**Explaining city branding in China’s three megacity regions: The role of ecological modernization**

**TABLES 1-4**

Table 1: Urban developmental pathways.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Stage of economic development/******Position within the region*** | **Primary sector dominates** | **Secondary sector dominates** | **Tertiary sector dominates** |
| **Regional orientation** | PATHWAY 1Eco-tourism(accommodating manufacturing) | PATHWAY 2Advanced, low carbon manufacturing | PATHWAY 4Knowledge and culture-oriented services |
| **National orientation** | n.a. | PATHWAY 2Advanced, low carbon manufacturing | PATHWAY 4Knowledge and culture-oriented services |
| **International orientation** | n.a. | PATHWAY 3High-tech innovation | PATHWAY 5Global advanced producer services |

Table 2a. Key geographic data and developmental pathways for GPRD cities.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Land****area****(km2)** | **Perm.****Pop. (mln.)** | **Three dominant industries** | **GDP/cap permanent pop. (RMB)**  | **1/2/3****as GDP (in %)** | **1/2/3 as working pop. (in %)** | **Urban stage** | **Regional****position** | **Predictedpathway** |
| Hong Kong | 2755 | 7.27 | Trading & logistics (23%)Tourism (5%)Professional & other producer services | 267744 | 0/7/93 | 0/3/97 | 3 | INT | 5 |
| Macau | 30 | 0.6 | Travel & tourism (44%) | 386825 | 0/6/94 | 0/20/80 | 3 | INT | 5 |
| Guangzhou (GD) | 7249 | 13.08 | Manufacturing (45%)Accommodation & catering (35%)Rent and commercial service (6%) | 138374 | 1/32/67 | 8/36/56 | 3 | INT | 5 |
| Shenzhen (GD) | 1997 | 10.78 | Manufacturing (60%)Accommodation & catering (32%)Rent and commercial service (3%) | 162382 | 0/41/59 | 0/48/52 | 3/2 | INT | 5/3 |
| Foshan (GD) | 3798 | 7.35 | Manufacturing (64%)Accommodation & catering (23%)Rent and commercial service (4%) | 108875 | 2/60/38 | 5/59/36 | 2 | REG | 2 |
| Dongguan (GD) | 2460 | 8.34 | Manufacturing (66%)Accommodation & catering (27%)Rent and commercial service (3%) | 75212 | 0/46/54 | 1/68/31 | 2 | REG | 2 |
| Zhuhai (GD) | 1724 | 1.61 | Manufacturing (40%)Accommodation & catering (29%)Rent and commercial service (7%) | 125449 | 2/50/48 | 6/51/43 | 2/3 | REG | 2/4 |
| Huizhou (GD) | 11346 | 4.73 | Manufacturing (51%)Accommodation & catering (21%)Public administration, social security & social organization (6%) | 66432 | 5/55/40 | 18/50/32 | 2 | REG | 2 |
| Jiangmen GD) | 9505 | 4.51 | Manufacturing (57%)Accommodation & catering (19%)Public administration, social security & social organization (7%) | 49652 | 8/48/44 | 33/40/27 | 2 | REG | 2 |
| Zhongshan (GD) | 1784 | 3.19 | Manufacturing (69%)Accommodation & catering (20%)Rent and commercial service (4%) | 94278 | 3/54/43 | 5/67/28 | 2 | REG | 2 |
| Zhaoqing (GD) | 14891 | 4.04 | Manufacturing (36%)Public administration, social security & social organization (16%)Accommodation & catering (12%) | 48813 | 15/49/36 | 52/25/23 | 1 | REG | 1 |

Table 2b. Key geographic data and developmental pathways for YRD cities.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Land****area****(km2)** | **Perm.****Pop. (mln.)** | **Three dominant industries** | **GDP/cap permanent pop. (RMB)**  | **1/2/3****as GDP (in %)** | **1/2/3 as working pop. (in %)** | **Urban stage** | **Regional****position** | **Predictedpathway** |
| Shanghai | 6341 | 24.26 | Manufacturing (53%)Accommodation & catering (45%)Rent & commercial services (2%) | 97343 | 0/35/65 | 4/39/57 | 3 | INT | 5 |
| Nanjing (JS) | 6587 | 8.22 | Manufacturing (38%)Accommodation & catering (33%)Rent & commercial services (7%) | 107545 | 2/41/57 | 1/33/56 | 3 | NAT | 4 |
| Yangzhou (JS) | 6591 | 4.48 | Manufacturing (28%)Accommodation & catering (19%)Public administration, social security & social organization (16%) | 82654 | 6/51/43 | 20/45/35 | 2 | REG | 2 |
| Changzhou (JS) | 4372 | 4.70 | Manufacturing (60%)Accommodation & catering (20%)Rent & commercial services (4%) | 104423 | 3/49/48 | 11/53/36 | 2 | REG | 2 |
| Suzhou (JS) | 8488 | 10.60 | Manufacturing (47%)Accommodation & catering (26%)Rent & commercial services (5%) | 129926 | 2/50/48 | 4/61/35 | 2 | NAT | 2 |
| Taizhou (JS) | 5787 | 4.64 | Manufacturing (40%)Public management, social security and social organizations (15%)Accommodation & catering (10%) | 72706 | 6/50/44 | 25/42/33 | 2 | REG | 2 |
| Nantong (JS) | 8001 | 7.30 | Manufacturing (42%)Accommodation & catering (17%) Public management, social security & social organizations (9%) | 77457 | 6/50/44 | 23/46/31 | 2 | REG | 2 |
| Zhenjiang (JS) | 3847 | 3.17 | Manufacturing (38%)Accommodation & catering (13%) Public management, social security & social organizations (12%) | 102651 | 4/50/46 | 13/47/40 | 2 | REG | 2 |
| Wuxi (JS) | 4627 | 6.50 | Manufacturing (31%)Accommodation & catering (13%) Public management, social security & social organizations (8%) | 126389 | 2/50/48 | 5/57/38 | 2 | NAT | 2 |
| Hangzhou (ZJ) | 16596 | 8.89 | Manufacturing (35%)Accommodation & catering (34%)Rent & commercial services (8%) | 129448 | 3/42/55 | 11/45/43 | 2/3 | NAT | 2/4 |
| Huzhou (ZJ) | 5820 | 2.93 | Manufacturing (55%)Accommodation & catering (16%)Public management, social security & social organizations (9%) | 74334 | 6/51/43 | 14/51/35 | 2 | REG | 2 |
| Jiaxing (ZJ) | 3915 | 4.57 | Manufacturing (58%)Accommodation & catering (18%)Rent & commercial service (5%) | 96607 | 4/54/42 | Data unavailable | 2 | REG | 2 |
| Taizhou (ZJ) | 9411 | 6.02 | Manufacturing (61%)Accommodation & catering (16%) Public management, social security & social organizations (3%) | 56876 | 6/47/47 | 19/44/37  | 2 | REG | 2 |
| Shaoxing (ZJ) | 8279 | 4.96 | Manufacturing (33%)Accommodation & catering (26%) Public management, social security & social organizations (13%) | 96437 | 4/52/44 | Data unavailable | 2/3 | REG | 2/4 |
| Ningbo (ZJ) | 9816 | 7.81 | Manufacturing (63%)Accommodation & catering (21%)Rent & commercial service (4%) | 130769 | 4/54/42 | Data unavailable | 2 | NAT | 2 |
| Zhoushan (ZJ) | 1455 | 1.15 | Manufacturing (70%)Accommodation & catering (27%)Rent & commercial services (1%) | 104239 | 10/42/48 | 14/35/51 | 3 | REG | 4 |

Table 2c. Key geographic data and developmental pathways for Bohai Rim cities.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Land****area****(km2)** | **Perm.****Pop. (mln.)** | **Three dominant industries** | **GDP/cap permanent pop. (RMB)**  | **1/2/3****as GDP (in %)** | **1/2/3 as working pop. (in %)** | **Urban stage** | **Regional****position** | **Predictedpathway** |
| Beijing | 16415 | 21.52 | Wholesale & retail (33%)Manufacturing (29%)Tenancy & other commercial services (11%) | 99995 | 1/21/78 | 5/18/77 | 3 | INT | 5 |
| Tianjin | 11917 | 15.16 | Manufacturing (32%)Wholesale & retail (25%)Rent & commercial services (7%) | 105231 | 1/50/49 | 8/39/53 | 3/2 | NAT | 4/2 |
| Shijiazhuang (HB) | 15848 | 10.62 | Manufacturing (41%)Wholesale & retail (28%)Public management, social security & social organizations (11%) | 48701 | 9/47/44 | 0/36/64 | 3 | NAT | 4 |
| Tangshan (HB) | 13472 | 7.77 | Manufacturing (26%)Public management, social security & social organizations (23%)Wholesale & retail (18%) | 80138 | 9/58/33 | 3/54/43 | 2 | NAT | 2 |
| Langfang (HB) | 6429 | 4.52 | Manufacturing (64%)Wholesale & retail (15%)Public management, social security & social organizations (10%) | 48121 | 9/48/43 | 0/59/41 | 2 | REG | 2 |
| Qinhuangdao (HB) | 7523 | 3.06 | Manufacturing (24%)Public management, social security & social organizations (20%)Wholesale & retail (19%) | 39158 | 15/37/48 | 0/41/59 | 3 | REG | 4 |
| Baoding (HB) | 22109 | 11.49 | Manufacturing (45%)Public management, social security & social organizations (17%)Wholesale & retail (17%) | 26415 | 14/52/34 | 0/56/44 | 2 | NAT | 2 |
| Chengde (HB) | 39500 | 3.53 | Public management, social security & social organizations (32%)Health, sports and social welfare (14%)Education (10%) | 38062 | 17/50/33 | 0/36/64 | 3 | REG | 4 |
| Zhangjiakou (HB) | 36873 | 4.42 | Public management, social security & social organizations (40%)Manufacturing (12%)Wholesale & retail (10%) | 30513 | 18/43/39 | 0/36/64 | 3 | REG | 4 |
| Cangzhou (HB) | 14033 | 7.38 | Manufacturing (64%)Wholesale & retail (15%)Public management, social security & social organizations (12%) | 42486 | 10/52/38 | 3/40/57 | 3/2 | REG | 4/2 |
| Hengshui (HB) | 8815 | 4.42 | Manufacturing (38%)Public management, social security & social organizations (30%)Wholesale & retail (13%) | 25878 | 14/48/38 | 0/33/67 | 3/2 | REG | 4/2 |
| Xingtai (HB) | 12486 | 7.26 | Manufacturing (49%)Public management, social security & social organizations (18%)Wholesale & retail (17%) | 22696 | 17/47/36 | 0/47/53 | 3/2 | REG | 4/2 |
| Handan (HB) | 12009 | 9.37 | Public management, social security & social organizations (31%)Manufacturing (22%)Wholesale & retail (14%) | 32857 | 13/50/37 | 0/57/43 | 2 | REG | 2 |
| Anyang (HN)  | 5599 | 4.43 | Public management, social security & social organizations (25%)Manufacturing (20%)Wholesale & retail (13%) | 35920 | 9/58/33 | Data unavailable | 2/3 | REG | 2/4  |

Table 3a. Ecological modernization pathways and city brand identities for GPRD cities.

|  |  |  |  |
| --- | --- | --- | --- |
| **City (province)** | **Predicted pathway** | **Brand identity: quotations from Five Year Plans and Urban Master Plans** | **Adopted pathway** |
| Hong Kong | 5 | The long-term vision for Hong Kong to strengthen its position as Asia’s world city. “Asia’s world city” is not only about economic growth and competitiveness, but ensuring we have a city that is proud for being Asia’s exemplary city in achieving true sustainable development.(HK2030) | 5 |
| Macau | 5 | With gambling and tourism as its main industries, Macau regards delicacy and pleasance as its development targets, continued prosperity as its goals, and openness and inclusiveness as its characteristic. Macau is a tourism and liveable city, sustainable development city, world vibrant city. (Macau Conceptual Plan 2007).  | 5 |
| Guangzhou (GD) | 5 | Guangzhou is one of National Center Cities, provincial capital, International Commercial Trade center, External Exchange Center, Comprehensive Transportation Hub, and a an International Shipping Center in South China (UMP). It builds into a National Innovation city (12th FYP).  | 5 |
| Shenzhen (GD) | 5/3 | Shenzhen is the Special Economic Zones, National Economic Center and an International City in China. Shenzhen is the service base to support Hong Kong's prosperity and stability. Under the framework of "one country two systems", Shenzhen aims to be an international financial, trade and shipping center under with the development of Hong Kong. Shenzhen is also the national high-tech industrial base and cultural industry base (UMP).  | 5/3 |
| Foshan (GD) | 2 | Foshan will be built into an advanced manufacturing base, a service center for industries, a Lingnan Cultural city, a beautiful home with happiness (UMP). | 2/4 |
| Dongguan (GD) | 2 | Dongguan is the central city in the PRD. It is an important information technology R&D, an industrial base in China, as well as a modern city with beautiful environment (UMP). | 2/4 |
| Zhuhai (GD) | 2/4 | Zhuhai is a national Special Economic Zone, the central city in the West Bank of the PRD and the coastal tourist city…Zhuhai aims to be a modern service center in the West Bank of PRD. Zhuhai strives to a leading heavy strategic manufacturing base. Zhuhai targets to be a high-tech industry-oriented research and education (UMP). | 2/4 |
| Huizhou (GD) | 2 | Huizhou is one of the central cities in the PRD. Huizhou will be a petrochemical base, as well as an important cluster of electronic information industry and light manufacturing in South China, Huizhou will be a scenic coastal city in Guangdong, a historical and cultural city, as well as an important area of leisure base (UMP). | 1/2/4 |
| Jiangmen GD) | 2 | Jiangmen is one of the central city and portal cities in west of PRD… It is a waterfront city led by modern manufacturing, trade logistics and cultural tourism industries (Urban Master Plan).Jiangmen strives to be Livable Eco Model city (12th FYP). | 2/4 |
| Zhongshan (GD) | 2 | Zhongshan is the regional central city in the West Bank of PRD, a livable entrepreneurial city with an attractive ecological and investment environment for startups in Guangdong Province, a tourist city as the hometown of Sun Yat-Sen (UMP). | 4 |
| Zhaoqing (GD) | 1 | Zhaoqing is the local central city in Guangdong Province, a national historical and cultural city and tourist city (UMP). | 4 |

Table 3b. Ecological modernization pathways and city brand identities for YRD cities.

|  |  |  |  |
| --- | --- | --- | --- |
| **City (province)** | **Predicted pathway** | **Brand identity: quotations from Five Year Plans and Urban Master Plans** | **Adopted pathway** |
| Shanghai | 5 | Shanghai will build into a comprehensive global city, international economic, financial, trade, shipping and technological innovation center, and an international cultural metropolis by 2040(UMP). | 5 |
| Nanjing (JS) | 4 | Nanjing is a famous ancient capital, Jiangsu Province capital, important regional center city. It is a national historical and cultural famous city, national comprehensive transport hub, national innovation base, regional modern service center, YRD advanced manufacturing base, eco liveable city (UMP). It aims to be a cultural green city and smart Nanjing (12th FYP).  | 4 |
| Yangzhou (JS) | 2 | As a national historical and cultural city, scenic tourist city with the traditional characteristics, Yangzhou is built into a regional central city, a historical and livable city, through the development of advanced manufacturing industry (UMP). It targets to be innovative Yangzhou (12th FYP).  | 4/2 |
| Changzhou (JS) | 2 | Changzhou aims to be a strong economy city with an advanced manufacturing industry…, cultural city, regional hub city, and ecological city (UMP). It focuses to be an innovative and entrepreneurial city (12th FYP).  | 2/4 |
| Suzhou (JS) | 2 | Suzhou is a national historical and cultural city, scenic tourist city, national high-tech industrial base, and important central city in the YRD (UMP). It is an advanced manufacturing base (13th FYP) | 4/2 |
| Taizhou (JS) | 2 | Chinese medical city, port city, historical and cultural city, eco city, “City of health, city of richness, city of happiness” (13th FYP) | 4 |
| Nantong (JS) | 2 | Nantong is a modern international port city in the China's eastern coast, economic center and gateway city in the north wing of Shanghai, and a liveable entrepreneurial city, historical and cultural city in China (UMP).  | 4 |
| Zhenjiang (JS) | 2 | It is a national historical and cultural city, an important port in the YRD, scenic tourist city and regional center city (UMP). It aims to be a modern ‘mountain and river garden city’ (12th FYP). | 4 |
| Wuxi (JS) | 2 | Wuxi city is one of the most important central cities in the YRD, and also an important scenic tourist city. It aims to be an international manufacturing base, worldwide tourist resort and ecological city (UMP).  | 2/4 |
| Hangzhou (ZJ) | 2/4 | Hangzhou is a central city in YRD, national historical and cultural famous city, and scenic tourist city. It has the following functions: YRD Regional Financial Services Center, modern logistics center and transport hub, national high tech industrial base, economic information center and innovation center, International e-Commerce Center and Tourism Leisure Center (UMP). It is a the Oriental city of quality (13th FYP) | 4/2 |
| Huzhou (ZJ) | 2 | Huzhou is the central city on the South Bank of Taihu Lake, a provincial historical and cultural city, an industry and trade city, as well as the ecological tourism city in the YRD. It has the functions as the advanced manufacturing base in the YRD, modern service industry base, urban agriculture base (UMP)….It aims to be an eco-city (13th FYP). | 4/2 |
| Jiaxing (ZJ) | 2 | YRD innovative strong economic city, eco-cultural Jiangnan water city, Hangzhou Bay liveable coastal city, modern network-type garden city (12th FYP) | 4 |
| Taizhou (ZJ) | 2 | Taizhou actively creates a regional center city, transport hub city, ecological livable city, historical and cultural city (UMP).  | 4 |
| Shaoxing (ZJ) | 2/4 | Shaoxing targets to be an industrial city with its own features, cultural leisure city and ecological livable city" (UMP). | 2/4 |
| Ningbo (ZJ) | 2 | Ningbo is an important port city in China's southeast coastal, economic center in the south wing of the YRD, national historical and cultural city. It has following functions: International Trade Logistics Port, advanced manufacturing industry base in East China, an important foreign trade port in the YRD south wing (UMP). It strives to be a smart city (12th FYP) | 2/4 |
| Zhoushan (ZJ) | 4 | Zhoushan targets to build into an international logistics hub island, an opening-up island, modern marine industry base, an international ecological leisure island and garden city (UMP).  | 4/2 |

Table 3c. Ecological modernization pathways and city brand identities for Bohai Rim cities.

|  |  |  |  |
| --- | --- | --- | --- |
| **City (province)** | **Predicted pathway** | **Brand identity: quotations from Five Year Plans and Urban Master Plans** | **Adopted pathway** |
| Beijing | 5 | Beijing is the national political and cultural center, and an international historical city and modern city (UMP). The positioning of Beijing is to be international communication and technological innovation centre, liveable city…. (13th FYP) | 5 |
| Tianjin | 4/2 | It is an economic center in the Bohai Rim Region, and it will develop into an international port city, an economic center in the northern part of China, and an ecological city (UMP). It is the core area of northern international transportation, the financial innovation demonstration area, the R&D base for advanced manufacturing.... (13th FYP) | 4/2 |
| Shijiazhuang (HB) | 4 | It is the capital of Hebei Province, and the third pole of the Jing-Jin-Ji Area. It is one of the modern service and biological bases in China (UMP). It aims to improve its service economy. (13th FYP). | 4 |
| Tangshan (HB) | 2 | It is one of the center cities in Bohai Rim, and a new national industrial base and port city (UMP). It aims to be a new industrial city in the Bohai Rim, to become a pivot point in Capital Economic Zone and a prosperous and liveable coastal city (13th FYP). | 2 |
| Langfang (HB) | 2 | Langfang is an important node and a new developing pole in the Jing-Jin-Ji region…It aims to become R&D centre and base for commercialisation of research findings, clusters for strategic new industrial sector and service sector, model city in term of urbanisation and innovation (UMP). | 4/2 |
| Qinhuangdao (HB) | 4 | Qinhuangdao is a famous coastal city for tourism, leisure and holiday in China and an important port city with comprehensive functionalities (UMP). | 4 |
| Baoding (HB) | 2 | Baoding is a national historical city, and one of the centre cities in Jing-Jin-Ji Region with advanced manufacturing and a modern service industry (UMP). | 2/4 |
| Chengde (HB) | 4 | Chengde is a national historical and cultural city, an international tourism city, and a regional centre city for connecting Jing-Jin-Ji, Liaoning and Mongolia (UMP). It targets to be a ecological city (13th FYP).  | 4 |
| Zhangjiakou (HB) | 4 | Zhangjiakou is the water conservation functionality area for the Jing-Jin-Ji region, and aims to become a cluster of green industries, a demonstration area for renewable energy, and to become an international sports and leisure city (13th FYP). | 4 |
| Cangzhou (HB) | 4/2 | Cangzhou is an important transportation pivot in Bohai Rim Region, a regional centre city in the Jing-Jin-Ji Region and a port city with specialty of canal culture and chemical industry (Urban Master Plan). It aims to be an important national security base for chemical industry and clean energy, to become an important industry support and base for technology transformation, to become an important modern logistics distribution centre, and an important open coastal city (13th FYP). | 2/4 |
| Hengshui (HB) | 4/2 | Hengshui is an ecological and liveable city near a lake in the northern part of China. It is a modern and also a regional center city in central southern part of Hebei, and an important transportation pivot. It is an agricultural modernization demonstration base in North China Plain; a well-known leisure tourism and transportation logistics hub in Southeast of the province, as well as green agricultural products supply processing base and an advanced manufacturing base for the rubber and plastics, textile and garment industry (UMP).  | 1/2/4 |
| Xingtai (HB) | 4/2 | Xingtai is an important centre city in south part of Jing-Jin-Ji, an important national base for manufacturing and a demonstration area of innovative industrial transition. It is also an ecological tourism city, and historical and cultural city (UMP). | 2/4 |
| Handan (HB) | 2 | Handan is a national historical and cultural city, a regional economic center city at the joint of Hebei, Shanxi, Shandong and Henan (UMP). The industrial positioning is a base for fine steel and iron, advanced facility manufacture, food industry, environmental friendly products, and new energy vehicles, and also a centre for commerce and logistics. (13th FYP) | 2 |
| Anyang (HN)  | 2/4 | Anyang is a national historical and cultural city and a centre city in the north of Henan province (UMP). It strives to be Innovation Anyang (13th FYP). | 4 |

Table 4a: Ecological modernization pathways and city labels for GPRD cities.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Predicted****pathway** | **Most frequent city labels in 12th FYP** | **Most frequent city labels in 13th FYP** | **Most frequent city labels in UMP** | **Overall dominant city label(s)** | **Adopted pathway** |
| Hong Kong | 5 | Service city 9Advanced manufacturing city 1 | Service City 11 Smart city 8 | Service city 17Innovation city 6 | Service citySmart cityInnovation city | 5/3 |
| Macau | 5 | Tourism city 5Liveable city 3 | Tourism city 12Smart city 8 | Tourism city 4Liveable city 2 | Tourism city Liveable citySmart city | 5 |
| Guangzhou (GD) | 5 | Service city 21Innovation city 17 | Service city 22Innovation city 9 | Tourism city 6Advanced manufacturing city 4 | Service cityInnovation cityTourism city | 5/3 |
| Shenzhen (GD) | 5/3 | Innovation city 17Eco city 10 | Service city 18Innovation city 16 | Advanced manufacturing city 11Service city 5 | Innovation cityService cityAdvanced manufacturing city | 3/5 |
| Foshan (GD) | 2 | Eco city 13Service city 5 | Low carbon city 9Eco city 8 | Tourism city 13Advanced manufacturing city 11 | Eco cityTourism cityLow carbon cityAdvanced manufacturing city | 4/2 |
| Dongguan (GD) | 2 | Tourism city 9Service city 9 | Eco city 18Service city 12 | Advanced manufacturing city 4Tourism city 2 | Eco cityAdvanced manufacturing cityService cityTourism city | 2/4 |
| Zhuhai (GD) | 2/4 | Eco city 8Service city 6 | Low carbon city 43 Tourism city 21 | Advanced manufacturing city 15Eco city 8 | Low carbon cityAdvanced manufacturing cityEco cityTourism city | 2/4 |
| Huizhou (GD) | 2 | Advanced manufacturing city 19Tourism city 7 | Eco city 14Smart city 11 | Tourism city 14Eco city 5 | Eco cityTourism city Smart cityAdvanced manufacturing city | 1/2 |
| Jiangmen GD) | 2 | Advanced manufacturing city 9 Innovation city 7 | Innovation city 10 Eco city7 | Eco city 13Tourism city 11 | Eco cityInnovation cityTourism cityAdvanced manufacturing city | 1/2/4 |
| Zhongshan (GD) | 2 | Tourism city 7Innovation city 7 | Innovation city 9Eco city 6 | Eco city 5Liveable city 5 | Innovation cityEco cityLiveable cityTourism city | 4/1 |
| Zhaoqing (GD) | 1 | Tourism city 9Advanced manufacturing city 8 | Service city 13Eco city 9 | Tourism city 151Eco city 40 | Eco cityTourism cityService city | 1/4 |

Table 4b: Ecological modernization pathways and city labels for YRD cities.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Predicted pathway** | **Most frequent city labels in 12th FYP** | **Most frequent city labels in 13th FYP** | **Most frequent city labels in UMP** | **Overall dominant city label(s)** | **Adopted pathway** |
| Shanghai | 5 | Service city 38Tourism city 5 | Service city 13Advanced manufacturing city 11 | Tourism city 10Service city 9 | Service cityTourism cityAdvanced manufacturing city | 5/3 |
| Nanjing (JS) | 4 | Service city 30Tourism city 20 | Service city 20Eco city 17 | Tourism city 25Service city 9 | Service cityTourism cityEco city | 4 |
| Yangzhou (JS) | 2 | Eco city 13Innovation city 10 | Innovation city 8Eco city 7 | Tourism city 21Liveable city 2Service city 2 | Innovation cityTourism cityEco city | 4 |
| Changzhou (JS) | 2 | Innovation city 7Eco city 6 | Innovation city 29Service city 17 | Tourism city 14Eco city 6 | Innovation cityTourism cityService cityEco city | 4 |
| Suzhou (JS) | 2 | Tourism city 19Smart city 11 | Innovation city 18Tourism city 15 | Tourism city 37Service city 18 | Tourism cityInnovation cityService city | 4 |
| Taizhou (JS) | 2 | Tourism city 11Eco city 6 | Tourism city 7Innovation city 4 | Tourism city 16Liveable city 5 | Tourism cityInnovation cityLiveable cityEco city | 4 |
| Nantong (JS) | 2 | Service city 11Tourism city 10 | Smart city 6Innovation city 5Service city 5 | Service city 42Tourism city 36 | Service cityTourism citySmart cityInnovation city | 4 |
| Zhenjiang (JS) | 2 | Eco city 19Service city 9 | Eco city 27Tourism city 20 | Tourism city 25Eco city 22 | Eco cityTourism cityService city | 4 |
| Wuxi (JS) | 2 | Eco city 15Innovation city 6 | Smart city 10Eco city 9 | Tourism city 17Eco city 11 | Tourism citySmart cityEco cityInnovation city | 4/2 |
| Hangzhou (ZJ) | 2/4 | Service city 18Innovation city 17 | Service city 29Innovation city 15 | Tourism city 10Service city 7 | Service cityTourism cityInnovation city | 4 |
| Huzhou (ZJ) | 2 | Eco city 17Service city 8 | Eco city 15Innovation city 10 | Tourism city 11Eco city 7 | Eco cityTourism cityInnovation cityService city | 4 |
| Jiaxing (ZJ) | 2 | Tourism city 23Eco city 20 | Eco city 13Service city 12 | Tourism city 19Service city 6 | Tourism cityEco cityService city | 4 |
| Taizhou (ZJ) | 2 | Advanced manufacturing city 3 Resilient city 2 | Eco city 6Innovation city 5 | Eco city 11Service city 11 | Eco cityService cityInnovation cityAdvanced manufacturing city | 4/2 |
| Shaoxing (ZJ) | 2/4 | Tourism city 9Eco city 7Innovation city 7 | Smart city 8Eco city 8 | Tourism city 10Eco city 5 | Tourism cityEco citySmart city | 4/2 |
| Ningbo (ZJ) | 2 | Smart city 29Innovation city 13 | Service city 15Eco city 6 | Tourism city 5Service city 5 | Service cityTourism cityEco citySmart city | 4/2 |
| Zhoushan (ZJ) | 4 | Eco city 14Service city 5 | Service city 18Eco city 16 | Eco city 14Tourism city 11 | Eco cityService cityTourism city | 4 |

Table 4c: Ecological modernization pathways and city labels for Bohai Rim cities.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **City (province)** | **Predicted pathway** | **Most frequent city labels in 12th FYP** | **Most frequent city labels in 13th FYP** | **Most frequent city labels in UMP** | **Overall dominant city label(s)** | **Adopted pathway** |
| Beijing | 5 | Innovation city 14Eco city 14 | Eco city 14Innovation city 12Liveable city 12 | Tourism city 32Eco city 26 | Eco cityTourism cityInnovation cityLiveable city | 5/3 |
| Tianjin | 4/2 | Eco city 12Service city 12 | Service city 12Innovation city 12 | Tourism city 13Eco city 13 | Service cityEco cityInnovation city | 4 |
| Shijiazhuang (HB) | 4 | Service city 31Innovation city 18 | Tourism city 13Smart city 12 | Tourism city 7Eco city 7 | Tourism citySmart cityEco cityService city | 4/2 |
| Tangshan (HB) | 2 | Service city 18Eco city 17 | Service city 6Modern agricultural city 4 | Low carbon city 3Innovation city 1Tourism city 1 | Service cityLow carbon cityModern agricultural cityEco city | 4/2/1 |
| Langfang (HB) | 2 | Service city 15Low carbon city 8 | Modern agricultural city 7Service city 6 | Eco city 14Tourism city 6 | Modern agricultural cityEco cityService cityTourism city | 1/4 |
| Qinhuangdao (HB) | 4 | Innovation city 10Tourism city 9Service city 9 | Tourism city 11Eco city 5Smart city 5 | Tourism city 17Eco city 4 | Tourism cityEco citySmart cityInnovation city | 4/2 |
| Baoding (HB) | 2 | Low carbon city 9Eco city 6 | Low carbon city 13Service city 12 | Tourism city 12Eco city 12 | Low carbon cityTourism cityEco cityService city | 4/2 |
| Chengde (HB) | 4 | Tourism city 15Eco city 5 | Tourism city 16Innovation city 6 | Tourism city 4Eco city 1Advanced manufacturing city 1 | Tourism cityInnovation cityEco city | 4 |
| Zhangjiakou (HB) | 4 | Eco city 11Advanced manufacturing city 6 | Low carbon city 5Modern agricultural city 4Resilient city 4 | Tourism city 1Eco city 1 | Low carbon cityModern agricultural cityEco cityResilient city | 2/1/4 |
| Cangzhou (HB) | 4/2 | Advanced manufacturing city 12Eco city 7Service city 7 | Low carbon city 10Tourism city 8 | Eco city 7Service city 6 | Low carbon cityEco cityService cityAdvanced manufacturing city | 2/4 |
| Hengshui (HB) | 4/2 | Eco city 17Liveable city 4 | Modern agricultural city 10Service city 9 | Service city 6Modern agriculture city 6 | Modern agricultural cityService cityEco city | 1/4 |
| Xingtai (HB) | 4/2 | Tourism city 7Eco city 6 | Modern agricultural city 13Low carbon city 10 | Tourism city 6Advanced manufacturing city 3Service city 3 | Tourism cityModern agricultural cityLow carbon cityAdvanced manufacturing city | 1/2 |
| Handan (HB) | 2 | Eco city 9Low carbon city 8 | Low carbon city 12Modern agricultural city 10 | Tourism city 3Liveable city 1 | Tourism cityLow carbon cityModern agricultural cityEco city | 1/2 |
| Anyang (HN)  | 2/4 | Service city 16Eco city 11 | Modern agricultural city 8Resilient city 8 | Tourism city 5Service city 2 | Tourism cityModern agricultural cityService cityResilient city | 1/4 |