

Yangtze River Delta, China: The Yangtze River Delta Eco-green Integrated Demonstration Zone – Building a World-class Model of Waterfront Human Settlement Civilization

Case background

The Yangtze River Delta region encompasses the Shanghai municipality, Jiangsu, Zhejiang and Anhui provinces. It is one of the regions with the most dynamic economic development, the highest degree of openness and the strongest innovation capacity in China. Comprising a twenty-sixth of China's geographical area and a sixth of its permanent population, the Yangtze River Delta generates nearly a quarter of the country's GDP. It has also been recognized as one of the six city clusters on the economic map of the world. But along with the robust growth of the regional economy, the Yangtze River Delta faces many problems and challenges.

The first challenge is balancing economic development with the protection of the ecological environment. The Yangtze River Delta, located in the lower reaches of the Yangtze River, is polluted by the upstream water due to industrial economic development in the region, and more attention needs to be given to environmental problems. Secondly, in the process of rapid economic integration as the regional industrial economy continues to expand, the problem of imbalanced regional development is revealed, the allocation of productive forces is disordered and the convergence of industrial structure remains a salient issue. Regional development entities are under local protectionism to a certain degree and seeking self-interests without leveraging their combined strengths. A third challenge is how to overcome the obstacle of administrative division, accelerate the improvement of regional cooperation mechanisms and promote the ecological transformation of regional development. As an important pillar of the growth of China, the development of the Yangtze River Delta region has received direct attention at national level. At the first China

International Import Expo in 2018, Chinese President Xi Jinping declared that support should be lent to the integrated development of the Yangtze River Delta and its elevation to a national strategy. As economies of different regions become increasingly intertwined and interconnected, integrated development has become an urgent internal demand for regional economic transformation and upgrading.¹¹ This means that the integration of the Yangtze River Delta is promoted by both central and local governments.

To meet higher-level development needs and to implement national strategies with greater depth, how can central and local governments promote higher-quality integrated development of the Yangtze River Delta in a more coordinated way? Given the vast area of the Yangtze River Delta and the huge differences in the socio-economic development of the localities in the region, a plan for the Yangtze River Delta Eco-Green Integrated Demonstration Zone (the integrated demonstration zone or demonstration zone for short) was proposed as a breakthrough point for implementation of the integrated development strategy of the Yangtze River Delta. Through the innovative development system planning and construction project of the centralized space of the demonstration zone, the plan hopes to pilot the cross-administrative-division integrated governance model and explore ways to translate regional ecological advantages into socio-economic development advantages. If the pilot trials turn out to be successful, the development experience of the demonstration zone will be popularized in a wider range of the region to lead the overall regional development.

Implementation process

In October 2019, the state council approved the overall plan of the Yangtze River Delta Eco-Green Integrated Demonstration Zone. The plan supports Shanghai, and Jiangsu and Zhejiang provinces in jointly establishing the Council of the Integrated Demonstration Zone as a decision-making platform for matters such as plans, launch reforms and the roll out of supporting policies to collaboratively advance major projects in the development of the demonstration zone. In addition,

11 Zhibiao, L., Lingchi, K. Development Characteristics, Problems and Basic Strategies of Regional Integration in the Yangtze River Delta. Journal of Anhui University (Philosophy and Social Sciences) (2019).

the plan supports the establishment of the Executive Committee of the Integrated Demonstration Zone for the development, construction and management organization. The committee will be responsible for planning, institutional innovation, reform-related matters, major projects and supporting policies in the demonstration zone.

1. Selecting sites and planning beyond the administrative divisions

As an important carrier of China's integrated regional development strategy, the demonstration zone has carried out overall systematic design in site selection, construction, development orientation and spatial layout, laying a foundation for the governance of coordinated and regional development. The demonstration zone is located at the intersection of Shanghai, Zhejiang and Jiangsu in the Yangtze River Delta, spanning Shanghai, Jiangsu and Zhejiang including Qingpu district of Shanghai, Wujiang district of Suzhou, Jiangsu province and Jiashan county of Jiaxing, Zhejiang province. This location boasts a sound ecosystem, abundant historical and cultural resources, unique development advantages from the Yangtze River Delta, lakes and an intertwined water network, and deep cultural holdings of Jiangnan (regions south of the Yangtze River) culture. In terms of development orientation, the demonstration zone considers building a 'test field for integrated institutional innovation', a 'new paradigm for translating ecological advantages into socio-economic development advantages', a 'new highland for green and innovation-driven development' and a 'new model for liveability and harmony between man and nature' as its strategic focus; a 'world-class model of waterfront human settlement civilization' as its vision for development; co-contribution, shared benefits, common responsibility and win-win results as its governance model; and the principle of ecology first and green development as its development philosophy.

The overall territorial space plan of the Yangtze River Delta Eco-Green Integrated Demonstration Zone 2019–2035 was released in 2020. The plan was developed

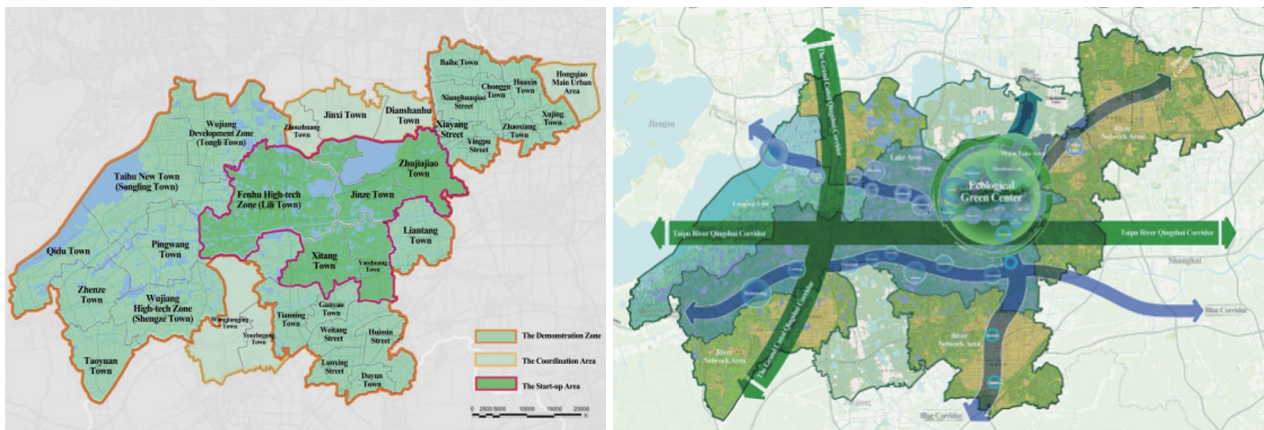
by the demonstration zone executive committee and representatives from Shanghai, Jiangsu and Zhejiang to ensure that local government takes an active part in the construction. This is China's first inter-provincial territorial space plan jointly prepared by provincial administrative entities.

The plan was designed under the perspective of ecological balance in the region. It has taken the environmental integrity of Dianshan Lake in the demonstration zone into account, established a coordination area outside the planned demonstration zone area, and conducted further research on and made plans for the area around Dianshan Lake. According to the plan, the demonstration zone encompasses protection of mountains, rivers, forests, fields, lakes and grasslands, carrying out environmental governance and ecological restoration in the whole region, and building an ecological security pattern. In terms of spatial layout, the demonstration zone pursues green transition and development. It has never engaged in the development of closely grouped areas only, has built a multi-centre, clustered, networked and intensive urban-rural development pattern, and ensured implementation of the plan, utilizing the unified planning indicator system, whole-area territorial space regulation and control, and whole-process integrated land management.¹² Based on regional cultural characteristics, economic foundations and location, the towns of Jinze and Zhujiajiao in Qingpu district, Lili in Wujiang district, and Xitang and Yaozhuang in Jiashan county have been selected to form a pilot start-up area to lead construction in the demonstration zone as shown in Figure 6.4.

2. Exploring an appropriate system and implementing the construction project at the same time

In terms of implementation and construction, the demonstration zone has focused on solving the problems in regional integration system and policies, and achieving the goal of eco-green development. This in adherence to the principle that institutional innovation should go hand in hand with construction, advance key projects through institutional innovation

12 Renkai, Z, Zhou Xiaoling. Practice and Reflection on Collaborative Innovation in the Yangtze River Delta Eco-Green Integrated Demonstration Zone _ Zhang Renkai. China Sci-Technology Business (2021).



Source: Announcement on the Draft of the Yangtze River Delta Eco-Green Integrated Demonstration Zone

Figure 6.4 Location of the planned demonstration zone (left) and the ecological pattern of the demonstration zone (right)

and provide more vivid application scenarios and practical cases for institutional innovation thus promoting various tasks in an orderly manner.

3. Institutional innovation

The most urgent problem facing the integrated development of the Yangtze River Delta is how to break through the administrative divisions and market barriers between regions to promote development. Based on the principle of 'reaching beyond the administrative boundary without breaking administrative affiliation', the demonstration zone is exploring the building of an integrated development system and mechanism for different regions in an innovative way under the established administrative divisions,¹³ and optimizing policies and mechanisms to promote regional coordinated development.

Centring on regional development, the demonstration zone has focused on the institutional innovation of eight aspects: ① Establishing a planning and management system featuring joint formulation of development plans, joint submission for approval and joint implementation; ② Establishing a unified ecological conservation system; ③ Establishing a land management mechanism that coordinates land indicators across regions and puts space resources into good use; ④ Establishing a cross-regional

integrated management and service mechanism for projects; ⑤ Making institutional arrangements that promote the free flow of various elements across regions; ⑥ Establishing a finance and taxation sharing management system to share investment and benefits across regions; ⑦ Launching public service policies featuring co-construction and shared benefits; and ⑧ Establishing a unified public credit management system. In terms of ecological conservation, for example, the demonstration zone needs to implement unified standards, environmental monitoring and law enforcement in a bid to lay an institutional foundation for joint protection and co-governance of the environment. In terms of establishing a mechanism to promote the free flow of market factors, a number of institutional arrangements have been made to promote the free flow of various factors across regions such as the unified enterprise registration standards, the mutual recognition of talent qualifications and the financial services accessible within city clusters.

4. Construction project

The exploration of specific mechanisms needs to be supported by practical carriers. The demonstration zone, which used to be a traditional township area in the south of the Yangtze River, needs to inject vitality into regional development and take innovation-driven construction projects as an important driving force

13 Xiaolei, Z.. Research on Institutional Innovation in the Yangtze River Delta Eco-Green Integrated Demonstration Zone. Scientific Development 2020.

for the development of the zone. In May 2021, the demonstration zone issued the Three-year Action Plan for Major Projects of the Yangtze River Delta Eco-Green Integrated Demonstration Zone (2021—2023) which identifies the latest major projects, proposes to follow the governance concept of 'wide consultation, co-construction, joint management, shared benefits and win-win results' through the implementation of projects, and calls for high-quality development of the demonstration zone.

Key projects are divided into centralized and classified demonstration. Centralized demonstration refers to the pilot start-up area in the demonstration zone which includes the high-standard construction of 'one living room and three areas'. One living room refers to the Water Town Living Room which is a model area for the practice of eco-green concepts in the demonstration zone. It implements inter-provincial unified planning, regardless of administrative affiliation, and serves as the public space of the Yangtze River Delta. The project, co-developed by Shanghai, Zhejiang and Jiangsu, adopts the mechanism of co-construction and co-investment, and a set of management standards will be applied in the future.¹⁴ The three areas are Qingpu Xicen Science and Technology Innovation Centre, Wujiang High-speed Railway Innovation Centre, Wujiang High-speed Railway

Technology and Innovation City, and Jiashan Xiang Fu Dang Innovation Centre. The Qingpu Xicen Science and Technology Innovation Centre focuses on advancing the construction of Huawei R&D Centre; the Wujiang High-speed Railway Technology and Innovation City is focused on accelerating the construction of the high-speed railway hub, Suzhou South Railway Station; and the Jiashan Xiang Fu Dang Innovation Centre is focused on the construction of innovative and intelligent water towns to build an innovation centre with distinctive features integrating institutions of higher learning, artificial intelligence, culture, tourism and creativity (see Figures 6.5 and 6.6).

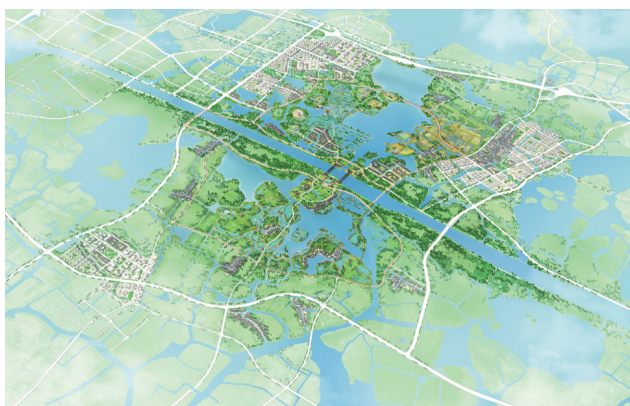
Classified demonstration focuses on the key aspects of integrated regional development. Specifically it covers four categories: ① Cross-regional ecological co-governance; ② The inter connectivity of infrastructures such as rail transit; ③ Optimization of the business environment and promotion of industrial innovation; and ④ Co-construction and sharing of services for the benefit of the people. Taking cross-regional ecological co-governance as an example, the ecological governance of Yuandang in the demonstration zone is a typical case of the practice. Yuandang is an important provincial boundary lake between Shanghai and Jiangsu province, who naturally and geographically



Source: The Official Social Media Account of the Shanghai Municipal Government. URL: https://mp.weixin.qq.com/s?__biz=MjM5NTA5NzYyMA==&mid=2654437332&idx=1&sn=ad04179b7f3c097f5848abc4f83cdda&chksm=bd3e62af8a49ebb90aa4a8013fe0598c72fec41cab272ecb3f78430224b4d92a95a56e1c361d (2021) (Accessed: 13/06/2022)

Figure 6.5 The location of the 'one living room and three areas' key pilot start-up area of the demonstration zone

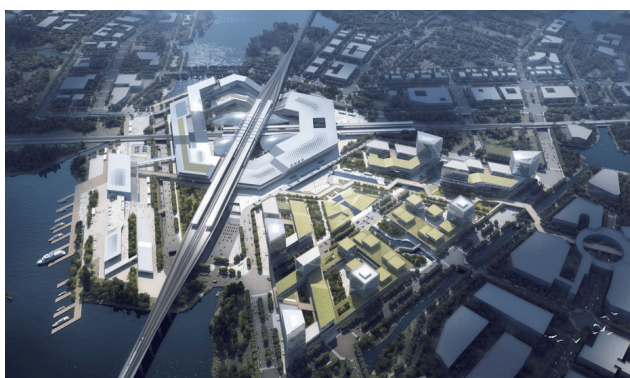
14 Xinhuanet. URL: http://sh.xinhuanet.com/2021-11/14/c_1310310269.htm (Accessed: 16/05/2022).



(a) Artist's impression of the Water Town Living Room



(b) Artist's impression of the Qingpu Xicen Science and Technology Innovation Centre



(c) Artist's impression of the Wujiang High-speed Railway Technology and Innovation City



(d) Artist's impression of the Xiang Fu Dang Sci-Tech Innovation Green Valley in Xitang, Jiashan

Figure 6.6 Artist's impressions of areas in the demonstration zone

share the same water source, the Dianshanhu Lake.

Before the establishment of the demonstration zone, the water body of Yuandang Lake (separated from the Dianshanhu Lake by silt) was under the jurisdiction of two respective administrative entities, Qingpu in Shanghai and Wujiang in Suzhou. Each entity often gave priority to economic benefits and few actions were taken with regard to environmental governance: the water quality in Yuandang remained below Class V – navigation, utility and industrial use – all year round. In 2020, the Executive Committee of the demonstration zone led local governments to jointly promote the launch of an ecological restoration and function improvement project for Yuandang. As a result, they abandoned separate governance and began to follow the approach of wide consultation, co-construction and joint governance of Yuandang Lake. Integration has

now been achieved in a series of measures including connecting water systems, removing obstacles in river channels, clearing away silt and dredging waterways, restoring bank slopes and conserving water sources. A 10.5 km ecological shoreline has been built in Yuandang and the water quality has been significantly improved through joint protection and co-governance. On the basis of the success of Yuandang, the demonstration zone has summarized the results and released guiding opinions on the Implementation of the Integration of Cross-border Water Body Ecological Restoration and Shoreline Connection Project; and the Implementation Standard for the Integration of Cross-border Water Body Ecological Restoration and Function Improvement Project, providing a model for integrated joint protection and co-governance of the environment (see Figure 6.7).



Figure 6.7 Aerial view of the connected Yuandang shoreline and the Ecological Restoration Demonstration Project

5. Summarizing and popularizing the results of test trials

The demonstration zone has continued to play its role sharing results while forging ahead. According to the press conference for the second anniversary of the establishment of the demonstration zone, in October 2021 the demonstration zone had made 32 and 41 institutional innovations in the first and second years respectively in the cross-regional flow of market factors, and planning and management, together with other important fields. In addition, it has made considerable efforts to advance 65 major projects including the construction of the Water Town Living Room providing lessons in coordinated regional development for other parts of China to draw from. The leading team in the development of the Yangtze River Delta has twice issued documents to recommend a replicable experience of the demonstration zone to the whole Yangtze River Delta and other regions of the country where conditions permit. It has also held a seminar to recommend a replicable experience in the demonstration zone's institutional innovations. In the

future, more institutional innovation experience from the demonstration zone will be practiced throughout the country.

Reference experiences

1. Conduct governance actions across administrative divisions to lay a foundation for the development of regional integration

Using its mission to promote a national strategy, the demonstration zone takes driving the higher-quality integrated development of the Yangtze River Delta as its orientation, and has promoted coordination and cooperation between central and local governments. It has also made an overall strategic plan for the site selection, planning management system, plan preparation, development mechanism and other aspects of the demonstration zone, laying a foundation for its integrated development. In terms of the management system, the demonstration zone has set up a three-level management structure of council,

executive committee and development corporation, which plays a role in the overall systematic design, resources planning, cross-regional coordination, standard formulation, etc., and guides the specific implementation in relevant regions. It not only connects national strategies from the top with the development of districts and towns but also draws forth a governance pattern of co-governance within the circle plus statutory institutions plus market operation.

The council comprises relevant government departments in Shanghai, Zhejiang and Jiangsu and the local authority of the demonstration area. Executive vice governors in Shanghai and Zhejiang and the executive vice mayor in Jiangsu take turns to chair the council so that the three areas can develop ways to accentuate the role of the government and local responsibilities while unifying planning and decision-making. To fully incorporate social suggestions, famous entrepreneurs and representatives of think tanks are invited to be special members of the council, playing a role similar to that of an independent director of a company. Attention is also paid to handling the relationship between the government and the market in the development and construction of the demonstration area so that the merits of both can be fully motivated simultaneously. In August 2020, the Developer Alliance of Yangtze River Delta Eco-green Integration Development Demonstration Zone was established in the demonstration zone with members such as enterprises and professional institutions, e.g. universities. With the Alliance as a link, the demonstration zone actively leads market entities to promote effective resource allocation, stimulate the self-motivation of enterprises, universities and other social entities, and help the Yangtze River Delta develop in quality and an integrated manner.

2. Promote cross-regional collaborative governance featuring co-construction, shared benefits, shared responsibility, and win-win solutions and support for the integrated regional development

The demonstration area is characterized by cross-administrative division in terms of spatial form but the administrative division cannot be changed. Therefore, it is necessary to change the barriers under the established administrative divisions and amend the

original local development orientation independent of each other so as to form development synergy. This requires a consensus on development and governance as well as specific institutional arrangements for integration to provide a feasible development path for regional cooperation. The demonstration zone has carried out institutional innovation and systematic reform practices on common issues that need regional coordination such as cross-regional ecological governance, common construction and sharing of public services, and free flow of market factors. It summarizes and forms a new model of five to one cross-regional co-construction and co-governance: one blueprint to cover the whole region; one main body to manage development; one platform to manage implementation; one set of standards to manage quality; and an integrated system to standardize governance. For example, the development and construction of the Water Town Living Room project is an example of innovative practice and application scenarios in the light of this model.

The Water Town Living Room project is jointly financed by Shanghai, Jiangsu and Zhejiang, while Yangtze River Delta Integration Demonstration Zone New Development Construction Co. Ltd. (the Yangtze New Development Company) was also established with the same proportion of capital and the same shareholding. As members of the Developer Alliance, the Three Gorges Group and the Yangtze New Development Company have set up a joint venture called the Watertown Living Room Company to actualize the concept of one main body to manage development. Multiple local entities at many levels jointly prepare urban design and detailed control planning of the Living Room in order to actualize the concept of one blueprint to cover the whole region. The joint command of the project was established to realize the concept of one platform to manage implementation and a three-year action plan for the Living Room construction has been formulated to accelerate implementation of the planning and construction guidelines for the pilot area, so as to realize the concept of one set of standards to manage quality. An integrated system to standardize governance for planning management, land management, financial and tax sharing and other key areas has become the reality.

3. Promote quality and innovative regional development under the guidance of ecological and green concepts

The demonstration zone hopes to find a way out of the traditional homogeneous development model of inefficient regional competition at the expense of the environment, and instead promote ecologically sound economic and social development of a high quality by coordinating ecological protection and economic development, environmental quality and project development. In order to transform ecological advantages into soft environmental advantages that attract and gather various high-end innovation factors, the demonstration zone proposes to cultivate an industrial system in which the innovation chain and industrial chain make headway together and build a new economy with global influence, centring on five environmentally friendly economic systems: digital economy; innovative economy; headquarters economy; service economy; and lake economy. In terms of spatial organization, the demonstration area coordinates the three major spaces for ecological development, production and residents, and gives priority to ecological protection while declining concentrated and contiguous development. Weighing up the regional development mode of characteristic towns in the south of the lower reaches of the Yangtze River, the demonstration area builds a multi-centre, networked and integrated layout.

Tehran, Iran: Smart Tehran Programme – Promoting Inclusive, Integrated and Sustainable Urban Management with Smart City Functionality

Case background

A growing metropolis accommodating some 8.9 million inhabitants as of 2018, Tehran is a rapidly evolving city with the population predicted to grow to 10.24 million by 2030.¹⁵ Spanning 61,562 hectares, population growth, unprecedented rates of urbanization and

deficiencies in urban monitoring and management have aggravated issues of environmental pollution, traffic congestion and quality of urban life in Iran's capital.¹⁶ To meet these new challenges head on, Tehran municipality launched STP in 2019, aiming to transform the metropolis into a more sustainable and liveable smart city for citizens, tourists and businesses (see Figure 6.8). Accordingly, the programme has envisioned a higher quality of urban life with more efficient transportation systems, integrated infrastructure and a dynamic, vibrant economy with human-centred urban management. The six core strategic objectives of the plan include: ① Improving transparency and public engagement; ② Increasing citizen satisfaction; ③ Promoting sustainable urban development; ④ Fostering partnerships and co-creation; ⑤ Advancing digital transformation; ⑥ Promoting urban innovation.

STP has sought the delivery of an integrated city-wide strategy for sustainable urban development, leveraging efficient information and communications technology (ICT) that enables citizens to more effectively contribute to urban management. In addition, it has looked to embed a culture of hi-tech, accessible digital platforms into Tehran's infrastructure and services, and develop an optimized system of automated processes and e-services for the city, its citizens and stakeholders. Knowledge-based, modern ICT platforms have been viewed as essential components to ensure more inclusive urban decision-making. STP is enabling Tehran to foster greater levels of collaboration through the engagement of all stakeholders within the smart city ecosystem (including businesses, policymakers, regulators, decision-makers, investors and innovation groups) thus shifting away from a traditional siloed approach in the delivery of Tehran's urban services towards an inclusive, integrated and innovative open-data approach. However, it is important to note that Tehran is not only aiming to enhance the city through ICT infrastructure, but also seeks to fulfil the six dimensions of becoming a 'smart city' achieving: ① A smart economy; ② Smart mobility; ③ A

15 United Nations Department for Economic and Social Affairs. URL: <https://population.un.org/wup/Publications/Files/WUP2018-Report.pdf> (Accessed: 10/06/2022).

16 International Department of Smart Tehran, Tehran Municipality. URL: <http://www.smartcity-dialogues.com/wp-content/uploads/2019/12/DAY-01-FARJOOD-BINA-Tehran.pdf> (Accessed: 10/06/2022).