勢低窪，且排水口有逆坡現象，平日積水不易排放，加上日新溪海水倒灌，每逢颱風或暴雨來襲，排水更是宣洩困難，常發生淹水情形，尤以喜樹社區最為嚴重。為解決當地水患問題，歷經重重困難與努力，特別興建臺南市喜樹抽水站，這也是「易淹水地區水患治理計畫」第一項啟動的工程。

完工後大幅改善了喜樹地區的整體排水系統，讓社區居民從此脫離淹水夢魘。而喜樹抽水站也以優質工程建設，獲得 2010 年國家卓越建設獎「最佳管理維護類金質獎」的肯定。

Sishu Pumping Station

In the low-lying coastal zone of southern Tainan upslopes in drainage area cause water to accumulate, a problem exacerbated by the reverse flow of the Rihsin River. During typhoons or torrential rain flooding is common, particularly in the Sishu Community. To solve these drainage problems and eliminate floods, this project overcame many difficulties to build the Sishu Pumping Station. Because of excellence in management and maintenance, the project was recognized at the 2010 Taiwan Real Estate Excellence Awards.



喜樹抽水站以優質工程建設，獲得國家卓越建設獎「最佳管理維護類金質獎」。
Superb engineering and construction led the Sishu Pumping Station to receive a gold medal in management and maintenance at the 2010 Taiwan Real Estate Excellence Awards.



尚義海堤復建

金門從昔日的軍事前哨，蛻變為「國際觀光休閒島嶼」，各項基礎建設備受重視。2009年莫拉克颱風挾帶驚人雨勢，淘空了尚義海堤基座，造成嚴重崩塌，政府除了啟動緊急搶修機制，也展開復建計畫，強化尚義海堤的防護功能。

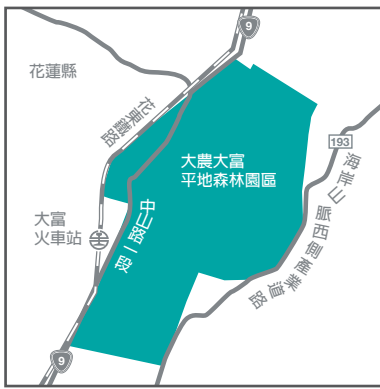
尚義海堤復建計畫，增加堤頂高度一公尺，採用格框階梯式工法，回收原有混凝土塊再利用，同時於上層的階梯填土植栽，進行綠美化工程，另外設有涼亭與樓梯供休憩。

Shangyi Seawall Rebuilding Project

In 2009, extreme rain brought by Typhoon Morakot coupled with high tide to wash away the foundation of the Shangyi Seawall. The government launched emergency repairs with a grid laddering technique followed by a rebuilding project which has strengthened protective capabilities of the seawall.



尚義海堤採用格框階梯式工法，不僅發揮禦潮防範功能，也改善了海岸景觀，成為民眾親水的休閒空間。
The Shangyi Seawall utilizes a grid laddering technique that guards against the incoming tide and enhances the coastal landscape, making it a seaside recreational space for everyone to enjoy.



森林永續經營

大農大富平地森林園區

花蓮大農大富平地森林園區位於花蓮縣光復鄉，是國內第一座平地森林園區，也是愛臺12建設「綠色造林計畫」目標之一。占地廣達1,250公頃，等同於40座臺北市大安森林公園，採低度開發模式，保留自然風貌，讓民眾不必上山，也能享受森林浴的洗禮。

園區透過植樹、生態菜園、保水系統等，號召志工一起打造「食物森林」，增加生物的多樣性；並結合周邊農業、城鄉文化、社區營造與環境教育等資源，開創低碳化的多元旅遊場域，目前規劃有花海、自行車道和森林步道等遊憩空間，兼顧環境與經濟發展，也為在地社區注入一股新商機。

Sustainable Forest Management

Danongdafu Forest Park

The Danongdafu Forest Park, Taiwan's first plains forest park, sits on 1,250 hectares of land, making it 40 times larger than Taipei's Daan Park. Construction of the park called for planting trees, forming an ecological garden and creating a water conservation system. Volunteers joined by building a "food forest" to increase the variety of life in the area, and the project integrated the surrounding agriculture industry, culture in neighboring cities and towns, community building, and environmental education, so the park could become a diverse, low carbon travel site.





花蓮大農大富平地森林園區占地廣達 1,250 公頃，等同於 40 座臺北市大安森林公園。
Danongdafa Forest Park sits on 1,250 hectares of land, making it 40 times larger than Taipei's Daan Park.

圖片版權 / 道綺全球傳播有限公司

四林平地森林園區

林後四林平地森林園區為國內新建三處平地森林園區之一，位於屏東縣潮州鎮以東、林邊溪以西之中央山脈南段西坡，面積約1,000公頃，幅員廣闊。園區為大武山低海拔自然森林，是為山城、平原環境修復的生態園區。

林後四林園區包含林後、南岸與四林農場，規劃有林業育成區、核心服務區、環境體驗區、環境緩衝區、戶外教育農場區等五區，將朝地方環境創意產業與文化體驗的方向發展。

平地森林園區的設立，不僅符合節能減碳概念，也為地方觀光發展帶來新契機，進一步提升屏東生態休閒旅遊實力。

Silin Forest Park

Linhousilin Forest Park is one of Taiwan's three new forest parks developed in a low-lying area. The 1,000-hectare park, which consists of natural forest in low-lying areas of Dawu Mountain, is the result of a restoration project focused on mountainous and plains environments. Linhousilin Forest Park includes the Linhou, Nanan and Silin farms, and there are plans for five new areas: a forestry incubation site, a service center, an environmental learning area, an environmental buffer and an outdoor education farm. These rich resources will assist future efforts to develop the park based on the local environment as well as the cultural and creative industries.



林後四林園區將朝地方環境創意產業與文化體驗的方向發展。
Development of the Linhousilin Forest Park will focus on the local environment as well as the cultural and creative industries.



富源森林遊樂區

富源森林遊樂區位於花蓮縣瑞穗鄉，面積約190公頃，是臺灣最大的樟樹林遊樂區，並以瀑布景觀與巨岩奇石聞名；每年3至8月，70種以上的蝴蝶在林間飛舞，多彩多姿，因此又名蝴蝶谷。

走在富源園區，處處可見人工造林的樟樹群濃密參天。廣闊的樟樹造林地，林相優美，釋放出大量的芬多精、樟腦油精，沿步道漫步林間，可盡情享受健康的森林浴。

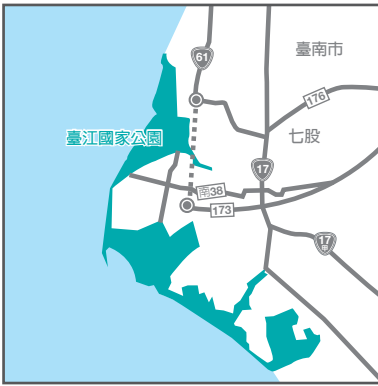
自政府推廣「平地造林」政策以來，全國的造林地面積大幅增加，不僅提供民衆優質的休閒環境，同時結合生態保育工作，讓臺灣綠色環境得以永續發展。

Fuyuan Forest Recreation Area

Fuyuan Forest Recreation Area, a 190-hectare park consists of Taiwan's largest Cinnamomum camphora recreational forest and is known for its waterfalls and unusual rock formations. Every March to August more than 70 types of butterflies parade through its grounds, bringing a splash of color that led the area to be called "butterfly valley."

走在富源園區，沿步道漫步林間，可盡情享受健康的森林浴。
Slowly walking through the Fuyuan Forest Recreation Area, one can enjoy a healthy "green shower."





國家公園與重要溼地

臺江國家公園

臺江國家公園位於臺南市沿海區域，是首座結合溼地與文化環境的國家公園。陸域包括臺南市鹽水溪至曾文溪沿海公有地、黑面琵鷺保護區、大潮溝西側與七股潟湖等；海域以漢人先民渡臺主要航道之東吉嶼至鹿耳門段為參考範圍。

臺江是臺灣近代史的起點，蘊含獨特的文化資產，同時，本區長期做為鹽田、港埠、漁塢等使用，保存了廣大珍貴的溼地生態系，吸引多元物種繁殖棲息。紅樹林自然觀察區不時可見各種珍稀鳥類，連瀕臨絕種的黑面琵鷺也飛抵過冬，這裡也是全臺招潮蟹數量最多的地方。臺江國家公園的成立，除了保育生態與保存歷史文化，更帶動地方觀光發展。

National Parks and Major Wetlands

Taijiang National Park

Situated in a coastal area of Tainan is Taijiang National Park, Taiwan's first national park to combine a wetland with an environment rich in cultural elements. Taijiang is where modern Taiwanese history began. It has unique cultural resources and for many years was home to salt fields, a port and fishing farms. Its valuable wetlands resources remain and continue to attract a variety of organisms that come to live and reproduce. Among the natural mangrove forest visitors can see rare bird species. Even the endangered black-faced spoonbill comes to pass the winter, and more fiddler crabs live here than any other place in Taiwan.





生態資源豐富的臺江國家公園，吸引多元物種繁殖棲息。

The rich ecological resources of Taijiang National Park attract a variety of organisms that come to live and reproduce.



臺中高美溼地

高美溼地位於臺中市大甲溪出海口，擁有全國面積最大的雲林莞草和充沛的有機質、彈塗魚、蟹貝類等生態資源，營造出水鳥賴以為生的野生動物保護區。

本地也提供了民衆一處生態教育、解說的場所，為高美地區帶來無數生態旅遊商機。在高美自行車道翱翔，沿途欣賞夕陽與美景的同時，也可順道拜訪周邊燈塔博物館、濱海生態園區、電力博物館等，更深入瞭解高美溼地的美。

Taichung's Gaomei Wetlands

The Gaomei Wetlands are located at the mouth of Taichung's Dajia River. They are home to the nation's largest *Bolboschoenus planiculmis* fields, which serve as an important habitat for marine birds and are one of Taiwan's most important mating grounds for birds in the Anatidae family. Local community planning has also helped turn the wetlands into an educational zone for teaching about ecology as well as a research site.





民眾能在高美溼地欣賞到專屬溼地的生態景緻，也可眺望海岸邊的風力發電組。
In the Gaomei Wetlands people can enjoy unique wetland landscapes while seeing wind turbines located along the coast.



鰲鼓溼地為國家級溼地，擁有全國棲地最豐富多元的溼地生態體系。
The Aogu Wetlands are renowned as an important national resource due to having the most abundant, diverse habitats of any wetlands system in Taiwan.

空中攝影 / 齊柏林
圖片版權 / 台灣阿布電影股份有限公司

嘉義鰲鼓溼地

鰲鼓溼地位於嘉義縣東石鄉西北側北港溪與六腳大排出海口，由於當地地層嚴重下陷，長期飽受淹水之苦，政府「加速辦理地層下陷區排水環境改善示範計畫」，在溼地旁興建鰲鼓排水幹線抽水站，除了防洪治水，也達到溼地環境的保護作用，兼具環保及觀光效能。

2011 年委託規劃的「鰲鼓溼地森林園區」藉由平地造林，以節能減碳及復育環境為目的，引導過去開墾的海埔地逐步回歸自然，並透過全區整體規劃，使鰲鼓溼地成為重要之環境教育中心，而本案亦榮獲 2011 年「美國景觀建築協會(ASLA)」分析規劃領域專業組首獎，其兼顧景觀規劃與全球性候鳥遷徙路線的設計手法，結合永續生態在地循環的概念，讓鰲鼓溼地成為環境教育的一顆種子。

Chiayi's Aogu Wetlands

To improve land subsidence the government built the Aogu drainage line pumping station, Besides improving flood prevention and water management, the pumping station protects the wetlands environment, benefiting both the environment and local tourism. In 2011 the American Society of Landscape Architects awarded Aogu Wetlands with its Analysis and Planning Professional Award, the first time Taiwan had received this honor.





嘉義布袋海岸林復育

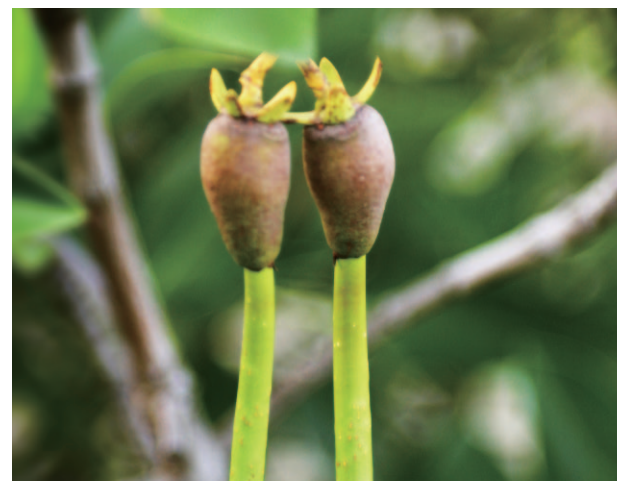
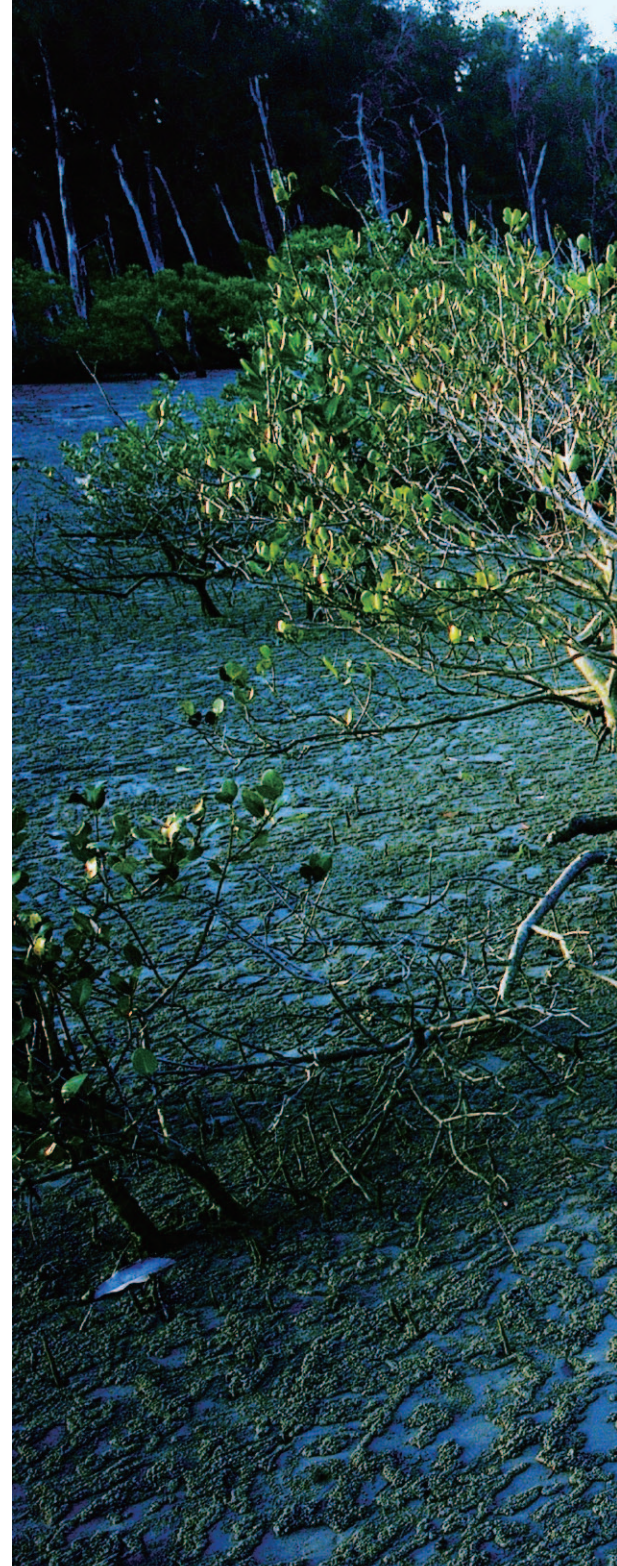
嘉義縣布袋鎮的好美寮生態保護區，以溼地、潟湖、紅樹林等自然景觀聞名，但因位處地層下陷的海岸區，加上氣候變遷與海平面上升影響，海水倒灌衝擊生態資源。近年來，經有關單位努力復育，已成功復育大面積海岸林，吸引水鳥棲息與繁殖，重現多樣性的生態環境。

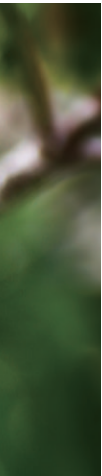
海岸林復育工程採取開溝整地築堤方式，加強排水與降低土壤鹽分後，廣植木麻黃、海欖果、黃槿、水黃皮等樹種，營造複層林相，成功吸引大批鳥類，如白鷺鷥、夜鷺在此地棲息；另外潮間帶的彈塗魚、牡蠣與招潮蟹等生物，也是不容錯過的生態景觀。

範圍廣大的好美寮保護區，孕育豐富的自然資源，為保護自然界嬌客，林務局將持續在沿海造林，打造一座綠色長城。

Chiayi's Budai Township Coastal Forest Restoration

Situated in Chiayi County's Budai Township, the Haomeiliao Ecological Preserve is well known for its natural landmarks, such as wetlands, lagoons and mangrove forests. But its ecological resources were under attack from the reverse flow of seawater, exacerbated by coastal land subsidence, climate change and rising sea levels. To correct these problems relevant agencies restored large sections of coastal forest after excavating channels, preparing sites and building embankments. In the process they attracted marine birds which come to reproduce, bringing new variety to the ecological environment.





經過多方的努力，布袋海岸已重現多樣性的生態環境。
Hard work has brought ecological diversity back to the Budai coast.

生態城市與低碳社區

Eco-city & Low Carbon
Communities



國際間永續城市的發展趨勢，是從「以人為本、與自然和諧共存」的價值觀出發，當前全球暖化加劇，且國際間的自然資源逐漸匱乏，為了臺灣永續發展，再生能源、節能省水與綠建築、低碳城市的推廣更是首要工作項目。於發展再生能源中，符合我國自然條件的風力發電及太陽光電，近年來在政府積極推廣之下，發電量大為提升，特別是澎湖等離島地區的離岸風力更具發展優勢。而陽光普照的臺灣，亦是發展太陽能光電的好場所，未來透過屋頂、公路路網、房屋屋頂、海埔新生地等區域鋪設太陽光電板，更具有無限潛能。而水資源的回收再利用更是地狹人稠的臺灣所不能忽略的課題，未來結合節能省水的理念運用於建築甚至城市規劃上，更將成為臺灣永續發展所不能忽略的關鍵要素。

Internationally, development in sustainable cities is based on the values of putting people first and living in harmony with nature. In Taiwan, to cope with the effects of accelerating global warming and the gradual depletion of the world's natural resources, sustainable development is focused on increasing the use of renewable energy, promoting energy conservation and green building, and creating low-carbon cities. In renewable energy, the government is concentrating on using solar and wind power, as the two sources best suited to Taiwan's natural conditions. The success of projects such as the wind farms on Penghu and other offshore islands has raised electricity generation while lowering carbon emissions. In the future, to better tap the limitless potential of Taiwan's sunny climate, the government will promote the installation of solar panels on roofs, along roadways, on reclaimed land, and in other appropriate places. Also, Taiwan's small size and high population density make it vital to place the greatest emphasis on using water efficiently. Therefore, the government is promoting the concept of water conservation and recycling in building construction and urban planning, as a key element of achieving sustainable development in Taiwan.

綠色能源

澎湖低碳島

澎湖縣是臺灣第一個再生能源生活圈的示範低碳島。自2011年到2015年執行五年計畫，從再生能源、節約能源、綠色運輸、低碳建築、環境綠化、資源循環、低碳生活及低碳教育等八大面向，打造潔淨生活低碳島。預計完成後，可使澎湖再生能源發電量超出當地用電需求，碳排放比例降低50%。

澎湖的東北季風強勁，是發展風力發電的理想地點，未來風力發電可望取代火力發電。此外，也同步推動太陽光電計畫，並全面汰換成LED路燈；島上還大力推廣綠色運輸，電動機車普及度愈來愈高。為了完善使用環境，建置300多座智慧型能源補充設施，創造更便利的充電環境。

Green Energy

Turning Penghu Into a Low Carbon Island Chain

As Taiwan's first living circle with a dedicated renewable energy initiative, Penghu County is a model low carbon island chain. A five-year plan taking place from 2011 to 2015 will further improve Penghu's environment by concentrating on eight main areas: renewable energy, energy conservation, green shipping, low carbon buildings, creating a greener environment, resource recycling, low carbon lifestyles and low carbon education.





澎湖的東北季風強勁，是發展風力發電的理想地點。
Penghu's strong northeast monsoon winds make the island chain an ideal location for generating wind power.





花博新生三館

臺北市花博新生三館，是臺灣首座智慧型節能建築，榮獲鑽石級綠建築候選證書的最高榮譽，以及2010年臺灣建築大獎。

新生三館導入多項最新建築工法，主體順著新生公園的百年老樹群而發展，透過植被地景與自然景觀融合，有著全臺最美麗之稱的屋頂。屋頂與牆面皆以植栽綠化，加上智慧型溫控系统，搭配地冷、噴霧、水牆與天窗，達到天然降溫、節能減碳的效果。

在水電資源方面，屋頂裝設的太陽能光電板，是目前臺北市最大的再生能源裝置；為了減少使用自來水，設置雨水回收系統，作為澆灌園區植物之用。新生三館透過最新的綠能環保科技，展現了臺灣「綠建築」與「智慧型建築」結合的可能性，也讓大家重新思考人與自然的關係。

The Three Xinsheng Pavilions at Taipei Flora Expo

The three pavilions located at the Xinsheng Park area of Taipei Flora Expo are Taiwan's first smart, energy efficient buildings. Construction of the Xinsheng pavilions featured the latest architectural techniques. Their main structure was built around century-old trees located in the park, and plants link the roofs with the surrounding landscape and natural terrain. The Park rely on the latest green energy and environmental protection technology to show the possibilities that exist when Taiwan integrates green building and smart buildings.

花博新生三館屋頂裝設的太陽能光電板，是目前臺北市最大的再生能源裝置。
The solar panels on the roofs of the three Xinsheng pavilions used during the Flora Expo compose Taipei's largest renewable energy installation.



屏東海生館「Solar Top 太陽光電系統建築」

全球首座鯨魚造型Solar Top太陽光電系統建築，座落於屏東縣國立海洋生物博物館，該系統年發電量約9.4萬度電，相當於8,000戶家庭一天的使用電量，可減少逾50公噸碳排放量。

這座海生館新地標，以鯨魚為外觀靈感，呼應海生館的海洋主題，更善用屏東豐沛日照與空曠環境的優勢，將無污染的太陽光電融入建築體，在室內裝設太陽光電展示看板，兼具發電、教育與觀光效益，是臺灣綠能實力的具體表徵。

The Solar Top PV Building of the Pingtung Museum of Marine Biology & Aquarium

Located in Pingtung County is the world's first whale-shaped Solar Top photovoltaic (PV) building, which houses the National Museum of Marine Biology & Aquarium. Inspiration for the building's design came from whales, reflecting the marine theme of the facility. The building also takes advantage of Pingtung's abundant sun and open environment through its integrated PV cells. These non-polluting cells provide educational and tourism benefits by supporting solar-powered signs inside while generating electricity. They are one of the best indicators of Taiwan's capabilities in the area of green energy.





海生館鯨魚造型的太陽光電系統建築，是臺灣綠能實力的具體表徵。
The whale-shaped photovoltaic building that houses the Museum of Marine Biology & Aquarium demonstrates Taiwan's capabilities in the area of green energy.

圖片提供 / 海生館

福田水資源回收中心

臺中市福田水資源回收中心，是臺中首座公共下水道污水處理廠，獲水利署選為「水再生利用產業科技發展計畫」試辦地點，作為臺灣水再生利用產業推動的指標先趨。

「水再生利用產業科技發展計畫」補助福田水資源回收中心建造放流水再生模廠，推廣水資源回收再利用；生活汙水經處理後，產出可供工業及民生次級用途的再生水使用，除優先於廠內再利用外，也提供附近有意願的學校、公園綠地澆灌使用，並作為鄰近工廠的循環冷卻系統補充用水。同時福田水資源回收中心也兼具教育功能，開放民衆參觀，宣導水資源回收，是相當難得的體驗。



Futian Water Recycling Center

The Futian Water Recycling Center is Taichung's first water treatment center to treat water from public sewers. When the Water Resources Agency chose it to serve as the site of pilot testing for its Water Reclamation Industry Technology Development Project, it became a local pioneer in the water reclamation industry. Besides its role in water reuse, the Futian center serves an educational purpose, is open for public visits and publicizes water recycling. Such a wide range of services is hard to come by.



福田水資源回收中心，主要功能是處理生活污水，讓水再生利用。

The main purpose of the Futian Water Recycling Center is to treat sewage to aid water reclamation.

竹北市水資源回收中心

本中心為新竹縣首座水資源回收中心，主要收集竹北市、竹北斗崙及高鐵特定區等三個都市計畫區的生活污水；處理後的放流水在符合環保署標準後，排放至鳳山溪，完工後不但解決了污水病媒問題，也促使河川水質更為潔淨，對於改善竹北水資源、環境衛生、美化市容有相當助益。



Zhubei Water Recycling Center

The Zhubei Water Recycling Center, Hsinchu County's leading water recycling center, is situated in Zhubei City. The recycling center has solved many problems. Direct changes include stopping sewage from serving as a vector for disease, cleaning water discharged into the city's river system, and dramatically improving water quality in Zhubei. Indirect improvements include better environmental hygiene and a more beautiful city.



竹北水資源回收中心對於改善竹北市水資源有極大的助益。
The Zhubei Water Recycling Center has greatly improved Zhubei City's water resources.



綠建築與低碳社區

觀音鄉新行政園區

配合政府「環保科技園區暨循環型生態城鄉建設計畫」，以環保節能、綠能科技、資源永續循環利用、減廢為理念的觀音鄉新行政園區因運而生，並榮獲鑽石級綠建築標章。

園區包含觀音鄉公所、鄉民代表會、戶政事務所與衛生所等機關，也附設綠資源教育推廣中心，展示綠建築概念。園區採三合院形式，使用環保綠建材，因臨近海岸，具豐沛的風力資源，特別裝設風力發電機組，供電給綠資源中心；水源部分，在不影響周邊農地灌溉前提下，引用灌溉溝渠之水，導入生態池，並設置雨水貯集設施，減少使用自來水；而精心設計的通風設備與遮陽系統，更讓室內自然降溫，產生節能效果。民衆來此除了洽公，也可當作休憩場所，感受公共工程與節能永續結合所帶來的便利。

Green Building and Low Carbon Communities

Guanyin Township New Administrative Park

The Guanyin Township New Administrative Park is based on the principles of environmental protection, energy efficiency, green energy and technology, the 3Rs, and waste reduction, in line with a government project to build environmental science and technology parks and eco-friendly localities. Its success led to diamond recognition in the Green Building Label awards. The administrative park was built as a three-section compound using green building materials. Because of the strong winds near its seaside location, the project incorporated wind turbines that generate electricity for the green resource center. For water there is an ecological pond filled from an irrigation ditch under the condition that its use does not affect irrigation of surrounding farmlands, and rain collection facilities reduce tap water use. Thoughtful design incorporated ventilation equipment and a system for blocking the sun, so indoor temperatures fall naturally to save energy.





觀音鄉新行政園區以環保節能、綠能科技、資源永續循環利用、減廢為理念，榮獲鑽石級綠建築標章。

The Guanyin Township New Administrative Park, a diamond winner in the Green Building Label awards, is based on the principles of environmental protection, energy efficiency, green energy and technology, the 3Rs and waste reduction.



國立南科國際實驗高級中學

位於臺南科學園區與農業區之間的國立南科國際實驗高級中學，校園銜接科技與農田，成為一處生機盎然的場所，是國內首座榮獲鑽石級綠建築標章的校舍。

整體校舍使用接近**100%**的綠建材，**CO₂**節能效率高達**30%**，照明節能效率亦達**50%**。九成以上教室都具有良好自然通風與採光，所有便器與水栓皆使用省水標章器具，並設有雨水貯集槽，作為校園景觀噴溉之用。全校設有專用垃圾集中場與資源回收室，具體執行資源分類回收，讓全校師生透過實際行動愛護地球。

National Nanke International Experimental High School

Situated between a Tainan science park and an agricultural zone, the National Nanke International Experimental High School links technology and farming. Life is in abundance at this educational facility, the nation's first campus to receive diamond recognition in the Green Building Label awards. The entire campus used 100 percent green building materials, leading to reductions of up to 30 percent in carbon emissions and producing similar benefits in energy efficiency. Energy savings on lighting reached 50 percent.





國立南科國際實驗高級中學的校園銜接科技與農田，是國內首座榮獲鑽石級綠建築標章的校舍。
By linking technology and farming, the National Nanke International Experimental High School became the nation's first campus to receive diamond recognition in the Green Building Label awards.



嘉義明華里低碳社區

嘉義縣大林鎮明華里，原本因青年人口外移而面臨凋零，卻因居民自發性的行動，變身為低碳示範社區，並獲選全國百大績優村里。

在當地活動中心與發展協會的帶動下，居民逐步實踐生活低碳化，包括自製雨水回收系統，裝設太陽能熱水器，善用自然光線及通風設計，採用耐久、可拆組建材，減少建築廢棄物，從垃圾源頭減量，做好資源回收，達到節能、節水與節材的目標。社區並推廣環保電動車，在活動中心裝設太陽能板，產生的電力免費供應電動車充電，大大提升居民騎乘電動車的意願。

社區還將原本荒涼的墓園，改造成人工溼地；並成立自行車隊，建構自行車道網，推廣低碳的生態旅行，在落實低碳生活的同時，也提升了農村社區的競爭力。

Chiayi's Minghua Low Carbon Community

Residents of Minghua Village's neighborhood in Chiayi County's Dalin Township acted, turning their home into a model low carbon community that was chosen as one of Taiwan's 100 best. With support from the local activity center and development association, residents gradually began to reduce their carbon footprints. It also promoted environmentally friendly electric scooters and installed solar panels in the activity center. The electricity these panels generate is provided for free to recharge the scooters, dramatically increasing motivation for people to use them. The community also turned a desolate old cemetery into a manmade wetland, formed a cycling team and built a network of cycling paths that can be used for promoting low carbon ecological tours.





大林鎮明華里為嘉義縣低碳示範社區，社區中的各種節能措施與藝術裝飾，讓國內外參訪團體絡繹不絕。

Minghua Village, in Chiayi County's Dalin Township, is a model low carbon community. The variety of energy saving measures and artistic decorations in the community draws a constant stream of domestic and international tour groups.

創
新

INNOVATION

重塑產業群聚能量

Reshaping industry cluster energy



布局產業空間 重塑臺灣新貌

工研院知識經濟與競爭力研究中心主任 / 杜紫宸

An Industrial Arrangement for Reinvigorating Taiwan

Director Tu Tze-chen

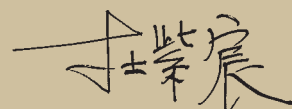
Center of Knowledge-based Economy and Competitiveness

根據世界經濟論壇（WEF）評比，臺灣在產業群聚的競爭力排名，曾經多年高居世界第一。任何人如果希望瞭解臺灣過去數十年經濟發展的脈絡，產業園區與廊帶肯定是觀察重點。從早期食品、紡織、機械等傳統工業的建立，以電子與半導體產業為主的科學工業園區，到近年政府大力倡導的六大新興產業發展，一部臺灣半世紀產業發展歷史，其實與地理空間規劃密不可分。

土地是產業發展的關鍵要素之一，臺灣多高山，平原地帶地狹人稠，國土空間規劃格外關鍵，產業發展亦復如是。未來面對世界新興國家發展所帶來的劇烈競爭壓力，臺灣需要進行產業結構轉型革命，高耗能、低附加價值、有環保疑慮的產業，如金屬加工與石油化學工業，可能被迫逐步遷出臺灣，然而在這個痛苦的轉變過程中，高值產業園區與廊帶的再塑造，將是政府相關部門重要的政策課題。換言之，以未來經濟發展需求盤點現有產業空間分布，實在是刻不容緩。

近年來，世界各國在其經濟與社會發展規劃中，除了考慮充分運用地生產要素的比較優勢差異，更重視區域發展與就業人口之均衡性，這也是我們觀察產業園區與廊帶分布時，不能不列入思索的要件。不過，另一個角度思考則是：備多則力分，臺灣終究屬於小型經濟國家，資源集中方能成事，政府進行創新產業選址決策時，如生物科技產業園區、文化創意產業園區、甚至是自由經濟示範區，究竟應該集中一處，或是遍地開花，這是應該嚴肅看待的議題，完全依據地方政治妥協做出的決定，恐不易建構國際競爭要件下最後勝出的成功要素。

本書章節由「傳統工業區再生」出發，逐步進入「科學園區與產業創新走廊」與「文化創意產業園區」的描述鋪陳，讀者應可窺伺臺灣產業發展的未來路徑與願景新貌。事實上，任何產業政策的規劃與制定，不能不考慮資源要素的限制與政策之延續性；如何依據現有產業空間布局，重塑臺灣產業新貌，除了考驗規劃者的能耐，也挑戰中央與地方政府能否協調同步、攜手共進。這將是一件困難與關鍵的任務。



For years the World Economic Forum has ranked Taiwan number one in the world in terms of “state of cluster development.” Understanding the overall context of Taiwan's economic development during the past several decades requires observation of its industrial parks and corridors. From the early years of establishing traditional industries such as foodstuffs, textiles and machinery, to the electronics and semiconductors industries in science parks and the government's recent promotion of six emerging industries, Taiwan's industrial development over the past half century is closely linked to its spatial planning.

One of the main factors of industrial development is land planning. In Taiwan it is particularly important because extensive mountain ranges limit the amount of plains for people to live on, leading to crowded cities. Industrial development faces the same problem. As Taiwan's faces fierce new competition from the rise of emerging countries around the world, a revolution will be needed in the way its industrial framework is organized. High energy-consuming, low added value, environmentally unsound industries, such as metal finishing petrochemicals may need to gradually move abroad. Such a transformation would pose many difficulties for Taiwan, and part of the government's response would have to be policies that promote high-value added zones and corridors. For now, an inventory of current industrial space distribution is required to determine future economic development needs.

In recent years, when countries around the world have formulated economic and social development plans, they have done more than consider local manufacturing advantages. They have placed strong emphasis on regional development and building a balanced workforce. When Taiwan investigates distribution of its industrial zones and corridors, it must take these factors into account. But another perspective to consider is that if resources are overly scattered, there would be weakness on all fronts. Taiwan's economy is relatively small, which creates a need for it to concentrate its resources. When the government chooses locations and strategies for promoting innovative industries, it must carefully decide whether these industries should be concentrated in one place or spread out. These considerations are already being applied to biotech parks, cultural and creative parks, and even free economic demonstration zones. Leaving these decisions up to negotiations between local governments would unlikely deliver the conditions needed for international success.

This publication begins with a section on the renewal of traditional industrial zones, then looks at science parks and industrial innovation corridors, as well as cultural and creative parks. Readers have the opportunity to see the future path and vision of industrial development in Taiwan. Formulating industrial plans requires a hard look at resource limitations and the desire for consistent policy. Devising methods to reinvigorate industry based on Taiwan's existing industrial arrangements is more than just a challenge to planners. Central and local governments must also coordinate their efforts as they pursue this difficult, vitally important mission.

傳統工業區再生

The Regeneration of Traditional Industrial Parks



自1960年代起，政府陸續開發工業區與加工出口區，驅動臺灣經濟成長，逐步奠定工業化國家的基礎。由於開發年代較早，多處工業區面臨設施老舊、生活機能不足與產業待轉型等問題，愛臺十二建設特別列入「都市及工業區更新」項目，全面更新工業區硬體建設，特別是節能減碳綠能設施與污水處理等，打造更優質的生產環境。

面對全球經濟競爭激烈的大環境，政府也協助工業區與加工出口區的企業提升軟實力，積極推動各區重點產業群聚，擴大產學合作機制，引導廠商技術升級轉型，進而提升營運效率，創造更多就業機會。

在愛臺十二建設規劃下，工業區配合都市更新與開發，結合地方發展，達成吸引廠商投資的目標；此外，加工出口區也朝高科技、高附加價值的產業發展，透過兩者的活化再造，將開創臺灣另一個經濟高峰。

Since the 1960s the government has been developing industrial zones and export processing zones. These have driven economic growth and gradually built a foundation for turning Taiwan into an industrialized nation. Because development of these zones took place early in Taiwan's modern history, many have old facilities and insufficient living amenities. In some, industrial transformation is stalled. To correct these problems, the government made "Urban and Industrial Park Regeneration" one of its i-Taiwan 12 Projects. This project called for renewal of facilities in the zones, with a focus on energy-efficient, carbon-reducing buildings that use green energy, as well as improvement of sewage treatment. The changes are leading to a better manufacturing environment.

To cope with intensifying competition in the international environment, the government is helping park and zone companies enhance their soft power. It is promoting the formation of key industrial clusters in all areas and expanding mechanisms for industry-academia cooperation, enabling firms to acquire new technologies, upgrade operations, improve efficiency, and create more jobs. At the same time, construction planning under the i-Taiwan Projects is making it easier for industrial zones to aid urban renewal and development plans. The local development that ensues is attracting new industrial investment. Export processing zones meanwhile are being vitalized and transformed by developing high-tech, high added-value industry. By stimulating these two types of zones, the government is leading Taiwan toward a new peak of economic development.

樹林、土城工業區

位於大臺北的樹林工業區，從原本的樹林潭底沼澤地，變身為木器工業區，因應世界經濟潮流，後來改為一般無污染綜合性工業區。目前產業類別，以電腦、通信及視聽電子產品、塑膠製品、紡織業為主。土城工業區是大臺北另一處工業重鎮，開發以來，產業型態逐漸由傳統產業走向高科技產業，現今以電子業、金屬製品、機械設備、塑膠製品製造業為生產大宗。

近年因都會區結構與產業型態的轉變，這兩處老舊工業區皆面臨轉型問題，政府積極進行工業區再開發計畫，除了逐步改善公共設施，更協助企業調整經營方向，研發生產高附加價值產品，促進傳統產業升級轉型，賦予園區新面貌，也帶動周邊市鎮社區整體都市更新。

Shulin and Tucheng Industrial Parks

In recent years changes to the urban and industrial structure have made it necessary for Shulin and Tucheng Industrial parks to transform. The government provides assistance through an industrial zone redevelopment plan, which is gradually improving infrastructure and helping enterprises change their operational direction from traditional industries to high added-value industry. As this transformation takes place, the new image for the parks is stimulating urban renewal in surrounding communities.





大臺北的樹林工業區屬於無污染綜合性工業區。
Greater Taipei's Shulin Industrial Park is a diversified industrial zone for non-polluting industries.



土城工業區是大臺北的工業重鎮，目前產業型態逐漸由傳統走向高科技產業。
Tucheng Industrial Park, a major industrial area of Greater Taipei, is gradually transforming from traditional to high-tech industries.



臺中港關連工業區

臺中港關連工業區是配合十大建設之一的臺中港而建置營運，經由抽海砂填土而成，由於地處臺中港腹地，更可利用南北高速公路、高速鐵路、縱貫鐵路對外聯絡，原料和產品進出口運輸相當便捷。

關連工業區經過工業區更新計畫，改善車行及人行空間、綠美化圍籬、強化排水機能、增設節能路燈與入口意象等公共設施之後，使得原本老舊的園區煥然一新，不但吸引企業搶地進駐，也提高人才就業意願，讓原本閒置的廠房與土地得以有效利用。

同時，臺中港也陸續推動各項港灣建設，因此關連工業區發展可說潛力無窮，在積極整合區域資源，協助企業創新轉型之下，可望再創經濟佳績。

Taichung Harbor Guanlian Industrial Park

Taichung Harbor Guanlian Industrial Park was created in conjunction with the Port of Taichung, one of the Ten Major Construction Projects. An industrial zone renewal plan improved the park's vehicular and pedestrian spaces, added plants and trees to perimeter fences, improved drainage, installed energy-saving street lamps, and redid the park entrances. These changes gave a new look to what had become an old industrial park, leading enterprises to seek a position in the park and making it easier to recruit talented workers. Factories and land that had sat idle were given new life.





位於工業區入口的凌河塔影，是為配合地方文化環境建構出的入口意象。

The entryway to the industrial zone was built with the local environment and culture in mind.





高雄臨海工業區

高雄臨海工業區設立於 1960 年代，配合高雄港擴建與十大建設的大煉鋼廠、造船廠需要，提供優良的投資環境。目前產業型態以機電、鋼鐵、化學、運輸等重工業為主，是我國工業發展的重要命脈。臨海工業區挾地利之便，透過高雄港海運，輸入國外煤、鐵、油原料，節省運輸成本。

2009 至 2011 年政府投入臨海工業區之更新與開發計畫，藉由公共資源的導入，有效改善當地基盤建設，除於 2011 年間陸續完成公共空間綠美化工程及服務大樓整建外，也逐步完成工業區廠商轉型再造計畫，長期輔導工業區廠商永續經營。同時，本案也藉由高雄應用科技大學認養臨海工業區之專案輔導計畫，連結產官學能量，提升整體產業競爭力。

Kaohsiung Linhai Industrial Park

Kaohsiung Linhai Industrial Park was founded in the 1960s, a vital part of industrial development in Taiwan. The government implemented renewal and development plans in the park between 2009 and 2011, improving basic infrastructure. In 2011 besides adding plants and trees to public spaces and renovating the service building, it finished a plan to promote transformation of enterprises in the industrial zone. The changes these businesses undertook were a major step toward achieving sustainable operations. Another plan led the National Kaohsiung University of Applied Sciences to "adopt" the park. Bringing industry and academia together provided a boost to overall industrial competitiveness.

高雄臨海工業區是我國工業發展的重要命脈，中鋼、中船與中油煉油廠均設廠於此。Kaohsiung Linhai Industrial Park, home to factories and refineries run by China Steel, CSBC Corporation and CPC Corporation, is a vital part of industrial development in Taiwan.





加工出口區園區升級轉型

臺中加工出口區

建於 1969 年的臺中加工出口區，位於臺中市潭子區，早期產業重心在電機電子器材業與其他雜項工業，目前則以精密光學、LCD、LED 及 IC 封測等產品項目為主。

中部地區憑藉優越的區位與充沛的人力資源，向來是臺灣的工業重鎮，臺中加工出口區成立以來，成功引進光學與 LCD 大廠進駐，帶動相關廠商布局，上中下游相互合作，形成完整的產業鏈，大舉推升臺中加工區的投資力道。

Renewal Project in Export Processing Zones

Taichung Export Processing Zone

Industry in central Taiwan relies on excellent location and an abundant workforce, which has traditionally made it one of Taiwan's leading industrial areas. The Taichung Export Processing Zone is an excellent example: it has successfully attracted optics and LCD factories, which in turn boost related businesses. Cooperation between upstream and downstream corporations has led to a complete industrial chain that greatly enhances the zone's investment capabilities.





臺中加工出口區，目前則以精密光學、LCD、LED 及 IC 封測等產品項目為主。
Taichung Export Processing Zone focuses on precision optics, LCDs, LEDs and IC packaging and testing.



楠梓加工出口區

座落於高雄市楠梓區的楠梓加工出口區，籌建於 1968 年，是臺灣規模最大的加工出口區，主要產業為半導體封測產業、積體電路封裝、測試與製程研發等。

有鑑於楠梓加工出口區趨於飽和，政府推動加工出口園區更新與開發，開發楠梓第二園區。有效利用閒置都市計畫工業區，活絡地區發展，結合楠梓園區，擴大產業群聚效應，創造就業機會，帶動鄰近的商業及住宅活動，提振整體經濟產值。

Nanzi Export Processing Zone

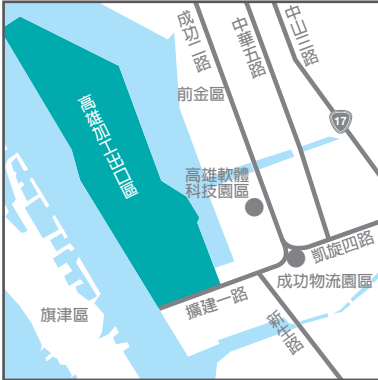
Located in the Kaohsiung district of Nanzi, the Nanzi Export Processing Zone was established in 1968 and has become Taiwan's largest export processing zone. Business growth eventually led the zone to be filled to capacity. The government therefore launched a renewal and development plan to create a second Nanzi zone on an idle urban industrial planning area. The new zone sparked regional development and boosted industrial cluster benefits due to its close connection to the first zone, resulting in more jobs, more customers for surrounding businesses and growth in the local real estate market. Overall economic output value increased.





楠梓加工出口區為目前臺灣規模最大的加工出口區。
The Nanzih Export Processing Zone is Taiwan's largest export processing zone.

空中攝影 / 齊柏林
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高雄加工出口區

高雄加工出口區設立於 1966 年，是我國第一個加工出口區，位於高雄市前鎮區因濬港工程所填成的狹長半島上。因應國際產業變化，高雄加工出口區逐步轉型為 LCD 重點產業專區，積極鼓勵 LCD 廠商入區投資，發揮群聚效應。作為 LCD 相關產業加值鏈的重要平臺，高雄加工出口區朝高科技產業加值區的目標邁進，執行園區產業結構轉型，加速融入國際產銷分工體系，以順應國際市場發展潮流。

Kaohsiung Export Processing Zone

Established in 1966, the Kaohsiung Export Processing Zone was Taiwan's first export processing zone. It is situated in Cianjhen District, on a narrow peninsula of land reclaimed during harbor construction. The zone shifted focus to LCDs due to international changes, and it continues to encourage investments from LCD makers to expand the cluster effect. After becoming an important part of the added-value supply chain for LCD-related industries, the zone began to target added-value business in the high-tech industry. These transformations have led to new international production and marketing resources, boosting flexibility in the face of changing international market trends.





高雄加工出口區對於臺灣經濟發展歷程，是扮演開啓經濟奇蹟大門的角色。
The Kaohsiung Export Processing Zone played a major role in ushering in Taiwan's economic miracle.

科學園區與產業創新走廊

Science Parks and Industrial
Innovation Corridors



科學園區是引領臺灣經濟發展的動力引擎，也是促進產業升級轉型的中樞神經，使我國能躋身全球科技產業鏈中的關鍵成員。面對全球化的快速腳步，科學園區也必須不斷自我更新，才能因應世界潮流波動，提升國家競爭力。

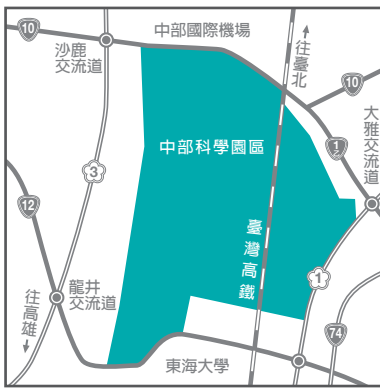
愛臺十二建設特別列入「產業創新走廊」項目，強化現有科學園區效益，並連結研究機構與地區產學研資源，打造「北北基宜」、「桃竹苗」、「中彰投」、「雲嘉南」、「高高屏澎」與「花東」等六大產業創新走廊。

透過產業創新走廊與合作平臺，在優質的硬體建設中，逐步推動區域優勢產業群聚，創造新興就業機會，提升跨領域研發能量，並帶動產業永續發展，締造新一代的高科技研究園區。

Science parks are the engines that drive Taiwan's economic growth and are central to industrial upgrading and transformation. They enable Taiwan to serve as a key member of the global technology industrial chain. As globalization continues to gather steam, these science parks must also constantly change. Only then can they respond to global trends and raise national competitiveness.

One of the i-Taiwan 12 Projects is the development of "Industrial Innovation Corridors." This project calls for strengthening the effectiveness of existing science parks while linking research organizations and local industrial, academic and research resources. Together these units can serve as platforms for industrial innovation and the building of six industrial innovation corridors, respectively in Taipei, New Taipei, Keelung and Yilan; Taoyuan, Hsinchu and Miaoli; Taichung, Changhua and Nantou; Yunlin, Chiayi and Tainan; Kaohsiung, Pingtung and Penghu; and Hualien and Taitung.

Excellent facilities in industrial innovation corridors create an ideal setting for Taiwan to demonstrate soft power in innovation. Gradually, it can build industrial clusters based on regional advantages, creating new job opportunities and raising cross-disciplinary research capabilities. These changes will lead to sustainable industrial development, creating a new generation of parks engaged in high-tech research.



中部科學工業園區

中部科學工業園區包括臺中園區、后里園區、虎尾園區，以及開發中的二林園區、加上兼辦高等研究園區等共計五處，以光電、新世代晶圓、精密機械、塑膠製品為四大核心產業。

由於自然環境與人文資源豐沛，加上陸海空交通網絡健全，中科扮演中部產業火車頭，引進高科技大廠投資，帶領產業轉型與升級，朝高附加價值、高科技密集發展，創造就業機會。

中科結合區域資源與周邊產業，發揮產業群聚效應，與竹科、南科連成一氣，形成臺灣西部的產業創新走廊，建構永續發展的優質投資環境。

Central Taiwan Science Park

Abundant natural and cultural resources combined with a comprehensive land, sea and air transportation network allow the Central Taiwan Science Park to serve as a driver of regional industrial growth. Investments from major high-tech firms are leading transformation of the park as it moves toward the high added-value industry and expands high-tech development, changes which are creating new job opportunities.





中科是連結臺灣西部產業創新走廊的重要一環。
The Central Taiwan Science Park is an important part of the western Taiwan industrial innovation corridor.



南部科學工業園區

南部科學工業園區包括臺南園區、高雄園區及高雄生技醫療器材專區。愛臺十二建設「產業創新走廊」規劃，臺南園區將發展成完整的光電產業聚落，促使臺灣邁向全世界平面顯示器產業領導地位。高雄園區則積極布建生技醫療器材產業聚落，並推動綠能產業，與都市規劃、國家重要計畫整合，促進南臺灣產業再升級。

臺南園區在多年發展之下，已形成完整的積體電路產業供應鏈，垂直整合上下游產業，引領南科成為 12 吋晶圓廠重鎮與積體電路研發中心。高雄園區配合南部區域特色，積極推動環境保護、綠建築與人文藝術，目標打造一個綠能、低碳產業聚落。

Southern Taiwan Science Park

The Southern Taiwan Science Park, which includes parks in Tainan and Kaohsiung as well as the Kaohsiung Medical Device Special Zone, is to receive upgrades under the i-Taiwan "Industrial Innovation Corridors" project. Years of development have already built a complete IC industrial supply chain in the Tainan Park. Vertical integration of upstream and downstream suppliers has made the Southern Taiwan Science Park into an important location for 12-inch wafer factories and IC research centers. The Kaohsiung Park takes advantage of southern Taiwan regional characteristics to promote environmental protection, green building, culture and art, as it moves toward its goal of building an industrial cluster adhering to green energy and low carbon principles.

南科臺南園區的迎曦湖生態廊道因迎曦湖滯洪池採生態工法構築，使池岸邊富含生態之美。
The Yingshi Lake ecological corridor, located in the Southern Taiwan Science Park Tainan Park, serves as a flood detention pond. Because the lake was built using ecological engineering methods, its banks are now rich in natural beauty.





嘉義產業創新研發中心

嘉創中心透過食品工業發展研究、金屬工業研究發展中心、精密機械研究發展中心、自行車暨健康科技工業研究發展中心等研究機構的進駐，並結合南臺灣相關學術單位，成為雲嘉南地區產業創新發展重鎮，帶動我國健康產業發展。

除了協助地方產業升級轉型之外，嘉創中心是鑽石級標章的綠建築及智慧建築，結合太陽能發電、水資源循環利用，以及環保再生建材等設計，達到節能減碳之最佳示範。藉由嘉創中心的成立，落實在地深耕，扶植產業創新，使大嘉義地區成為環保、科技兼具永續發展的健康城市。

Chiayi Industry, Innovation and Research Center

Besides playing an important role in transforming local enterprises, the Chiayi Center is a diamond level green building and a smart building. Its design includes solar power generators and a water recycling system, and it was built using environmentally friendly, renewable materials. These features make it a model energy-efficient, carbon reducing building. Establishment of the Chiayi Center has solidified local development while assisting industrial innovation. It has turned Greater Chiayi into a healthy urban region where sustainable development takes places, and environmental protection and technology prosper side by side.





嘉義產業創新研發中心是少數獲得鑽石級標章的公有綠建築。
The Chiayi Industry, Innovation and Research Center is one of the few public buildings to earn diamond level green building certification.

文化創意產業園區

Cultural and Creative
Industry Parks



行政院文化部推動文化創意產業群聚，2003年起陸續在臺北、臺中、嘉義、花蓮以及臺南設置五處文化創意產業園區。將閒置的舊酒廠與歷史建物，進行舊空間活化再利用，轉型為文化創意展現的場所，讓民衆得以親近藝術。

五大文創園區各自擁有產業定位，華山園區為「文化創意產業、跨界藝術展現與生活美學風格塑造」，臺中園區為「臺灣建築·設計與藝術展演中心」，花蓮園區為「文化藝術產業與觀光結合之實驗場域」，嘉義園區為「傳統藝術創新中心」，臺南園區則為「臺灣創意生活產業發展中心」。

藉由文化創意產業園區整合，以及五大園區的定位落實，引領並激發產業創新能量，活絡體驗經濟交易，提升文化消費力。昔日的釀酒廠房蛻變為醞釀文化創意的藝術空間，透過文創產業的櫥窗，讓人看見了臺灣文創的過去、現在與未來，也從中體會到新舊共生共榮的美好。

To promote clusters in the cultural and creative industries, since 2003 the Ministry of Culture has established five special industrial parks, located in Taipei, Taichung, Chiayi, Hualien and Tainan. These parks were originally vacant distilleries and historical buildings that were transformed so they could be reused for cultural and creative purposes. They have become new locations for people to get close to art.

Each of the five cultural and creative parks has its own industrial position. Huashan Park focuses on cultural and creative industries, cross-disciplinary art displays, and the shaping of lifestyle aesthetics. Taichung Park focuses on performance and exhibition space for Taiwan architecture, design and art. Hualien Park will become an experimental site for integrating the culture and art industries with tourism. Chiayi Park focuses on creativity in traditional art. And Tainan Park seeks to become a development center for the Taiwan creative lifestyle industry.

Building these five parks and giving each an industrial position has sparked industrial creativity, economic activity and consumer spending in the cultural sector. Former distilleries have been transformed into spaces that cultivate culture, creativity and art. They are serving as a window for people to see the past, present and future of culture and creativity in Taiwan, while showing the beauty that can exist when the new and the old thrive side by side.

華山文創園區

座落臺北市精華地段的華山 1914 文創園區，前身是臺北酒廠，1987 年酒廠走入歷史，逐漸轉型為文創園區，定位為「臺灣文化創意產業的旗艦基地」。

華山文創園區廣達七公頃，一棟棟錯落有致的老建築，與周遭現代化高樓形成強烈對比。這些見證臺灣酒類專賣史的建物，如今成了活動展演空間的首選。酒廠、禮堂、作業場、蒸餾室、鍋爐室等，輪番上演多元文創活動，其中最具代表性的當屬「簡單生活節」，每回舉辦都吸引上萬民衆前來朝聖。

Huashan Cultural and Creative Industry Park

Huashan 1914 Creative Park is located in one of Taipei's most bustling areas on a former site of the Taipei Wine Factory. The park gradually began to take shape after the wine factory officially ceased to exist in 1987. Today Huashan is known as a flagship base for the Taiwan cultural and creative industries. The Huashan Park consists of a series of irregularly arranged buildings on a plot of land 7 hectares large, in stark contrast to the modern buildings that surround it. These old buildings, which at one time were central to the Taiwan liquor industry, are now a leading area for artistic performances and exhibitions.





華山文創園區處處把藝術、人文與創意融入環境生活。
Huashan Creative Park integrates art, culture and creativity into everyday life.



臺中文創園區

臺中文化創意產業園區原為臺中酒廠，是臺灣酒廠工業遺址中保存最完整的一座。1998 年歇業後，閒置廠房蛻變為文創園區，被定位為「臺灣建築、設計與藝術展演中心」，文化部文化資產局亦設立於此。

兼具文化資產與創意活化兩大特色的臺中文創園區，共登錄 16 棟歷史建築。菸倉庫與大酒倉庫整建為文創圖書館，蒸餾工場發酵室變身酒文化館，多座倉庫再造為展演館與排練室。2009 年開園以來，陸續舉辦大型展覽，以「創意生活節」為園區特色活動，頗受好評。

Taichung Cultural and Creative Industry Park

Taichung Cultural and Creative Industry Park is located on the site of the former Taichung Wine Factory, the best preserved of all the historic Taiwan wine factories. After the factory closed in 1998, its idle buildings were transformed into the cultural and creative park found here today. It is considered a leading performance and exhibition space for Taiwan architecture, design and art, and is the home of the Ministry of Culture's Bureau of Cultural Heritage.



兼具文化資產與創意活化兩大特色的臺中文創園區。
Two of the park's greatest assets are its cultural resources and creative energy.



嘉義文創產業園區的日式建築，與現代建築間交融呈現出世代更迭的景緻。
Old Japanese buildings are mixed among modern structures at the Chiayi Cultural and Creative Industry Park, showing the changes that took place over time.

嘉義文創園區

昔日生產高粱酒為主的嘉義酒廠，搖身一變為嘉義文化創意產業園區。以「傳統藝術創新」為發展主軸，除了推動文化創意產業創新與發展外，也重視在地生活工藝的傳承。

園區建築新舊並陳，鍋爐室、再製酒及包裝工場、儲酒室、再製酒及製麴工場、材料五金倉庫、機器修理及木工場、中間試驗工場等七棟日治時期建築，與現代水泥建築和諧共存，呈現出世代交融的感動。不論是親近傳統手工藝，或欣賞與世界接軌的創意設計，都能讓人在創新思維中發思古之悠情。

Chiayi Cultural and Creative Industry Park

Once a major producer of Kaoliang liquor, today the former Chiayi Wine Factory has been transformed into the Chiayi Cultural and Creative Industry Park. Known for its focus on traditional art and creativity, the park does an excellent job of promoting innovation and development while continuing to pass down local industrial arts. Built beside these in an arrangement that shows the blending of different ages are modern concrete buildings. Whether experiencing handmade crafts or admiring world-class innovative designs, the Chiayi cultural park offers the chance to reflect on creativity and ancient culture.

臺南文創園區

位於臺灣最南端的臺南文化創意園區，雖是五大園區中面積最小的，但擁有豐厚的文化底蘊，深具文創發展潛力。

以興建於 1911 年的臺南知事官邸為基地，聯結周邊十個文創生活聚點，以「創意生活產業」為核心，推廣文化創意與產業鏈結的觀念，打造出文創人才育成平臺。從大臺南市的歷史建築出發，串連在地文創產業資源網絡，在既有傳統文化與傳統生活產業中注入創意，轉化為文創產品，期盼躍升為具有國際競爭力的產業。

Tainan Cultural and Creative Industry Park

The Tainan Cultural and Creative Industry Park connects 10 cultural and creative lifestyle points that surround it. The park's focus is on the creative lifestyle industry, which it uses to promote linking local culture and creativity with industry, so it can build a platform for cultivating new talent. From a historic building in Greater Tainan, the park injects creativity into traditional culture and lifestyles. It creates new products that have the potential to compete internationally.



臺南文創產業園區嘗試在既有歷史文化與傳統生活產業中注入創意。

The Tainan Cultural and Creative Industries Park instills creativity into traditional culture and lifestyles.



有得天獨厚的環境和人文風情的花蓮文創產業園區，極具發展文創產業的潛力。

Hualien is blessed with a wonderful natural environment and culture, which gives it great potential to develop the cultural and the creative industry.

花蓮文創園區

花蓮文化創意產業園區前身是花蓮酒廠，於 2012 至 2015 年陸續整備開放；結合自然環境、原住民特色、藝術文化與觀光優勢，形塑出一處「文化藝術產業與觀光結合之實驗場域」。

花蓮得天獨厚的環境和人文風情，極具發展文創產業潛力，花蓮文創園區以工藝展演、表演藝術、生活美學為發展核心，打造原創品牌、表演與生活美學體驗平臺。代表活動為「原聲音樂節」，除了原住民歌手與樂團熱情參與，也舉辦原聲樂團創作競賽，激盪出年輕新浪潮，帶來外地觀光人潮。

Hualien Cultural and Creative Industry Park

Hualien is blessed with a wonderful natural environment and culture, which gives it great potential to develop the cultural and the creative industries. The park gives visitors a chance to experience industrial arts exhibitions, performance arts and lifestyle aesthetics as it builds its own brand. Its most representative event of the year is the OrigSound Music Festival, which features aboriginal singers and bands as well as a competition for the best original band composition. The festivals draws many youths and overseas tourists to the area.

領

PILOTAGE

優化未來便捷生活

Making life more convenient

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出口

左
乗車

建構綠色與智慧運輸網絡

國立交通大學交通運輸研究所教授 / 馮正民

Building a Smart, Green Transportation Network

Professor Feng Cheng-min

Institute of Traffic and Transportation, National Chiao Tung University

臺北都會區捷運系統工程計畫中文湖線、南港線東延段、新蘆線，基本上仍屬軸射幹線型，其可以補足內湖地區、南港地區及新莊蘆洲地區捷運系統未到達地區之捷運服務，未來配合環狀線的路網，將構成更完整的臺北都會區捷運系統路網。高雄都會區大眾捷運系統目前已有紅、橘二條路線，未來配合正在規劃興建之環狀輕軌，亦有助高雄大眾運輸之發展。

鐵路工程計畫有臺北市區鐵路地下化工程、新竹內灣支線改善計畫、臺南沙崙支線改善計畫三項工程。第一項計畫之完工興建成功消除了市區內鐵路沿線 6 個平交道，有效促進松山、南港地區南北均衡發展及都市更新。第二項計畫串連新竹市區與高鐵新竹車站及新竹縣政府等地，第三項計畫則連接臺南市區與高鐵臺南車站，提供軌道的無接縫運輸服務。

高鐵建設除了目前營運中的 8 個高鐵車站之外，第二階段新增的 4 座高鐵車站，包括南港站、苗栗站、彰化站及雲林站，亦將在 2015 年陸續完工啓用，預計可提供苗栗、彰化及雲林地區高鐵的服務，有助於擴大一日生活圈範圍、平衡西部城市廊帶城鄉均衡發展。

國道一號五股楊梅段拓寬工程及國道 6 號南投段兩項工程，前者可有效紓解五股至楊梅段之交通壅塞；後者為臺灣中部第一條橫向高速公路，可提振南投地區之產業發展。

至於海港之高雄港洲際貨櫃中心、以 BOT 方式興建之臺北港、空港之臺灣桃園國際機場第一航廈改善工程專案計畫、中部國際機場整體規劃與第一期發展，及松山機場直航等計畫，可分別提高港埠競爭力，提升航廈服務品質及國家門戶形象，推展中部地區國際包機業務，並成功打造「東北亞黃金航圈」，奠定「首都商務機場」之地位。



Recent metro system construction in the Taipei metropolitan area includes the Wenhua Line, the Nangang Line East Extension and the Xinlu Line. These are part of the main metro axis and were built to provide service to the parts of Neihu, Nangang, Xinzhuang and Luzhou that the system did not reach. In the future the Taipei metropolitan area will benefit from a more comprehensive metro network when the Circular Line is complete. In Kaohsiung the metro system includes the Red and Orange lines, and plans are underway to build a circular light rail that will further advance the city's mass transit system.

Three major rail construction projects that took place include the Taipei Railway Underground Project, the Hsinchu Neiwan Branch Line Improvement Project, and the Tainan Shalun Branch Line Improvement Project. Completion of the first project eliminated six railway crossings in the city and accelerated closure of the north-south development gap in Songshan and Nangang. The second project linked the Hsinchu urban center with the HSR Hsinchu Station and the Hsinchu County government building. And the third project connected the Tainan urban center with the HSR Tainan Station, providing seamless rail transit.

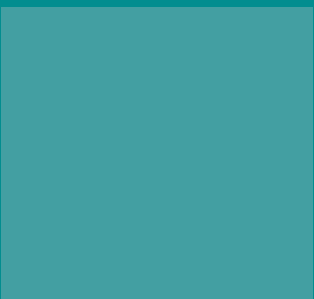
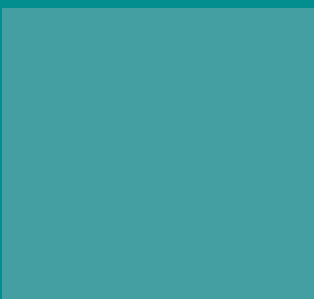
There are currently eight stations operating on the high-speed rail, and when second stage development is complete four new stations will open: Nangang, Miaoli, Changhua and Yunlin. These should be finished and open by 2015. By bringing high-speed rail service to Miaoli, Changhua and Yunlin, Taiwan's single-day living circle will be expanded and greater balance achieved along the band of west coast cities and countryside.

On Highways there is the Wugu-Yangmei widening project along National Highway 1 and the Nantou section on National Highway 6. The former project can ease traffic jams between Wugu and Yangmei; the latter is central Taiwan's first east-west Highway. It will spark industrial development in the Nantou area.

As for seaports there is the Port of Kaohsiung Intercontinental Container Center and the Port of Taipei (which was built using the BOT method). For airports there is the Terminal 1 Renovation Project at Taiwan Taoyuan International Airport, Stage 1 of the Central Taiwan International Airport Development Plan, and the direct cross-Taiwan Strait flights at Songshan Airport. Together these will improve port competitiveness, airline service and the image of the nation's gateways. They will advance international charter flights servicing central Taiwan, build a "Northeast Asia Golden Aviation Circle," and establish a commercial airport for Taiwan's capital.

軌道運輸

Rail Transport



軌道運輸為便捷大眾運輸網中，至為重要的一環。面對全球暖化，環保節能成為主要課題，政府積極推動軌道運輸建設，以102年度公共建設軌道運輸計畫為例，政府將投入580億餘元，超越公路計畫400億元之規模。

在鐵路基礎建設上，目前正全力推動「環島鐵路整體系統安全提升計畫」、火車站更新及鐵路高架及地下化運能提升工程，以及臺鐵與高鐵無接縫優質軌道運輸服務，以有效縮短旅運時間並提升服務品質。

而都會捷運網上，有臺北捷運續建第二階段工程、高雄捷運環狀輕軌計畫、臺灣桃園機場聯外捷運系統及臺中捷運烏日文心北屯線等建設進行中。

至於高鐵通車後，目前進行中的既有站區開發計畫，以高鐵特定區為核心，藉著重新建構城市定位，發展地方特色、產業分工及互補；而未來即將加入營運的南港、苗栗、彰化、雲林等4站，亦將有效平衡西部城市廊帶城鄉均衡發展。

Railways play an important role in mass transit, and have been actively developed by the government as an environmentally friendly form of transport. In 2013, for example, a budget of NT\$58 billion was allocated for railway construction, well above the NT\$40 billion allocated for road construction.

Current rail projects are raising safety along the entire island's rail network, renewing stations and elevating or moving rails underground. Other projects are ensuring seamless travel between the conventional railways and the high-speed rail. The better service is reducing travel time and improving service.

Progress also continues on new metro lines in the northern, central and southern regions. The Taipei Metro is adding to its second-stage expansion, construction of a circular light rail is underway in Kaohsiung, the Taoyuan International Airport Access MRT System is nearing completion, and work is advancing on the Wuri-Wenxin-Beitun Line of the Taichung Metro.

After the high-speed rail opened, it became a main axis connecting cities along Taiwan's west coast. Now, planning is underway for development around high-speed rail stations. With areas surrounding the stations serving as cores, regional economic entities are emerging in metropolitan areas along western Taiwan. By redefining the urban position they are developing local characteristics while promoting industrial division and support. Four new stations will soon open, in Nangang, Miaoli, Changhua and Yunlin. These are expected to bridge the development gap between cities and countryside on the west coast.

捷運

臺北捷運（文湖線、南港線東延段、新蘆線）

(1) 文湖線

2009 年內湖線與文山線直通營運，合稱「文湖線」，共 25.7 公里，有效強化了內湖科技園區、松山機場、南港展覽館、及汐止地區彼此聯繫的便利性，並縮短對外交通聯繫時間。

(2) 南港線東延段

2011 年南港站至南港展覽館站正式營運通車，南港線東延段通車後，由經貿園區至臺北車站僅需 18 分鐘，有效提升了南港地區的交通便捷性，對於工商經貿活動及大型會展的交通疏運，有很大助益。

(3) 新蘆線

由蘆洲線、新莊線與中和線構成，合稱「中和新蘆線」。其中 102 年 6 月通車的新莊—迴龍線不僅縮短了雙北市及鄰近的桃園民衆各地的通勤時間，對於沿線都市發展也有正面效益。

Metro

Taipei Rapid Transit (Wenhua Line 、 Nangang Line East Extension 、 Xinlu Line)

(1) Wenhua Line

Currently the Neihu Line links directly to the Wenshan Line, connecting Neihu, Nangang and Wenshan districts and forming the "Wenhua Line." At 25.7-kilometers long, it is the world's longest medium capacity rubber tire rail system.

(2) Nangang Line East Extension

The Nangang Line East Extension refers to the bored tunnel extension heading east from Kunyang Station to Taipei Nangang Exhibition Center Station. The section between Kunyang and Nangang stations opened in December 2008, and the section between Nangang and Taipei Nangang Exhibition Center stations formally opened in February 2011. At this time it linked the Wenhua and Nangang lines, leading to a more integrated metro network.

(3) Xinlu Line

The "orange line" of the Taipei Rapid Transit comprises the Luzhou, Xinzhuang and Zhonghe lines. Together, they are called the Zhonghe-Xinlu Line. After the Xinzhuang Line's Dongmen Station opened in September 2012, however, the Zhonghe Line instead was linked to the Xinzhuang and Luzhou lines.





臺北市密布的捷運網不僅能舒緩壅塞的交通狀況，也大符降低二氧化碳的排放量。
Taipei's dense metro network eases urban traffic and significantly reduces carbon dioxide emissions.



高雄捷運

國外知名旅遊網站於 2012 年報導「世界最美麗的 15 個捷運站」，高捷「美麗島站」與「中央公園站」雙雙入選，分居第二名及第四名，成為另一種「臺灣之光」。

高捷是繼臺北捷運系統之外，我國所興建的第二個都會捷運系統。高捷第一期發展路網，包括了紅、橘、藍、棕四線及延伸至大寮、屏東及岡山等路線，其中紅、橘線已於 2008 年 9 月完工通車。

紅、橘線完工後，高雄大眾運輸使用率由 4.3% 大幅提升至 12.5%，日平均運量約為 16 萬 5 千人次，累積運量更於 2012 年 7 月 27 日正式突破 2 億人次。高捷的興建，大幅縮短了大高雄地區通勤旅行時間，並有效發揮了促進地區發展、縮短城鄉距離的功效。



高捷的光之穹頂聞名國際，也讓「美麗島站」被評為世界最美麗的捷運站之一。The Kaohsiung Metro's "dome of light" is known internationally and contributed to Formosa Boulevard Station being named one of the most beautiful subway stops in the world.

Kaohsiung Rapid Transit

A well-known international travel site published an article called "15 of the Most Beautiful Subway Stops in the World" in 2012. It recognized two Kaohsiung stops: Formosa Boulevard Station at second and Central Park Station at fourth, representing a new honor for Taiwan. Kaohsiung is home to the second metro system in Taiwan, after Taipei's. The metro has dramatically reduced commuting time in Greater Kaohsiung and sparked local development while effectively reducing the distance between the city and the countryside that surrounds it.

鐵道

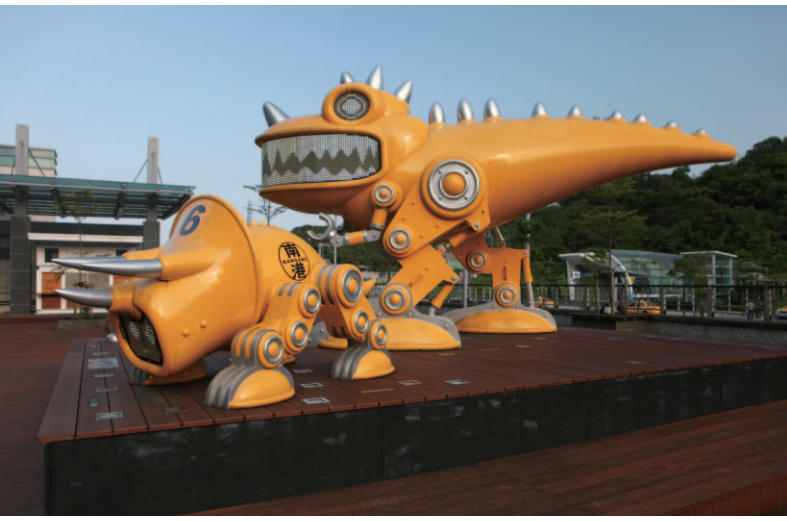
臺北鐵路地下化東延南港工程

長達 35 公里、歷時 28 年的大臺北地區鐵路立體化工程，隨著東延南港工程計畫在 2011 年 8 月竣工，順利畫下了句點。

南港專案是臺北市區鐵路地下化工程第 4 期，配合鐵路地下化、高速鐵路興建等交通建設進行整體規劃，以疏解研究院路、向陽路等南北向幹道的交通瓶頸。完工後，成功消除了市區內鐵路沿線 6 個平交道，有效促進松山、南港地區南北均衡發展及都市更新。

除了隧道等相關工程之外，也完成了南港車站及松山車站地下化，車站站體亦規劃為多目標使用的商業大樓，對於松山、南港地區的都市發展及土地利用，皆有顯著之助益。





Railways

Taipei Railway Underground Project and the Nangang East Extension Project

Grade separation work on the Greater Taipei railway, stretching 35 kilometers and lasting 28 years, ended in August 2011 when the Nangang East Extension Project was complete. The Nangang project bridged the north-south development gaps in Songshan and Nangang, while also advancing urban renewal.

逐段實施的鐵路地下化工程可將臺北市的都市空間進行更有效的規劃利用。The Taipei Railway Underground Project happened in stages and led to more effective planning and use of Taipei urban spaces.



新竹內灣支線改善計畫

臺鐵內灣支線改善計畫全長約 11 公里，已經在 2011 年 11 月完工通車，從竹科可經由臺鐵內灣支線，直接在臺鐵六家站（與高鐵新竹站共站）轉乘高鐵，快速往來南北，大幅增加竹科的交通便捷性，並有效紓解園區周邊道路的交通壓力與壅塞情形。

除了新建高架鐵路之外，也新增世博（千甲）、竹科（新莊）、竹中及六家等4座高架車站，同時消除了新竹站至竹中站的8處平交道，有助於市區交通車流順暢。

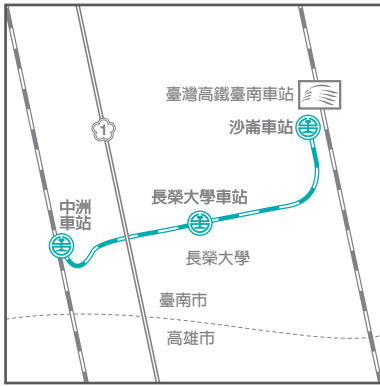
Hsinchu Neivan Branch Line Improvement Project

The Neivan Branch Line Improvement Project covered 11 kilometers of rail. When completed and opened in November 2011, it allowed commuters to ride conventional rail from the Hsinchu Science Park to Liujia Station, which is linked to the HSR Hsinchu Station by tunnel. The convenient access route to the north-south high-speed rail significantly improved transportation links to the science park while easing traffic on surrounding roads.





新竹內灣支線大幅增加竹科的交通便捷性，並紓解竹科周邊道路的交通壓力。
The Hsinchu Neiwan Branch Line made transportation to the Hsinchu Science Park more convenient and eased traffic on surrounding roads.



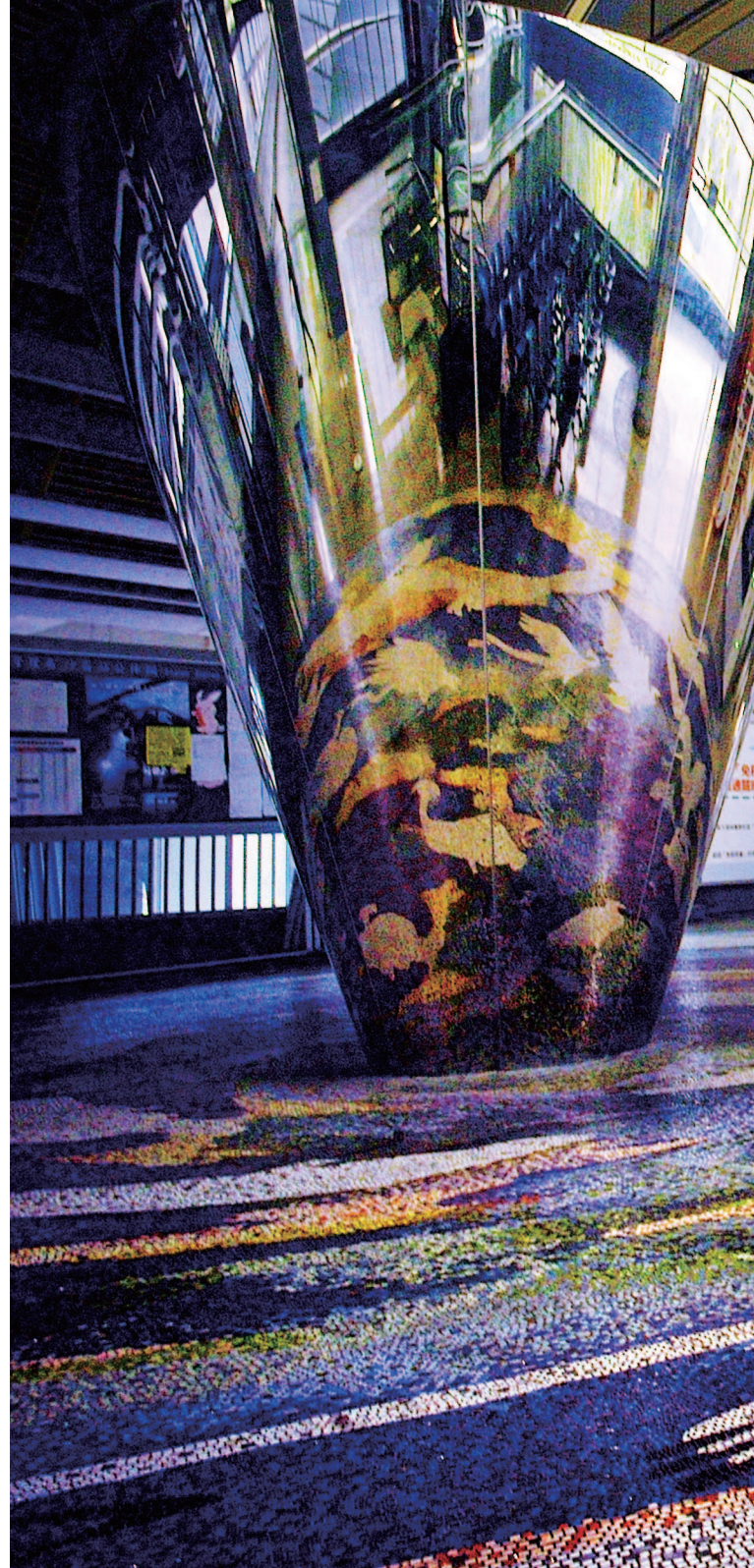
臺南沙崙支線改善計畫

為因應臺南都會區與高鐵臺南車站之間的交通運輸需求，以有效整合臺南都會區軌道路網、提供高鐵站區聯外軌道運輸服務，因此，政府將臺鐵沙崙支線計畫列入「新十大建設」中「臺鐵捷運化」項下辦理。

於 2011 年 1 月通車啓用的臺鐵沙崙支線，起自中洲站，終點為沙崙站，全長約 6.5 公里，同時改建中洲車站，並新設長榮大學及沙崙兩座高架車站。沙崙支線將高鐵、臺鐵與計畫中的捷運系統連結起來，提供無接縫的運輸服務，可促進臺南都會區東南外圍地區的發展。


Tainan Shalun Branch Line Improvement Project

In the Tainan metropolitan area the government needed to improve transit between urban areas and the HSR Tainan Station as well as build a more integrated rail network. It therefore made the Tainan Shalun Branch Line Improvement Project part of its efforts to integrate Taiwan Railways more closely with the nation's metro systems, a goal that is one of the government's New Ten Major Construction Projects. By connecting the high-speed rail, Taiwan Railways and the planned metro system, the branch line will accelerate development of eastern and southern sections of the Tainan metropolitan area.





臺鐵沙漏支線的建立，將促進臺南都會區東南外圍地區的發展。
Construction of the Tainan Shalun Branch Line will accelerate development of eastern and southern sections of the Tainan metropolitan area.



高鐵

高鐵沿線及站區開發

為推動高速鐵路建設、均衡城鄉發展，在桃園、新竹、臺中、嘉義、臺南等 5 個車站，均設有車站特定區。

除了目前營運中的 8 個高鐵車站之外，第 2 階段新增的 4 座高鐵車站，包括南港站、苗栗站、彰化站及雲林站，亦將在 2015 年陸續完工啓用，預計可增加高鐵全線旅客人數約 5.2%，有助於擴大一日生活圈範圍、平衡西部城市廊帶城鄉均衡發展、鏈結產業中心並與國際接軌。

High-Speed Rail

Development of Areas Surrounding Existing HSR Stations and Planning New Stations

To promote high-speed rail construction and balance the development gap between cities and the countryside on the west coast, in Taoyuan, Hsinchu, Taichung, Chiayi and Tainan the government established special districts outside HSR stations.

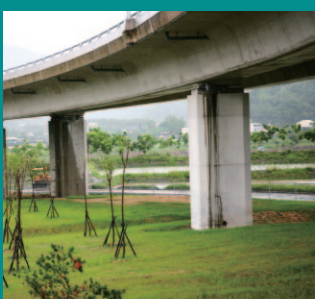
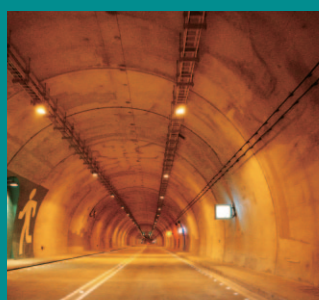
Eight high-speed rail stations are open and second stage development will include the addition of four more: Nangang, Miaoli, Changhua and Yunlin stations. These will be completed and open in 2015. They are expected to increase ridership by 5.2 percent, expand the range of western Taiwan's "one-day living circle," bridge development gaps between cities and the countryside on the west coast, connect industrial centers, and make international connections easier.



圖片版權 / 台灣高速鐵路股份有限公司

建設高速鐵路不僅擴大了一日生活圈範圍，也平衡西部城市廊帶城鄉均衡發展。
Construction of the high-speed rail expanded the one-day living circle and has helped bridge development gaps between cities and the countryside on the west coast.

國道拓建 Highway Construction



目前國道高速公路已陸續完成國道1號、3號、5號及五條東西向國道（包括2、4、6、8、10號），高、快速公路路網已大致完備，交通量亦逐年成長。

近年來政府將重大交通建設列入「愛臺12項建設」及「振興經濟擴大公共建設投資計畫」，包括國道1號五股至楊梅段拓寬工程、國道6號南投段等案，透過高、快速公路基本路網的整合規劃，建立健全的交通路網，使交通建設發揮最大效益，提升快速公路服務水準及營運效率。

After years of hard work, National Highways 1, 3 and 5 have been completed plus there are five east-west highways (Highways 2, 4, 6, 8 and 10). Together, these compose a comprehensive highway and expressway network.

Recognizing increased demand for these roads as the amount of traffic increases each year, the government included major transportation infrastructure as part of its i-Taiwan 12 Projects and the Economic Revitalization Policy – Project to Expand Investment in Public Works. Projects such as widening of the Wugu to Yangmei section along National Highway 1, and the Nantou section of National Highway 6, were designed to reduce travel time and increase the average journey speed on highways. After assessing the national freeway and expressway network and the planning that links this network with local roads, a better transportation network that maximizes efficiency can be built. These changes raise the service quality and operational efficiency of national highways and expressways.



國道 1 號五股楊梅段拓寬工程

隨著桃園地區的急速發展，吸引大量人口就業及居住，因此國道 1 號五股至楊梅之間的路段用路需求大增，為解決此路段長期以來交通擁擠的情形，行政院將五楊段拓寬工程列入「擴大內需振興經濟方案」優先施作。

五楊段沿著國道 1 號兩側採取高架方式拓寬，北銜汐五高架，南止於楊梅收費站北端，全長約 40 公里，並於 2013 年 4 月 20 日全線通車。

五楊段完工之後，行車速率由過往尖峰平均時速 50 公里，提升至 80 公里 (平面段) 至 90 公里以上 (高架段)；有效紓解交通壅塞並降低每日二氧化碳排放量 100 公噸及年油耗成本 5 億。

National Highway 1, Wugu-Yangmei Section Widening Project

The Wuyang Section widening is made possible by building overpasses on each side of National Highway 1. To the north these overpasses began at the Xiwu Overpass and to the south they end at the northern side of Yangmei Toll Station, covering about 40 kilometers. The first stage Zhongli to Yangmei portion opened to traffic in December 2012 and the entire section opened on 20th, April, 2013.

After the Wuyang section is finished, estimates show that driving speed during peak hours will increase from an average of 50-60 kilometers per hour to 80 or more on surface-level areas and 90 or more on elevated areas. This will reduce traffic congestion, save regional transit costs, and cut daily carbon emissions by about 100 tons. Annual fuel savings are expected to reach NT\$500 million.

國道 1 號五股楊梅段拓寬工程完工後，大量舒緩了國道 1 號南北運輸的車流量。

After widening of the Wugu-Yangmei Section along National Highway 1 is complete, north-south traffic on National Highway 1 will ease dramatically.



國道 6 號南投段

國道 6 號南投段又稱為「水沙連高速公路」，是臺灣中部第一條橫向高速公路。由於 921 大地震造成南投產業重創，行政院為加速災區重建，提振南投地區產業發展，於 2004 年 3 月起開工、2009 年 6 月完工通車。

本路段西起國道 3 號霧峰系統交流道，東至南投埔里，全長約 37.6 公里，為落實環境與生態保育理念的「第三代高速公路」。本案有效轉移了臺 14 線交通量，同時因道路服務品質提升，提高了能源使用效率，估計能有效減少 CO₂ 排放量，並節省汽油使用量。

National Highway 6 Nantou Section

National Highway 6, Nantou Section also known as the Shuishalian Highway, is the first east-west Highway in central Taiwan. As a "third generation Highway" it is important for the Highway to follow environmental and ecological conservation principles. After National Highway 6 was completed and opened to traffic, it successfully drew traffic away from Provincial Highway 14. The high quality service on the national Highway makes energy use more efficient, with estimates showing that it reduces carbon emissions and saves petrol.

保留自然地貌，融合環境、生態、景觀及符合交通需求，是國道 6 號的建築理念。
The building philosophy of National Highway 6 includes retaining natural landforms and achieving harmony with the environment, local ecology and landscape, all while meeting transportation needs.

空中攝影 / 齊柏林
圖片版權 / 台灣阿布電影股份有限公司

魅力港埠（海空雙港）

Charming Ports (Sea and Air Ports)



面對國際海、空港埠的區域激烈競爭，以及航機、船舶大型化發展趨勢，臺灣必須積極結合國內各項核心優勢，並透過與國外各運輸節點的結盟整合，擴張腹地範圍，以提升國際競爭力。

為提供更優質的航空運輸服務，積極拓展我國國際航網與提升國籍航空公司的競爭力，並善用臺灣位居東亞樞紐之優勢，政府持續推動桃園航空城旗艦計畫，作為發展之推動引擎。近年來在政府加強兩岸開放政策及積極推動觀光旅遊效益下，客貨運均有大幅成長，未來為提供機場充足運能，亦將持續進行各機場規劃及擴整建工程，以提高機場設施服務品質。

至於港埠方面，臺灣地區現有基隆、臺北、臺中、安平、高雄、蘇澳、花蓮等7個國際商港，充分發揮對內協調分工、對外整合競爭之綜效。高雄港是我國最大的國際商港，洲際貨櫃中心第一期工程已完工並開始營運；而臺北港貨櫃散雜貨碼頭也順利加入營運。未來政府將持續強化門戶地區的產業發展環境，發展海運物流與客運網絡，以密集可靠的載運服務，強化我國產業整合競爭能力。

Taiwan's international seaports and airports face stiff regional competition, while aircraft and ships are becoming bigger, raising infrastructure issues. Taiwan must utilize each of its core advantages to overcome these challenges. It also must form alliances with transit nodes around the world so it can expand its ports' hinterlands, and thereby raise international competitiveness.

To provide better air transit service, expand Taiwan's international flight network, improve the competitiveness of its international airlines, and make best use of Taiwan's position as an East Asian hub, the government continues to promote the Taoyuan Aerotropolis Flagship Plan. This plan serves as an engine for development. In recent years, as the government has strengthened cross-strait opening and promoted the benefits of tourism, passenger and cargo arrivals have both increased significantly. To ensure the provision of sufficient airport capacity in the future, the government will continue planning and carrying out renovation and expansion projects. These works will improve airport facilities and raise service quality.

For marine transport, Taiwan has seven international commercial ports, in Keelung, Taipei, Taichung, Anping, Kaohsiung, Su'ao and Hualien. These coordinate division of labor domestically and raise competitiveness internationally. The Port of Kaohsiung is Taiwan's largest commercial port, and the first stage of its Intercontinental Container Center is complete and in operation. Meanwhile, the Port of Taipei's new bulk and sundry goods dock has gone smoothly into use. In the future the government will continue to improve the industrial development environment at gateway regions. It will develop shipping logistics and passenger transport networks, so it can continue to provide concentrated, dependable freight service. By developing its ports, Taiwan will achieve greater industrial integration and thereby improve its competitiveness.



海港

高雄港洲際貨櫃中心

高雄港洲際貨櫃中心第 1 期，是政府「新十大建設」的重大工程計畫之一，也是高雄港近年來投資金額最龐大的港灣擴建計畫，計畫興建 4 座吃水 16 公尺的深水貨櫃碼頭，於 2011 年至 2014 年陸續啟用營運。

目前第 1 期已完成外海圍堤、聯絡道路及紅毛港遷村，民間 BOT 部分亦已完成 2 座貨櫃碼頭並且開始營運，啟用後可供 13,000 TEU 級貨櫃輪滿載靠泊作業，並增加高雄港每年貨櫃裝卸能量 300 萬 TEU，較目前成長約 22%，將有效解決高雄港貨櫃碼頭不足問題，同時能創造 27,000 個以上的就業機會，活絡高雄地區產業與經濟。

Seaports

Port of Kaohsiung Intercontinental Container Center

First stage development of the Port of Kaohsiung Intercontinental Container Center is one of the government's New Ten Major Construction Projects and the Port of Kaohsiung's largest port expansion project in recent years. This plan will solve the container center's capacity shortage. The center will also create more than 27,000 employment opportunities, stimulating industry and the economy in the Kaohsiung region.





高雄港灣擴建計畫將有效解決高雄港貨櫃碼頭不足問題，同時創造就業機會，活絡高雄地區產業與經濟。

Expansion plans for the Port of Kaohsiung will solve the container center's capacity shortage and create new employment opportunities, stimulating industry and the economy in the Kaohsiung region.

空中攝影 / 齊柏林
圖片版權 / 台灣阿布電影股份有限公司

臺北港建設

臺北港是位於新北市八里區的國際商港，定位為基隆港的輔助港，但實際面積比基隆港大 5 倍，未來可望與基隆港一起發揮功效，產生互補作用。

臺北港地理位置優越，對內緊鄰桃園國際機場，搭配聯外道路可發展海空聯運，並降低北櫃南運的內陸運輸費用及交通負擔。臺北港現有營運碼頭 15 座，貨櫃碼頭於 2009 年 3 月啓用營運，以 BOT 方式投資興建的臺北港貨櫃儲運中心亦正積極興建中，已完成 3 座碼頭並正式營運，2014 年將增加至 7 座，預計每年可裝卸貨櫃約 400 萬 TEU，將為臺北港貨物吞吐量創造另一個高峰。

Port of Taipei Development Plan

Situated in New Taipei City's Bali District is the Port of Taipei, an auxiliary port of the Port of Keelung. Despite its secondary status, the Port of Taipei is actually five times larger in area than the Port of Keelung. In the future the two ports will continue to complement one another. The Port of Taipei is at an excellent location. Roads leading to the nearby Taoyuan International Airport provide a transport link between the air and sea, and the port lowers transport costs and the traffic burden for shipping containers from north to south.





臺北港地理位置優越，對內緊鄰桃園國際機場，搭配聯外道路可發展海空聯運。
The Port of Taipei is at an excellent location, with roads leading to the nearby Taoyuan International Airport providing a transport link between the air and sea.



空港

臺灣桃園國際機場第一航廈改善工程

桃園國際機場自 1979 年開航以來，一直扮演我國主要國際空運門戶的角色。第一航廈啓用迄今近 30 年，建築結構與相關設施已顯老舊，原有航廈空間已達飽和，故針對第一航廈進行整建改善工程計畫。

未來預計第一航廈年服務旅客量，將由 1,200 萬人提高至 1,500 萬人，並能有效改善第一航廈外部景觀、周邊交通及相關設施，以提升航廈服務品質及國家門戶形象。

Airports

Terminal 1 Renovation Project at Taiwan Taoyuan International Airport

Since its opening in 1979 Taoyuan International Airport has served as Taiwan's main international air transport gateway. The renovation project of Terminal 1 enhanced the exterior appearance of the building and surrounding traffic and facilities, resulting in improved service quality and a better image for Taiwan's main gateway to the world.





桃園國際機場第一航廈改善工程把新舊融合，擴增航廈面積，並改善進出交通。
Terminal 1 Renovation Project at Taiwan Taoyuan International Airport integrating new sections into the original building. The firm also improved road entry and exit points.



中部國際機場整體規劃

自 2004 年水湳機場遷移至清泉崗機場後，除持續國內航線服務外，政府也一直運用清泉崗機場現有航廈，推展中部地區國際包機業務，並整體規劃以清泉崗機場作為中部國際機場計畫。

中部國際機場功能定位，包括以客運優先的區域性國際包機服務、兩岸直航機場之一、服務中部地區的國內機場，以及發展成飛機製造維修的基地機場。

2013 年底將興建完成 1 座年服務能量 135 萬人次的國際航廈，可提供 757 機型國際包機服務，未來預計結合中部科學園區及臺中港的交通優勢，帶動地方產業發展。

Central Taiwan International Airport Development Plan

Central Taiwan International Airport is designated to provide regional and international charter service with a focus on passenger flights. It also serves as one of the airports approved for direct cross-Taiwan Strait flights, handles domestic flights flying into central Taiwan, and is developing into an aircraft manufacturing and maintenance base. Its close links to the Central Taiwan Science Park and Port of Taichung are expected to boost local industry.





臺中清泉崗機場是中臺灣最重要的國際機場，提供國際包機、兩岸直航及國內運輸等服務。
Taichung Ching Chuan Kang Airport, central Taiwan's leading international airport, provides international charter flights, direct cross-Taiwan Strait flights and domestic transit service.



松山機場整建

松山機場原為國內民航空運樞紐，隨著高鐵的營運，國內航線不免受到衝擊。2008年7月，政府開放兩岸周末包機直航，並擴大為兩岸平日包機，松山機場營運量開始反轉提升。2010年起，更陸續開啓虹橋、羽田及金浦等航線，旅客往返兩岸及日本東京、韓國首爾更為便捷，成功打造「東北亞黃金航圈」，奠定「首都商務機場」地位。

為配合國際線開航，除了擴充第一航廈查驗櫃檯、大型航機停靠空橋、行李輸送轉盤等國際線設施，也增設第二航廈報到櫃臺、空橋及行李轉盤等國內線設施，使國際線與國內線旅客動線分流，大幅提升機場管理效能。同時，為了提升松山機場的可及性，捷運松山機場站更規劃設置地下連通道，連接松山機場，發揮出入境之轉乘功能，為國內外商旅提供優質服務。

Songshan Airport Renovation

At one time Taipei Songshan Airport served as a major domestic air transport hub, a role that diminished when the high-speed rail opened. The airport received new life in July 2008 when the government opened direct cross-Taiwan Strait charter flights on weekends. As these were expanded to include weekdays, Songshan Airport's business grew. Starting from 2010 Songshan began to also service regular flights to Shanghai's Hongqiao Airport, Tokyo's Haneda Airport and Seoul's Gimpo Airport. Easier service to China, Japan and Korea led to what is known as the "Northeast Asia Golden Aviation Circle" and solidified Songshan as the commercial airport of Taiwan's capital.





松山機場與捷運的連通，使來往機場的周邊交通更為便利。
The tunnel that links Songshan Airport and the metro makes travel to and from the airport more convenient.

效能

EFFICACY

擘劃前瞻美麗願景

Developing a beautiful vision for the future



跨域合作落實區域適性發展

國立臺灣大學建築與城鄉研究所教授 / 林建元

Cross-Regional Cooperation Promotes Local Development

Professor John Lin

Graduate Institute of Building and Planning,
National Taiwan University

政府乃是國家最大的服務業部門，其運作效能不僅影響公共資源的運用，也影響到人民所感受到的服務品質與民間部門的運作效率，進而影響到國家整體的對外競爭力。因此，各國政府莫不致力於政府治理能力與效率的提升，除了中央部會組織改造之外，地方行政轄區也必須適時調整。早期地方政府升格係以人口規模為依據，縣市之間則以河川或高山等自然地形為界，隨著交通建設與都會發展，現有行政區劃與都會生活圈相距甚遠，影響地方治理效能，中央政府乃提出「三都十五縣」之政策。2010年12月25日新北市、臺中市、臺南市、高雄市等4個直轄市正式成立，我國行政區劃形成了5個直轄市、17個縣市的新局勢。桃園縣也已經通過內政部審查，獲得同意於2014年12月25日改制為直轄市。

然而，無論如何調整地方轄區範圍，跨域問題都無法完全避免，因此世界各國除了組織再造與地方分權之外，也都致力於跨域合作機制的建立，以提升國土及區域治理的效率與效能，而我國近幾年來，經建會積極推動區域合作平臺的建立與運作，已逐漸產生了具體的績效。本章節以「節能減碳東部自行車路網示範計畫」、「淡水河、基隆河、大漢溪流域整治」以及「高屏溪、大甲溪流域治理」等三案為例，說明地方之間可以透過區域平臺實現整合地方政府及各部門資源，解決共同的問題。東部自行車路網示範計畫由於得到中央政府的資助，已經得到具體運作成果，後兩者的流域治理，則尚處在規劃剛完成的推動初期，還有待後續財政的支持與跨地域組織的努力。

在財政資源有限之下，為了提高國土及區域的治理能力，除了行政部門需要跨部門與跨地域的合作之外，建構政府與民間部門的策略夥伴也是重要的途徑之一。民間部門不僅是可以提供資金，其靈活的企業經營方式與能力更可以彌補政府體系的不足，因此無論是BOT (Build-Operate-Transfer) 或OT (Operate-Transfer) 等，都是政府借助於民間的經營活力。例如臺北市的運動中心因為採取委託民間經營(OT)模式，因此農曆過年都還會營業提供服務，要是以政府行政組織方式經營，既使加班營業，由於公務員受到加班費的限制，使用者也就很難期待得到親切的服務笑容了。本專輯所介紹的「淡水漁人碼頭國際觀光旅館」、「日月潭至九族文化村纜車」以及「高雄市現代化綜合體育館」等三案，都展現了公私合夥不但可取得民間效能與優質服務，還幫助政府節省建設經費，並且帶來龐大的財政收入。雖然如此，社會還是經常會看到媒體報導或批評一些失敗的BOT或OT個案，甚至BOT被污名化為就是圖利財團。此顯示BOT與OT並不保證就會成功或得到社會支持，未來除了加強社會對公私協力夥伴關係的認識之外，民間參與公共建設與公共服務提供的項目種類與參與方式的制度規定等，都還有很大的檢討與改進空間。

林建元

Government is a country's largest service department. Its operational efficiency affects not only use of public resources but also the service quality felt by the people and the operational efficiency of private organizations. Its impact extends to the country's overall competitiveness. Therefore, every national government must do its best to improve administrative capabilities and efficiency. Besides restructuring central government agencies, local administrative areas must achieve optimal organization. Early on, Taiwan upgraded local governments based on population while it separated cities and counties by natural landforms, such as rivers or mountains. But then transportation infrastructure improved and metropolitan areas developed, creating a gap between administrative organization and the way people live. This reduced the effectiveness of local government. For a time the government proposed organizing three special municipalities and 15 counties, but this soon evolved. On December 25, 2010, it formed four new special municipalities: New Taipei City, Taichung, Tainan and Kaohsiung. The administrative organization of Taiwan switched to five special municipalities and 17 cities and counties. In addition, the Ministry of the Interior has approved Taoyuan County's application to become a special municipality, effective on December 25, 2014.

Nevertheless, no matter how localities are arranged, there is no way to completely avoid problems extending across regions. Countries around the world are doing more than just restructuring their governments and delegating authority to localities. They are building mechanisms for cooperation to extend beyond administrative areas, so efficiency and effectiveness of national land and regional administration can improve. In Taiwan the Council for Economic Planning and Development has assumed this mantle in recent years. It has promoted establishment of regional cooperation platforms, which have already produced results. This section looks at three cases to show how localities can use regional platforms to bring together the resources controlled by local governments and public agencies, so problems can be solved jointly. These cases are the Eastern Taiwan Bikeway Network Demonstration Plan; Watershed Improvements Along the Danshui, Keelung and Dahan Rivers; and Watershed Management of the Gaoping and Dajia Rivers. Because of central government support, the bikeway has opened. Planning for the other two projects was recently completed and work is just getting underway. Their success depends on future financial support and the hard work of organizations spread across different regions.

Faced with limited financial resources, improving land and regional administration requires more than cross-departmental and cross-regional cooperation. Governmental and private organizations need to become strategic partners. Besides providing financial support, private organizations offer flexible corporate management techniques and capabilities that can correct government deficiencies. Methods for the government to benefit from management skills of private organizations include build-operate-transfer (BOT) and operate-transfer (OT) schemes. For example, a private organization runs Taipei's sports centers using an OT model that lets the centers remain open even during the Lunar New Year holidays. If a public organization were in charge of operations, at this time of year the overtime wage restrictions placed on civil servants would make users unlikely to receive a welcoming smile. This section looks at three cases to show how public-private strategic partnerships can provide users with the service quality and capabilities of private enterprises while reducing building costs for the government and serving as major sources of revenues. These cases are the Danshui Fishermen's Wharf Hotel, the gondola lift between Sun Moon Lake and Formosan Aboriginal Culture Village, and a modern, multipurpose stadium in Kaohsiung. Despite the obvious benefits, people can often see media reports that are critical of BOT or OT projects that failed. Some reports even claim that BOT projects are simply for the benefit of financial groups. These reports show there is no guarantee that BOT or OT projects will be successful or that the community will look upon them favorably. Recognizing that reviews and improvements are needed to raise the chances of success, the government has begun to take action. It is doing more to publicize public-private partnerships while seeking more meaningful, better mechanisms to raise public participation.

區域平臺

Regional Platforms



隨著交通運輸的便利、人口的移動，臺灣空間發展的重心已經出現跨越行政疆域界線的發展。「黃金十年」全面建設願景之「區域均衡」施政主軸的重要策略之一，就是藉由區域產業空間整體發展觀點，以空間功能重組來整合相關公共基礎建設，加強各區域間之跨域合作，擴大產能規模，並發揮綜效以降低成本。

行政院2010年2月22日核定通過「國土空間發展策略計畫」提出，未來許多施政議題，如水資源管理、垃圾處理問題、防救災、產業發展、區域運輸等，必須採跨行政區界或跨部門的作法，才能發揮最大效益。

因此建立區域平臺，將區域內的歷史文化、開放空間、土地使用、都市活動、建築形態、交通運輸與都市工程建設等各項空間資源，藉由平臺各種不同介面，進行實質資源與非實質資源整合。

本單元以「節能減碳東部自行車路網示範計畫」、「淡水河、基隆河、大漢溪流域整治」以及「高屏溪、大甲溪流域治理」等三案探討建立區域平臺，以實現整合各地資源，解決共同問題的必要性。

As transportation becomes more convenient and population centers shift, spatial development in Taiwan is occurring across administrative regions. The central government acknowledged these trends when announcing its "Golden Decade" policy outline and the vision it includes for balanced regional development. The strategy for this involves approaching the development of regional industries and spaces from an overall perspective, and integrating basic infrastructure by reorganizing spatial functions. It seeks to enhance cross-regional cooperation and expand the range of production capacity, as a means of generating synergies and lowering costs.

The Executive Yuan approved its Strategic Plan for National Spatial Development on February 22, 2010. It calls for various administrative issues, such as water resources management, waste management, disaster prevention and rescue, industrial development, and regional transit, to be solved through mechanisms that span administrative areas or departments. Only then can administrative units maximize benefits.

Taiwan has therefore established regional platforms that take into account each region's history and culture, open spaces, land use, urban activities, building types, transportation, and urban infrastructure. These platforms use a variety of mechanisms to integrate tangible and intangible resources.

To investigate progress in establishing regional platforms, this chapter looks at three cases: the Eastern Taiwan Bikeway Network Demonstration Plan; Watershed Improvements Along the Danshui, Keelung and Dahan Rivers; and Watershed Management of the Gaoping and Dajia Rivers. These show how integration of regional resources is needed to solve shared problems.



節能減碳東部自行車路網示範計畫

當節能減碳與環境永續成為各國關注的重要議題之際，兼具運輸交通、觀光旅遊與休閒運動等特點的自行車，漸成風潮。

2009 年至 2012 年的「振興經濟方案—配合節能減碳東部自行車路網示範計畫」，發展新北市福隆起到臺東之間，透過自行車與鐵路、公路客運系統之妥善整合與接駁，發展全長超過數百公里的自行車路網，預估可帶來 70 萬人次旅客。

臺灣東部地區具有豐富的天然遊憩資源，透過區域平臺，以跨域合作串聯自行車路網，進一步結合觀光旅遊行銷推廣，進而創造出新興的產業發展及人文的旅遊型態，成為自行車騎乘者的喜好處所，創造更大旅遊產值及行銷效益。

Eastern Taiwan Bikeway Network Demonstration Plan

From 2009 to 2012 the government carried out its Economic Revitalization Policy - Energy Saving, Carbon Reducing Eastern Taiwan Bikeway Network Demonstration Plan. The bicycle network is able to link eastern Taiwan's abundant natural recreational resources due to inter-regional cooperation. This plan takes that cooperation a step further by combining tourism and travel marketing, leading to new industrial development and culture-based travel. It has turned the region into a favorite destination of cyclists, raising travel output and marketing benefits.





透過跨域合作串聯起的自行車路網，讓臺灣東部地區成為自行車騎乘者的喜好處所。

A bicycle network built through inter-regional cooperation has turned eastern Taiwan into a favorite destination of cyclists.



淡水河、基隆河、大漢溪流域整治

淡水河流域面積 2,726 平方公里，大漢溪、基隆河皆屬該流域，是臺灣第三大河川，也是北臺灣最重要的河川。2008 年行政院提出「易淹水地區水患治理計畫檢討報告」，對於淡水河提出以水患處理為核心的綜合型流域治理構想。而淡水河流域主、支流眾多，因此流域治理除淡水河外，其重要河川支流如大漢溪、基隆河亦有治理計畫。

目前淡水河流域治理系依據水利署的「淡水河流域整體治理綱要計畫成果報告」，流域整體治理角度，針對管理組織、國土規劃、防救災、水資源利用及河川環境利用等五項主要議題進行治理。同時臺北市與新北市兩市於 2011 年成立「淡水河流域管理委員會」，透過流域治理的概念，讓相關單位協力合作、整合治理。

Watershed Improvements along the Danshui, Keelung and Dahan Rivers

Current management of the Danshui River watershed is based on results of a master plan created by the Water Resources Agency. It considers a range of perspectives, including the management organizational structure, land planning, disaster prevention and rescue, use of water resources, and use of the river environment. Also in 2011 Taipei and New Taipei City launched the Danshui River Basin Management Committee. It follows watershed management principles while encouraging related agencies to promote integrated management.



五股溼地生態保護區處於淡水河、基隆河匯流處，擁有豐富多樣的生態環境。
The Wugu Wetlands conservation area, located at the confluence of the Danshui and Keelung rivers, contains a rich and diverse ecology.

高屏溪、大甲溪流域治理

高屏溪流域面積有 3,257 平方公里，是臺灣第一大河川。從 2002 年至今，政府持續整治高屏溪流域，復以莫拉克颱風對該流域造成重大災害，故提出「高屏溪流域 2011 ~ 2014 年整治綱要計畫」，整體經費為 352 億餘元，用水資源管理利用、水質改善、水患災害防治、維生系統安全維護、集水區經營與環境生態景觀等。而未來仍廣續推動《高屏溪整治特別條例》，以專款治理高屏溪水患與污染問題，加速高屏溪流域治理。

大甲溪流域面積 1,236 平方公里，是中部地區重要河川。為整治大甲溪水患，行政院已經核定「大甲溪流域整體治理綱要計畫（2012 至 2015 年）」，總經費新臺幣 62 億元，該計畫以流域土砂綜合管理為首，使集水區及河川之水土環境朝穩定發展，再據以實施相關的防災、興利、保育對策，以獲得最佳綜效，避免公共建設遭土砂災害、河道沖淤等災害衝擊，達成流域永續經營與管理的目標。

Watershed Management of the Gaoping and Dajia Rivers

Meanwhile the Gaoping River, with a watershed of 3,257 square kilometers, is Taiwan's largest river system. Since 2002 the government has been working to improve it, a commitment that gained renewed resolve when Typhoon Morakot severely damaged the region. It introduced a master plan to improve the Gaoping River watershed from 2011 to 2014. At a cost of more than NT\$35.2 billion it called for better water resource management and use, water quality improvements, flood disaster prevention, a system for lifestyle safety and protection, improved operations in the catchment area, and an improved environment, ecology and landscape.

Dajia River and its 1,236-square kilometer watershed compose one of central Taiwan's most important river systems. To reduce flooding that occurs along the river, the Executive Yuan approved a master plan for comprehensive management of this watershed. The project is taking place from 2012 to 2015 at a cost of NT\$6.2 billion. It focuses on sediment management in the watershed to achieve stable development of the catchment area while implementing related disaster prevention, benefit seeking, and conservation policies to maximize effectiveness.





高屏溪流域整治工程已成國家永續發展的重要議題。
Improving the Gaoping and Dajia river watersheds is part of Taiwan's push
toward sustainable development.

策略夥伴

Strategic Partners



「策略夥伴」的理念除了導入私部門的資源投入外，也存在以「契約」建置公、私部門彼此互信的合作關係。私部門藉由提供資金、設備與公共服務等資源，參與公共建設、換取合理報酬。讓公共建設興建投資、管理及營運進入良性循環，實現政府、私人企業與民衆的三贏。至今，廣義的促進民間參與公共建設已超過800件，顯見公私協力的夥伴關係，已成為政府推動公共建設的重要利器。

誠然，在目前公、私夥伴關係的推動過程中，仍有許多待改進之處，但考量民間經營彈性、效率較佳，在未來公部門預算有限的情形下，這樣的夥伴關係仍值得期待。相信隨著經驗的累積與更趨健全的程序運作下，「策略夥伴」將創造更多優質的公共建設服務。本單元接續以「淡水漁人碼頭國際觀光旅館」、「日月潭至九族文化村纜車」以及「高雄市現代化綜合體育館」等三案展現公、私部門的策略合夥成效。

The core principle behind public-private partnerships involves more than just the input of private resources. A contractual framework also must be put in place that promotes mutual benefits and fosters mutual trust. Private entities provide equipment, capital, public services or other resources to participate in public infrastructure projects, and in return they expect a reasonable reward. Then, public infrastructure investment, construction, management and operation can reach a positive cycle that benefits the government, investors and society. Thus far, widespread promotion has led to more than 800 cases of private participation in public construction projects. This shows that these partnerships have become a valuable weapon in the government's pursuit of public policy and infrastructure goals.

It is clear that many improvements are still needed in the promotion of public-private partnerships. Nevertheless, the budget constrictions public agencies face and the relatively high flexibility and efficiency of private organizations means that such relationships should continue. When they are being formed, the philosophical and operational models must be correct, the process transparent and complete. Then, the chances of success can be maximized and controversy minimized, leaving society to benefit. To present the results of public-private strategic partnerships, this chapter looks at three cases: Danshui Fishermen's Wharf Hotel, the gondola lift between Sun Moon Lake and Formosan Aboriginal Culture Village, and a modern multipurpose stadium in Kaohsiung.

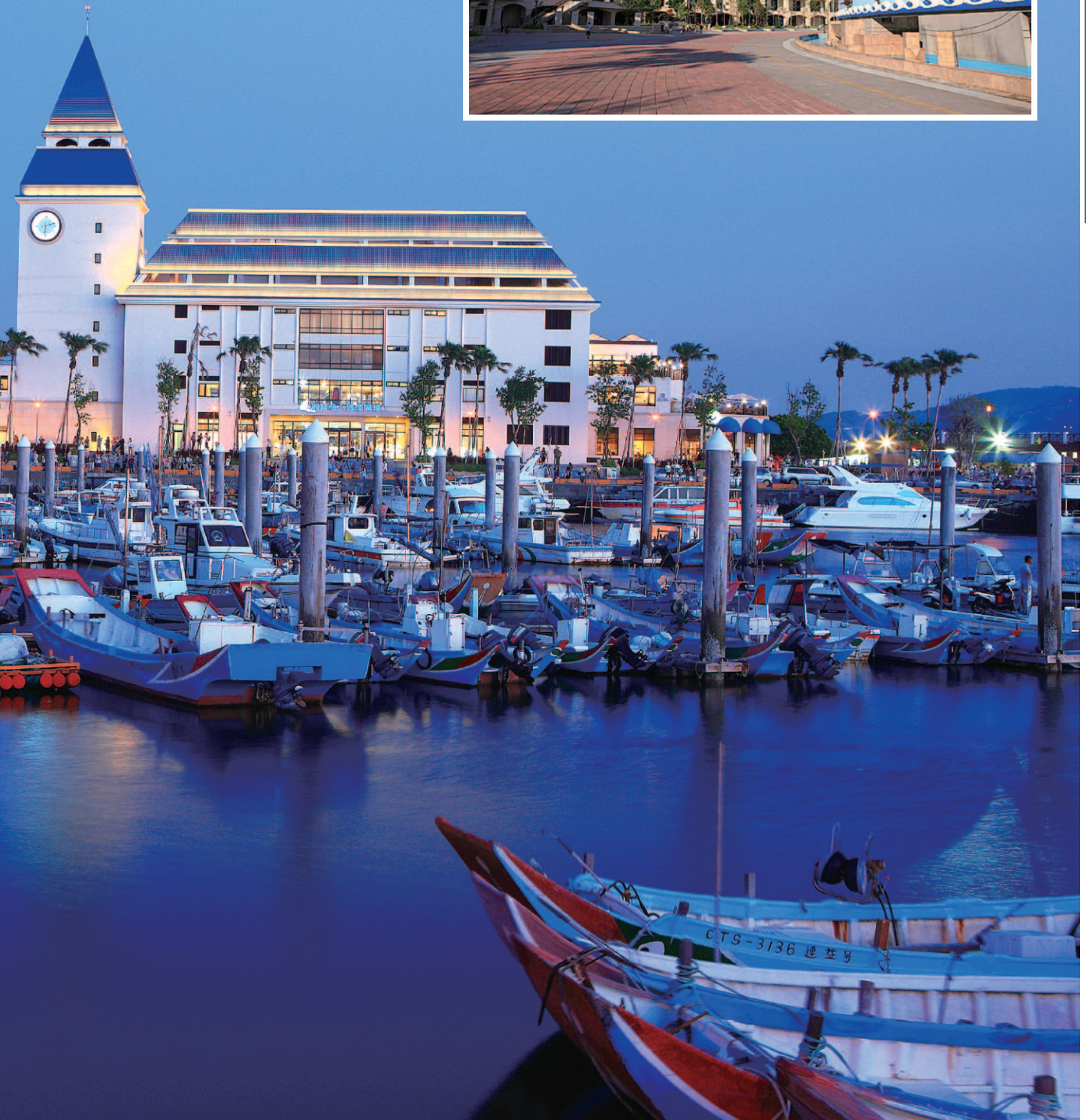
淡水漁人碼頭國際觀光旅館

2011 年 6 月開幕的漁人碼頭國際觀光旅館，擁有 198 間國際客房。為新北市依「促進民間參與公共建設法」完成的第一件國際觀光旅館 BOT 案，並以「公私協力」的精神，為淡水經濟注入全新動能，成為集休閒、娛樂、藝文於一體的港灣渡假城市。

Danshui Fishermen's Wharf Hotel

The hotel opened in June 2011. It has 198 world-class rooms and is the first international hotel built by the New Taipei City government using a BOT model under terms of the Act for Promotion of Private Participation in Infrastructure Projects. Besides providing a boost to the Danshui economy, the hotel has become the center of a new satellite town on the harbor that combines relaxation, recreation, culture and the arts in a resort-like atmosphere.





漁人碼頭的國際觀光旅館不僅創造了就業機會，也讓淡水地區遊客數大幅增加，更帶動周邊地區產業及觀光整體發展。

The Fishermen's Wharf Hotel has created job opportunities and significantly increased tourism in the Danshui region. It has also boosted local industry and overall tourism development.



日月潭至九族文化村纜車

日月潭纜車連接日月潭國家風景區至九族文化村，全長約 1.9 公里，並於 2010 年 1 月正式營運，為臺灣第一座以 BOO 模式（Build-Operate-Own，民間自行規劃、興建及營運）營運的公共纜車系統，營運首年即創下 300 萬人次搭乘的佳績，也將日月潭地區遊客數倍增至 600 萬人次，除提供當地近千人就業機會外也創造近 5 億元的政府稅收。

Ropeway between Sun Moon Lake and Formosan Aboriginal Culture Village

The 1.9-kilometer long ropeway included a private investment of NT\$1 billion. It formally opened in January 2010 and had excellent results in its first year, with ridership surpassing 3 million. The lift is estimated to have drastically increased tourism at Sun Moon Lake to 6 million, accounting for almost NT\$500 million in tax revenues and a thousand local job opportunities.





日月潭纜車除了可以增加山區公共運輸的便利性之外，亦可提供旅客感受環保節能載具的新體驗。
The Sun Moon Lake ropeway makes public transit in the mountainous region more convenient and gives tourists an opportunity to experience an energy efficient, environmentally sound mode of transportation.



高雄市現代化綜合體育館

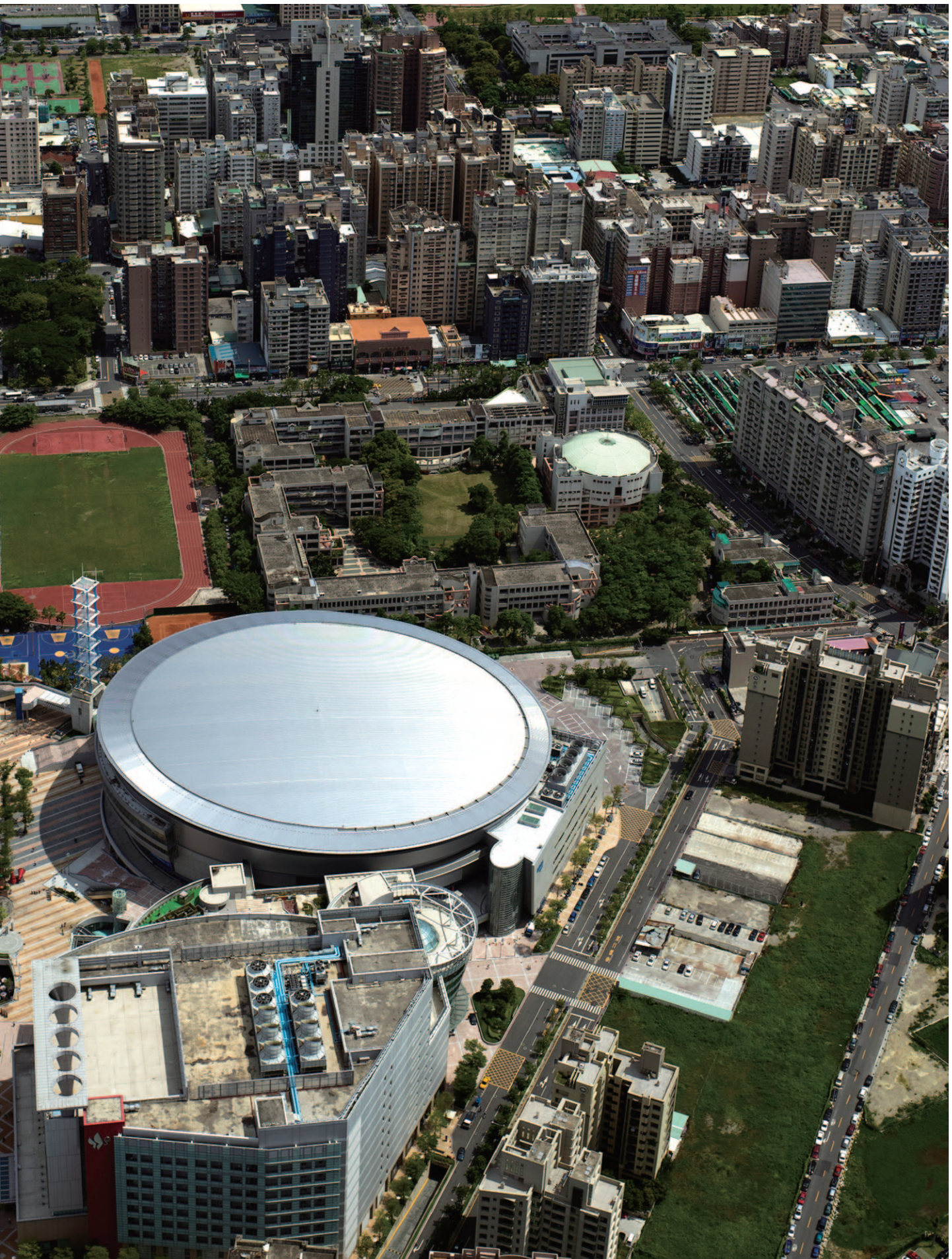
2008 年 9 月啓用的高雄市現代化綜合體育館（高雄巨蛋），採 BOT 執行，興建上減少政府支出 15 億餘元，每年節省政府營運費用約 1 億元。啓用後，整體設施含括 15,000 席多功能體育館、健身運動中心及附屬商業設施。

高雄市現代化綜合體育館除提供大高雄地區居民多樣而高水準之各項文教活動及休閒娛樂活動，也滿足運動競技、藝文展演、教學訓練之活動需求。對於高雄市爭取舉辦國際性大型活動、提升城市的居住品質，躋身國際一流都會，格外有其重要性。

Kaohsiung Arena

The multi-purpose arena provides residents of Greater Kaohsiung with an excellent range of cultural, educational and entertainment activities. It also offers a stage for sporting competitions and artistic performances, including major domestic and international events. By making it easier for Kaohsiung to attract these kinds of productions, it improves quality of life and is helping to turn the city into a world-class urban center.





高雄市現代化綜合體育館除提供當地居民多樣而高水準活動之外，也滿足運動競技、藝文展演、教學訓練等活動需求。Kaohsiung Arena provides residents of Greater Kaohsiung with an excellent range of events and offers a stage for sporting competitions, artistic performances and educational activities.

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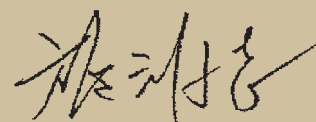
Director-General Shih Hung-chih
Association of Glocal Development

由都市更新、農村再生、城鄉新風貌、體育文教設施、環境保護、衛生福利等政策的推動中，可一窺近期國土空間規劃的核心，以及城鄉發展如何透過公共建設投資，創造安和樂利的生活環境。

其中新板橋車站特定專用區開發，透過都市再生與整體規劃，有效提高產業發展、交通運輸、土地開發的整體效益，成功打造新板特區成為新的行政中心、工商金融中心及交通樞紐；921地震重建區經新社區開發及都市更新，加速南投、臺北等地的災區重建；而農村再生在彰化、苗栗、花蓮所進行的農村產業活化、自然生態與生活環境整體規劃建設，亦逐步營造出農村發展的榮景並吸引人口回流，創造農村莊園新典範。

本書於城鄉風貌的改造上，列舉桃園、臺東、宜蘭等地所推動的永續生態建設。並從桃園埤塘水圳的活化再生、生態河濱公園所提供的親水休閒空間，展現出友善城鄉的成效。另一方面，由新莊運動休閒中心、蘭陽博物館等體育文教設施等案例中，亦展現城鄉人文特色的養成環境。而國立臺中圖書館以網際合作讓全民使用電腦網路借閱電子書，其普及效果更是無遠弗屆；此外，苗栗客家文化園區在建立全球客家文化與產業研究交流上，更落實全球思考，地方行動的新思維。

環境設施在積極推動下水道建設及污水處理上，有效改善水環境，使水資源得以永續經營。衛生福利在建立完善的醫療健康照護體系、進行資源整合及功能再造上，更加強兒童醫療品質與失智老人的照護。整體而言，在政府積極推動各項公共建設的努力下，各項建設已由過去單點的建構，逐步拓展為線與面的網絡發展，建構出人民樂活家園與永續城鄉的生活依歸。



National spatial development depends on numerous factors: urban renewal, homeland rebuilding, farming village regeneration, cityscape and townscape restoration, sports and culture facilities, environmental protection, and health benefits. Comprehensive action is needed to develop the sustainable environment and infrastructure that leads to a stable.

In New Taipei City, development of the New Banqiao Station Special District boosted industrial development, transportation and land development. This turned the special district into a new administrative center, a place of industry and commerce, and a transportation hub. In Nantou and Taipei, recovery of rebuilding zones damaged by the September 21 earthquake of 1999 benefited from urban renewal and construction of new communities. And farming villages in Changhua, Miaoli and Hualien found new life through planning and building projects that boosted local industry, ecology and the living environment. Newfound prosperity in the villages encouraged people to migrate back to the countryside, turning these villages into model communities.

In Taoyuan, Yilan and Taitung sustainable, ecological development is transforming cityscapes and townscapes. As a response to climate change, projects are giving new life to Taoyuan's ponds and canals and riverside parks are providing spaces to relax. Sports, cultural and educational facilities are creating a healthy environment where it is easy to exercise and unique cultural characteristics can grow; look no further than the sports centers in Taipei and Xinzhuang or the Lanyang Museum. Taichung's National Library of Public Information reaches each corner of the country to give people the opportunity to borrow e-books. And the Miaoli Park Hakka Culture Development Center has become a global research and exchange center for Hakka culture and industry, a project that shows the power of global thinking in local action.

For environmental changes there is the construction of new sewers and water treatment plants, which are improving water environments and promoting sustainable use of resources. Health improvements include the establishment of a comprehensive medical treatment and care system, where combined resources are improving hospital function, children's care, and treatment of seniors suffering from dementia. For example, the Pingtung Veteran's Nursing Home improved its facilities and expanded treatment, benefitting veterans with dementia and serving as a model for future development. Together, these changes are leading to peaceful, sustainable cities and new development in farming communities. Infrastructure promotion by the CEPD, both large and small, is having a major effect on urban and rural areas and serving as a model for future work in Taiwan's towns and cities.

都市更新 Urban Renewal



我國自1998年通過《都市更新條例》，都市更新由過去由政府徵收或區段徵收等實施方式，到獎勵民間辦理更新協議合建，再至導入權利變換實施更新，制度隨著社會需求逐漸演進，至今已初見成效。

921地震造成北部、中部許多住宅建物倒塌，造成許多居民流離失所，亟需要家園重建，甫建立的都市更新機制，便有效協助多處受災社區成功重建，使居民擁有更安全與高品質的生活空間，也讓災區逐漸復甦生機。

為了強化國家競爭力，並提升環境品質，在「愛臺十二建設」—「都市更新推動計畫」中，針對臺灣5大城市中6個重點地區進行國家級更新計畫，並在全臺各地主導推動及輔導民間實施地域型都市再生計畫，期能營造都市適居性、自明性及良好經濟循環體質的發展環境。

政府透過都市更新推動計畫，除了輔導民間都市更新事業計畫核定實施之外，更包括推動整建維護及住戶自力更新、推動建築風貌環境整建等不同執行方案，以期展現地區新風貌、健全都市機能、提振產業發展、增進環境品質。

The passage of the Urban Renewal Act in 1998 revolutionized urban renewal. Instead of past methods of compulsory purchase or zone expropriation, the government began to offer incentives to encourage owners to enter joint construction agreements. It also introduced the rights transformation method as a means for reconstruction. The system gradually changed as society's needs changed, and the results are apparent today.

To raise national competitiveness and improve environmental quality, the government included urban renewal as one of the i-Taiwan 12 Projects. It introduced national-level renewal projects targeting six key areas in five major cities, and it led or helped residents to implement local urban regeneration projects across Taiwan. The goal of these projects is to foster an environment of cyclical development, to create livable cities with strong urban identities, and to build healthy local economies.

Besides assisting with approval and implementation of private urban renewal business plans, the government promotes building refurbishment and maintenance. It hopes to encourage residents to launch their own renewal, façade and environmental improvements. These changes not only give new appearances to cities, but also strengthen urban amenities, boost industrial development and improve environmental quality.

新板橋車站特定專用區開發計畫

新北市新板橋車站特定專用區開發計畫，透過都市設計審議機制，有效落實都市永續規劃理念，並成功塑造副都會中心整體環境意象。

區域內有全臺灣第一個即將成型的四鐵共構（高鐵、臺鐵、捷運藍線、捷運環狀線）車站、萬坪自然都會公園及大型廣場，全區建構複層式空中通廊系統，串聯所有生活機能，整合開放性資源供公眾使用。

新板特區開發計畫有效提高了特定專用區的產業發展、交通運輸及土地開發等整體發展效益，並且成功打造新板特區成為淡水河西岸的行政中心、工商金融中心及交通樞紐。

New Banqiao Station Special District Development Plan

The New Banqiao Station Special District Development Plan is taking place in New Taipei City. Through its use of urban design review mechanisms, it incorporates sustainable planning and has successfully built a comprehensive, sub-metropolitan center.

新板橋車站周邊近萬坪的都會公園及大型廣場，融合藝術設計與綠化空間，開放供民眾使用。

The New Banqiao Station District, home of New Banqiao Central Park and a major square, has open green spaces featuring artistic design.





921 更新重建成果

921 地震造成臺灣地區民衆生命財產嚴重受損，為有效解決受災戶居住問題，恢復重建區景觀風貌，政府擬定「921 地震重建區住宅政策實施方案」，以受災戶的需求為導向，透過輔導重建、爭議處理機制、協助購置及開發新社區等方式，加速重建工作。其中新開發社區包括南投市茄苳新社區、竹山鎮柯子坑新社區、埔里鎮南光 A 區新社區、臺中市東勢區新社區及太平區德隆新社區等處。此外，臺北市及新北市等亦有多件依《921 震災暫行條例》申請原建築容積 30% 都更獎勵，經都市更新事業計畫核定公告自力更新案件。

921 Renewal and Reconstruction

On September 21, 1999, Taiwan was struck by a massive earthquake that caused significant casualties and financial loss. To solve housing problems faced by displaced disaster victims and repair the landscape, the government introduced a new program for implementing housing policy in earthquake rebuilding zones. Focusing on the needs of disaster victims the program expedited reconstruction by offering rebuilding assistance, dispute resolution mechanisms and assistance with property purchases.



921 災後重建計畫中的新開發社區，最迅速有效地解決受災戶的居住問題。
New communities included under the 921 earthquake rebuilding plan quickly and effectively solved housing problems faced by disaster victims.



哨船頭親水公園鄰近西子灣，成為高雄港灣區的觀光樞紐。
Shaochuantou Park, located near Sizihwan Bay, has become a popular place among tourists visiting the Kaohsiung harbor area.

空中攝影 / 齊柏林
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高鐵高雄港站至哨船頭歷史地區更新

哈瑪星與哨船頭地區為高雄市發展的起源地，曾經是高雄市最繁榮的區域，但隨著高雄車站與漁港遷移、產業轉型及腹地受限等因素，使得哈瑪星地區日漸蕭條。

為了提升生活品質及都市景觀，行政院將哈瑪星選定為都市更新示範計畫社區，透過社區公共設施的改善及水岸空間規劃，陸續完成的工程包括整體街道景觀規劃、廣告物招牌規劃與更新、船渠水岸空間規劃，以及哨船頭親水公園與人行步道工程，並藉由社區外圍腹地的開發，帶動哈瑪星地區的繁榮，成為港灣區觀光樞紐，映襯出西子灣美景。

TRA Renewal from Port of Kaohsiung Station to Shaochuantou Station

Development in the Kaohsiung region began in the Hamasen and Shaochuantou areas. To revitalize the area so quality of life and the urban landscape could improve, the Executive Yuan designated Hamasen as a model urban renewal community. This led to a series of projects that focused on public facilities and coastal spaces, gradually improving streets and landscaping, advertisements and signs, the boat basin and coastal spaces, as well as Shaochuantou Park and pedestrian paths. Hamasen also received a boost from development of surrounding communities.

農村再生 Rural Area Regeneration



由於都市化快速發展，農村人口大量外流與老化，鄉村地區住宅衰頹、閒置或棄置情形普遍，既有公共設施缺乏維護管理，使農村文化特色、自然生態與景觀風貌日漸消失。為此，政府針對農村社區既有公共設施進行整體規劃及改善，希望藉由公共設施品質提升，居住環境綠美化，創造農村美麗新風貌。

在「愛臺12建設」於「農村再生」的願景中，即是以社區為中心，推動農村活化，透過由下而上的參與制度，進行產業、自然生態與生活環境之整體規劃。在公共設施改善上，依據不同農村需求與特性，整合在地生活文化，投資必要的軟硬體，促進社區生活、生產及生態環境的改善，並提供因地制宜的公共設施服務機能。

其具體作為包括社區排污水處理設施、閒置空地及廢棄房舍整頓綠美化、環境保育、廟宇及社區活動中心修繕等項目，在基礎服務設施與機能強化下，有效提升農村公共設施質量，維護自然風貌，並提升生活品質，加值休閒農業及農村旅遊，再現農村魅力、促進地方永續發展與再生。

Rapid urbanization over the past several decades has led to a migration out of farming villages, leading to aging of the population that remains. There are other related problems: dilapidated, vacant or abandoned housing in the villages; and poor maintenance and management of infrastructure. Gradually the local culture, natural ecology and landscape decline. To reverse these trends, the government introduced a comprehensive set of plans and improvements for existing infrastructure in farming villages. Its goal is to beautify the living environment and give Taiwan farming villages a new look.

The government includes farm village renewal as part of the i-Taiwan 12 Projects. The vision is farming village regeneration achieved at the community level by working from the bottom up. Residents participate in planning and construction that enhances farming village industries, the natural ecology, and the living environment. Infrastructure investments based on the characteristics and needs of each community incorporate local lifestyle and culture to improve community life, production capacity and the natural ecology. They also provide services that meet each area's needs.





彰化大有社區

彰化縣埔鹽鄉大有社區是一個典型農村，以社區營造成功凝聚了社區意識與認同感，除了居民自發參與的大有志工隊之外，逐步發動居民共同營造社區公共空間，同時長期致力於環境改善及文化保存工作，建立大有社區的特有農村風情。

主要成果包括由廢棄豬寮改造為社區的活動中心與學堂的「築巢書院」，入口圍籬進行綠美化之後，景觀煥然一新；此外，年久失修而顯得破舊的陳家古厝池塘，也成功改造為生態池並加上木造護欄，成為更適於休閒的社區公共空間。

Changhua's Dayou Community

Dayou Community, located in Changhua County's Puyuan Township, is a classic farming village that has built a strong local awareness and identity through community building. Residents established a Dayou volunteer team that gradually builds community public spaces. Also years of work to improve the environment and preserve local culture have given Dayou its unique rural grace.



埔鹽鄉大有社區將農村的閒置公共空間改造為生態環境景點。Puyuan Township's Dayou Community transformed public land that lay idle in the farming village into new green landmarks.



苗栗銅鏡社區

位於苗栗縣三灣鄉的銅鏡社區，屬於小而美的農村社區。社區內住宅緊密，有許多閒置的廢棄空間，同時社區主要信仰中心關帝廟周邊，是居民主要聚會場所，但年久失修，部分設施已經損壞。

經過居民參與，銅鏡社區的農村公共設施改善工程完工之後，包括古紅磚群的風格延伸至關帝廟前廣場，並將沿路紅磚護欄進行綠美化工程，同時改善巷道鋪面老舊問題，重塑街道景觀，對於閒置廢棄空間，與地主協調提供土地，改善雜亂空間，而社區活動中心經過修繕與增添休憩設施之後，也成為更好的聚會場所。

Miaoli's Tongjing Community

Tongjing Community, in Miaoli County's Sanwan Township, is a small and beautiful farming community with homes packed tightly. A town improvement project began, aided by community participation. Building on the red brick theme that has characterized the town since ancient times, the project added new brickwork to extend the style to the temple square. It beautified brick roadside barriers by adding plants and trees, and revamped the street landscape by improving old store fronts. To clean up plots that had grown messy negotiations with owners of idle or abandoned property took place. The project also called for repairs to the community activity center and installation of new equipment, turning it into a better place for residents to gather and relax.





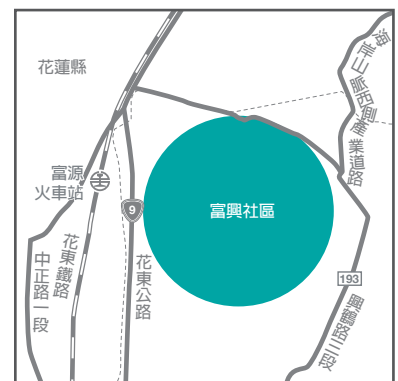
銅鏡社區積極維護街道上的古紅磚群風格，並加以進行綠美化工程。
Tongjing Community carefully maintains the ancient red brick theme that characterizes its streets, and it improves the community by adding more plants and trees.



花蓮富興社區

花蓮縣瑞穗鄉富興社區，以觀賞鳳梨及文旦柚為主要農業產出，然由於農業環境受限，人口外流情形嚴重，有些農地更隨著人口老化而閒置荒廢，農村景象日趨衰頹。

在政府經費補助及社區居民的共同參與之下，富興社區以興泉圳為中心辦理社區營造工作，並推動農村社區公共設施改善。改善的公共設施項目，包括閒置空間及休耕已久之土地資源開發利用、社區道路改善及綠美化、興泉圳親水設施及生態廊道、社區公園營造及簡易停車場，並興建農村莊園聚落示範區。優美的社區環境吸引了許多觀光客，除了帶動經濟發展，也有更多年輕人回鄉服務，營造出農鄉在地新風華。





瑞穗富興社區的農村社區公共設施改善計畫，讓興泉水圳公園成為社區居民散步乘涼的好去處。
Infrastructure improvements in Rueisuei Township turned the Xingquan Canal Park into a place where residents could walk and cool off in the shade.

Hualien's Fuxing Community

Fuxing Community, in Hualien County's Rueisuei Township, is known for its bromeliad and pomelo production. To improve faded community infrastructure, with the support of government subsidies and participation from local residents. The project developed and put to use idle spaces and farmland that had lay fallow for years, improved roads and beautified them by adding plants and trees, and added equipment and an ecological path to the canal area. It also built a community park, parking lot, and model farming village. The beautiful environment attracted tourists, boosting the economy and encouraging young adults to return and work. A new golden age began in this farming community.

城鄉新風貌

A New Face for Urban and Rural Areas



城鄉風貌改造計畫主軸涵蓋「國土空間永續」之主題競爭型、「鄉街整體振興」及「生態都市環境改造」之政策引導等補助計畫，補助項目包括配合老舊街區自力更新、建築物立面整建維護、人行道、公園綠地、公共開放空間、人行步道動線系統、防災滯洪池、水岸環境等自然及人文景觀環境營造計畫、易淹水地區地景生態環境改造計畫及配合縣級景觀綱要計畫，進行重點景觀地區之環境改善計畫。

自1997年「創造城鄉新風貌行動方案」開始，到目前執行中的「城鎮地貌改造－創造臺灣城鄉風貌示範計畫」及「生態城市綠建築推動方案」等，城鄉風貌改造政策內涵的深度與廣度，不斷開發與擴充，各地方依據不同環境及人文特質、發展課題、計畫尺度、目標設定及操作手法等，均有多元面貌的詮釋與進展。

城鄉風貌改造計畫推動過程中，不斷與時俱進，積極引入新的環境價值觀，並藉由政策引導，激發創意及區域合作。同時在生態城市與綠建築等永續發展的思維與機制下，不僅營造優質城鄉風貌、平衡區域發展落差，同時也促成各界對環境景觀的重視、國土美學素養的提升。

Cityscape and townscape transformation plans focus on competitions to encourage sustainable use of land, revitalizing street culture in rural districts, and improving urban environments to build ecological cities. They are boosted by subsidies for renewal, maintenance and construction of old street areas, building facades, sidewalks, parks and green spaces, public open spaces, sidewalk networks, flood detention pools, and coastal environments. Subsidies promote construction and improvement projects targeting cultural landscapes, as well as the terrain and ecological environments in flood-prone areas. To complement county-level landscape master plans, subsidies also boost environmental improvement projects in important landscape areas.

Cityscape and townscape transformation policies are constantly being developed and expanded. These changes were taking place when an action plan was launched in 1997 to create new cityscapes and townscapes, and they continue today during execution of a model plan for transforming cityscapes and townscapes as well as the Eco-City Green Building Promotion Program. Each locality determines how to promulgate these plans based on the environment, cultural characteristics, development issues, project scopes, design goals and execution techniques.



海岸新生

基隆八斗子漁港

臺灣遊艇製造業為亞洲第一、全球第七，卻因沒有碼頭供停靠，無法大力推展海上遊憩產業。因此，政府推動漁港從事海上休閒旅遊，依據愛臺 12 建設「海岸新生政策」以及「推動遊艇活動發展方案」，選定基隆八斗子漁港，興建臺灣首座旗艦級遊艇碼頭專泊區。

在八斗子「碧砂遊艇泊區」完工後，漁港新增 50 個遊艇停泊位；並兼顧漁港原有功能，同步更新碧砂漁貨直銷中心，另設置 7 席娛樂漁業漁船專用浮動碼頭，達到漁業與海上觀光雙贏。

Coastal Regeneration

Badouzi Fishing Harbor Renovation

Taiwan's yacht production industry is the leader in Asia and seventh in the world, yet the island cannot promote seafaring yachts on a large scale due to a lack of suitable harbors. To amend this situation, the government began to encourage harbors to enter the recreation and tourism industry. Based on the i-Taiwan "Coastal Regeneration" project and a development plan for promotion of yacht activities, this project selected Keelung's Badouzi Fishing Harbor as the site to build Taiwan's first flagship port for the anchoring of yachts.

After Badouzi's Bisha Yacht Pier was finished, the fishing harbor added 50 new spots for yachts to anchor. To enhance the harbor's original purpose, the project also included renewal work on the Bisha fishermen's market as well as a floating harbor to accommodate seven recreational fishing boats. It was a win-win situation for the fishing industry and sea tourism.



八斗子漁港是臺灣首座旗艦級遊艇碼頭專泊區，同時達到漁業與海上觀光雙贏目的。
Badouzi Fishing Harbor is Taiwan's first flagship port for the anchoring of yachts and is a win-win project for the fishing industry and sea tourism.



共榮

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SHARED PROSPERITY

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桃園埤塘水圳新生

桃園縣素有「千塘之鄉」美名，星羅密布的埤圳網絡系統，隨著都市發展及農業轉型，原有上萬口埤塘，現今僅存 3,345 口，保存工作刻不容緩。為此政府推動「桃園埤塘水圳新生整體發展計畫」，以復育溼地並確保優質生態環境。

目前已完成的示範點，包括青塘園及八德埤塘生態公園。其中青塘園規劃了水質淨化區、埤塘水圳體驗區等生態工程，並引回臺灣萍蓬草等原生生水植物；八德埤塘生態公園則以自行車道串連起埤塘，並保留原來的灌排功能，成為美麗的大型公園。

Giving New Life to Taoyuan's Ponds and Canals

Taoyuan County is known as the land of a thousand ponds and is famed for its dense canal system. But urban development and changes to the agricultural industry have reduced its quantity of ponds, from over 10,000 to just 3,345. Preservation is needed or these too will be lost. The government therefore launched a project to redevelop the county's ponds and canals, as part of its plans for restoring wetlands and protecting the natural environment.





素有「千塘之鄉」美名的桃園縣積極復育濕地並確保優質生態環境。
Taoyuan County, which is known as the land of a thousand ponds, is working to restore its wetlands and preserve its excellent ecological environment.

臺東大坡池生態環境營造

大坡池位於海岸山脈與中央山脈之間，是花東平原內面積最大的池沼溼地。但因圍墾、泥沙淤積及工程建設等原因，嚴重影響蓄洪調節功能，亦破壞了自然溼地風貌。

為了重新恢復沼澤溼地原貌，2002年起政府以復育及減法的生態工法介入，清除人工島及移除不當設施構造，改為自然疊石護岸，將水岸綠化延伸至水中，並考量生物需求，重新營造水岸自然環境。

大坡池環境復育工程完成之後，已見水域、陸域及濱水區域的生態快速恢復，並有多樣的魚類、蜻蜓、蛙類及植物生存繁衍；而大面積綠地的釋出與再造，也提供居民親水休閒的遊憩空間，逐漸找回大坡池昔日風貌及生態。

Taitung's Dapo Pond Environmental Improvement Project

Dapo Pond is the largest marsh and wetlands in the Huadong Plains. But dikes built for land reclamation, silt accumulation and other building projects have severely hampered its ability to store and regulate floodwater. They have also damaged the appearance of this natural wetland. To return this marsh and wetlands environment to its original state, in 2002 the government began an ecological restoration project that included reducing development. Now that restoration work of Dapo Pond is complete, it's original ecological landscape is returning.





環境復育工程中大面積綠地的釋出與再造，逐漸找回大坡池昔日風貌及生態。
Opening and restoring the large area of green land that surrounds Dapo Pond is bringing back the pond's original ecological landscape.



宜蘭河濱綠色小徑

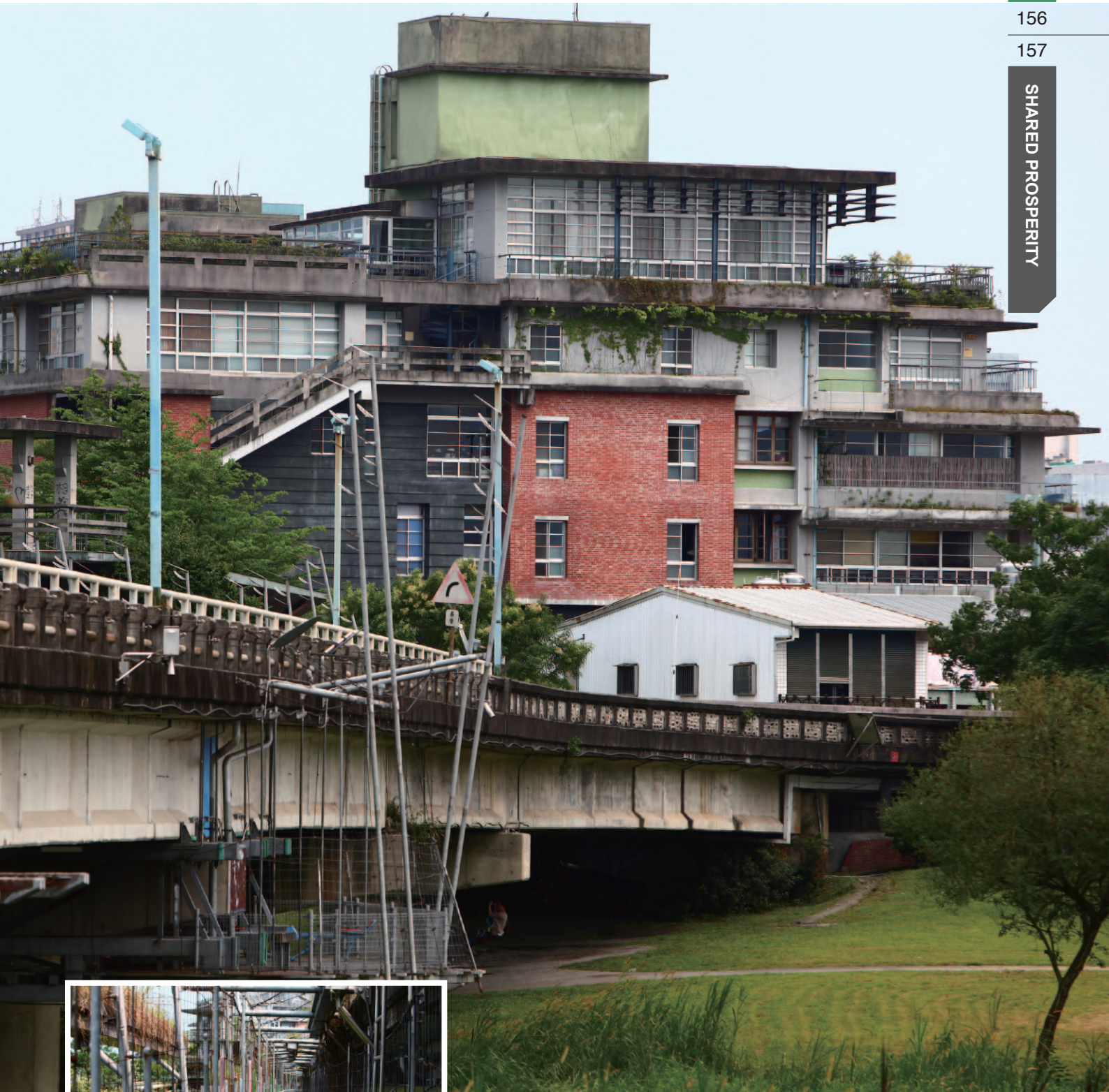
為了縫合城市紋理並實踐人本運輸，「發現宜蘭河濱綠色小徑」計畫將位於宜蘭社會福利館旁的河濱公園，利用堤頂道路重新定位和高灘地空間關係的巧妙結合，營造出自然空曠的步行系統和自行車道，強化了河濱公園的遊憩縱深，供民眾自在悠遊於城鄉景色之中。

完工後，將原有步道系統串連起來，提供沿岸居民更完善的休閒空間；原本的混凝土堤防改成大草坡，並在堤頂及高灘地廣植樹木與草皮，使原本的環河路堤防搖身一變成為適合休憩的公園綠地，而這條美麗彎曲小徑，不僅改變了鄰里關係，也創造出宜蘭河畔的獨特空間美學。

Green Streets of the Yilan Riverside

The purpose of this project, situated on the riverside park and road embankment beside the Yilan County Social Welfare Center, was to unify the urban grain and create people-oriented transportation infrastructure. It centered on a new use for the embankment to harmonize it with adjacent high riverbanks and build a system of pathways for walking and cycling in a natural open space. By enhancing recreational features of the riverside park, it gave urban residents a place to relax in an almost rural setting.





宜蘭社會福利館旁的河濱公園，營造出自然空曠的步行系統和自行車道，強化了河濱公園的遊憩功能。

At the riverside park beside the Yilan County Social Welfare Center, this project improved recreational facilities by building a system of pathways for walkways and cycling in a natural open setting.

體育、文教設施

Sports, Culture and Education
Facilities

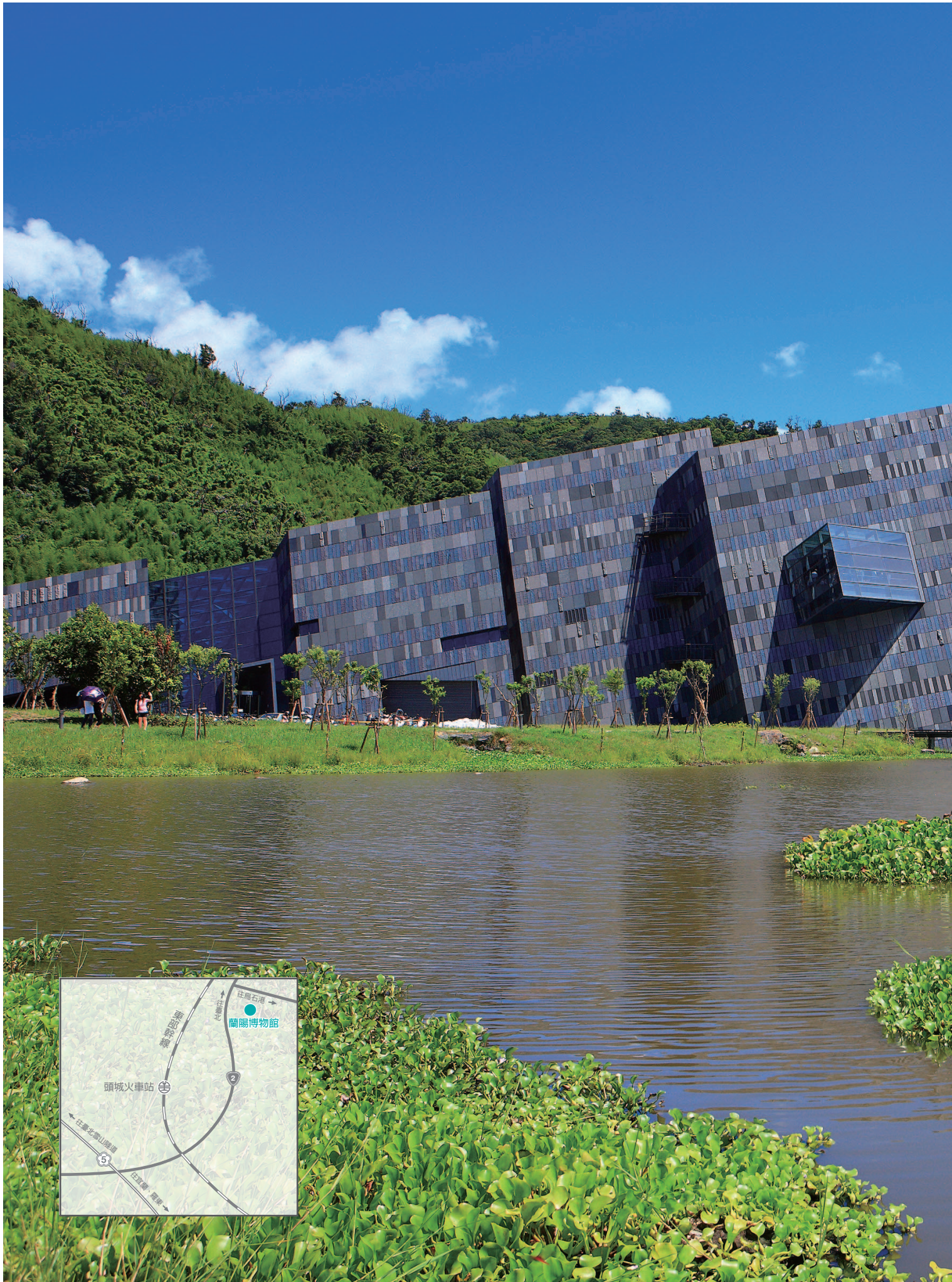


對於體育與文化教育基礎設施的投資，不僅能培植國家的軟實力，也是決定國家未來成長活力與競爭力的關鍵。為促進全民運動與國民健康，政府近年來積極落實「改善國民運動環境與打造運動島計畫」，興建都會區國民運動中心，輔導興整建郊區運動公園及社區簡易設施，同時推動「自行車道整體路網規劃建設計畫」，全面優化運動環境。

在文教部分則為提升國內藝文展演設施場地設備水準、活化文化資產及厚植觀光資源，積極籌設重大展演設施、重要藝文空間並提升場館經營專業，同時推動文化場館的重點館舍升級，落實文化資源整合與加值，整合地方文化空間、人文特色景觀及產業，使重要藝文空間城鄉配置更均衡發展，促進文化平權。

透過文教設施的扎根，能夠活絡文化資產，均衡城鄉文化資源，並強化藝文產業發展環境，進而提高國家文明水準。而符合國際標準的運動場館及運動設施，不僅提升國民運動休閒品質、滿足國民運動需求，對於未來申辦國際運動賽事亦有正面助益。

Investments in basic sports, culture and education facilities can foster a country's soft power, and are key to determining its future growth vitality and competitiveness. To encourage everyone to exercise and promote health, in recent years the government has implemented its Plan to Improve the National Sports Environment and Create an Island of Sports. It has built metropolitan exercise centers, provided advice and renovations to improve suburban sports parks and community exercise equipment, and promoted the Bicycle Network Path Construction Plan. The objective is improvement of the sporting environment. For culture and education, the government has focused on improving arts exhibition and performance facilities as well as equipment standards. These changes give new energy to cultural pursuits and strengthen tourism. Strategies include planning and establishment of large exhibition and performance centers, building major arts spaces, and improving operations and management at existing facilities. The government is also seeking to upgrade major cultural venues, integrate various cultural resources and boost added-value benefits. Integrating local cultural spaces, landmarks and industries makes it easier to balance development of important cultural cities and towns, promoting fairer allocation of resources. The benefits gained from the improvement of cultural facilities include the vitalization of cultural assets, the balancing of urban and rural cultural resources, and enhancement of the environment for the development of arts and cultural industries. They even extend to raising the level of the nation's civilization. And the possession of international standard sports venues and facilities not only satisfies the people's sport and exercise needs while enhancing the quality of their engagement in sport and leisure pursuits; it also boosts Taiwan's future bids for hosting international sports events.



蘭陽博物館

位於頭城鎮烏石港舊址的蘭陽博物館，外觀造型仿當地海邊單面山地形，並融合了工程、生態與人文概念，具有保存宜蘭在地文化的功能，也是宜蘭對外拓展鄉土認識與能見度的窗口；同時因館址位於烏石港細部計畫的核心區域，亦具有帶動都市計畫發展的指標意義。

蘭陽博物館的建築設計，陸續奪得國內外獎項，包括公共工程金質獎特優、國家卓越建設最佳施工品質類卓越獎、2011 年國際宜居城市大會國際決賽 Project Award 人造環境類金牌，以及 2012 年國際建築獎等。自 2010 年開館以來，入館參觀人數已經超過 300 萬人次，有效提高當地旅遊人潮，進而帶動在地觀光收益，幫助整體經濟效益成長。

Lanyang Museum

The Lanyang Museum is located in Toucheng Township on land that was once the Wushih Harbor. Its exterior, which is in the shape of a cuesta found along the Yilan seaside, incorporates engineering, ecology and cultural concepts. Inside, the building preserves local cultural treasures while serving as a valuable window that visitors can peek into to learn more about Yilan.

蘭陽博物館外觀造型仿當地海邊單面山地形，並融合了工程、生態與人文概念，具有保存宜蘭在地文化的功能。

The exterior of the Lanyang Museum, which is in the shape of a cuesta found along the local seaside, incorporates engineering, ecology and cultural concepts, while the museum interior preserves local cultural treasures.





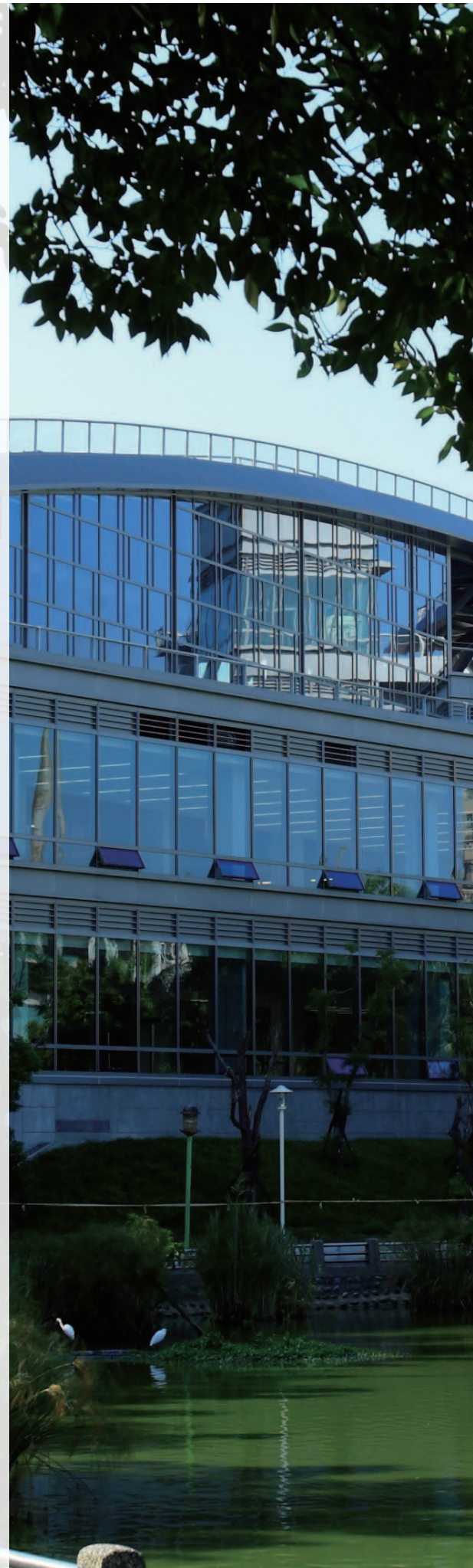
新莊運動休閒中心工程

為營造優質運動環境、推廣全民運動以促進國民健康體能，政府自 2010 年起陸續於全國各都會區設置國民運動中心，其中第一座完工的新莊運動休閒中心，已於 2012 年年底正式啟用，內部設施除規劃了水上運動、陸上運動及社區空間，並擁有一座可升降平臺的國際標準游泳池，可供國際賽會使用。

新莊運動休閒中心除了使用綠建材之外，亦設置太陽能光電系統，可作遮陽節能之用，另外也採取綠色緩坡設計手法，使建築物融入地景，提供民眾綠色視野，同時也以平價收費及優質服務，提升民眾的休閒生活品質。

Xinzhuang Sports and Recreation Center Construction

Besides using green building materials, the sports center has solar panels that block the sun to save energy. Its exterior design features an ascending green platform that blends the building in with the surrounding landscape while providing an unusual green view. By combining reasonable prices with high-quality service, the sports center enhances recreational life in the city.





新莊運動休閒中心除了使用綠建材之外，亦設置太陽能光電系統與綠色緩坡設計手法，使建築物融入地景。

Besides using green building materials, the Xinzhuang Sports and Recreation Center has solar panels and an ascending green platform design that blends the building in with the surrounding landscape.

國立臺中圖書館

國立公共資訊圖書館前身是 1921 年設立的國立臺中圖書館，由於原有館舍不敷使用，設備機具亦不符讀者需求，因此遷至臺中市五權南路興建新館。為全臺灣首座「國家級數位公共圖書館」，實體藏書達 200 萬冊，數位電子書初期達到 1 萬多冊。遷建完成後的國立公共資訊圖書館，定位為數位公共圖書館，建構中央至地方全面性的數位學習組織體系，特色為電子書服務平臺，使讀者不必出門就可以借書。

國立公共資訊圖書館的一項特色是提供數位影音服務，包括數位展覽、視聽影音、多媒體創作、數位遊戲等，讀者也可使用龐大的數位資源，包括電子書、數位影音資源、數位學習教材、數位典藏及電子資料庫，透過整合檢索服務的提升，開啓數位圖書館的新紀元。

National Library of Public Information

Over the years the National Taichung Library, which was established in 1921, grew old. Now it became the National Library of Public Information, Taiwan's first national-level, digital public library. Early on it had over 2 million printed books and just over 10,000 e-books, but after the move was complete and with its new designation as a digital public library, it expanded by building a digital learning system. It specializes in an e-book service platform that lets readers borrow books without having to leave their home.





遷建完成後的國立公共資訊圖書館，擁有新穎且流暢的建築外觀與寬廣的戶外空間。
The new National Library of Public Information features an original, flowing design and spacious grounds.



苗栗客家文化園區屋頂帷幕採特殊設計減少熱輻射、空調節能設計及雨水回收再利用系統，為黃金級的綠建築。

The Miaoli Park Hakka Culture Development Center is accredited as a gold level green building, in part due to the special curtain design on its roof that reduces thermal radiation and energy needed for central air while collecting rainwater for reuse.

苗栗客家文化園區

苗栗客家文化園區位於苗栗縣銅鑼科學園區，定位為全球客家文化與產業研究交流中心，已於 2012 年 5 月正式開園。園區依基地所在的丘陵起伏地形設計，分為戶外空間、主展館區及附屬設施等，並利用水與綠景紋路所構成的人工山丘包覆主建築物，創造出梯田景觀的意象。

園區採低密度、低強度開發，搭配節能減碳措施，屋頂帷幕採特殊設計減少熱輻射、空調節能設計及雨水回收再利用系統，為黃金級的綠建築。建物設計概念亦反映客家文化尊重自然的精神本色，保留基地原有植栽地貌，將客家精神融入當地優美自然的環境。

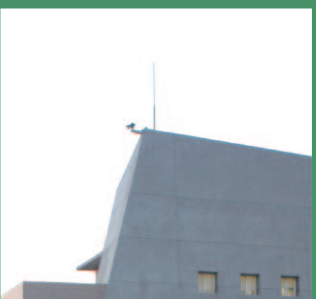
Hakka Culture Development Center

The Miaoli Park Hakka Culture Development Center, located in Miaoli County's Tongluo Science Park, is a global research and exchange center for Hakka culture and industry. The park is spacious and seeks to maintain the natural setting. It is built to save energy and reduce carbon use, and the roof has a special curtain design that lets it reduce thermal radiation and energy needed for central air while collecting rainwater for reuse. It is accredited as a gold level green building. Design of the building reflects the Hakka culture's respect for the spiritual essence of nature. It retains plant life that existed on the original site while integrating core Hakka elements into the beautiful natural environment.



環保設施、下水道

Environmental Protection Facilities and Sewers



臺灣地區降雨豐沛，近年更因氣候異常及都市高度開發等因素，導致淹水災害頻仍；而未處理的放流水排入老舊排水溝，也往往導致路側排水藏污納垢、影響環境品質，並造成環境污染的情形。

因此政府將下水道建設納入「愛臺十二建設」之「防洪治水—雨水下水道」及「污水普及率提升」範圍，並列為施政重點。並將具污水處理廠餘裕量之地區，優先辦理用戶接管工程，藉以加速普及率之提升。同時以政府自辦及民間參與雙軌並行方式加速辦理。重點項目包括各縣市污水處理廠，污水下水道系統幹線、用戶接管，以及推動民間投資興建下水道系統等工程。

在政府全力推動之下，各項建設已展現出相當效益。其中，雨水下水道建設能健全都市排水，有效減少豪雨成災的頻率；而污水下水道接管普及率快速提升，亦有效改善都市生活環境品質及河川污染情形，並促進水資源永續利用，提升國家競爭力。

Rainfall is heavy in Taiwan. When combined with the increase in abnormal weather events over the past several years and dense urban development, water accumulation and flooding are common. And if effluent that has not been fully treated leaks into an imperfect sewer system, gutters on the sides of city streets collect pollutants. Environmental quality is affected and serious water pollution results. This scenario makes it clear that improvements to Taiwan's sewer network are urgently needed.

Hence, the government included sewer construction in its i-Taiwan 12 Projects, with particular targeting of storm sewer construction for flood prevention and water management, and sewer construction to increase the sewage treatment rate. It prioritized regions with sewage treatment facilities that had surplus capacity for increasing the user connection coverage rate, so the treatment rate could rise more quickly. Some projects the government is conducting alone while others are benefiting from private participation. It is offering subsidies to local governments that build sewage treatment plants or sewer systems, including both main lines and household connections, and is promoting private investment in building sewer systems.

The government's industry on this front has already yielded considerable benefits. Storm sewer construction has effectively reduced the frequency of flooding caused by torrential rain, while the sewer connection rate has leapt up. The quality of urban living environments has been effectively improved, and river pollution reduced. The promotion of water and sludge recycling has boosted the sustainable use of resources and raised national competitiveness.

擴大污水下水道建設計畫

政府自 1988 年開始推動污水下水道發展方案，已逐年陸續實施第 1 至 3 期建設計畫，第 4 期（2009 至 2014 年）列入行政院「愛臺 12 建設」及《振興經濟擴大公共建設特別條例》擴大辦理，持續推動 60 處政府自辦系統及 28 處民間參與污水下水道系統。

在第 1 至 3 期的良好基礎之下，近年來污水下水道建設計畫執行成效更加卓著，已順利達成每年提升用戶接管普及率 3% 的目標。目前進行中的政府自辦系統包括楊梅、大里等地區，民間參與部分則包括楠梓、淡水及羅東等地區。

計畫完成後，污水下水道普及率預計將由 2008 年的 19.27% 提升至 2014 年的 35.77%，並能有效改善環境衛生與提升生活品質、恢復清澈水環境、使資源可永續利用，以及提升國家整體的競爭力。

Sewer Expansion Project

The government began expanding the sewer network in 1998. Since then it has completed three stages of construction, with the fourth (taking place from 2009 to 2014) included as part of the i-Taiwan 12 Projects and broadened under the Economic Revitalization Policy. After the fourth stage of the project is complete, the user connection coverage rate will have increased from 19.27 percent in 2008 to 35.77 percent in 2014. The cleaner environment, higher quality of life, clear water, and sustainable use of resources will raise Taiwan's national competitiveness.





擴大污水下水道建設能改善環境衛生與提升生活品質，恢復清澈水環境。
Expansion of the sewer network will lead to a cleaner environment,
higher quality of life and a clear water environment.



淡海污水處理廠

淡水地區污水下水道系統，是國內以 BOT 方式由民間投資興建的系統之一，隨著管網工程完工及用戶接管工程的普及，可有效解決淡水、竹圍及淡海新市鎮等三處生活污水處理問題。

污水處理廠運轉後的放流水可供廠區回收再利用，而污泥消化系統亦藉由專業特殊設計，達到污泥減量及節能目的。污水處理廠本身設計為黃金級綠建築，具有生態綠化概念，以雕塑手法傳達「建築本身即為一件大型公共藝術」的概念，並可作為淡海新市鎮及漁人碼頭自行車道景觀遊憩的中繼站。

淡海污水處理廠的完工運轉，對於高度發展的淡海地區整體生活機能、環境品質提升及活絡當地房地產等，都有增益價值的正面效應。

Danhai Sewage Treatment Plant

The sewer system in Danshui is run by a private BOT investment. For its ecological design the plant was recognized as a gold level green building, and its sculpture-like structure lets it double as an art installation. The Danhai region was already well developed. Completion and opening of the sewage treatment plant has further improved its living amenities and environmental quality while boosting the local real estate market.





淡海污水處理廠本身設計為黃金級綠建築，富含生態綠化的概念。

The ecological design of the Danhai Sewage Treatment Plant led it to be recognized as a gold level green building.

衛生福利 Health & Welfare



為提供民衆優質的健康照護服務，使全體國民不論身處何地，均能享有無差距的醫療資源，政府自**2009**至**2012**年實施「新世代健康領航計畫」，內容包括醫療與公共衛生服務體系再造、公立醫療體系資源整合與功能再造、建立優質的緊急醫療救護體系、強化持續性健康照護體系、加強山地離島及原住民醫療保健服務、強化精神衛生體系，以及全面提升醫療機構與醫事照護機構品質等。

除了強化疾病預防保健及防疫安全之外，隨著少子化與高齡化社會來臨，政府推動逐步建立支持性的高齡友善城市，以呼應都柏林宣言的國際趨勢；並於**2008**年起，積極推動「長期照顧**10**年計畫」及身心障礙醫療復健網絡，使經濟弱勢者能獲得更適切、可近性的長照服務，同時強化社區醫療體系、建構整合性社區健康照護網絡，以在地老化與多元連續的照護，實現「幼有所長、壯有所用、老有所終，鰥寡孤獨廢疾者皆有所養」的理想目標。

To provide excellent health services available to all citizens, regardless of where they happen to be, from 2009 to 2012 the government implemented the New Generation Health Navigation Project. The project called for rebuilding the medical treatment and public health service system, reorganizing functions, integrating resources of the public medical treatment system, and building a leading emergency treatment and rescue system. It also sought to strengthen the continuous care system, medical treatment and health care for indigenous peoples, provision of care in mountainous regions and outlying islands, the mental health system, and overall quality of medical treatment and care organizations.

The government faces many challenges in this sphere. Besides strengthening the fight against disease and epidemics, it must meet the need for developing age-friendly cities as people have fewer children and the population ages. Alongside step-by-step progress toward this goal, in 2008 the government launched the Ten-Year Plan for Long-Term Care, and set up a network to provide medical care and rehabilitation for the physically and mentally disabled. Through these and other measures to ensure that the economically disadvantaged members of society can obtain more apt and accessible long-term care, and by augmenting and enhancing the community health care system, the government is doing its best to achieve the ideal of taking good care of people at all stages of life, from infancy to twilight years.



連江縣立醫院新建醫療大樓

連江縣立醫院原急診大樓已超過建築使用年限，並常發生水泥塊崩落現象，為提升離島地區醫療品質及民衆就醫的環境安全，由行政院核列補助新建工程，同時充實醫療儀器設備。

新建醫療大樓工程已於 2011 年落成啓用，建置有遠距醫療及醫療影像傳輸系統，除提供寬敞舒適的就醫環境之外，增設健檢區、洗腎室、長期照護病房、重症加護病房、安寧病房、負壓隔離病房，並設有 64 切電腦斷層設備等現代化設備，醫療人力則由中南區域聯盟醫院支援外科與精神科醫師，以滿足當地民衆需求。

新建醫療大樓啓用後，讓馬祖地區的軍民能享有妥善的醫療照護服務，可望把在地醫療比率提高到 90%，減少赴臺轉診的負擔，並落實在地醫療、在地照護的精神。

Lienchiang County's New Hospital Building

Lienchiang County's New Hospital Building opened in 2011, complete with a telemedicine center and a picture archiving and communication system. It meant that soldiers stationed in the Matsu region could receive appropriate care. It is expected to raise the local treatment rate to 90 percent, reducing the need to transfer patients to Taiwan proper while expanding local treatment and care.





連江縣新建醫療大樓擁有諸多現代化醫療設備，可望大幅提高在地醫療比率。
 The new Lienchiang County Hospital building has extensive modern medical equipment and has significantly raised the local treatment rate.

臺灣大學醫學院附設醫院—兒童醫療大樓

臺大醫院兒童醫療大樓於 2008 年完工啓用，由婦產部與生殖醫學中心及基因醫學部同時進駐，整合內外科系、重症醫療、早期療育中心和兒童心理中心，除設有兒科一般病床外，另規劃設有各類兒童加護病床，以加強兒童重症醫療服務。

經過設計的兒童醫療大樓，就診動線更方便，專科診間集中也便於醫師會診治療。此外更以「健康森林」概念，打造兒童專屬空間，讓醫院有如兒童樂園，在門診區提供專屬兒童候診遊戲區，減少兒童就醫的排斥和懼怕感，讓醫療服務更為貼心且溫馨。

National Taiwan University Children's Hospital

National Taiwan University Children's Hospital was completed and opened in 2008. The layout of the children's hospital makes treatment convenient, and close arrangement of clinics helps doctors consult one another on course of treatment. "Health Forest" is a space for children to play that makes the hospital resemble a theme park. In the clinic waiting room there is also a games area. These facilities make children more willing to visit the hospital and reduce the dread of seeing the doctor, making medical treatment a warmer, more considerate experience.



臺大醫院所成立的國家級兒童醫學中心，期盼能打造出更為完善的兒童醫療環境。National Taiwan University's world class children's hospital provides a comprehensive treatment environment for children.



屏東榮家忘我園區是國內首創針對失智老人設置的照護專區。

The Pingtung Veteran's Care Home Dementia Unit is the country's first care unit specifically established to treat seniors suffering from dementia.



屏東榮家忘我園區

屏東榮家忘我園區位於屏東縣內埔鄉，是國內首創針對失智老人設置的照護專區。屏東榮家忘我園區已於 2011 年完工啓用，房舍依現行法令要求，興建大型室內活動場所、綠地遊走空間，可使榮民安養、失能養護及失智照顧的連續性服務更臻完善，共有 500 多張床位，除提供榮民 430 多張床位，另設置 38 床供社區民衆使用，在榮家提供的專業照顧之下，進住榮民歡喜頤養，成功擴大服務層面並發揮資源共享。

Pingtung Veteran's Nursing Home Dementia Care Park

Located in Neipu Township is the Pingtung Veteran's Nursing Home Dementia Care Unit. Completed in 2011, it is the country's first care unit specifically established to treat seniors suffering from dementia. Besides providing the requisite indoor activity center and an outdoor green walking space, the nursing home offers veterans the general care, disability and dementia treatment they need. The facility has more than 500 beds, over 430 for veterans and 38 for community members. Veterans benefit from professional care enhanced by the dementia care unit, while the nursing home improves treatment through resource sharing.

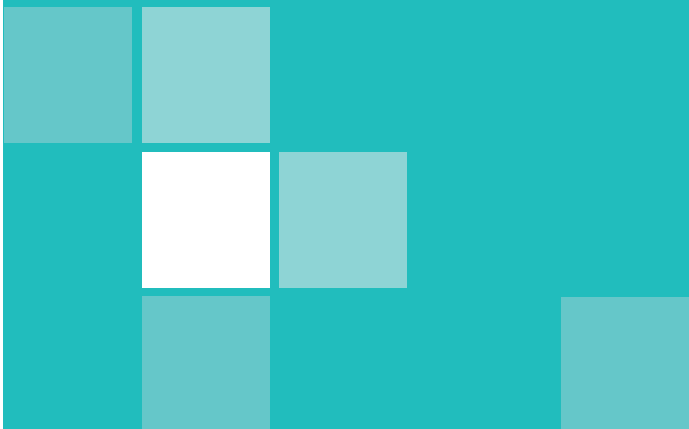
結語

國土為國家發展之根本，公共建設則為人民幸福生活之所繫；政府透過國土規劃與各項公共建設的投入，為世代定居在臺灣這片土地的住民，滿足每個人最大的人生願望，使之成為宜家、宜業之所在。而遵循著國土規劃願景，讓山林得以永續保育，城鄉得以有序而漸進的發展，亦是我們衷心期盼。

本書以國土空間發展為藍圖，藉由各項圖文並茂的公共建設簡介，導引出國土規劃的願景，如同書中「永續」、「創新」、「領航」、「效能」、「共榮」等五項單元，每項建設成果各有其獨特處卻又環環相扣、相互搭配。小至低碳社區，大至產業園區開發，均為各部會合作與各項計畫相輔相成的成果。

然而，因應氣候變遷的挑戰下，國土規劃與公共建設的投入更需與時俱進，特別是臺灣位處太平洋地震帶及颱風必經路徑，尤須注意氣候變遷下各式災害對國土環境與人民生命財產的影響。因此，落實環境敏感地區的保護、確保農業生產環境，並導入都市防災概念，進行風險控管，更是當下各項公共建設規劃所需納入考量的。

另外，在近年財政日益困窘的情形下，未來各項公共建設計畫，更將要求於有限額度下，整合周邊資源，提升建設自償率。也因此，「跨域加值」理念更顯重要，透過前瞻性規劃，不僅整合內部資源、也追求跨部門的整合，異業結合、引進民間資金，為公共建設注入新的活力與成長動能。讓政府結合民間資源、技術與經營能量，共同打造繁榮、永續的幸福臺灣。



Conclusion

Land is the root of national development, and the infrastructure upon it is closely linked to the prosperity of the people. Using national land planning and infrastructure investments, the government fulfills lifetime hopes of different generations and makes Taiwan a hospitable place to build a home and business. Our heartfelt expectations also include adherence to a vision of national land planning that allows for conservation of nature and the gradual, orderly development of urban and rural areas.

This book uses national spatial development as its blueprint. Through a series of photos and descriptions it describes various infrastructure projects, evoking visions of national planning revealed by the book's five chapters: sustainability, innovation, direction, effectiveness and shared glory. Every construction project is linked yet also unique. Together, they form a whole. Whether achievements are small in scale, such as building low-carbon communities, or large, such as development of industrial parks, they are a result of inter-departmental cooperation and complementary planning.

A challenge that can only be solved with progressive national land planning and infrastructure investments is climate change. Taiwan is located in an earthquake belt, in a part of the Pacific Ocean where typhoons frequently pass. It must heed the environmental impact and casualties to life and property caused by the various natural disasters which climate change brings. Therefore, considerations that must be a part of any infrastructure planning include protection of environmentally fragile areas and farmland, as well as the inclusion of urban disaster prevention in risk management principles.

Also, the growing financial difficulties of recent years, and accompanying strict budgetary limits, make it critical that future infrastructure plans integrate peripheral resources and raise the self-liquidation ratio. Such characteristics enhance the importance of value adding across multiple fields. Forward-thinking planning that uses internal resources and inter-departmental cooperation is needed, as is collaboration with outside industries and private investment. Besides providing new energy and impetus for growth, these collaborations allow the government to take advantage of private sector resources, technology and operational capabilities. They show that together, we can build a prosperous, sustainable and happy Taiwan.

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