



## Workshop A5

# Building Inclusive Multi-stakeholder and Bankable Flood Resilience in Cities

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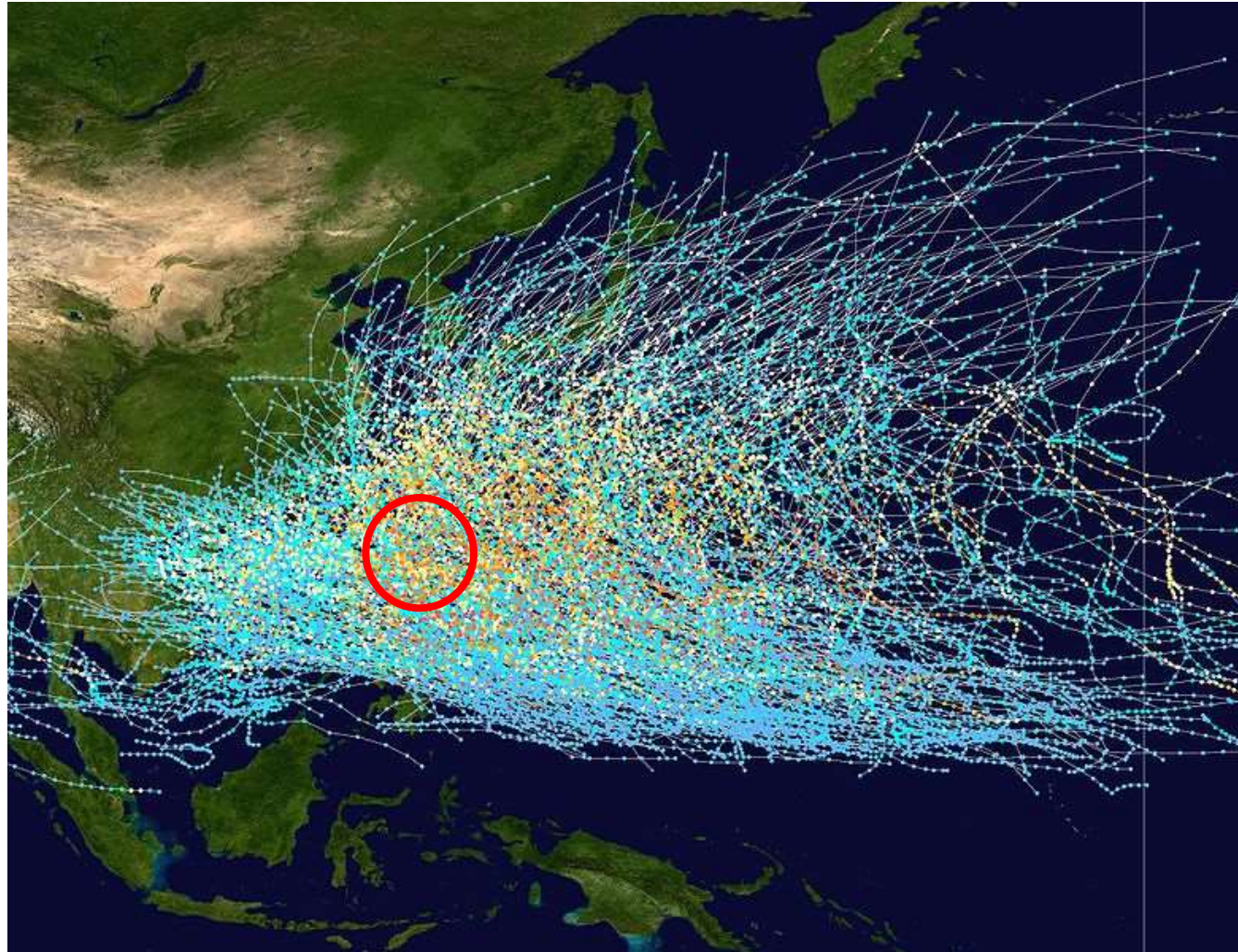
# Where is Kaohsiung City?



台灣行政區劃圖  
1973  
一省一直轄市  
十六縣四省轄市一管理局



# Typhoon Route Picture(Recording last 20 years)



## Earthquake

921 Earthquake, 1999



Fate of Taiwan

## Debris flow and landslide



Flood

## Typhoon



**Facing climate change, we  
need more resilience and  
adaptation in Taiwan !!**

# 濕地保育法

Wetland Conservation Act  
(2015/02/02) in Taiwan

**How dose Kaohsiung  
City using BGIS to reduce  
flood risk ?**

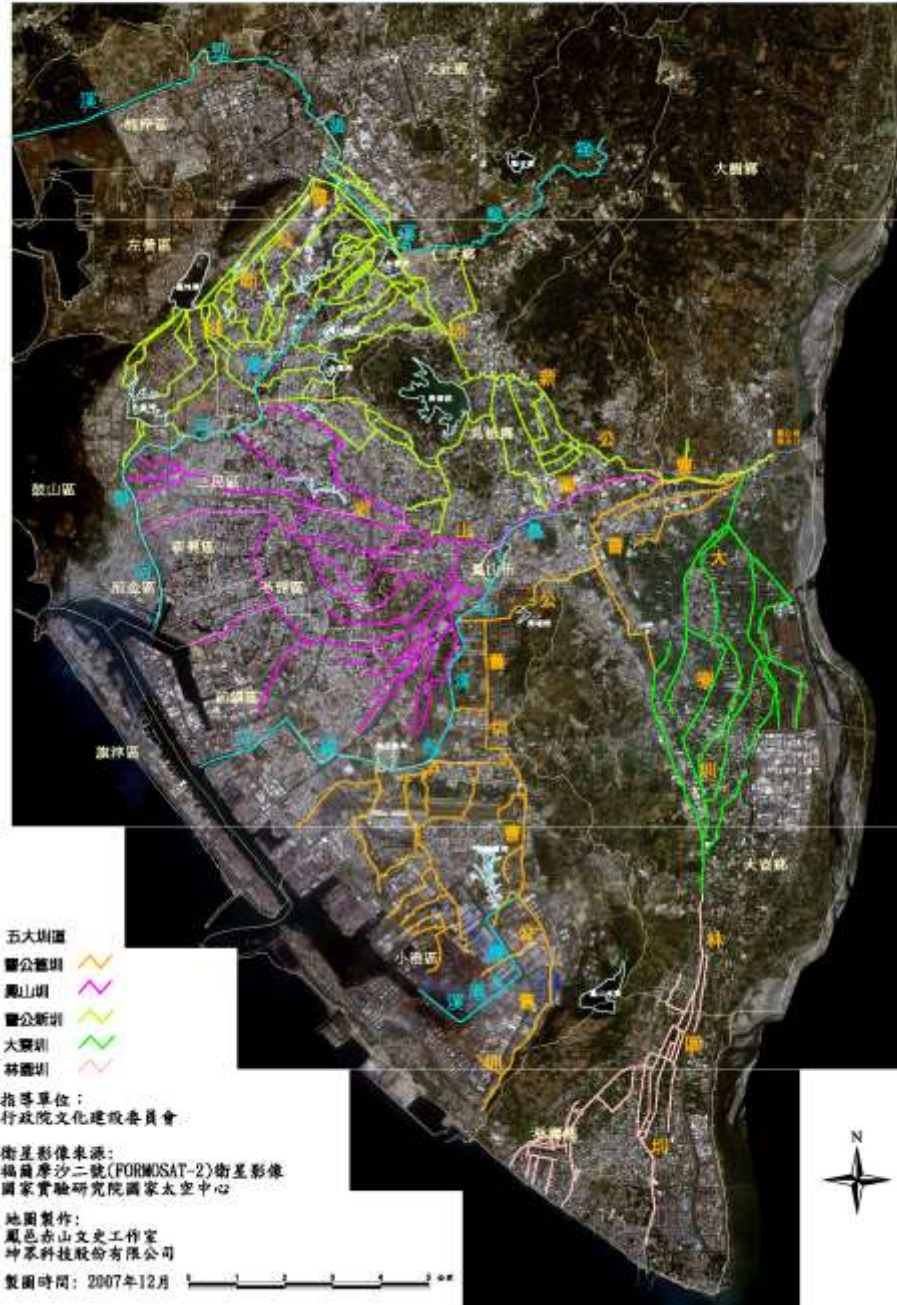
# Constructing wetland parks in Wetland Eco-corridor Project as green infrastructure in Kaohsiung City



## 高雄市濕地生態廊道示意圖



曹公圳平面圖



Connecting those wetland parks through recovering and reestablishing the old irrigation systems of Caogong Canals along with the connection of the urban streams as the **blue** infrastructure in the Wetland Eco-corridor Project in Kaohsiung City.



**Yuanchungkang  
Wetland**



**Kaohsiung Uni. Ecological  
Pond**



**Banping Pond Wetland**



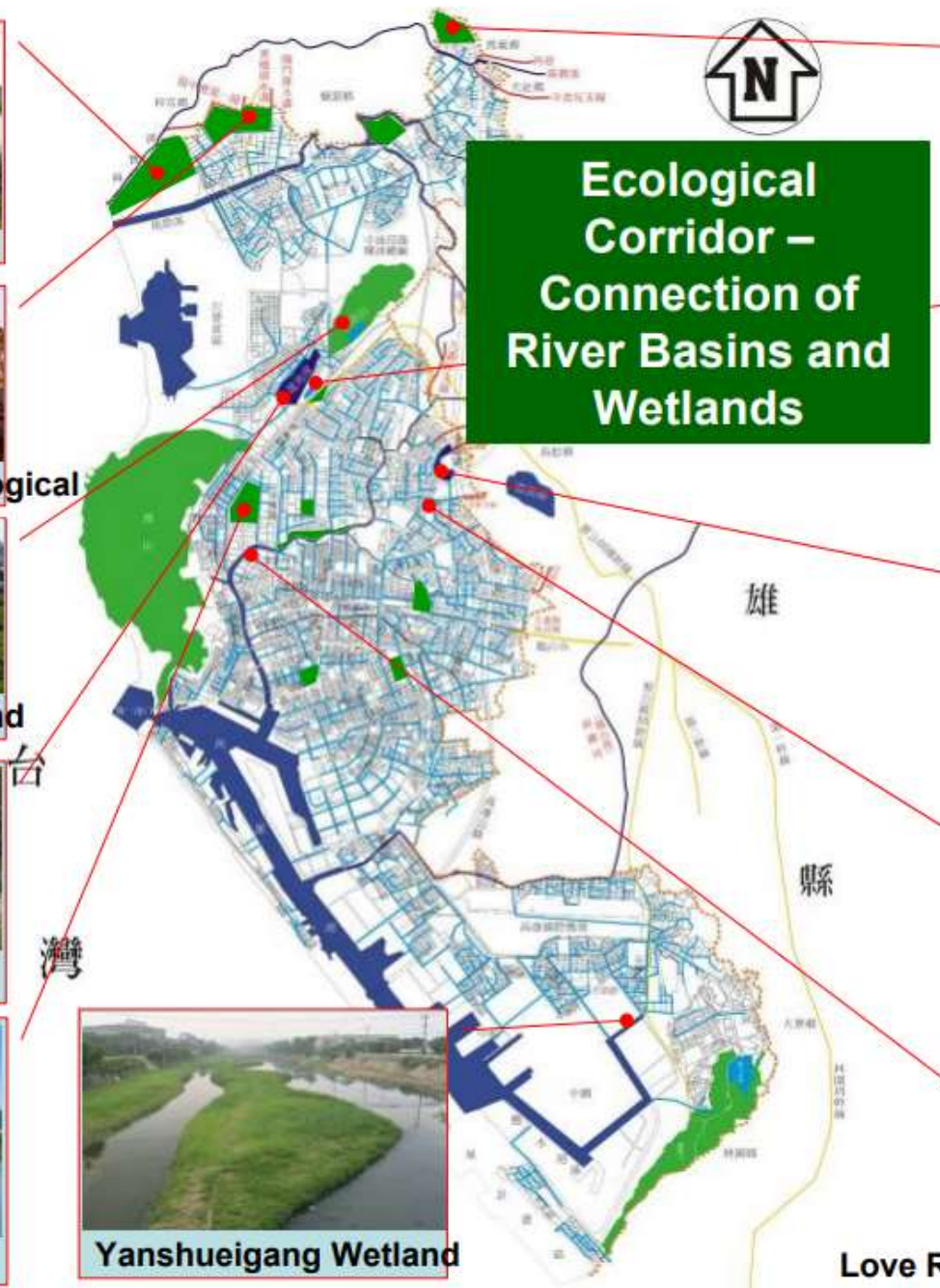
**Lotus Pond**



**Museum of Fine Arts  
Wetland**



**Yanshueigang Wetland**



**First Uni. Of Science &  
Technology Ecological  
Pond**



**Jhouzih Wetland**



**Golden Lion Lake**



**Benhe Village Flood  
Detention Pond**



**Love River Jhongdu Wetland**



## Eco-retention ponds distribution maps in Kaohsiung City



**Which blue-green infrastructure solutions for urban flood risk reduction were developed? (Some Cases Reviewed)**

# Jhondou Wetlands Park

■ Area : 12.6 Hectare

■ Built on : 2011/04/24



Love River

# Yuanchungang Coastal Wetland Park (West Part)



# Benhe District Flood Detention Wetland

Wetland



**How were the different stakeholders involved (inclusiveness), especially the most vulnerable? (Some Cases Reviewed)**

Niaosong Wetland Park  
(First Wetland Park in Taiwan, 2000/09/24)



An aerial photograph of Jhouzai Wetland Park. The park features a large, winding body of water surrounded by dense green vegetation. In the background, a city skyline with various high-rise buildings is visible under a blue sky with scattered clouds. A multi-lane highway runs parallel to the wetland area.

# Jhouzai Wetland Park

(Home of the Pheasant-tailed Jacana)

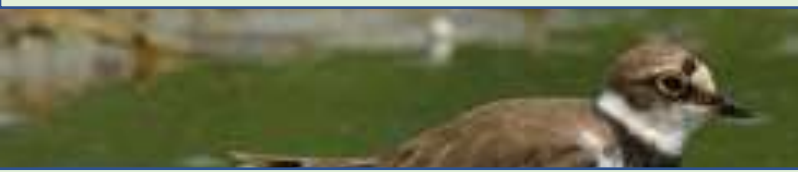


**How did you assure the funding /  
financing of the solutions  
(bankability)?**

# How did you assure the funding / financing of the solutions (bankability)?



**Land Equalization Fund  
30 billion NTD**



**Invested 140 million  
NTD in wetland  
construction**



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in wetland construction**



Wetland Park  
2011/04



Bicycle Lane  
2012/04



Zhongyong Park  
2015/03



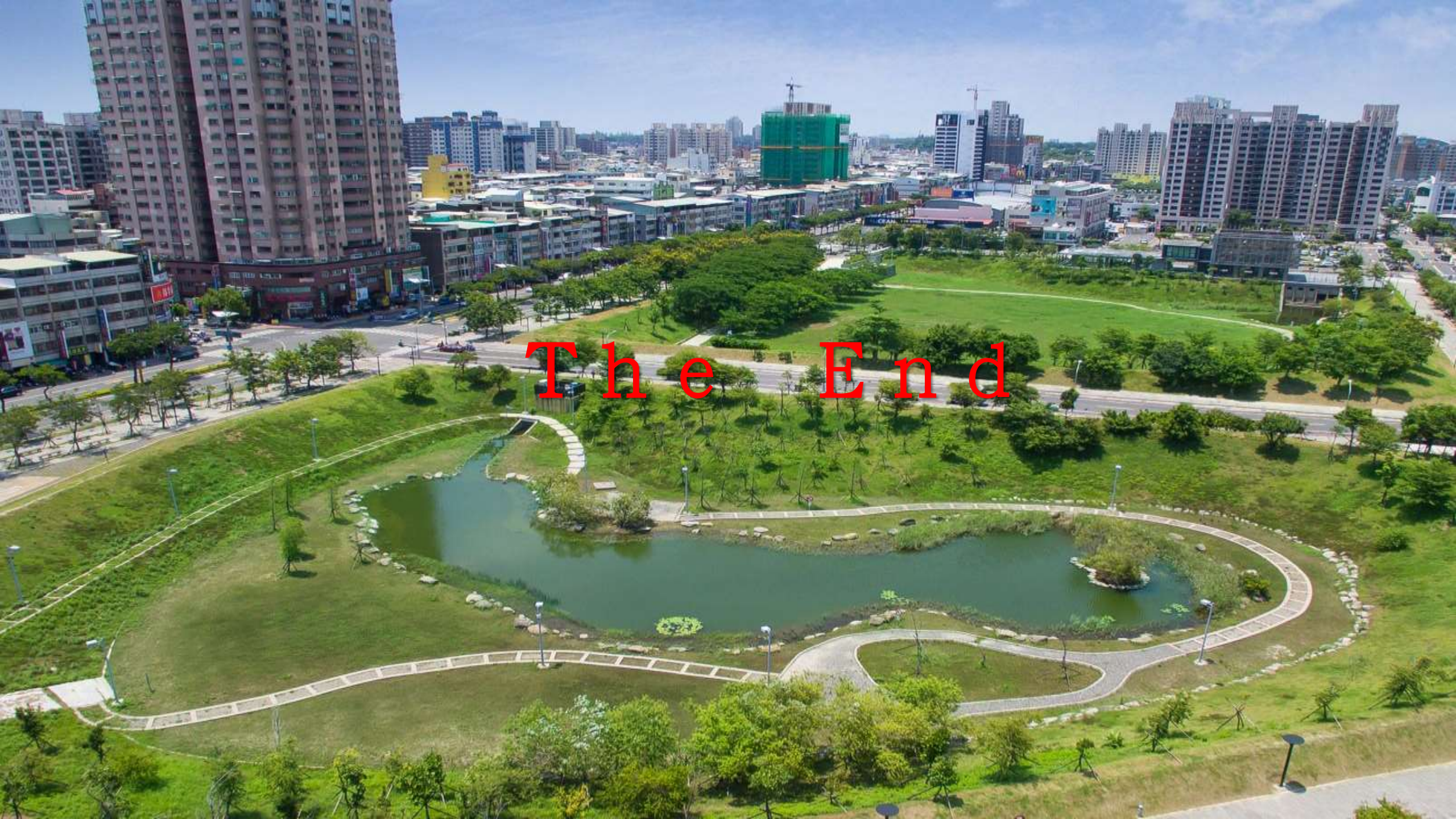
Jhongdou  
Bridge 2012/04



Mito Park  
2014/02



Banyan Park  
2015/03



The End