

**Megaregions & Transportation Symposium**

# **Regional Planning in China:**

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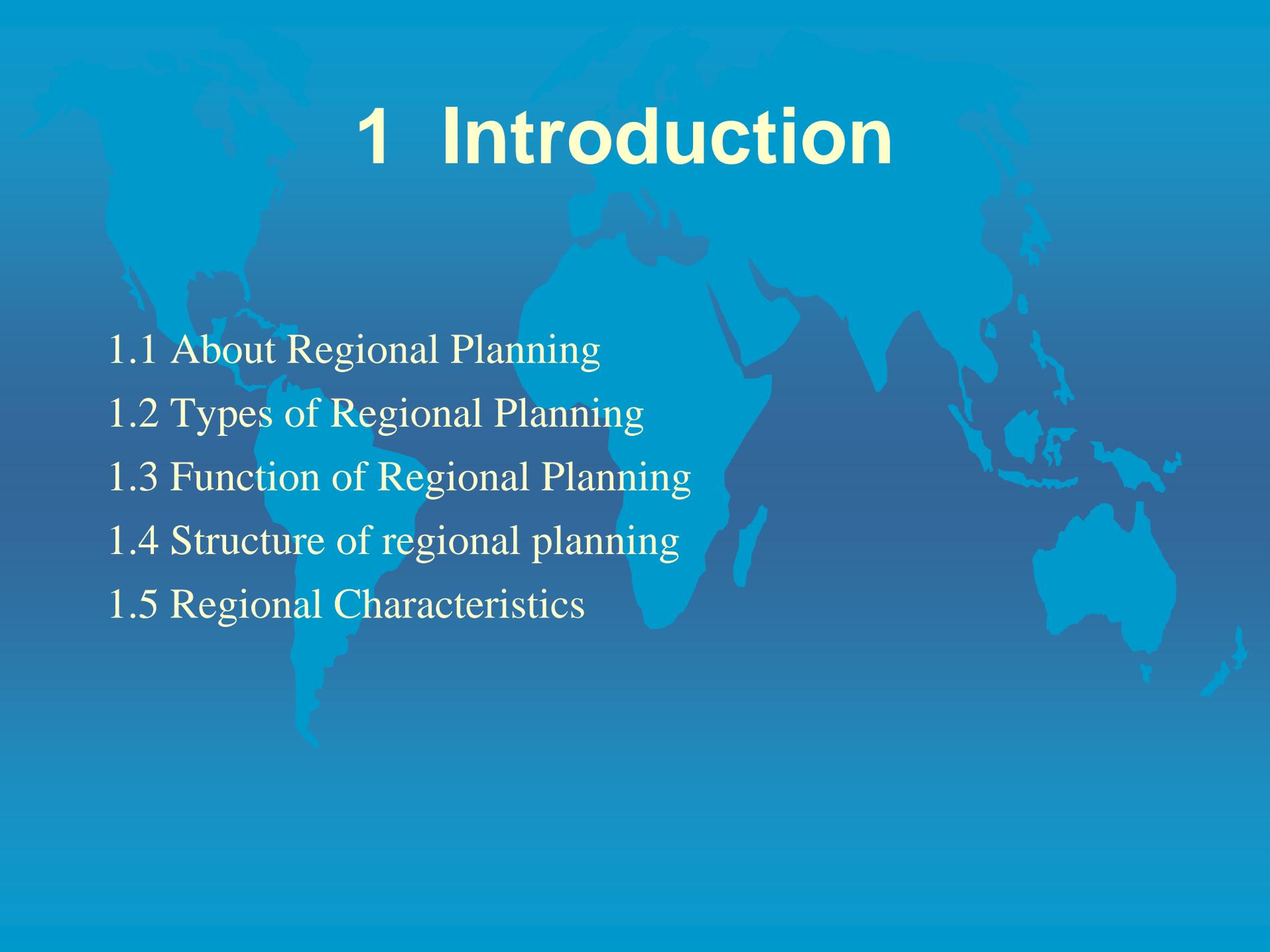
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# Outline



- **1. Introduction**
- **2. Review of Regional Planning in China**
- **3. Strategies for Regional Planning**
- **4. Trends in Regional Planning**
- **5. Conclusion & Discussion**

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# 1 Introduction

- 1.1 About Regional Planning
- 1.2 Types of Regional Planning
- 1.3 Function of Regional Planning
- 1.4 Structure of regional planning
- 1.5 Regional Characteristics

# 1.1 About Regional Planning

**Regional planning, originated from productivity allocation planning, refers to the spatial arrangement of industries, urban settlements, major infrastructures and environmental protection in a certain geographic area, which coordinates the interests of various departments and regions, as well as the relationship amongst economic, social and environmental factors, aiming at exerting the comparative advantage of the regions, and realizing sustainable development.**

## 1.2 Types of Regional Planning

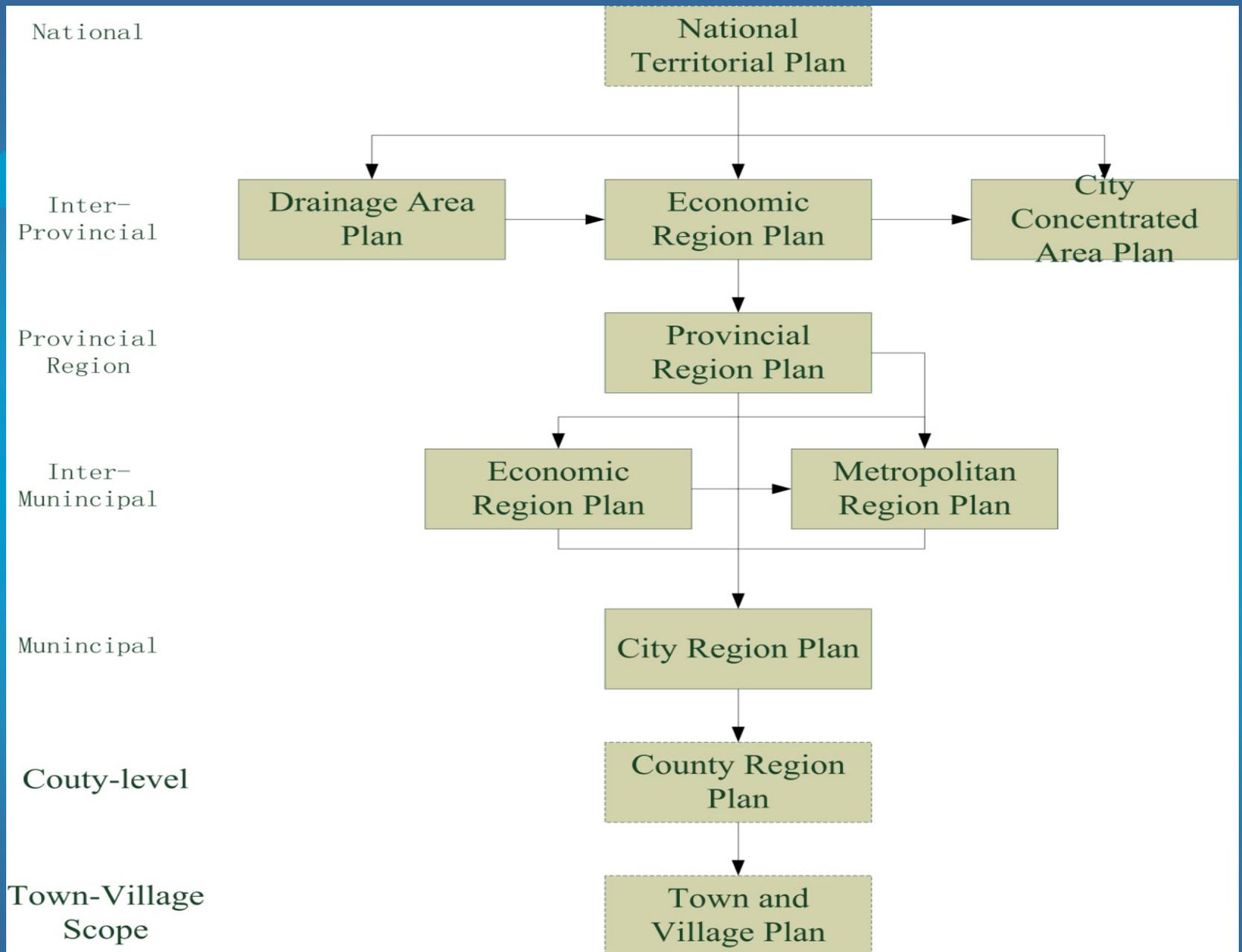
- **Administrative division-based:**  
Provincial, City Region.....
- **Drainage area-based:**  
Yangtze River, Yellow River.....
- **Economic region-based:**  
Breaks up administrative division, close economic relation within the area
- **Industry type-based:**  
Agricultural Area, Mining Area.....

## 1.3 Function of Regional Planning

- An important basis of the national middle and long term economic planning;
- Instrument for coordinated development , enhancing economic competitiveness ;
- Measure for macro-control;
- Focuses on economic regions, not administrative boundaries;
- Precondition and basis of urban planning;
- Major changes in the government's economic functions requires regional planning to change from rigid instruction to more flexible guidance.

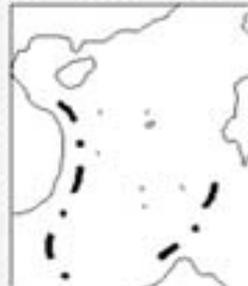
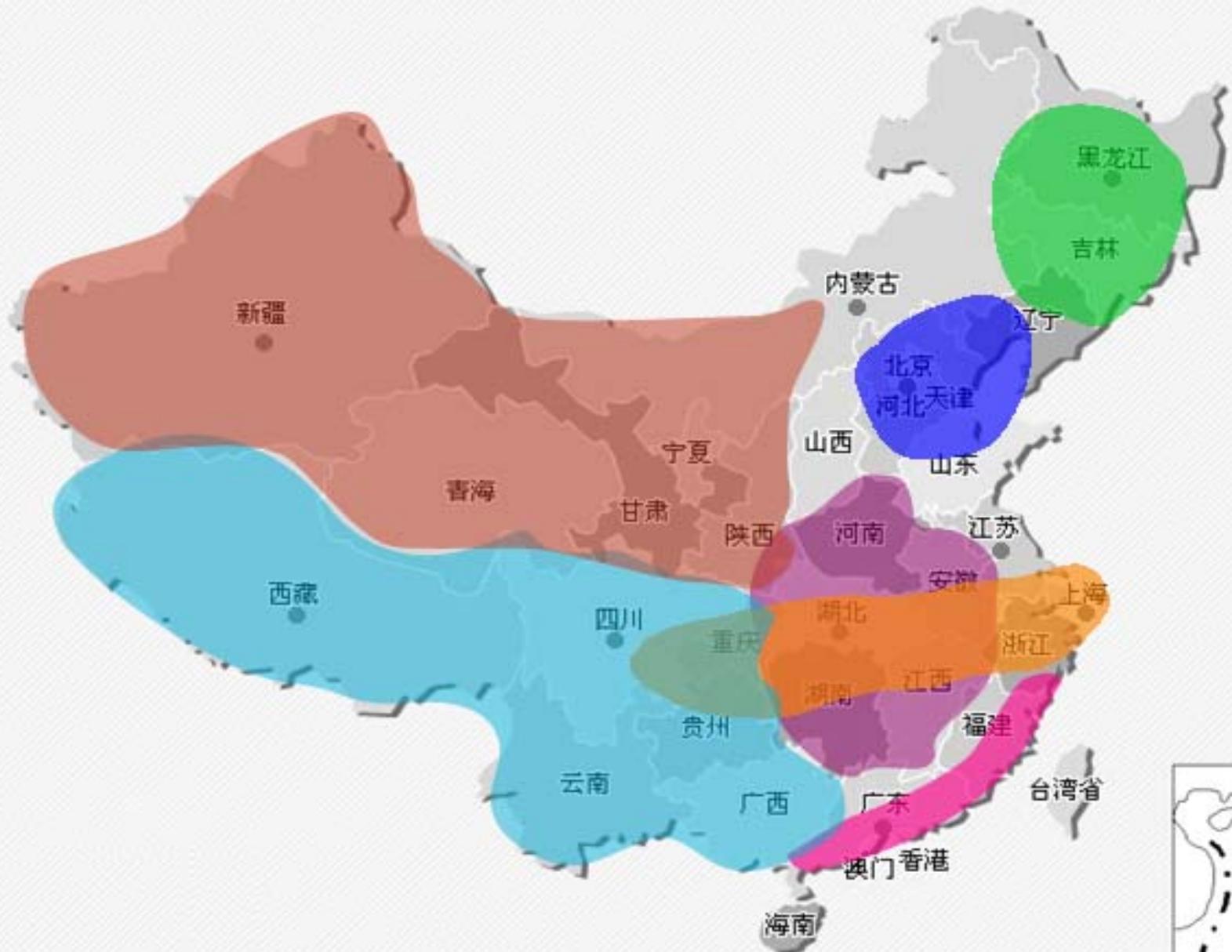
# 1.4 Hierarchy of regional planning

- The government is still playing a leading role in the process of land acquisition and transfer;
- China's policy on arable land protection and management has been increasingly stringent, thus a scientific and reasonable spatial planning is the precondition of acquiring agricultural land for construction uses.
- The government has much less power on the approval of projects and investment, making spatial planning an important tool for macro-control, hence the relevant departments competed for dominance in spatial planning;
- The Ministry of Construction, Ministry of Land and Resources and State Development and Reform Commission all carry out similar regional planning although their concerns are different.



# 1.5 Regional Characteristics: Economic Regions

- Economic regions is defined according to the characteristics and potentials of the economic, social and ecological environment of each region, it is the description of the current status of regional development of China.
- Widely accepted division :
- Bohai Rim;
- Northeast;
- Yangtze River Delta & Yangtze River Basin;
- Five Middle Provinces (Anhui, Henan, Jiangxi, Hunan, Hubei);
- Southeastern Coastal Region;
- Great Southwest Region;
- Northwestern Region.



# 1.5 Regional Characteristics: Urban Agglomerations

- (1) **Beijing-Tianjin-Tangshan agglomeration;**
- (2) **The Yangtze River delta agglomeration**
- (3) **The Pearl River delta agglomeration**
- (4) **Shandong peninsular agglomeration**
- (5) **Middle and Southern Liaoning agglomeration**
- (6) **West coast of Taiwan strait agglomeration**



## 2. Review of Regional Planning in China



2.1 Balanced development strategy

2.2 coastal-priority strategy

2.3 Battling the widening gap

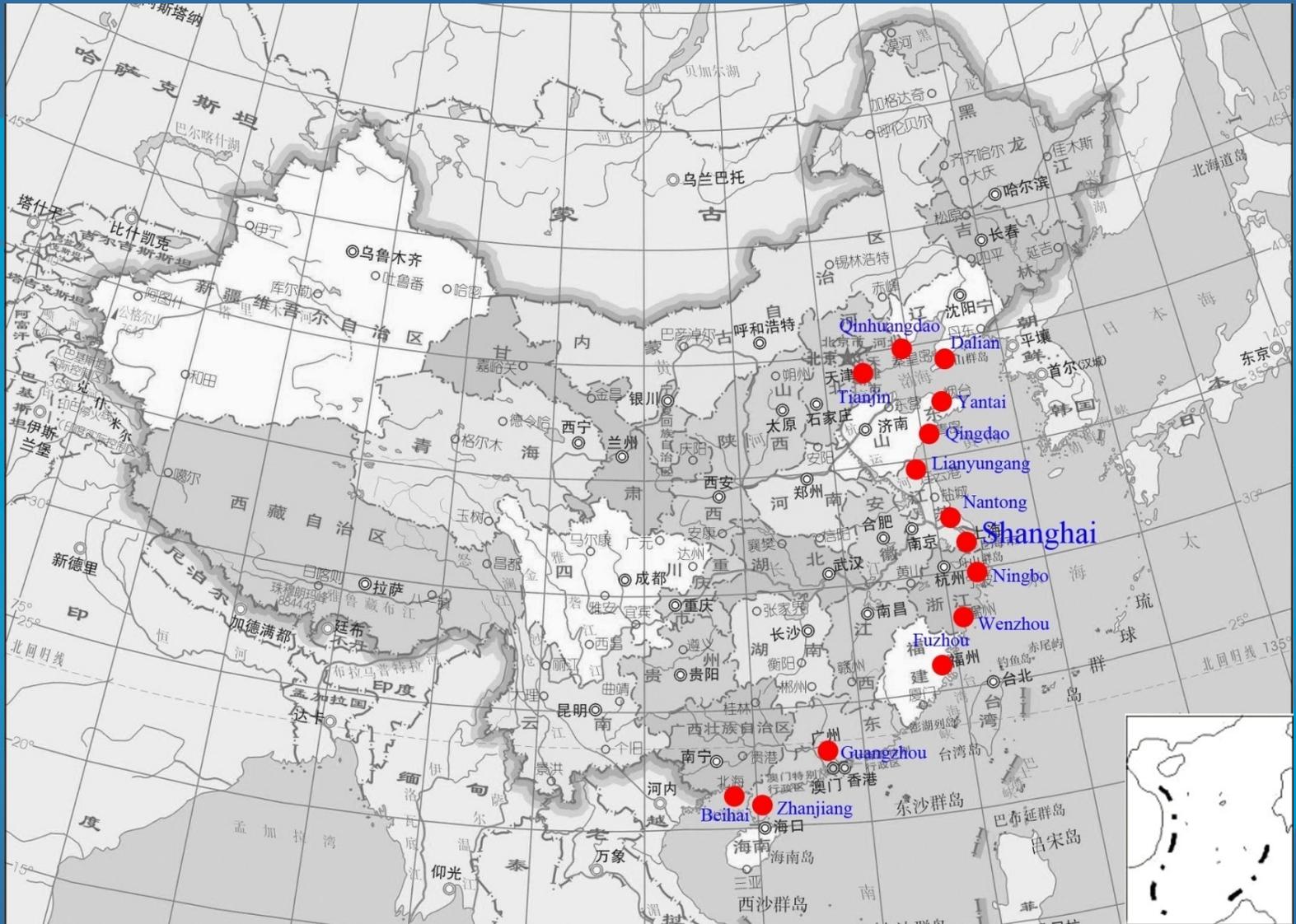
## 2.1 Balanced development strategy

- Balanced development strategy: allocation of resources by administrative directions to raise the economy of backward regions;
- During the first five year plan (1952-1957), almost two thirds of the main projects was located in the inland areas of China, and Statistics shows that 60.5% of the total investment of the country went to inland areas during 1971-1975;
- Coastal regions still contributed most of the total industrial output despite unfavorable investment conditions(in 1983 this figure was 60%).
- In 1983, the inland areas produced 40% of the total industrial out with 57% of the total fixed assets, reflecting the lack of efficiency.
- The experience of regional planning of USSR had much influence on China.



## 2.2 Coastal-Priority strategy

- Lesson from “haste makes waste”; starting from the 6th five year plan to 1990s;
- Deng Xiaoping’s Non-balanced strategy, four intensions: 1. exert the comparative advantages regions. 2. Adopting preferential policies to the coastal.3. the self-reliance of the backward;4.Belief in “trickling down effect”
- The realization of importance of territorial planning;
- Fourteen coastal open cities;
- 1986-1987, general national territorial planning with reference to the experience of Japan;
- Provincial and city level territorial planning was launched in many provinces, which lasted until 1991;
- The lack of legal status of regional planning;
- Significance of regional planning of this period.



## 2.3 Battling the widening gap

- Widening gap amongst the east, middle and western regions since 1990s;
- Decentralization of powers, less instruments to reduce regional gaps;

Year	Absolute gap		Rate(west as 1)	Percentage
	E and M	E and W	E:M:W	E:M:W
1978	147	206	1.82:1.24:1.00	
1980	183	255.4	1.81:1.23:1.00	51.13:30.20:18.6
1985	281	411	1.72:1.23:1.00	51.96:29.69:18.35
1990	695	881	1.82:1.17:1.00	52.64:28.36:18.99
1995	3114	3897	2.32:1.26:1.00	55.54:26.09:18.37
2000	5352	6647	2.42:1.28:1.00	57.29:25.58:17.13
2004	8736	10998	2.52:1.31:1.00	60.4:26.4:13.2
2006	12426.81	15421.24	2.50:1.29:1.00	61.7:25.3:12.9

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- **The revitalization of the northeast;**
  - **Western development;**
  - **Uplift the middle;**
  - **Optimization and upgrade of the industrial structure of the east, strengthening international cooperation.**

# 3.Strategies of Regional Planning



3.1 Point-axis theory and T-strategy

3.2 “ $\pi$ ” strategy

3.3 Point, Cluster, Axis and Belt

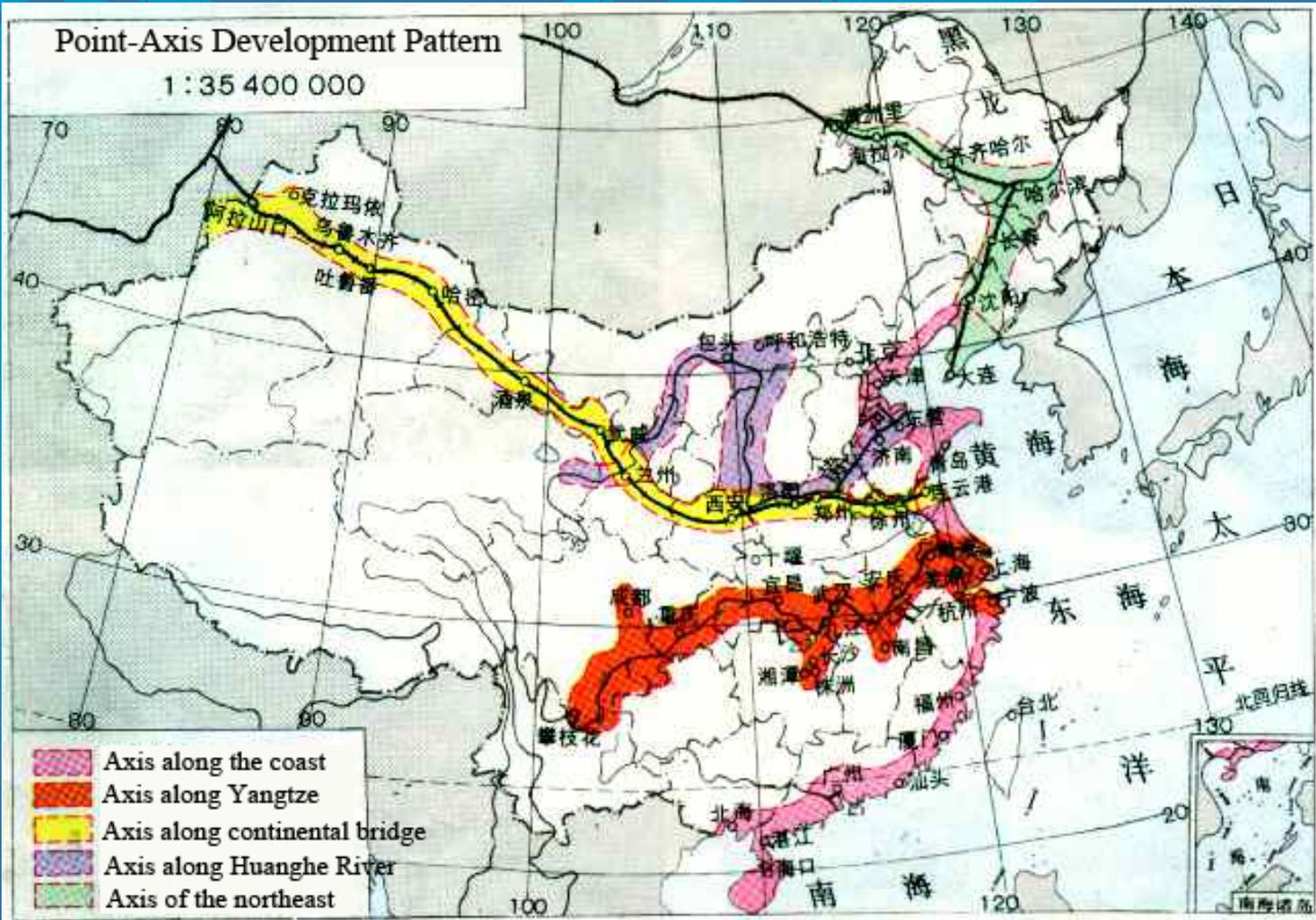
## 3.1 Point-axis theory and T-strategy

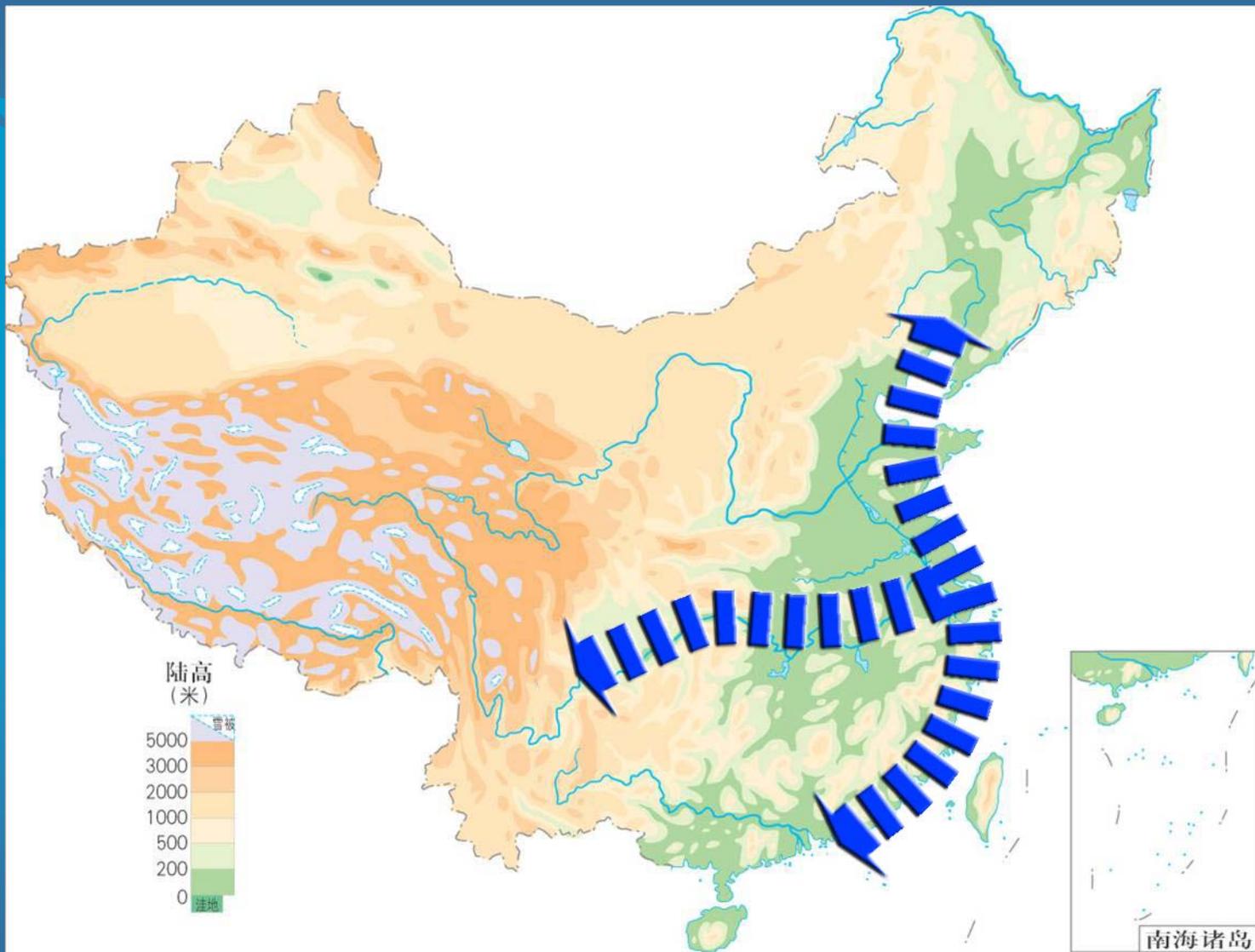
**Point-axis theory (Lu Daodao,1984) refers to targeted development that defines several linear infrastructure axis with favorable development conditions within the whole country or a specific region, and develop the central cities, i.e. points of the axis with priority;**

**T-shape strategy Deemed that that coastal areas of the east and the areas along the Yangtze river have superior geographical location, solid economical and technological foundations and fine transportation system, and thus these areas should be the first-class development axis of the country, with emphasized development and distribution, to realize the optimum spatial layout.**

# Point-Axis Development Pattern

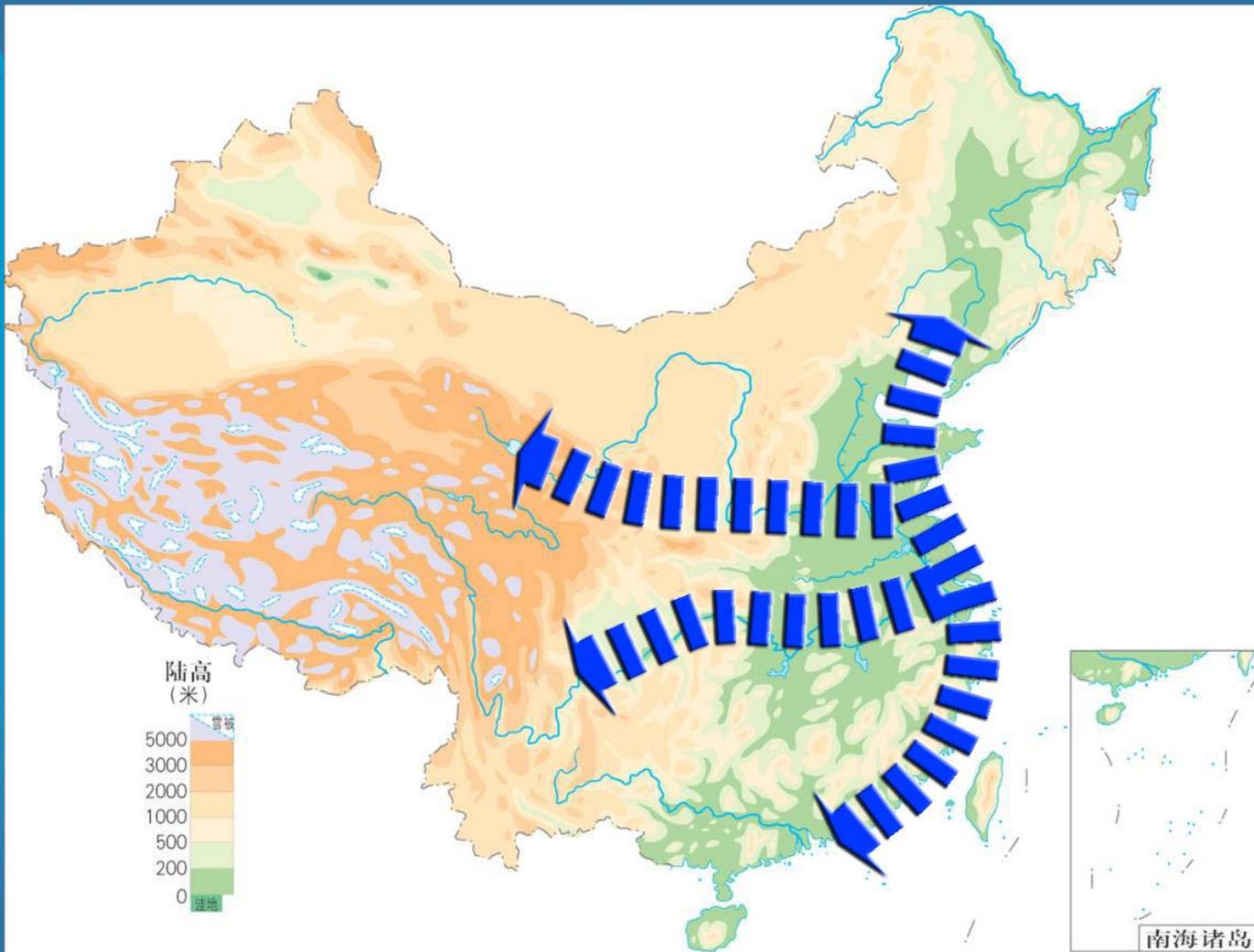
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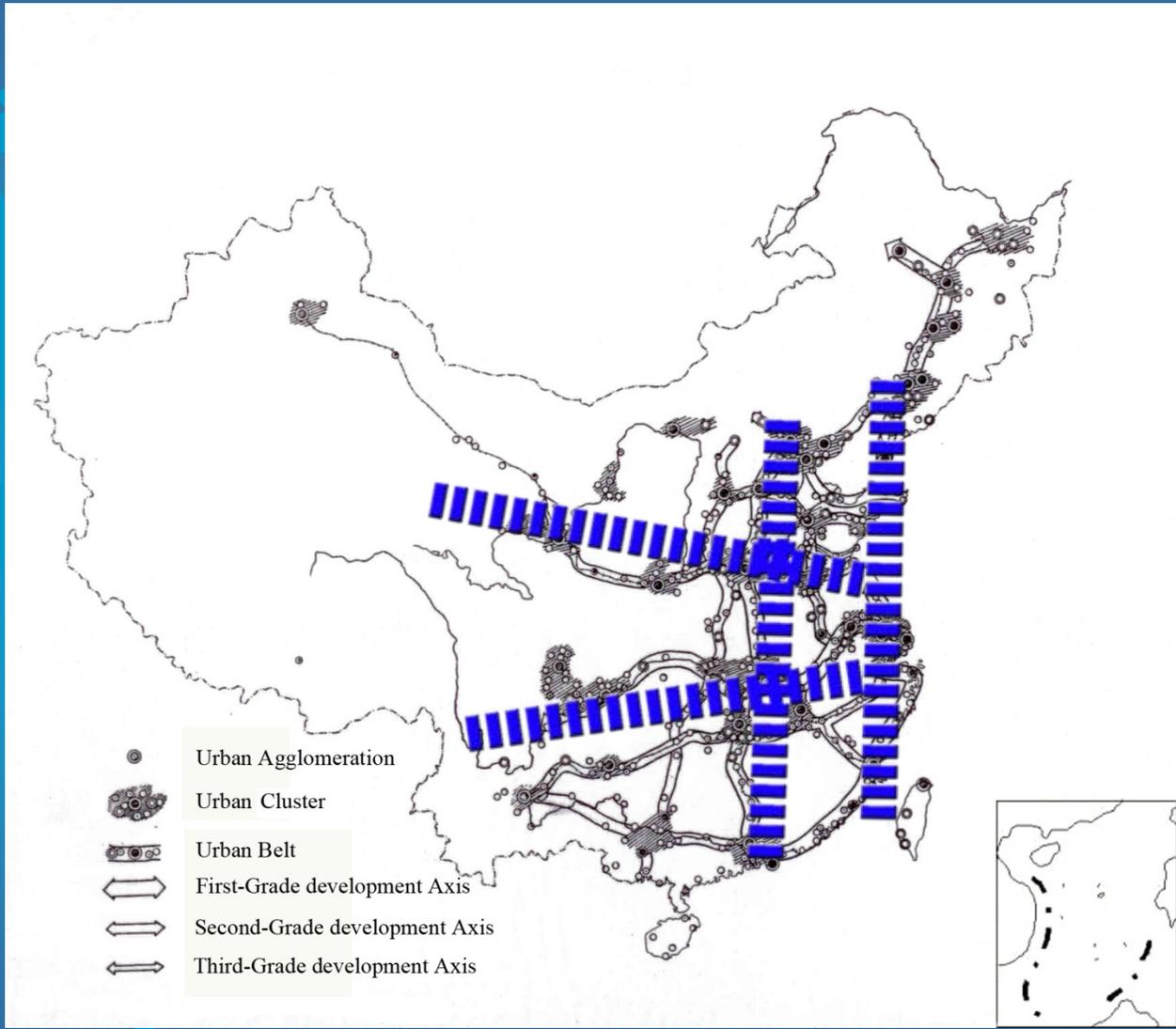
## 3.2 “π” strategy

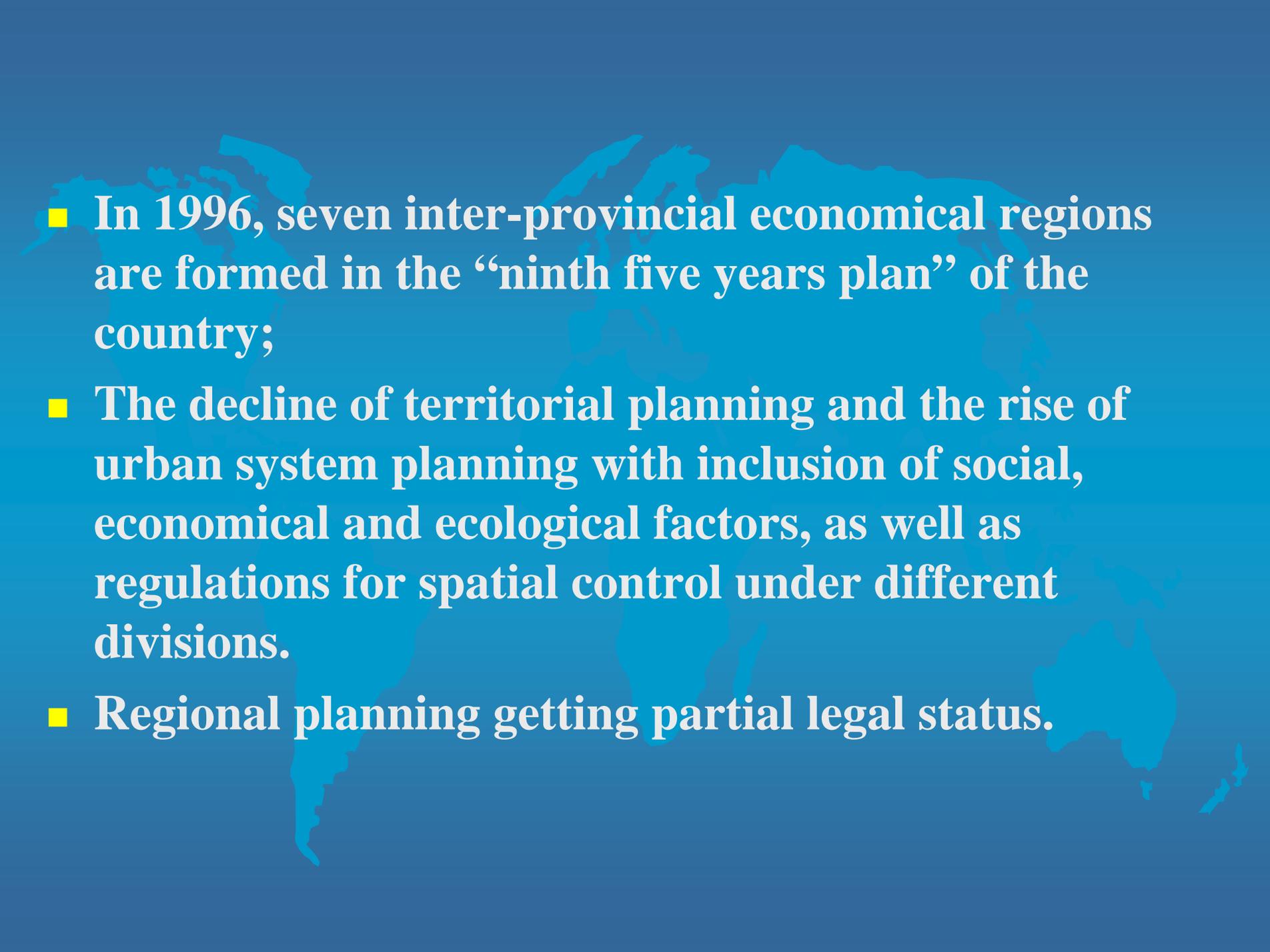
- “π” strategy proposed that besides the coastal and Yangtze River, the traditional LongHai-LanXin railway should be another developing axis.
- The “π” strategy would strengthen the communication between the coastal and inland areas to realize coordinated development amongst the east, middle and western regions.



## 3.3 Point, Cluster, Axis and Belt

- Feng Chang-Chun (1987) proposed the distribution network of cities and towns with the combination of point, group, axis and belt.
- **Point**: Central cities as core of different levels of economic regions.
- **Cluster**: urban agglomeration, or city and town concentrated area.
- **Axis**: transportation routes consisted of railway, expressway, waterway and seaway, connecting the cities and urban agglomerations, enhancing the exchange and relationship of the cities to facilitate their development.
- **Belt**: industrial belts along the transportation axes, as well as urban belts developed from points and clusters.
- The “开” shape strategy, adding the Beijing-Kowloon railway and Beijing-Guangzhou railway as an important development axis, to uplift the potentials of the central area.



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- **In 1996, seven inter-provincial economical regions are formed in the “ninth five years plan” of the country;**
  - **The decline of territorial planning and the rise of urban system planning with inclusion of social, economical and ecological factors, as well as regulations for spatial control under different divisions.**
  - **Regional planning getting partial legal status.**



## 4 Trends in regional planning

**4.1 Change of Planning Ideology**

**4.2 The adjustment of spatial planning strategy**

**4.3 Implementation of spatial governance theory**

**4.4 Transportation and urban development in the Beijing-Tianjin mega-region**

# 4.1 Change of Planning Ideology: Case of the Yangtze River Delta

- At the estuario of the Yangtze river and Hangzhou Bay, including Shanghai, Jiangsu Province and Zhejiang Province, with Shanghai as the economic center of the region.
- The overall GDP of this region is 348 billion USD in 2004, and the per capita GDP is 4247 USD. The Yangtze River delta is highly urbanized with comparison to other regions of China, with 57.1% of the population living in urbanized areas.
- With one municipality and two provinces, and disparities within the region, it is very important for the governments to cooperate in areas such as infrastructure construction, environmental management, the free flow of economic resources and policy-making for industrial development.

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- **From self-development to multilateral interaction and consultations;**
  - **From industry convergence to functional inter-reliance;**
  - **Integrated regional planning and Coordinated urban-rural development;**
  - **From single economic goal planning to multi-goal comprehensive planning.**



Kunshan

Shanghai

Jiaxing

Shanghai-Hangzhou Expwy

乍浦

Hangzhou Bay Bridge

36KM

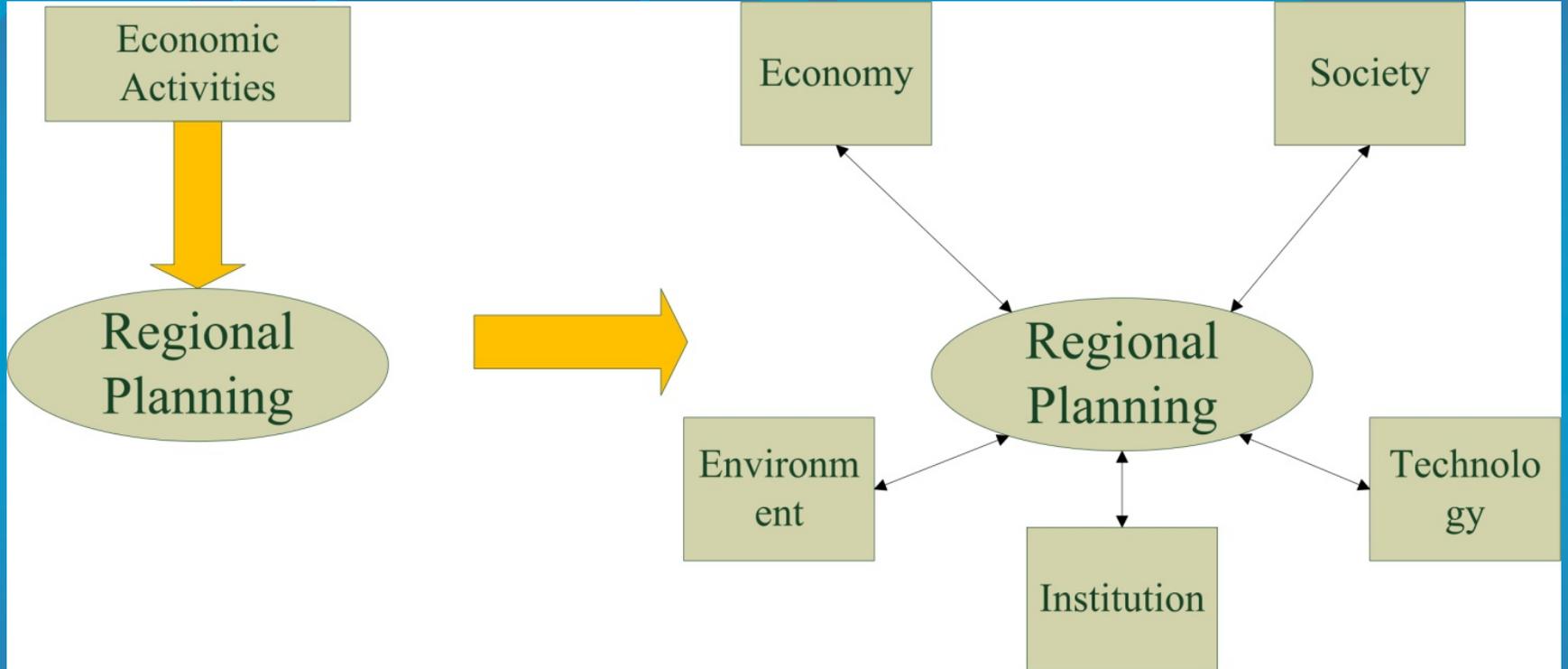
Hangzhou

杭州湾

Hangzhou-Ningbo Expwy

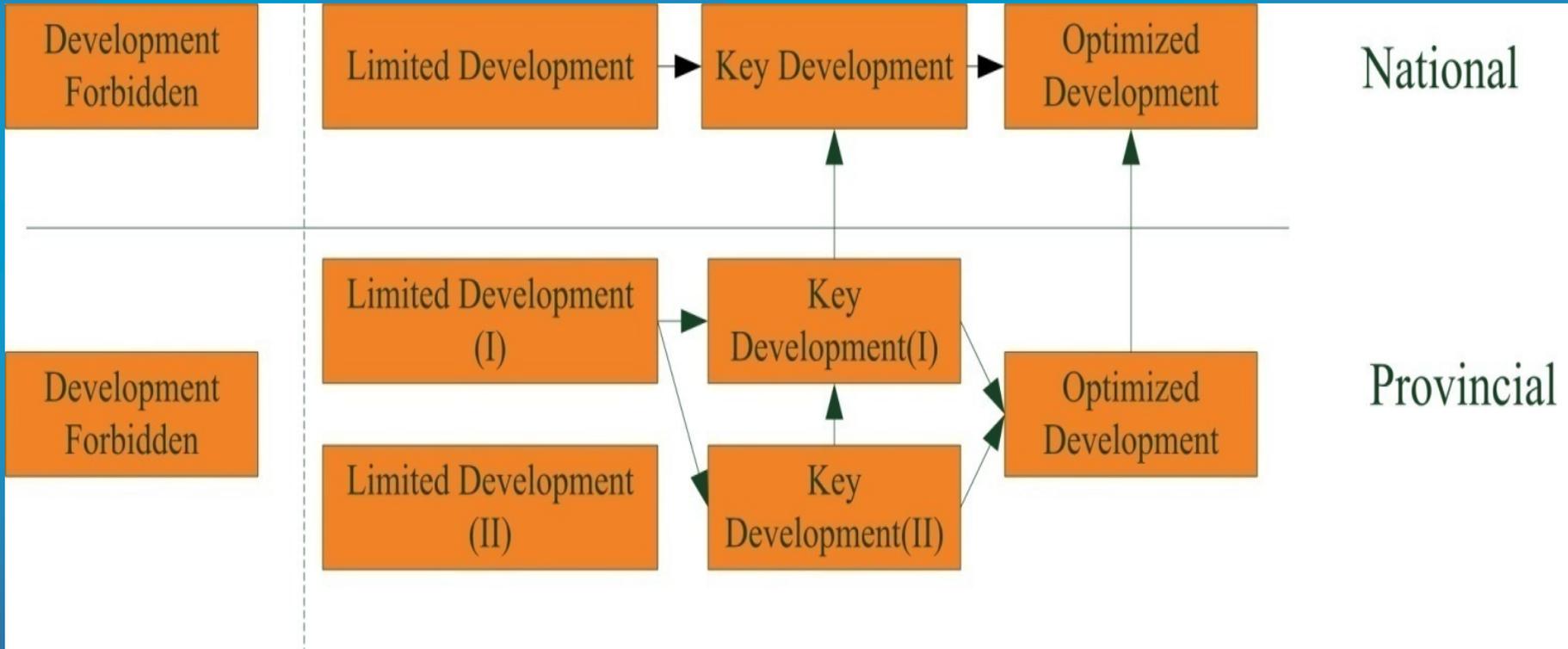
北仑港

Ningbo



## 4.2 The adjustment of spatial planning strategy: Main-functional zone division

- ❑ "The Eleventh Five-year Plan" of the country divides the national territory space into four kinds of main-functional regions: the optimized developing area, the key developing area, the limited developing area and the forbidden-to-develop area, with the main aim of:
  - ❑ Relieve the problem of the gradually aggravated limitation of resource and environment;
  - ❑ Proper breakup of administrative division, enhancing the spatial management of the national territory;
  - ❑ Plan the region as a whole to improve the development efficiency;



## 4.3 Implementation of spatial governance theory : the Pearl River Delta

- Regional spatial governance is the foundation of the principal, policies and the coordinated development of urban agglomeration. Governance is the expanding and development of modern management which emphasize the communication, coordination and cooperation of multi-structures or multi-groups in order to promote the inter-regional or inter-industrial cooperation and development.
- The Pearl River delta urban agglomeration is a region with the most crowded of towns, highest urbanized level and most dense of economical factors. But there are tremendous disparities of social, economical and urban construction conditions within the region.
- Although the region's core competence has formed and has its own position on both inner and international production and service link, the high speed development of urban economy has brought lots of problems such as urban-rural social gap, resource and ecological deterioration and the disordered competition among cities in the region.



肇慶  
Zhaoqing

佛山  
Foshan

廣州  
Guangzhou

東莞  
Dongguan

惠州  
Huizhou

深圳  
Shenzhen

中山  
Zhongshan

江門  
Jiangmen

香港  
Hong Kong

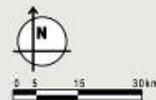
澳門  
Macao

珠海  
Zhuhai

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- **The Pearl River Delta Urban Agglomeration Coordination Development Planning (2004-2020) carried out spatial governance by policy zoning.**
  - **Targets include economy development, social advancement, sustainable use of resource, ecology reservation and sustainable development potential, etc.**
  - **Attempted to find a balance between market and government management, equity and efficiency of regional development, efficient development and sustainable use of resource.**
  - **The incorporation of spatial governance.**
  - **The region was divided into nine policy zones basing on the economy, society, economy environment and industry, transportation development and also on the need to promote and upgrade different types of urban areas in the region.**
  - **Each zone had respective spatial governance, guiding and control requirement which made the planning operable.**

# 珠江三角洲城镇群协调发展规划 (2004-2020)

## 发展政策区划



## 图例

- 区域绿地
- 经济振兴扶持地区
- 城镇发展提升地区
- 区域性基础与重型产业集聚区
- 区域重大交通通道地区
- 区域重大交通枢纽地区
- 城际规划建设协调地区
- 粤港澳跨界合作发展地区
- 一般性政策地区

## 委托单位

广东省人民政府

## 编制单位

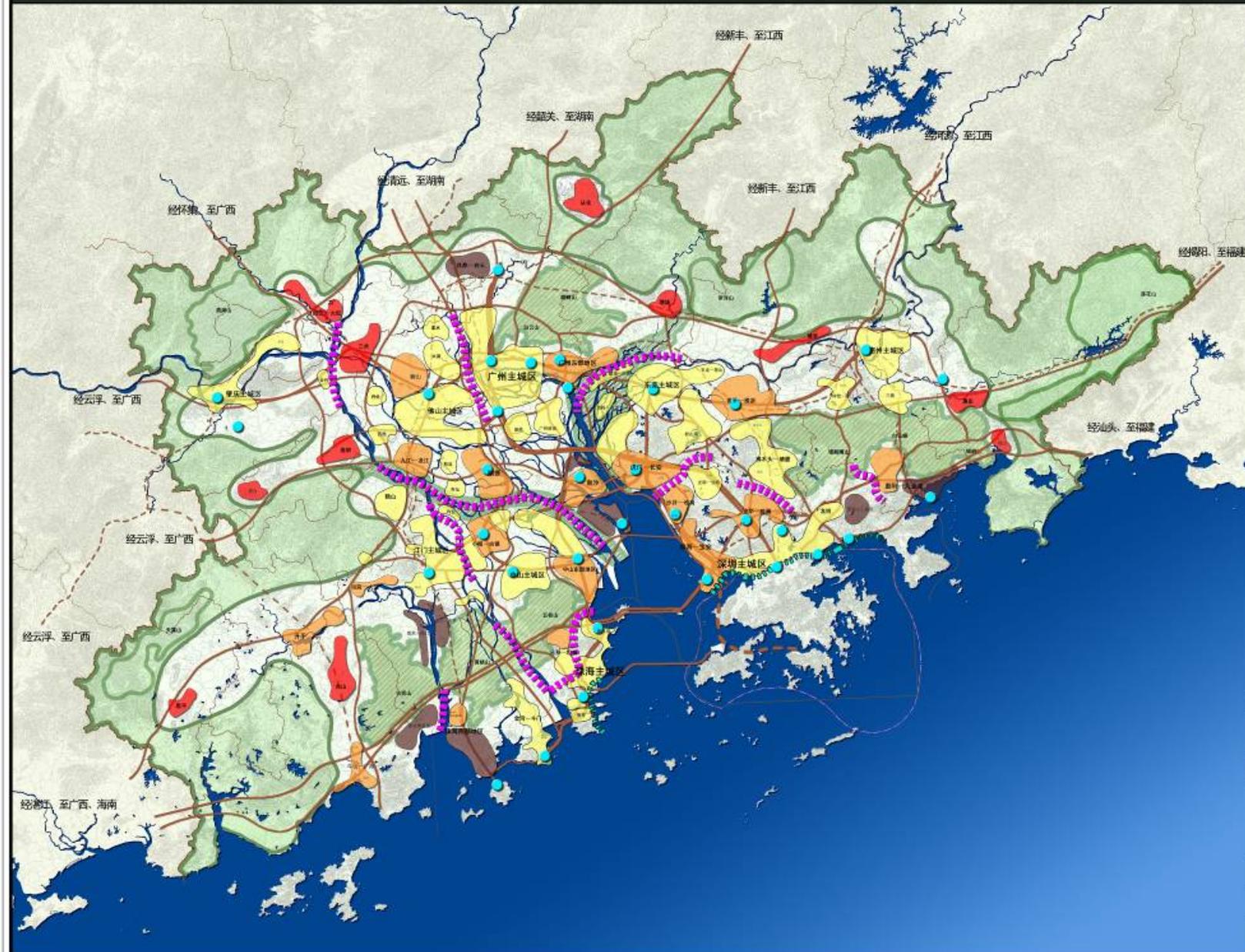
中国城市规划设计研究院  
广东省城乡规划设计研究院  
深圳市城市规划设计研究院

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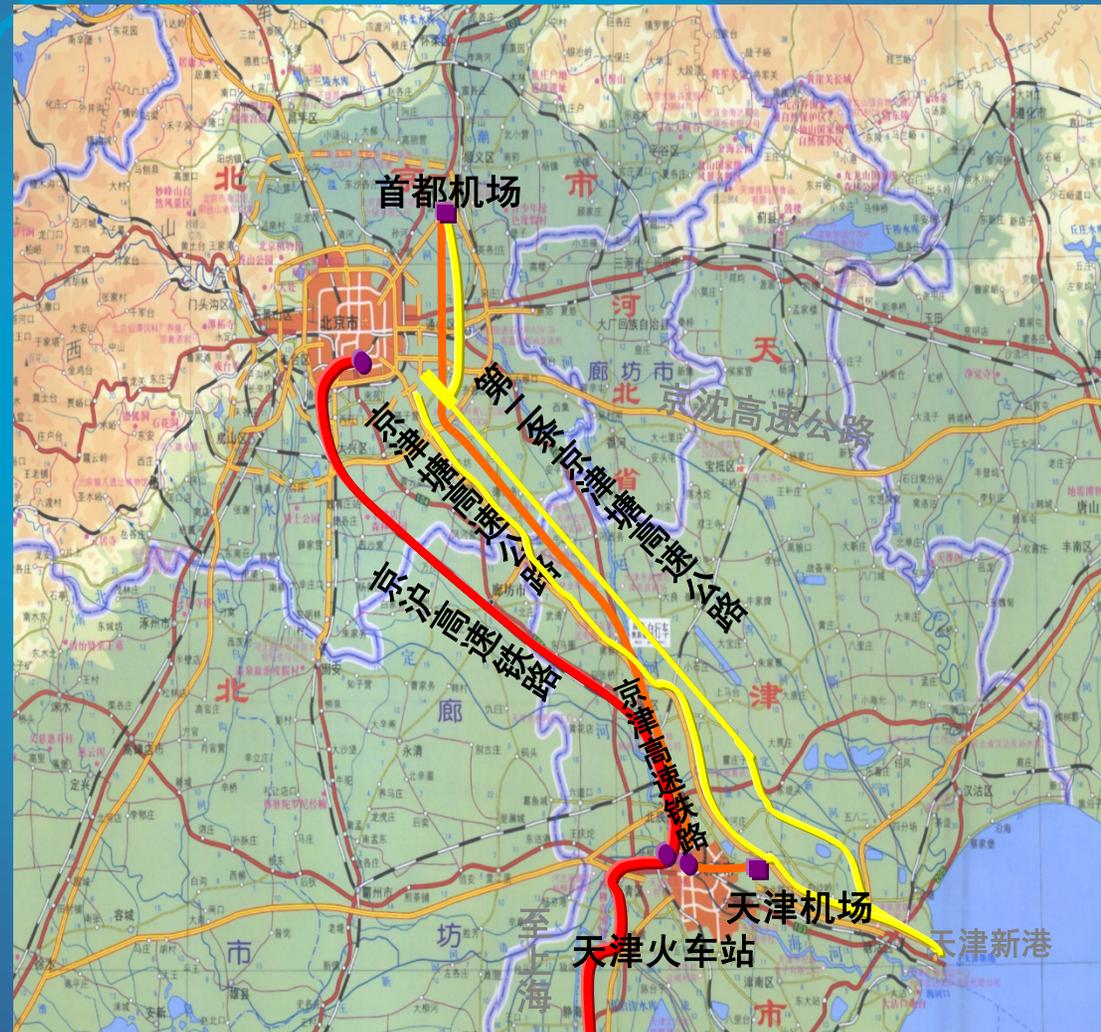
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## 4.4 Transportation and urban development in the Beijing-Tianjin Megaregion

Transportation network as the skeleton of the Beijing-Tianjin Mega-region, in which there are expressways, high-speed rail lines, airports and central railway stations.



Distribution of towns and industries along the transportation axis, with respect to their comparative advantage.



# Conclusion

- **Regional Planning in China concerns about the spatial arrangement of industries, urban settlements, major infrastructures and environmental protection in a certain geographic area.**
- **Regional Planning solves different problems within different hierarchy.**
- **Regional planning in China experiences three stages as following: balanced strategy, non-balanced strategy and coordinated development strategy.**
- **Infrastructure construction is the precondition of mega-region and metropolis development.**

# Discussion

- **Balanced or Non-balanced?**
- **In which level is regional planning most effective?**
- **How does transportation play a role in the development of mega-region?**