

MEISHAN DONGPO URBAN WETLAND PARK - SICHUAN PROVINCE, CHINA

Section	 <p>CLEARINGHOUSE 中欧城市森林应对方案</p> <p><i>This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821242</i></p>
1	TITLE OF CASE STUDY AREA: Meishan Dongpo Urban Wetland Park, Meishan City, Sichuan province, China
2	<p>INTRODUCTION</p> <p>With the development philosophy of “Stride over the river toward the east and construct around the river” introduced by Meishan city, Dongpo Island on east side of main city of Meishan city becomes the new development centre, which is positioned as an important ecological leisure oasis in Meishan central recreational area (CRD) and urban core area. It plays a major role in passing down the cultural context of old city and driving the cultural development and overall development of the new district. Meishan Dongpo Urban Wetland Park is located in the northwest of Dongpo Island. With a total area of 69.48hm², it is the largest core green space on Dongpo Island and also the starting project of Dongpo Island construction. With a mix of wetland conservation, science and cultural education, and rest and recreation, it is a typical urban wetland park. Dongpo Urban Wetland Park was officially started to construction since the beginning of 2014, and was officially open to the public on 31st 12, 2014. The spatial structure planning of the park is divided into one axis (water moon central cultural axis in Dongpo), two belts (walking belt along the Bin Lake and water moon science and culture ecological belt), and five zones (wetland resting zone, wetland science and culture zone, recreational activity zone, ceremony activity zone and cultural activity zone).</p>
3	<p>KEY FACTS AND FIGURES OF THE CASE STUDY AREA</p> <p>Biogeographic region¹: Continental Surface area: 69.48 hm² Country: China Region/Province: Meishan City, Sichuan province</p>

¹ <https://www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe-3>

<p>4</p>	<p>LOCATION MAP(S)</p> <p>Location of the study area –Meishan Dongpo Urban Wetland Park, Meishan City, Sichuan province, China (SHU Houting, 2018)</p>
<p>5</p>	<p>NAME OF MUNICIPALITY AND WEBSITE ADDRESS Sichuan News Net: http://scnews.newssc.org/system/20161207/000729723.html</p>
<p>6</p>	<p>LEAD ORGANISATIONS:</p> <ul style="list-style-type: none"> City of Meishan
<p>7</p>	<p>LOCAL CONTACT(S) Meishan Forestry Bureau, Meishan City, Sichuan province, China. Tel: + 86 (028)38197843341</p>
<p>8</p>	<p>PRINCIPLE UF-NBS (Urban Forests as Nature-Based Solutions) ACTION(S)</p> <ul style="list-style-type: none"> Preserving the native wetland forests during urbanisation Water environment has been improved through the upgrade of water quality in urban wetland forest Enhanced well-being of urban citizens through the construction of urban forest wetland Increased biodiversity in urban landscape
<p>9</p>	<p>OTHER PRINCIPLE NBS ACTION(S) – non-UF</p> <ul style="list-style-type: none"> Provides sites for environmental education, such as accessible sunken wetlands, which can be used to observe habitats in underwater wetland.
<p>10</p>	<p>LOCAL STAKEHOLDERS LIST ONLY</p> <ol style="list-style-type: none"> Governing authorities: Meishan Government, Dongpo District Government. Associations: non-government associations Citizens: residents form neighbourhood, volunteers, employee Municipalities: Municipality of Meishan Public/private institutions: Meishan Government, Dongpo District Government, no private institutions Park planner and authorities: The University of Tongji Technicians for park maintenance/monitoring and to educate and support citizens: Meishan Government, Dongpo District Government, Environmental Education Department.



11	UF-NBS FRAMEWORK		
a.	UF-NBS typology		<ul style="list-style-type: none"> • Green urban areas • Woodland play area (e.g. urban wetland-forest parks); • Trees in public parks • Riparian, natural wetlands
b.	Integration		<p>Built-up structure (service facilities); Transport infrastructure (in particular along streets and on squares), Water management system (e.g., regulation and restoration of wetland water quality).</p>
c.	Network/connectivity		<p>The Dongpo Island is located between the new and old cities along Minjiang River. It serves as an important role in continuing the cultural vein of the old city and leading the cultural development of Minjiang New District. Wetland Park is the starting project of Dongpo Island construction. The difficulty of wetland park design is how to promote the smooth development of Dongpo Island, connect the east and west sides of Minjiang River, guide the city to develop eastward, and fulfil its utmost value in the cross-river development of Meishan.</p>
d.	Multifunctionality		<p>In the design of the park, the spatial pattern of the current water body is retained to the greatest extent. In the north where the water body is concentrated, wetland conservation and static leisure are mainly designed, forming the spatial layout of static status in the north and dynamic status in the south. In the north, it has layout of wetland habitat area and wetland science and culture area, and xiao Mingyue Island, an ecological island that mainly preserves habitats and animal habitat activities, forms the pattern of island in the "Mingyue island", and carries out wetland science popularization exhibition around the wetland. In the south, recreational activity zone, ceremony activity zone, and cultural activity zone are arranged, as well as intensive rich recreation and leisure areas, such as paddle garden, sparse forest lawn, performing square, musical fountain, etc., and it can hold big urban activities.</p>
e.	Multi-scale		<ul style="list-style-type: none"> • Holistic planning and design for the whole park. • The wetland park is divided into 5 zones (wetland resting zone, wetland science and culture zone, recreational activity zone, ceremony activity zone and cultural activity zone). Appropriate zoning gives consideration to wetland ecological conservation which can make the ecological habitat on the northern side in the past can be continued, and meets the diverse leisure needs of citizens of all ages in Meishan in the southern region, moreover, the differences between landscape features of the two regions can take shape and with their own characteristics



f.	Strategic planning processes		<p>At the beginning, the government's assumption for Dongpo island was to use all the land for the development of real estate and the construction of high-end buildings. However, during this period, some government officers began to voice their opposition, believing that the city should not only have a commercial core area, but also have a green core area, which will become the spiritual home of urban people. After engaging experts to discuss and demonstrate, the voice of opposition won out. Dongpo island was not fully used for real estate development. The Meishan Municipal People's government entrusted Tongji University team to make a green space planning for Dongpo island as a whole. The overall structure of the greenbelt around Dongpo island is as follows: "core area of Dongpo Urban Wetland Park" (namely Dongpo Urban Wetland Park), "East District of Dongpo Urban Wetland Park", "North lakeside green space", "west lakeside green belt" and "Minjiang riverside green belt". Dongpo Urban Wetland Park is the starting project of Dongpo island construction.</p>
g.	Inter- and transdisciplinary		<p>Regarding water quality management, the water pollution control project of Dongpo Urban Wetland Park was reported in CCTV morning news focusing on the theme of "Kidney of the Earth" on September 29 2017, in which reported about the new progress on the wetland protection and as a triumph of construction of Dongpo Urban Wetland Park, we concentrate on the water quality and water environment, which has been a successful path of wetland protection.</p>
h.	Social cohesion and biocultural diversity		<p>On December 31, 2014, Dongpo Urban Wetland Park was officially opened to the public. After its opening for one year, the park received more than 100,000 visitors per month. While in the open performance period of musical fountain, the daily foot traffic was about 20,000 people. The construction of wetland park is a great success, and it is a good spot for leisure time spending for the citizens of Maishan city, and also appeals to the neighbouring urban citizens to come along. It becomes an eye-catching urban name card, even creates a good environment for following development of Dongpo Island, the centre of city gradually moves eastward.</p>
i.	Governance arrangements	<p>I. Project management structure.</p>	<p>Project Coordinator:</p> <ul style="list-style-type: none"> • Bureau of Natural Resources <p>Project Planner:</p> <ul style="list-style-type: none"> • The University of Tongji <p>Project implementation:</p> <ul style="list-style-type: none"> • Meishan Development Holding Co.,Ltd (contractors)



		<p>II. Local community engagement and the nature of their engagement.</p>	<p>Experts (e.g. researchers, professionals) community: Experts who study Urban Planning, Wetlands, Environment Impact Evaluation, Forestry, Landscape Ecology, Biodiversity, Landscape Architecture, Arboriculture, Urban Forestry were engaged in this project during the development of a master plan. Their engagement was to review the draft master planning of Dongpo Urban forests-wetlands park and to give their comments/suggestions.</p> <p>Local stakeholders (e.g. citizens): When the final planning scheme was ready, it was posted on the official website of local government. The open online version was welcome for citizen's comments or feedback. Then, all stockholders were able to give their suggestions for the planning and management of this park.</p>
		<p>III. City-scale and/or region-wide governance for the project and/or UF-NBS (city and regional stakeholders and character of their engagement)</p>	n/a
		<p>IV. National and international governance context (national and international stakeholders and character of their engagement)</p>	n/a
		<p>V. Other (specify)</p>	n/a
j.	Institutional frameworks	<p>I. Project staff responsibilities.</p>	<p>Bureau of Natural Resources: Investment, Communication, Management, Quality control, Maintenance</p> <p>Contractors: Planning and design, constructions, daily maintenance</p>
		<p>II. Project Management Committee (Y/N) if Y.</p>	Y. Consists of project managers of project coordinator's organisations
		<p>III. Frameworks <u>above the project</u> that exert influence on the project and/or UF-NBS e.g. Municipality, National Forestry Department.</p>	Meishan Municipal Government approves the whole project. When it was done, the government proceeded with quality acceptance and evaluation of project.
		<p>IV. Private companies that work on behalf of/or are embedded within the project.</p>	State-owned companies that got the tendering of government were involved in this project as well.



		V. Trade representative organisations that are involved in the project	n/a
		VI. Regulatory frameworks that the project operates within (i.e. bylaws, municipal laws, national laws, licences and leases, partnership agreements etc)	Meishan Dongpo Urban Wetland Park is based on the Master Plan of Meishan City (2010-2020), Urban green space system planning of Meishan City (2011-2020), Regulatory detailed planning of Dongpo island of Meishan City (2010-20220), and also observed other relevant standards or regulations.
		VII. Other (specify)	n/a
k.	Economic frameworks	I. Community fundraising	n/a
		II. Project delivered services and monies raised by project	The Environment Impact Assessment of the project was conducted by The University of Tongji
		III. City, regional general funds	This project was funded by the state-owned company (Meishan Development Holding Co., Ltd.)
		IV. Special funds e.g. National Lottery, Challenge funds	n/a
		V. National government funds	n/a
		VI. Private sector investment	n/a
		VII. International funds e.g. European Union structural funds, LIFE + etc.	n/a
		VIII. Other (specify)	The total investment was about 800 million RMB (from state-owned company investment). Now, Dongpo Urban Wetland Park has started the construction of new green space, and the new part is the supplement and extension of Dongpo Urban Wetland Park. It includes the green space in the north of the East District of Dongpo Urban Wetland Park, with an area of 4.51ha, and the southern green space of the Eastern District of Dongpo Urban Wetland Park, with an area of 2.84ha. The new green space investment plan is 34.5354-49.8022 million yuan.
i.	Sino/European comparative relevance		The park is a typical case of solving the contradiction between construction land and original natural environment in the process of urbanisation in China. Many European countries have also experienced such a process of ecological and development from contradiction to integration, and have many experiences and excellent practices. Although these methods cannot be directly applied to Chinese cities, through comparison, we can find the differences of



			these experiences and practices and summarize the common features.
	m.	UF-NBS valorisation	Dongpo Wetland Park has effectively protected the original wetland during the process of urbanisation. It not only retains the original environment and the living space of the original wetland organisms, but also creates a new green leisure space for urban residents. At the same time, it also uses the ecological function of the wetland to realize the restoration of urban water quality. This park provides the greenspace for neighbourhood which increased the house price in a certain degree.
	n.	Procurement of UF-NBS	<p>The Resource-Compensate-Project (RCP) financing mode was used by the city of Meishan in this project. The so-called RCP financing mode refers to compensating with companies or contractors that can generate the expected income when the expected target cannot be obtained through the operation of a project. This is essentially the same with the PPP mode.</p> <p>The whole cycle of this project can be summarized into four steps:</p> <ol style="list-style-type: none"> 1) The Municipal Government confirm this project and its budget from the government. 2) The Meishan City Bureau of Natural Resources developed a master plan for this urban wetlands project and opened tendering for the society to implement the master plan. 3) After confirming the contractors (they invested in this project as well), the contractors implemented and managed the project in a concession duration (one year from 2013 to 2014, during this time, these companies can invest to plant trees, build infrastructure according to the master plan of this project). 4) When the concession duration ended (in 2014), the government took Dongpo Urban-wetlands park back, and let the Landscape service centre of Meishan Bureau of Housing and Urban Rural Development do the maintenance The park was open for public in 31st December, 2014. It is free for the public.
	p.	Ecosystem services (list the three most important services being provided in no more than 50 words)	The original wetland has been preserved maintaining the regional biodiversity. The wetland effectively improved the water quality of the area. It ensures the ecological security of Dongpo Island, connects the new city and the old city with ecological space, and ensures the sustainable development of the city to the East.
	q.	Renaturing	Meishan city abandons the practice of using all the land for commercial development, retains the original wetland environment, and integrates commercial development and real estate construction, which have higher added value. At the same time, the most important thing is that the preserved wetland plays an important role in improving the urban water quality



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<p>12</p>	<p>LESSONS AND TRANSFERABILITY</p> <p>Under the guidance of the government (at the initial stage, the public demands were less considered, although the decision of the government is completely correct), the original environment has been successfully preserved and integrated into the development of the new city area. Dongpo Urban wetland park has preserved the wetland habitat for animals and created green leisure space for the citizens. Most importantly, the water quality environment of the city has been greatly improved. This case provides a good reference for other cities to solve such contradictions in the process of urbanization.</p>
<p>13</p>	<p>REFERENCES (Harvard style)</p> <p>侯舒婷. 基于使用者需求的眉山东坡城市湿地公园空间优化研究[D]. 2020.</p> <p>赵婧炜. 市政园林景观绿化施工问题及措施——以东坡城市湿地公园项目为例[J]. 商业故事, 2017(7).</p> <p>吕茵. 四川眉山东坡城市湿地公园的"东坡水月"文化[J]. 园林, 2019, 000(002):51-55.</p> <p>孙颖. 文化与自然生态的融合——谈眉山东坡城市湿地公园设计[J]. 中外建筑, 2018(7).</p>