



2015 永續發展國際論壇

2015 International Forum on Sustainable Development

永續臺北城的**低碳路徑**

Sustainable Low-Carbon Roadmap of Taipei city



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2015.11.4

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I. Setting ambitious CO₂ reduction targets



壹、設定減碳目標， 勇往直前



Taipei City's energy-saving and CO₂ reduction targets

- ❖ Energy conservation and CO₂ emission reduction are priority policies of Taipei City

- The Taipei City Energy Conservation and CO₂ Emission Reduction Project was adopted on 13 April 2010. and vigorously implemented by all units.



- ❖ Pursue of greenhouse gas reduction targets in line with national policy

- 2016-2020, Taipei emissions will be reduced to 2008 levels, in line with the Legislative Yuan's Sustainable Energy Outline

- ❖ Taipei City's CO₂ reduction targets will be reassessed in light of the Greenhouse Gases Reduction and Management Act (enacted on July 1, 2015)

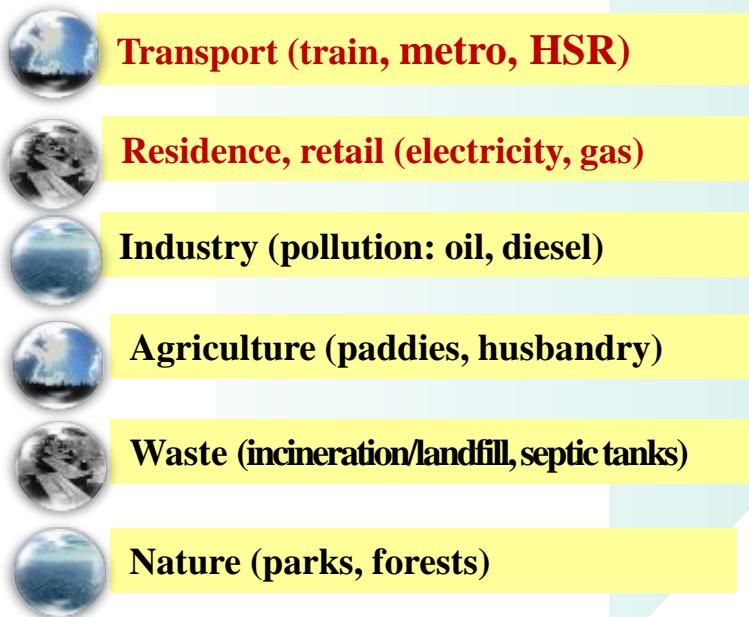
臺北市節能減碳目標

- ❖ 「節能減碳」是臺北市優先施政項目之一
 - 2010年4月13日修正通過「臺北市推動節能減碳方案」，市府機關依權責分工推動節能減碳工作
- ❖ 配合國家政策，訂定臺北市溫室氣體減量目標
 - 配合行政院「永續能源政策綱領」，以「2016年至2020年間排放量降至2008年水準」
- ❖ 近期將依據2015年7月1日公布施行「溫室氣體減量及管理法」，重新檢討臺北市減碳目標及策略



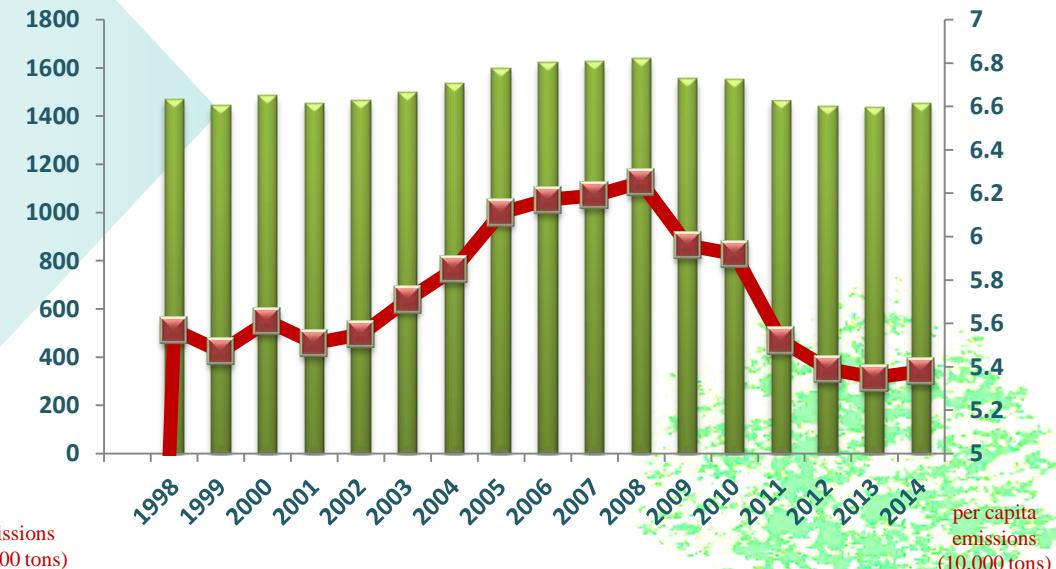
Taipei City's current CO₂ emission status

❖ Emission sources



❖ Downward CO₂ emission trend

- Annual self-assessment and priority-setting
- Per-capita emission 5.38 tons in 2014 (down from 6.25 tons in 2008)



- ❖ Emission mainly from residential/retail (63%) and transport (37%)

臺北市二氧化碳排放特性及現況

❖ 排放源分為六個部門



運輸(台鐵、捷運、高鐵)



住商(電力、天然氣)



工業(固污:重油、柴油)



農業(水稻田、牲畜)



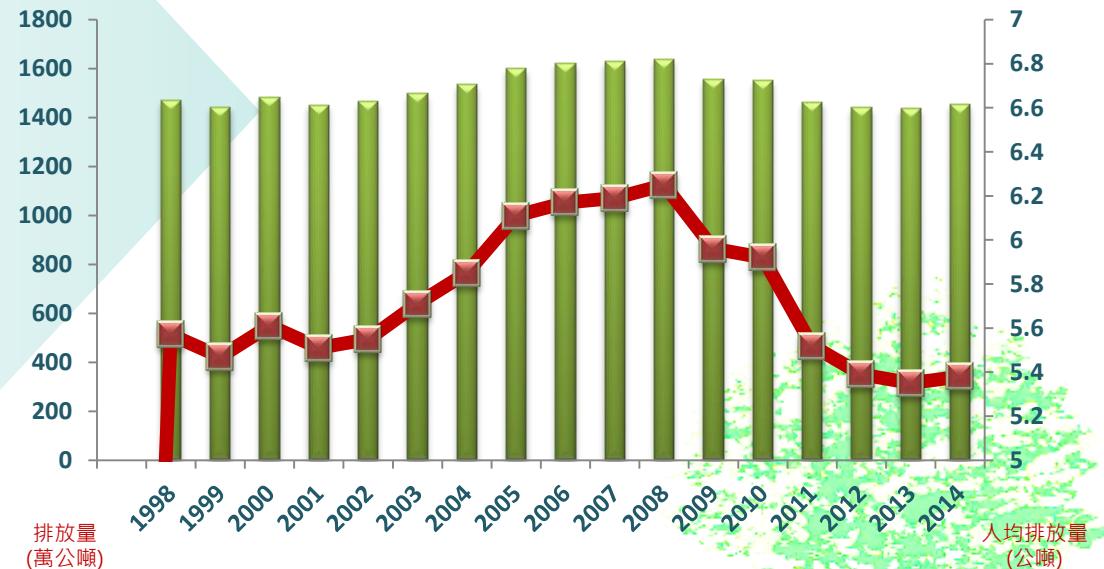
廢棄物(焚化/掩埋、化糞池)



森林(綠地、保安林)

❖ 歷年溫室氣體排放呈下降趨勢

- 每年自我檢討排放潛勢及熱點
- 人均每年排放量自2008年6.25噸降至2014年5.38噸



❖ 臺北市排放特性以住商(63%)、運輸(37%)為主

II. Autonomous Regulations for sustainable development



貳、重視環境永續， 訂定自治條例



Industry: City regulations to reduce power consumption

Regulatory approach to industrial energy saving

'Smart saving, smart use'

Green = lean = mean!

❖ Mandatory measures

- Air-cons at 26°C or up in factories and offices
- Indoor lightings should not exceed CNS norms
- Store signs can't use incandescent lighting
- New boilers (of 2+ tons evaporation per hour) must run on gas or heat-exchange systems

❖ Coaching and incentives

- Technical service team for green operations
- Advice and subsidies for energy conservation



<http://news.tvbs.com.tw/entry/155095>
TVBS NEWS



<http://s3.match.net.tw/mi/video/realltime/20150610/132468>
TVBS NEWS

用電大戶加強查核：工商業節能減碳管理自治條例

工商部門能源使用法制化 當省則省，當用則用 節能經濟發展並進！

❖ 管理措施

- 營業及辦公場所室內冷氣均溫保持26°C以上
- 室內照度不得超過國家CNS標準
- 招牌禁止使用白熾燈
- 新設/汰換鍋爐，總蒸氣蒸發率每小時2公噸以上，應設置燃氣系統或節能熱交換系統

❖ 輔導與獎勵

- 市府成立服務團提供技術服務
- 輔導綠色產業及發展再生能源獎勵或補助



<http://news.tvbs.com.tw/entry/155095>
TVBS NEWS



<http://s3.match.net.tw/mi/video realtime/20150610/132468>
TVBS NEWS

Cool Island, Green City: City regulations for green construction

“We’re melting! Do something!”

❖ **Taipei = Taiwan’s No. 1 green builder**

- 165 EWH-certified buildings, 6.2 green buildings per 10 km², No. 1 in Taiwan

❖ **Mandatory green building for certain new development projects**

- Public buildings of TWD 30 mln: LEED Certified; TWD 50 mln: LEED Bronze
- Rainwater harvesting systems
- Energy-efficient lighting

❖ **Deposit confiscated should development project fails to conform to green building regulations**



花博新生三館 Diamond Green Building

<http://www.taipei.gov.tw/>



北投圖書館 Diamond Green Building

www.taipeitravel.net

降熱島，塑造城市綠屋：綠建築自治條例

熱壞了~幫助城市降溫!!

❖ 臺北市綠建築密度冠全國!!

- 通過綠建築標章共165處，每10平方公里有6.2棟，密度全國最高!

❖ 透過強制力，要求新建築朝綠建築規劃

- 公有新建物，造價3千萬以上，合格級標章，造價5千萬以上，銅級標章
- 建物應設置雨水回收系統
- 使用節能燈具

❖ 廠商完工後，若未符合綠建築標準，將沒收保證金



花博新生三館鑽石級綠建築

<http://www.taipei.gov.tw/>



北投圖書館 鑽石級綠建築

www.taipeitravel.net

Visual rights: City regulations to reduce light pollution

“Turn off the lights!”

- ❖ French government enforced a law in 2012 which requires stores and public buildings to switch off exterior lighting at night, reducing CO₂ emissions by 0.25 mln tons and saving 200 mln kwH.
- ❖ Taipei fights light pollution, the first in Taiwan
- ❖ Targeted light sources
 - Bill boards, store signs, buildings' reflecting materials, street lights, bus stops commercial signs, etc.
- ❖ Establish city light regulation
 - Illumination, luminance, visible reflectance

Reduced light pollution benefits city residents, animals, and plants



Billboard wall



<http://www.epochtimes.com/>
Epoch Times/2010/06/07

保障市民視覺權利：光害防治管理自治條例(草案)

熄燈！環境更友善、更節能

- ❖ 2012年起法國強制執行商店、公共大樓的櫥窗及外牆燈飾「午夜熄燈節能」，可降低25萬噸碳排放量及節省2億度電。
- ❖ 全台首創，強制管制光害問題
- ❖ 管制光源
 - 招牌廣告、建築物反光材質、路燈照明、公車站牌、候車亭廣告
- ❖ 訂定光害管制標準
 - 光源照度、輝度、可見光反射率

降低人工光線，創造人與生物
共享的友善照明環境



大型廣告看板



<http://www.epochtimes.com/>
大紀元/2010/06/07

Enforced adaptation for a resilient city

- ❖ Urban governance to mitigate the impact of climate change
- ❖ Focus on ‘adaptation’
 - Climate Change Adaptation Commission
 - Reviews of urban planning, land use, infrastructure
- ❖ Apartment buildings saving energy
 - Smart public lighting in communities, parks
 - No façade lighting from 1 a.m. to 6 a.m.
- ❖ Low-carbon transportation
 - Priority for public transport + low-carbon vehicles
 - Subsidies for decommissioning of polluting vehicles
 - Encourage green transportation



<http://www.ettoday.net/>

Building a green, friendly, and resilient city

正面迎戰全球暖化：氣候變遷調適自治條例(草案)

調適行動法制化！打造韌性宜居城市

❖ 以都市治理角度擬定，減緩氣候變遷衝擊

❖ 注重「調適」

- 設置「氣候變遷調適委員會」
- 定期檢討都市計畫、土地利用及維生設施管線

❖ 公寓大廈減緩

- 社區建築物公共區域使用節能燈具
- 午夜關閉外觀裝飾燈（凌晨1時至上午6時）

❖ 低碳交通

- 優先規劃大眾運輸及低碳運具專用區域
- 補助淘汰老舊高耗能車輛
- 鼓勵綠色運輸

主動因應環境反撲、降低城市
脆弱度、提高城市韌性



III. Results of energy saving and CO₂ emission reduction by city residents



參、節能減碳成果， 市民涓滴累積



Energy saving and CO₂ Reduction Project led by public sector

- ❖ **Eight reduction areas, 49 practical norms**
- ❖ **Continuous improvement of carbon reduction, planning and goal-setting**

- Dedicated personnel, international exchange
- Schools, organizations
- Residential and retail
- Transportation

- Waste
- Farms and forests
- Water conservation
- Awareness

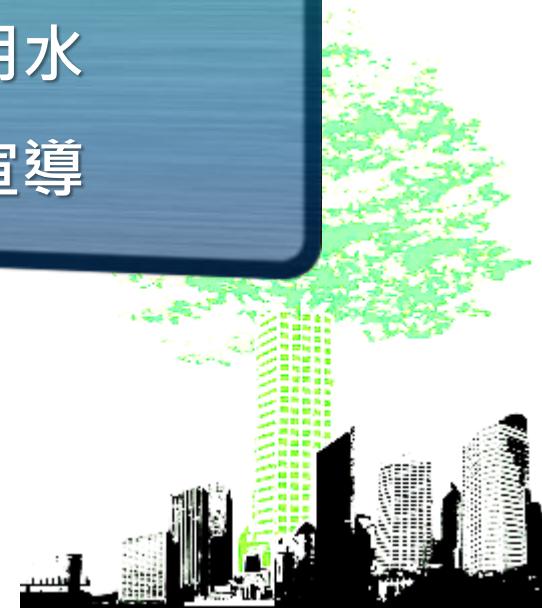


推動「節能減碳行動方案」，率領公部門帶頭做

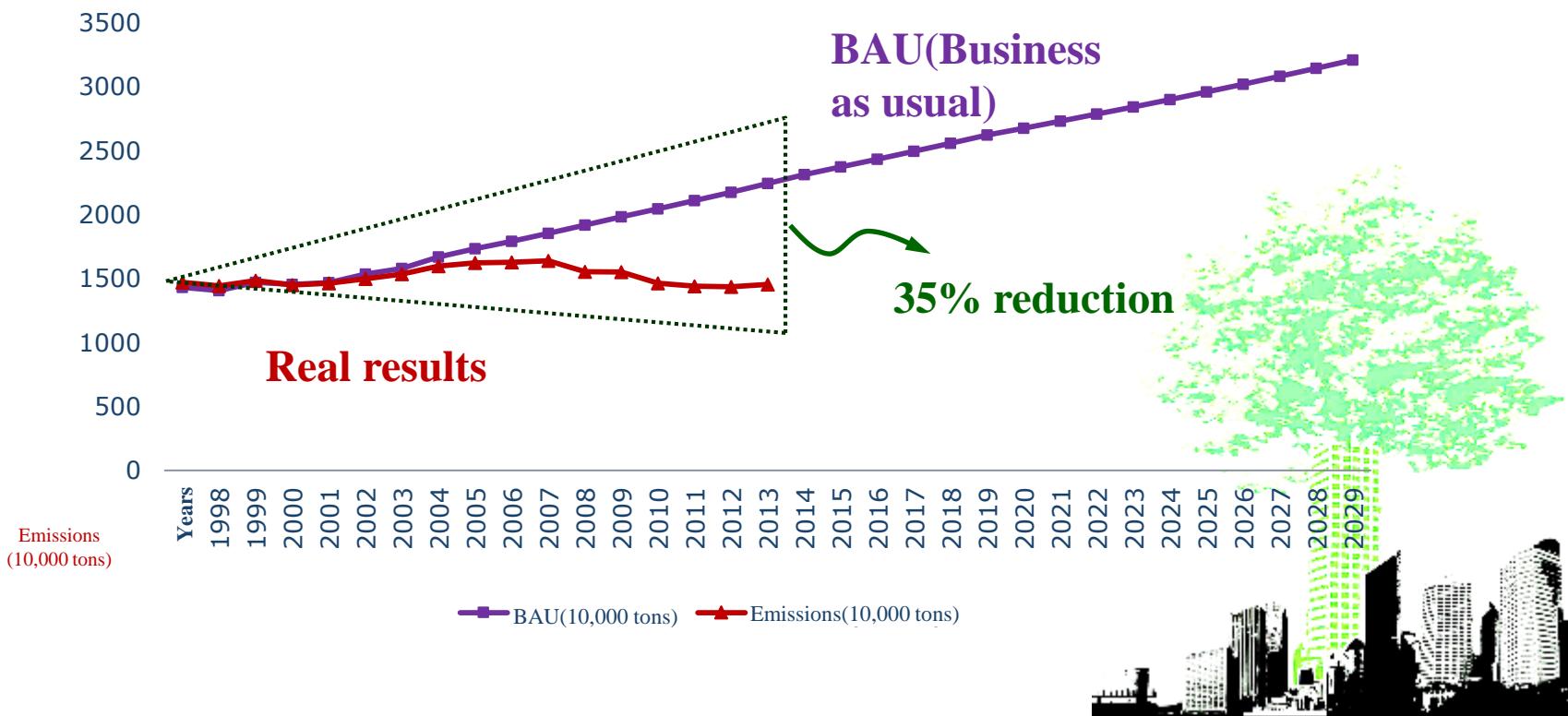
- ❖ 訂有8大減量主軸、49項細部規範內容
- ❖ 滾動式檢討節能減碳行動計畫及減量目標

- 行政幕僚與國際交流
- 推動機關學校減量
- 推動住商部門減量
- 運輸部門減量

- 廢棄物部門減量
- 農林部門減量
- 推動節約用水
- 推動教育宣導



Make results visible to reach targets earlier



推動成效顯著，提前達成目標

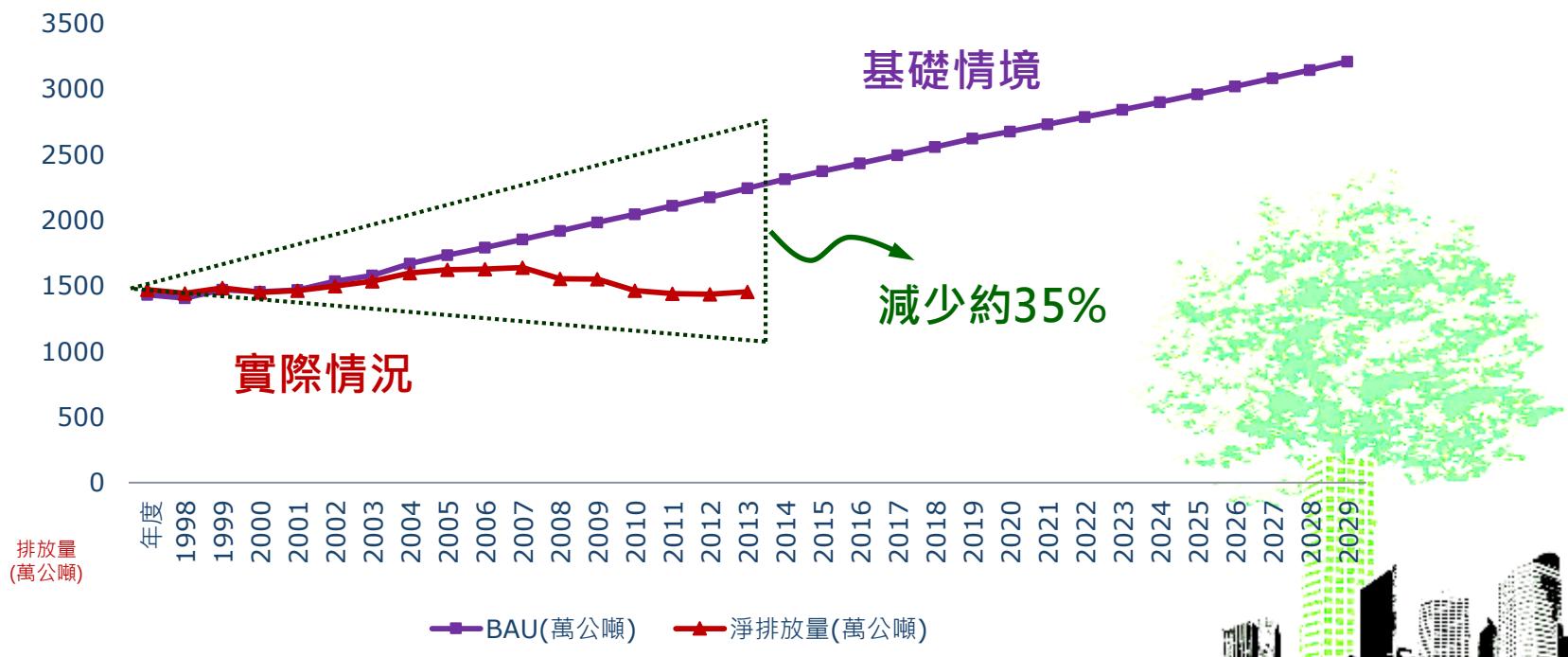
溫室氣體減量

目標

2016至2020年間溫室氣體排放量降至2008年水準(1,641萬公噸)

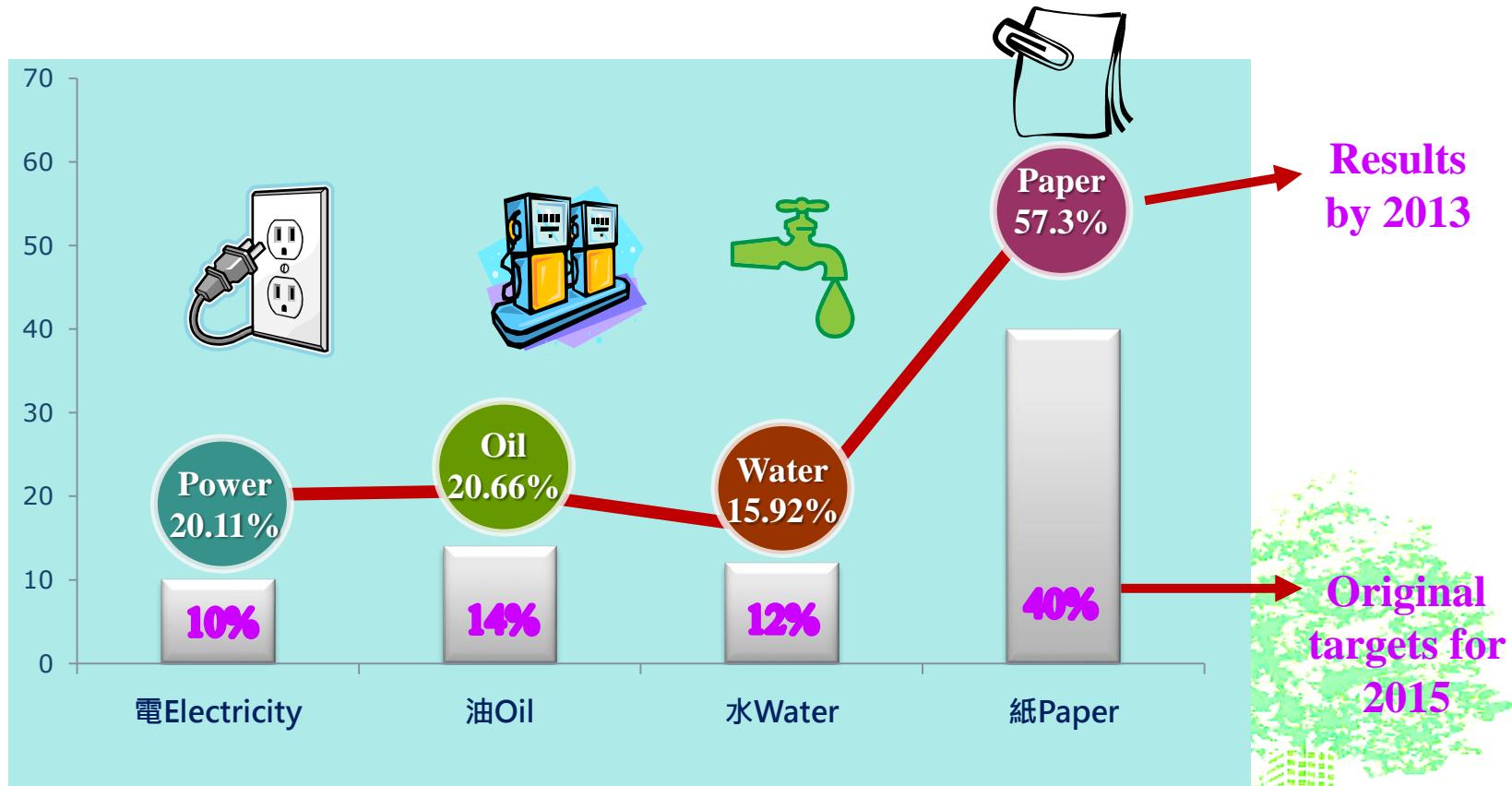
現況

2014為1,454萬公噸，較2008年減少約186萬公噸。



Public sector leading by example

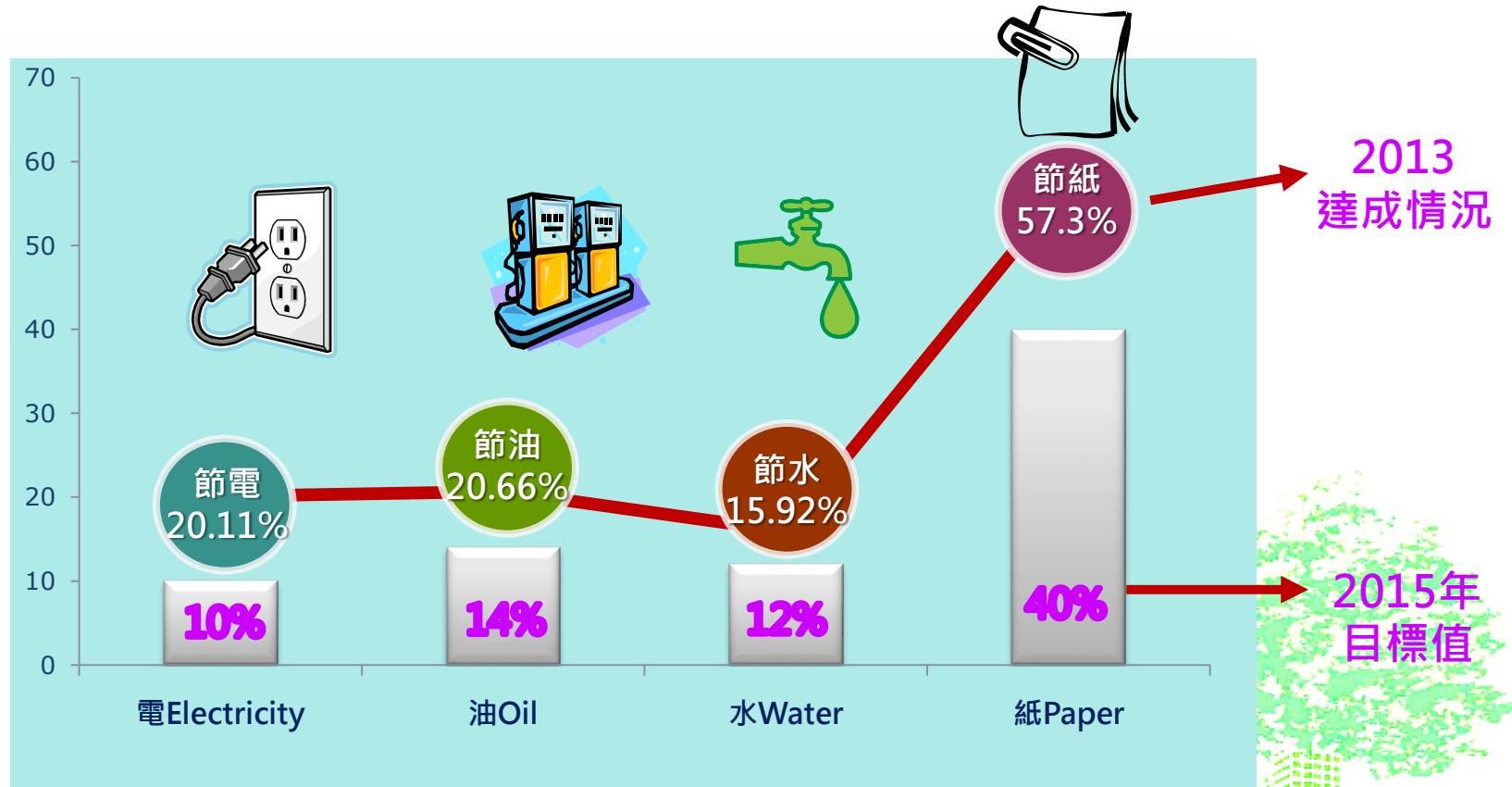
- ❖ Public sector shows the way in energy saving and CO₂ emission reduction



Targets already exceeded in 2013!

公部門帶頭節電捨我其誰

❖ 公務部門率先推動節能減碳



2013年度即已提前達標!!

Citizens help save energy and reduce CO₂ emission reduction

Energy Conservation Award



Subsidies for smart community lighting



Booths and flyering



Community energy teams



Low-carbon communities



**Building low-carbon
awareness and lifestyles**

民眾參與多元化的節能減碳活動

金省能獎



社區節能燈具補助



低碳社區



節能減碳
設攤宣導



社區節能輔導團



創造低碳概念與生活

Taipei low-carbon model communities

Four low-carbon seed communities to achieve goal of ‘one low-carbon community per district’

Jiantan Village, Zhongshan District- Low-carbon LOHAS



Eco pond

Solar rooftops

Mingshan Village, Shihlin District- Low-carbon culture



Recycling

Rixiang Village, Wanhua District- Low-carbon riverbank



Urban farming, eco expo bus



Jingdong Village, Wenshan District- Eco community



Tree bank, meeting areas

臺北市低碳示範社區

從四大低碳社區向外擴散 型塑一區一低碳社區

中山區劍潭里-低碳樂活社區



生態池



太陽能光電
綠屋頂

士林區名山里-低碳藝文社區



資源回收低碳生活



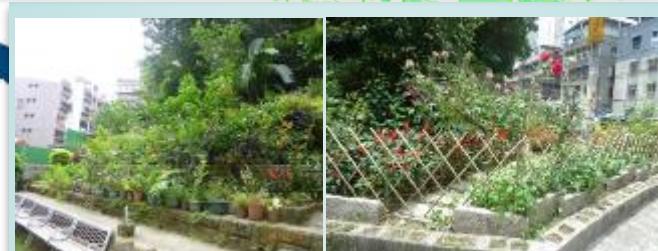
萬華區日祥里-低碳水岸社區



市民小農、環境教育公車



文山區景東里-低碳生態社區



樹木銀行、閒置空地活化

IV. Adopt renewable energy sources and low-carbon infrastructure



肆、綠能崛起，發展再生 能源與低碳建設



Renewable energy sources – Solar power

❖ Leverage the power of nature – capture solar power

- By the end of 2013, 29 offices and 45 schools had installed PV panels: 130 clusters, TWD 400 million investment, installed capacity 1.98 MW.

Gongguan is Taiwan's first solar - powered water treatment plant. 13.000 m², installed capacity 200 MWh, annual CO₂ emission prevention 127.4 tons.

Taipei City Government



Gongguan Water Treatment Plant



再生能源-太陽能

❖ 善用大自然力量 太陽能收集再利用

- 至2013年底止，臺北市共計29機關及45學校設置太陽能光電發電系統，共計130處，投入經費約4億元，總設置容量1,982千瓦

公館淨水場為第一座太陽光電淨水場。總面積為13,000平方公尺，可產生20萬度電，每年約可減少127.4噸CO₂。

台北市政府頂樓



公館太陽光電淨水場



Renewable energy sources – Hydropower

❖ Feitsui Reservoir – Pumped-storage hydropower

- Water supply to Greater Taipei area
- Stores excess water from typhoons

Surface: 10.24 km²
Capacity: 335.5 mln m³
Dam height: 122.5 m
Dam width: 510 m
Max release: 9,870 m³/s

Feitsui Reservoir



<https://www.google.com.tw/>

Hydropower



<http://www.feitsui.gov.tw/>

再生能源-水力

❖ 翡翠水庫綠色能源 - 水力發電

- 提供大台北地區公共用水之原水。
- 颱風期間具有調適功能，階段性洩洪調節水量。

水庫面積：10.24 km²
有效容量：3億3,551萬 m³
壩高：122.5 m
壩頂總長：510 m
排洪流量：9,870 m³/秒

翡翠水庫



<https://www.google.com.tw/>

水庫發電



<http://www.feitsui.gov.tw/>

Renewable energy sources: Incineration

❖ Three incineration plants powering 23,000 households

Beitou Refuse Incineration Plant

Waste treatment	1,800 tons/day
Landfill	17,300 m ³
Power	48,000 KW



<http://www.synko.com.tw/>

Neihu Refuse Incineration Plant

Waste treatment	900 tons/day
Landfill	9,000 m ³
Power	6,000 KW



<http://www.dep.taipei.gov.tw/>

Mucha Refuse Incineration Plant

Waste treatment	1,500 tons/day
Landfill	15,000 m ³
Power	13,500 KW



<http://www.synko.com.tw/>

再生能源-焚化廠

❖ 3座焚化廠發電量，換算每月可提供23,000戶家庭使用

北投焚化廠

垃圾處理量	1,800 噸/日
儲坑容量	17,300 m ³
發電設置容量	48,000 KW



<http://www.synko.com.tw/>

內湖焚化廠

垃圾處理量	900 噸/日
儲坑容量	9,000 m ³
發電設置容量	6,000 KW



<http://www.dep.taipei.gov.tw/>

木柵焚化廠

垃圾處理量	1,500 噸/日
儲坑容量	15,000 m ³
發電設置容量	13,500 KW



<http://www.synko.com.tw/>

Renewable energy sources: Biogas

❖ Biogas conversion to electric power

- Taipei has ceased landfilling, and now uses waste for biogas power generation, annually producing 8 MW electricity and preventing 46.000 tons CO₂ emission.

Fu Der Keng - biogas pretreatment installation



Fu Der Keng environmental restoration Park



San Ju Ku Sanitary Landfill (Eco Park)



再生能源-沼氣

❖ 沼氣轉化為電能

- 臺北市已停止生垃圾掩埋，並利用沼氣發電，一年發電約800萬度，相當於減少CO₂排放46,000噸。

福德坑沼氣前處理設備



福德坑環保公園



<http://www.panoramio.com/>

山豬窟掩埋場
(山水綠生態公園)



<http://album.blog.yam.com/>

Transportation central nervous system: metro network

MRT backbone – Pulse of the city

- 11 lines, 109 stations, 121.3 km
- 1.7 million passengers per day (2013)
- 60.3 km of new lines in development



交通的中樞神經系統-捷運路網

捷運為骨-城市運轉任督二脈

- 11條營運路線共109站，長度為121.3公里
- 2013年每日運量達170萬人次/日
- 將持續續建60.3公里



臺北捷運公司 權所有

<http://www.trtc.com.tw/>

High-density transportation: bus network

Greater Taipei busses – Win-win for cities & residents

- 310 lines, 3.800 busses
- 1.68 million passengers per day
- 20.000 km movements per day

❖ Free mobile libraries

- Book lending service on the bus
- Trust-based: no ID, no registration



<http://www.lihpao.com/?action=viewnews-itemid-124441> Lihpao Daily



By 2020 all busses will be low-carbon

綿密的交通支線-公車路網

公車為面 - 雙北聯營市民雙贏

- 310條路線、約3,800輛車服務
 - 每日平均載客量約168萬人次
 - 每日服務路線總里程數達2萬公里
- ❖ 移動圖書館 公車飄書香
 - 公車簡易圖書館，提供借書服務
 - 採取榮譽制，不須借書證和手續



<http://www.lihpao.com/?action-viewnews-itemid-124441> 台灣立報

引進低污染公車，2020年將全面低碳化



Courtesy bicycles: Swipe and Go!

The Last/First Mile – Green transportation

- Bicycle stations every 300-600 meters
- 163 stations, 5,350 bikes (2014/07/19)
- 375 km of bicycle paths (2014/09/04)
- 2.6 million EasyCard users registered (Oct. 2014)



<http://taipei.youbike.com.tw/cht/index.php>

World's highest turnover rate per bike per day!

60,000 users daily. Each bike is used 13 times per day. (Oct. 2014)



微笑單車 「囉」一聲就GO

最後一哩 - 綠色運輸

- 公共自行車租賃站距離360~600公尺
- 2014年已設置163站，5,350輛自行車(2014/07/19)
- 市區自行車道長度總計375公里(2014/09/04)
- 悠遊卡會員註冊人數超過260萬人次(2014/10)



<http://taipei.youbike.com.tw/cht/index.php>

便利、高妥善度，週轉率(Turnover Rate per bike per day)全球之最！
每日平均6萬人次使用，每日每輛達約13次(2014/10)！

Complete transportation network for low-carbon living circle

**Layered transportation network
of subway, busses, and bikes**



**City-edge transport hubs
(north-east, south, west)**



Bicycle lanes



Bus network with hybrid low-carbon busses

North area

- Yuanshan Traffic Square
- Commuting



East area

- Taipei City Hall Bus Station
 - ✓ Taoyuan, airport, west-coast cities
- West-coast main cities
 - ✓ commuting to/from east Taipei
 - ✓ West-coast main cities



YouBike rental

West area

- Taipei Transfer Station
- West-coast main cities



South area

- Zoo Transfer Station
- Xindian, Zhonghe, Yonghe



Metro system

完善的交通路網，形成低碳移動生活圈

捷運為主、公車為輔、自行車為網路之公共運輸服務網



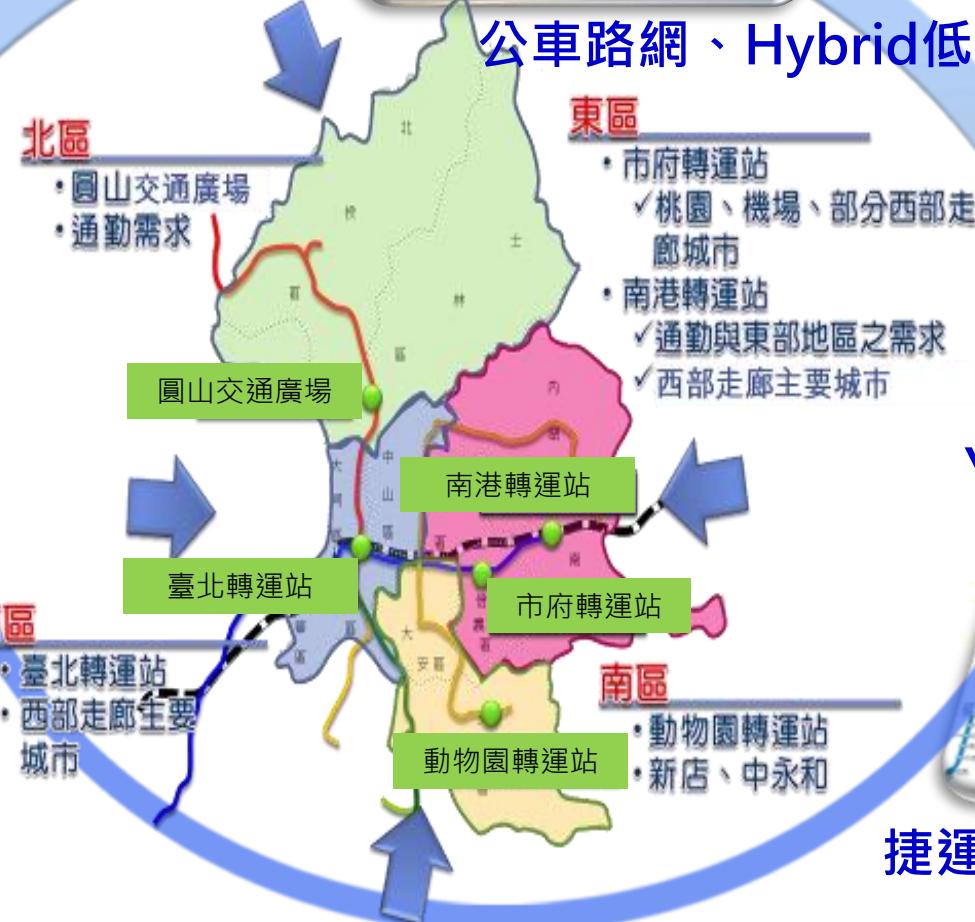
城際轉運站
(東、西、南、北)



自行車道



公車路網、Hybrid低地板公車



You Bike租賃系統



捷運網絡

Upgrade LED street lights, park lights

❖ In 2014 all LED lights were upgraded to save energy and CO₂

- Taipei has 150,000 street lights (incl. 70,000 mercury lights) in parks, and along lanes, alleys, and pedestrian lanes
- 2012-2014, 70,000 mercury-containing lights were replaced with LED, saving TWD 76 million on power fees, preventing 29 million tons CO₂ emissions.



228 Peace Memorial Park



ZhongHua Road in Ximending

汰換LED路燈、園燈

❖ 節能減碳做先鋒，2014年底已完成LED路燈汰換

- 臺北市路燈約15萬盞，其中水銀路燈約7萬盞，主要設置於公園、人行道及巷弄道路
- 市政府自2012年起陸續將水銀路燈換成LED，至2014年底已完成7萬盞，每年可節省7,600萬餘元，可減少2,888萬公斤CO₂



228公園LED燈照明



西門町中華路人行道LED燈照明

GREEN BUILDINGS IN TAIPEI

Highest density in Taiwan

❖ Taipei has 6.2 green-certified buildings per 10 km²!

- Top three districts: Neihu, Daan, Nangang, with 20+ green buildings each.
- 165 buildings received EEWH certification, Taiwan's green building mark; 400 more buildings are under EEWH review.



Photo: PeoPo Citizen Journalism



Straits Exchange Foundation Building
LEED Silver



Taipei International Flora
Exposition Xinsheng House
LEED Diamond

綠建築密度冠全台

❖ 臺北市每10平方公里就有6.2棟獲得綠建築標章相關認證的建築物！

- 以內湖區、大安區、南港區為前3名，均有20處以上。
- 臺北市綠建築標章通過建物共計165處，而綠建築候選證書通過件數共計400件。



圖片來源：PeoPo 公民新聞



海峽交流基金會辦公大樓
取得銀級綠建築標章



臺北國際花卉博覽會新生展館
取得鑽石級綠建築標章

GREEN BUILDINGS IN TAIPEI

Beitou Public Library The world's Coolest green building



❖ WHEN ON EARTH Top Ten Green Buildings

- The Crystal (UK)
- Pixel Building (Australia)
- The Change Initiative (Dubai)
- Bullitt Center (USA)
- ACROS Fukuoka Foundation Building (Japan)
- Phipps Center For Sustainable Landscapes (USA)
- Wat Pa Maha Chedi Kaew (Thailand)
- Bahrain World Trade Center
- Khoo Teck Puat Hospital (Singapore)
- **Beitou Public Library (Taiwan) natural light, solar energy, water recycling**

GREEN BUILDINGS IN TAIPEI

北投圖書館 全球最COOL綠建築



❖ 旅遊網WHEN ON EARTH選世界10大綠建築

- 英國倫敦The Crystal
- 澳洲墨爾本Pixel Building
- 杜拜The Change Initiative
- 美國西雅圖Bullitt Center
- 日本福岡ACROS Fukuoka Foundation Building
- 美國匹茲堡Phipps Center For Sustainable Landscapes
- 泰國四色菊府Wat Pa Maha Chedi Kaew
- 巴林麥納瑪Bahrain World Trade Center
- 新加坡Khoo Teck Puat Hospital
- **台北北投圖書館(自然採光、太陽能發電、水回收系統...)**

台灣
北投圖書館

V. Strengthen the city's resilience for the new century



陸、提升城市韌性，
翻轉新紀元



1

Investing in ‘rainwater harvesting’ to use every drop

- ❖ Parks are refitted to improve water retention: permeable road surfaces, underground reservoirs, lawns, ponds help absorb and use peak precipitation.



Rain bank



Rain harvesting



Rain water reuse

1 廣設雨撲滿發揮儲水效益，讓水不溜走

- ◆公園綠地以保水滯洪理念進行相關規劃設計，設置透水鋪面、透水陰井、草地、水池等保水設施，提高公園綠地保水量，暴雨來臨也能有滯洪功能。



雨撲滿施工



抽取雨撲滿儲留水



雨撲滿澆灌

A grand water vision, underground Sponge City

2

Permeable pavements and dry detention basins make the city breathable

❖ **Water detention helps reduce Taipei's 'heat island' effect.**



Water-permeable parking spaces along ZhiShan Road, Taipei



Grit water basin and dry retention basin in Dagouxi Ecology and Water- Control Park, Neihu District, New Taipei City



Water-permeable sidewalk near Wenchang Elementary School, Taipei

2

增加路面透水鋪面及基地保水，讓城市呼吸

◆ 透水鋪面及保水有防汛效果，能降低溫度及熱島效應。



臺北市至誠路停車格(路邊透水停車格)



臺北市文昌國小周邊人行道(透水鋪面)



臺北市內湖區大溝溪生態滯水園區(調洪沉砂池、基地保水)

Building a Garden City with green health, education, and lifestyle



Project

1. Agricultural techniques advice center and urban community farming promotion center
2. Build an urban farming service network with online courses
3. Gardening schools
4. Gardening coach training
5. Garden City International Forum and exchange
6. Soil and crop testing

Project

1. Database of potential and actual garden lots
2. Online platform for garden database

Project

1. Formulate rules for garden use and management
2. Manage community gardens

推動綠色健康、教育、生活的田園城市

方案

1. 建立農業技術諮詢中心及田園城市社區園圃推廣中心
2. 建置城市農園服務網與提供E化課程
3. 辦理田園教室
4. 培育農業技術輔導人力資源
5. 辦理田園城市國際論壇及成果交流
6. 協助農作物與土壤基本檢驗

策略

建立田園銀行

建立農業
技術輔導

經營管理
田園基地

方案

1. 整合田園銀行基地
2. 建置田園銀行網路平台

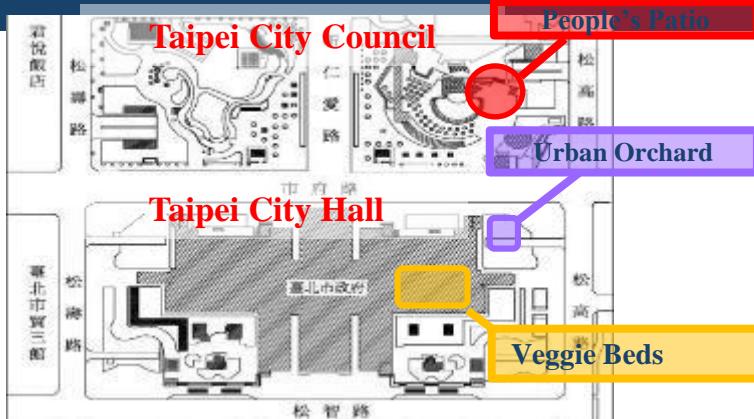
方案

1. 訂定認養及管理相關規範
2. 經營管理田園基地

City Hall model garden (left side)

Garden City

❖ Comprising: Residents' Patio, Veggie Beds, Urban Orchard



Residents' Patio



Veggie Beds



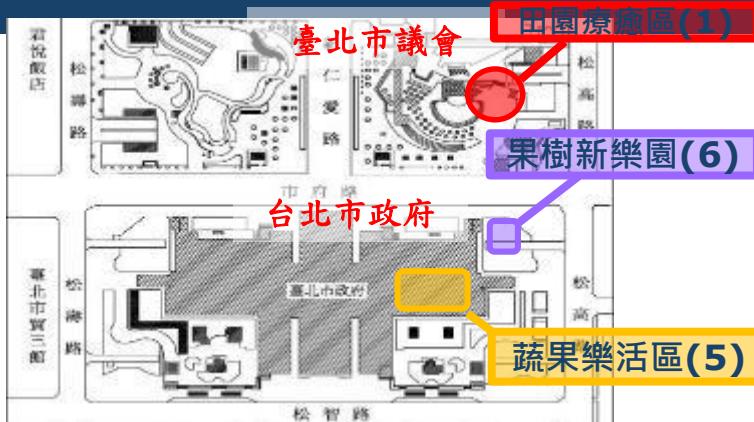
Urban Orchard



市政府周邊示範區(右側)

田園城市

- ❖ 分為「田園療癒區」、「蔬果樂活區」、「果樹新樂園」三區



田園療癒區



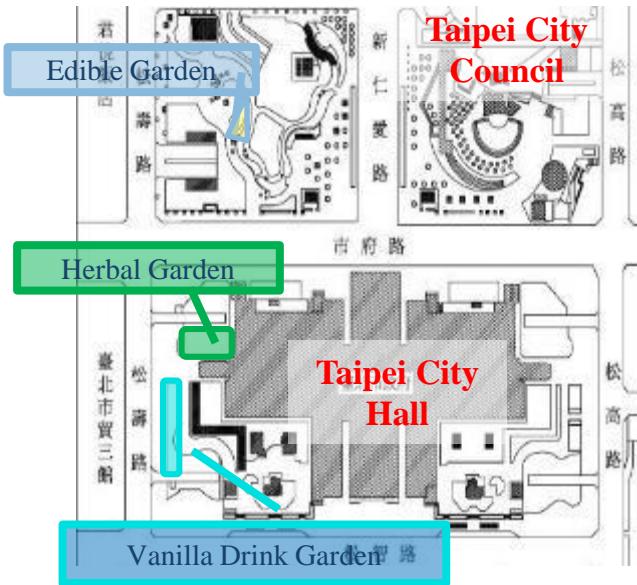
蔬果樂活區



果樹新樂園區



City Hall model garden (right side) Garden City



❖ Comprising: Edible Garden, Herbal Garden, Vanilla Drink Garden

Vanilla Drink Garden



Edible Garden



Herbal Garden



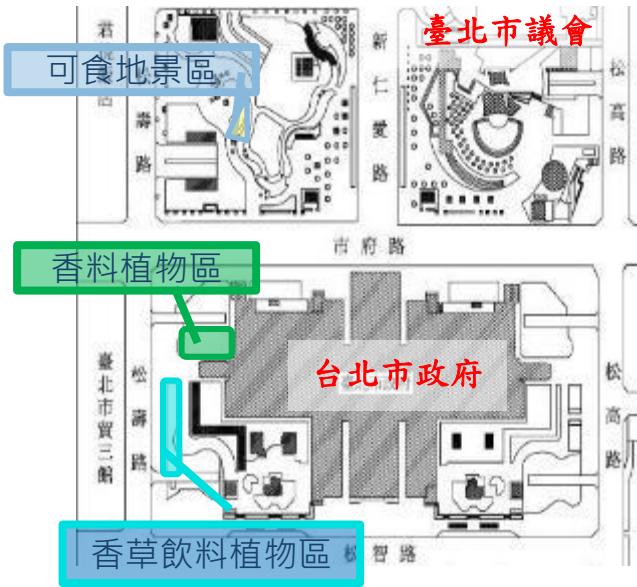
Lemon eucalyptus, mugwort, rhododendron

Basil, laurel, pepper, Taiwan cinnamon

Marigold, lemongrass, Japanese pepper

市政府周邊示範區(左側)

田園城市



❖ 分為「可食地景區」、「香料植物區」、「香草飲料植物區」三區

香草飲料植物區



可食地景區



香料植物區



檸檬桉、斑葉艾蒿、桃香木等

紫蘇、桂花、辣椒、土肉桂等

芳香萬壽菊、香藥草、胡椒木等

Our sustainable low-carbon path....



Capacity building



Awareness & promotion



Rolling out role models

- ◎ Greenhouse gas emission inventory
- ◎ Taipei to promote energy saving & carbon reduction plan
- ◎ The Autonomous Regulations on Energy Conservation and Carbon Reduction Guidance and Management in Industrial and Commercial Sectors of Taipei City
- ◎ The Autonomous Regulations on Green Buildings

- ◎ The Gold Energy Saving Prize, The Energy Saving Leadership Prize
- ◎ Free Energy Scans for communities, offices, and schools
- ◎ Switch to hybrid busses
- ◎ Subsidize smart lighting in communities and apartment buildings
- ◎ Promote electric vehicles

- ◎ 1 low-carbon community in every city district
- ◎ Publicize green buildings
- ◎ Promote low-carbon concepts such as the Carbon Footprint, carbon-neutral events
- ◎ Drive low-carbon mass transport
- ◎ Build a Garden City, Sponge City

GREEN SMART
TAIPEI TAIPEI

我們的永續低碳路徑....



能力建構



宣導推廣



示範擴散

- ◎完成溫室氣體排放量盤查
- ◎訂定「臺北市推動節能減碳方案」
- ◎制定「臺北市工商業節能減碳輔導管理自治條例」
- ◎制定「臺北市綠建築自治條例」

- ◎金省能獎、節能領導獎
- ◎社區及機關學校免費節能健檢
- ◎汰換耗能公車、採購雙燃料公車
- ◎補助社區汰換耗能燈具
- ◎推廣電動機車

- ◎建構一區一低碳社區
- ◎推廣綠建築群
- ◎碳議題推廣，ex碳足跡盤查、推動碳中和活動
- ◎導入低碳大眾運輸
- ◎建構田園城市、海綿城市

GREEN SMART
TAIPEI TAIPEI

Thank You



WELCOME TO TAIPEI

