

Be a beautiful resilience city

-Kaohsiung's green corridor with Wetlands and Flood Detention Basins-

Lee-Shing Fang, Dr., Prof.
Kaohsiung City Government
Sustainable Development and
Climate Change Adaptation Committee
2019.06.25



Outline



Challenges of climate change in Kaohsiung

Wetlands initiatives

Transform to Flood Detention Basins

Conclusion: green ecological corridor



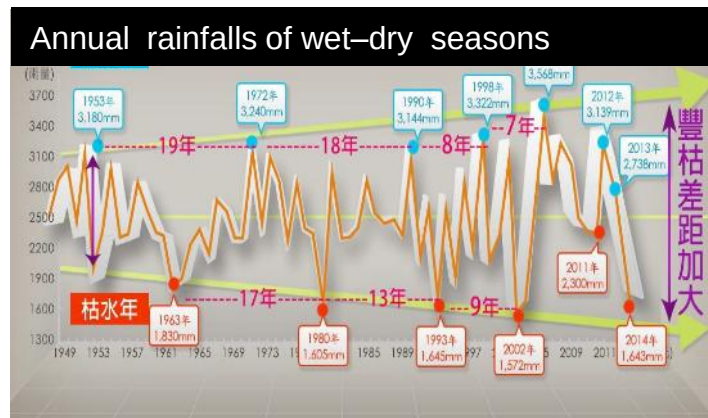
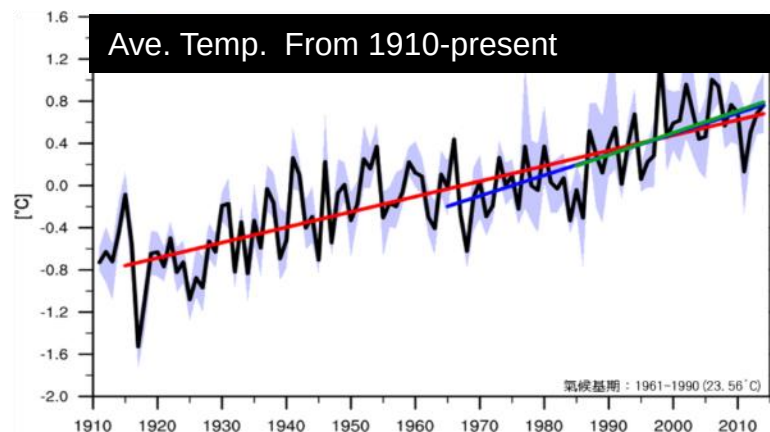
Challenges of climate change in Kaohsiung

Extreme Precipitation and Drought

- Population : 2.77 millions
- Area : 2,951 Km²
- Climate: Tropical Monsoon
- Ave. Temp : 25.9 C



- Kaohsiung's annual rainfall : 1884mm
- Taiwan's annual rainfall : 2510mm
- Global annual rainfall : 973mm

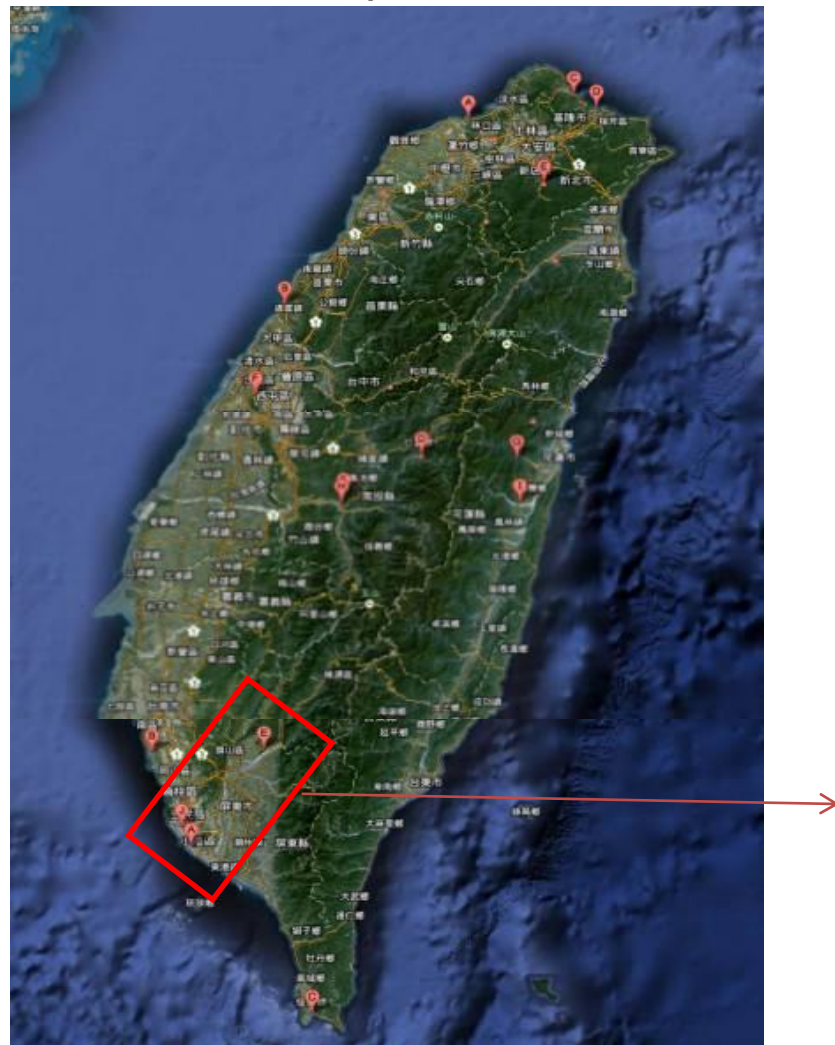


Widely constructed wetlands-21 Wetlands in Kaohsiung

An **Blue belt** eco-system water management

□21 wetlands in the city

□Over 1,000 hectares



How to do it?

洲仔濕地 Jhouzai Wetland
水雉的故鄉 Home of the Pheasant-tailed Jacana

Jhouzai Wetland (Home of the Pheasant-tailed Jacana)

Hydrophasianus chirurgus

Wetlands in Kaohsiung



Landscape before 2002



洲仔濕地 Jhouzai Wetland
水雉的故鄉 Home of the Pheasant-tailed Jacana



water chestnut



The change

洲仔濕地 Jhouzai Wetland
水雉的故鄉 Home of the Pheasant-tailed Jacana



Recycle of one-site waste materials

枕木



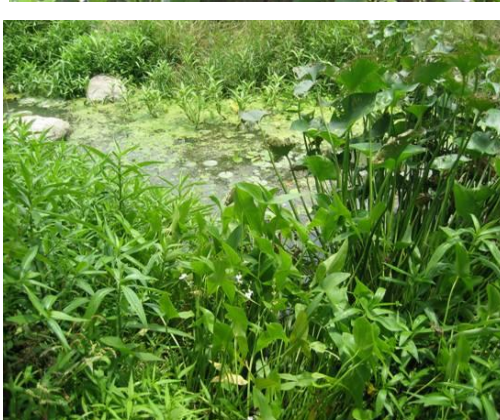
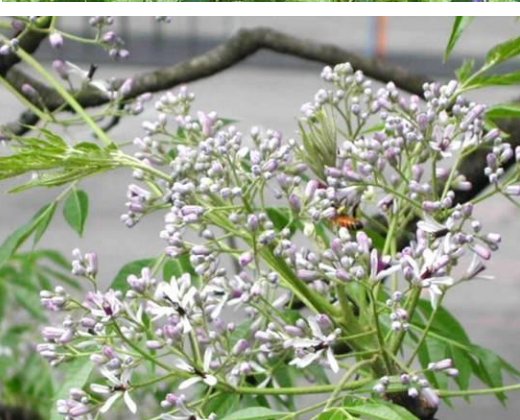
石材



竹樁

2003 Ford Envir. Prot. First Price

洲仔濕地 Jhouzai Wetland
水雉的故鄉 Home of the Pheasant-tailed Jacana



>100 bird spp.
>400 plant spp.



>run by NGO with support
from city government

Estuary wetland

中都濕地 Jhondou Wetland

保存產業歷史、還原盎然生態

Preserving the remains of an industry and restoring a vivacious ecosystem

- Area : 12.6 Hectare
- Built on : 2011/04/24

Jhondou Wetlands Park

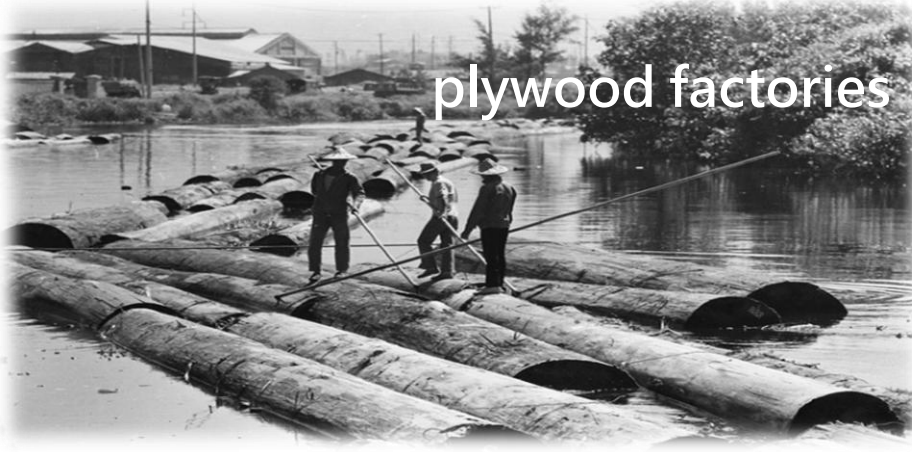
Lumber storage site

中都濕地 Jhongdou Wetland

保存產業歷史、還原盎然生態

Preserving the remains of an industry and restoring a vivacious ecosystem

plywood factories



Jhondou Wetlands

中都濕地 Jhondou Wetland

保存產業歷史、還原盎然生態

Preserving the remains of an industry and restoring a vivacious ecosystem

Jhondou Wetlands Park

Love river

Eco island

Aim to restore mangrove ecosystem

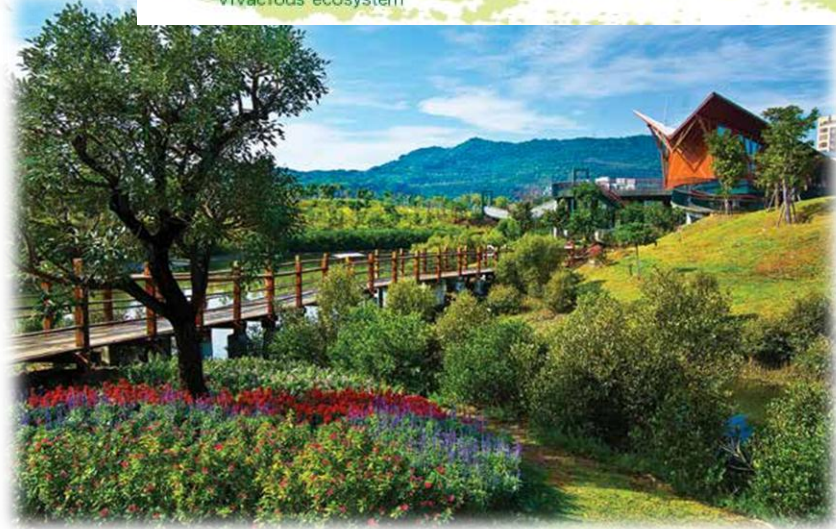


2012 FIABCI Envir. Res. First Price

中都濕地 Jhongdou Wetland

保存產業歷史、還原盎然生態

Preserving the remains of an industry and restoring a vivacious ecosystem



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Restoration of mangroves ecosystem, accessible by residents



Urban wetland--- Benhe District Flood Detention Wetland (Basin)

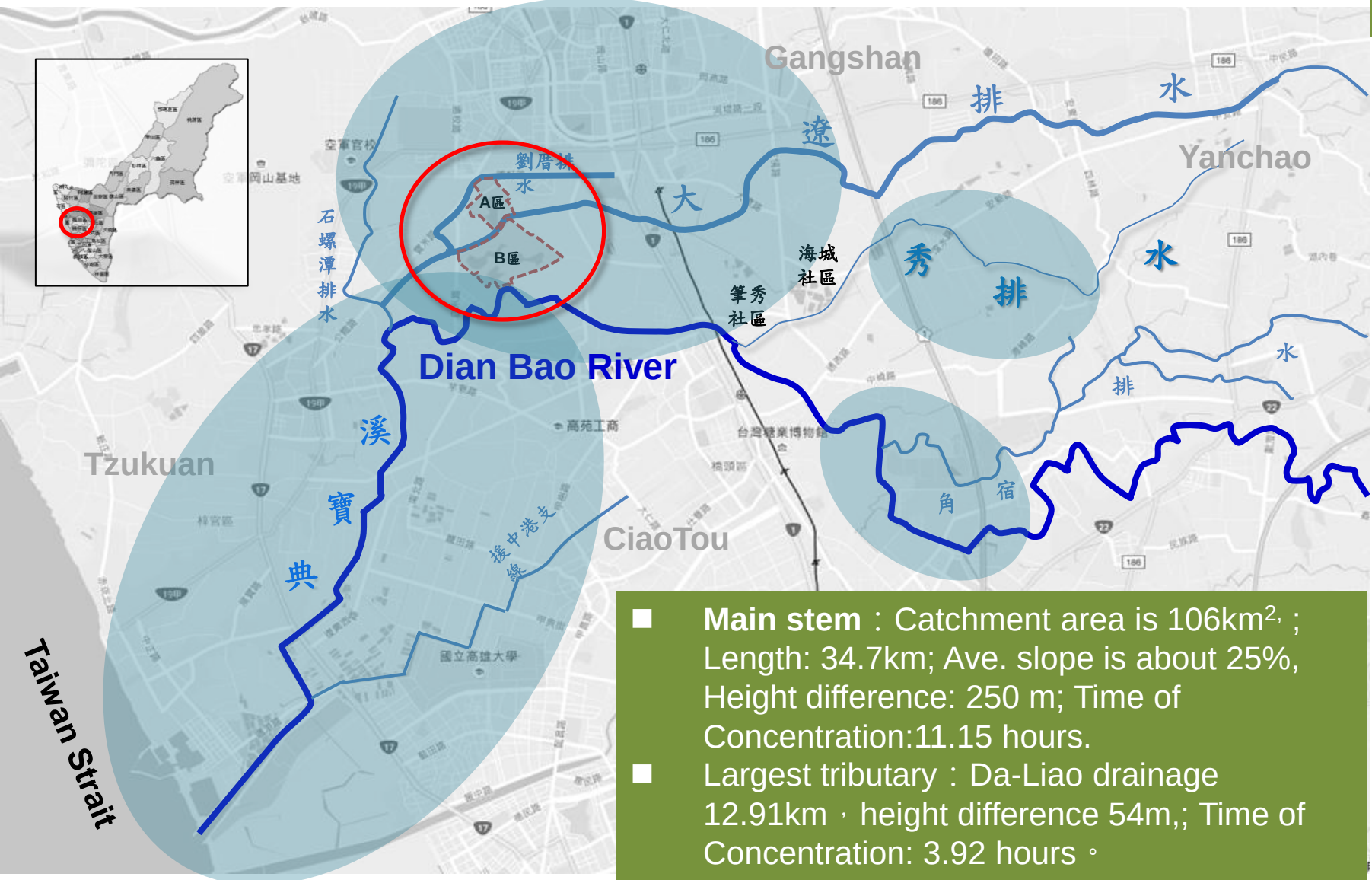


Flood Detention Basin for river flood control

Flood Prone Areas on Dian-Bao stream Catchment

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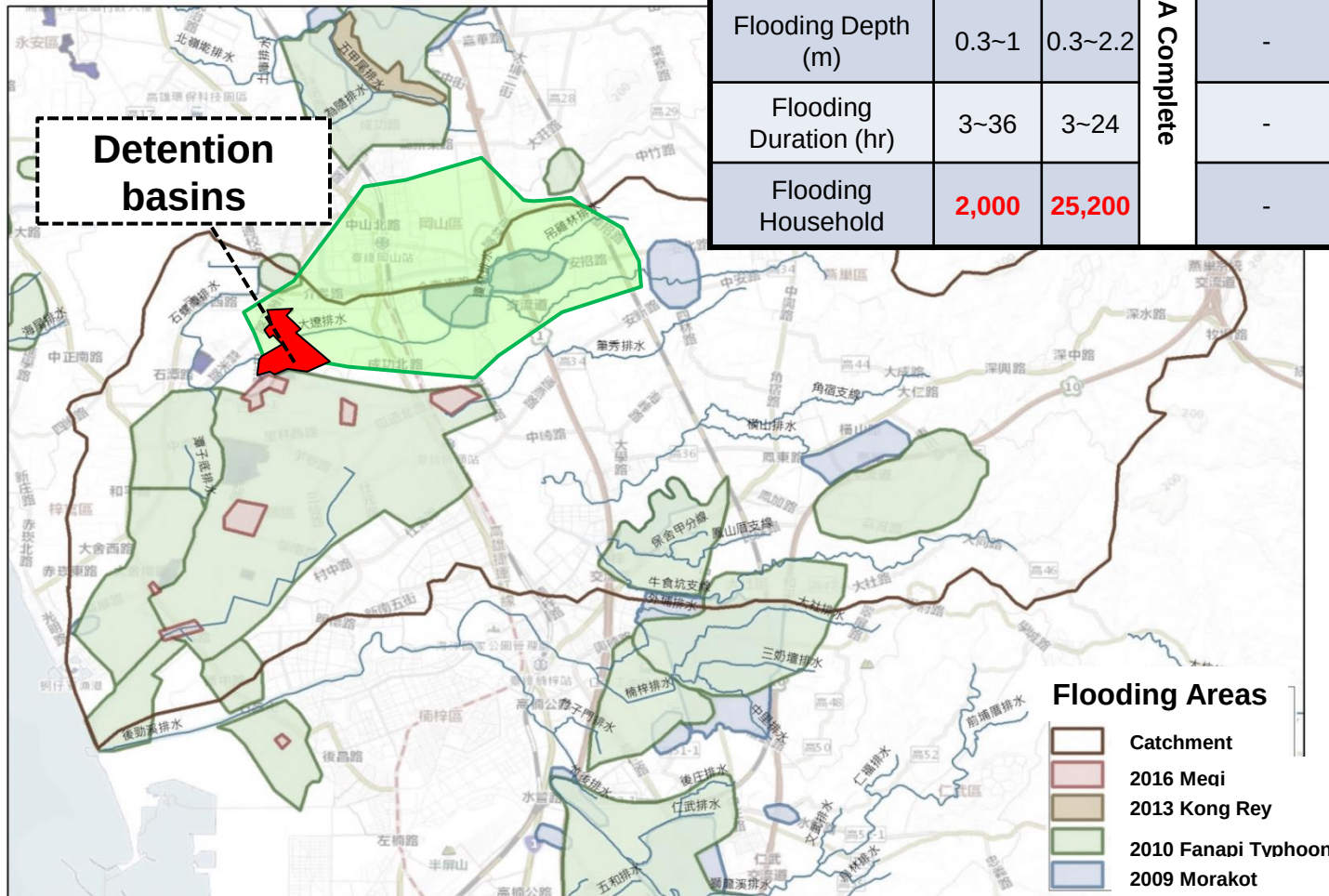
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Dianbao River Flood Detention Basin

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Typhoons	2009 Morakt	2010 Fanapi	2012 Area A Complete	2013 Kong Rey	2014 Area B Complete	2015 Soudelor	2016 Megi
24hr Rainfall	301	935		240		219.5	336
Flooding Area (m2)	300	3,872		-		-	47
Flooding Depth (m)	0.3~1	0.3~2.2		-		-	0.3
Flooding Duration (hr)	3~36	3~24		-		-	12
Flooding Household	2,000	25,200		-		-	170

Dianbao River Flood Detention Basin

Creating an Eco-friendly and Recreational Area

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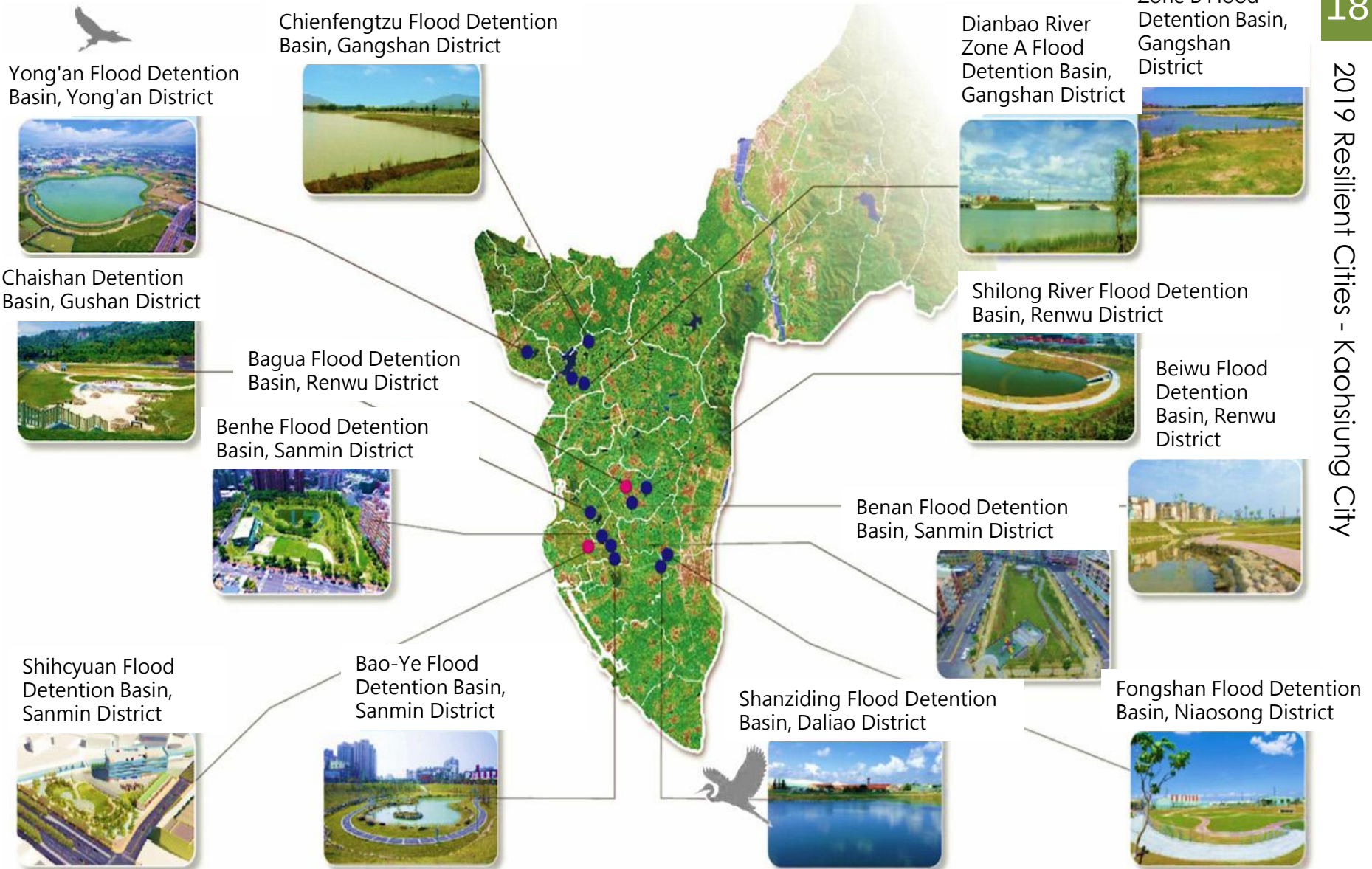
**Protected Species:
Pheasant-tailed Jacana**



13 Flood Detention Basins in Kaohsiung City

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Conclusions

- Overcome climate change through friendly adaptive actions.
- The green ecological corridor restores biodiversity, improve the city landscape, and supports a resilient city.

Kaohsiung

a beautiful and
sustainable city
invites you to visit !

Thank you for your Attention



Kaohsiung City Government
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2019.06.25