

Framework and Feature of *Main-Function-Zone Planning* in China

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Outline

1. The Category and Definition of Main-Function-Zone in China

2. The Features of Main-Function-Zone Planning in China

3. The Principles of the Making of Main-Function-Zone Plan in China

4. The Deployment of the Main-Function-Zone Planning in China

1. The Category and Definition of Main-Function-Zone in China

■ **Optimized Development Zone:** areas with higher land development density and weakening carrying capacity of resource and environment.

——to change the mode for achieving faster economic growth depending on a large number of land occupation, a lot of resources consumption and pollution emissions;

——to take the enhancement of growth quality and efficiency as the primary task, and to enhance the level of participation in the global division of labor and competition.

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- **Key Development Zone:** areas with higher carrying capability of resource and environment and better agglomeration conditions for economy and population.

——To enrich the infrastructure, to improve the conditions for investment and business, to promote the industrial clusters, to strengthen the economic scale, to speed up industrialization and urbanization, to undertake the industrial transfer from *Optimized Development Zone* and the population migration from *Limited Development Zone* and *Prohibited Development Zone*;

——To gradually become an important carrier to support national economic development and population concentration.

■ **Limited Development Zone:** areas with more fragile carrying capacity of resource and environment, no good enough conditions for large-scale gathering of economy and population, and being related to national or large regional ecological security.

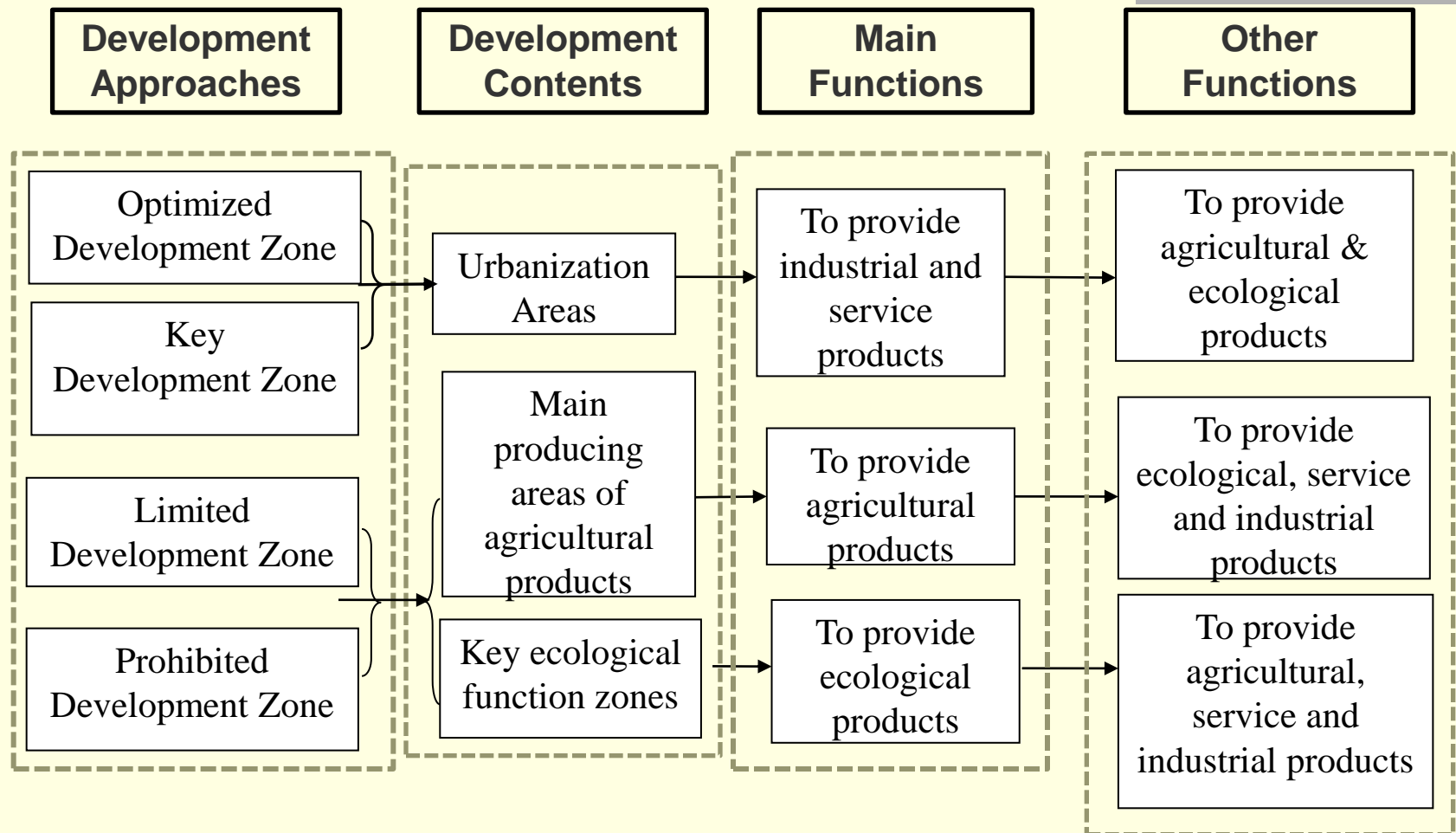
——To insist on the principle of “conservation priority, appropriate development, point-like development” , to develop the specialty industries according to the local carrying ability of resource and environment, to strengthen ecological restoration and environmental protection, to guide the overloading population gradual and orderly transfer;

——To gradually become the national or regional ecological functional zones.

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- **Prohibited Development Zone:** the different types of areas established for nature conservation by laws, mainly including nature conservation areas, scenic spots, cultural heritage protection areas, forest parks, geological parks etc.

——To implement mandatory protection in accordance with the laws and regulations and plans to control the human interference to the natural ecology and to prohibit the development activities which are not in line with the developing functional position.

Mechanisms on Four Category Main-Function-Zones



Territory spatial developing goal in national plan on main-function-zone

Index	2008	2020
Development Intensity (%)	3.48	3.91
Urban space (10,000 sq km)	8.21	10.65
Rural residential area (10,000 sq km)	16.53	16
Amount of cultivated land (10,000 sq km)	121.72	120.33
Amount of forest land (10,000 sq km)	303.78	312
Forest coverage (%)	20.36	23

2.The Features of Main-Function-Zone Planning in China

■ **Basic:**

- The basis for formulating national economic and social development strategy and plans at the macro level;
- The basis for project layout, urban construction and population distribution at the micro level.

■ **Comprehensive :**

——To take all factors, such as the natural, economic, social, cultural and other factors, into consideration, including the carrying capacity of resource and environment, the current development density, development potentiality etc..

■ **Strategic:**

——The plan is related to the long-term development of national spatial layout, and should remain stable to play the role of strategic program over long period.

■ Restrictive:

——To outline the Green Line, Red Line, Yellow Line and Blue Line for territory development space, reflecting *the Space Governance*

——To implement the idea of governance: the restrictive development for large-scale industrialization and urbanization activities.

Developing Functional Zones

General functional zones

Special functional zones

The division for Developing Functional

Natural division

Administrative division

Economic division

The National Plan for Developing Functional Zones

Land use plan

Urban and rural plan

Other special plans

The development Plan for each developing Functional Zone

The development plan for Optimized Development Zone

The development plan for Key Development Zone

The development plan for Limited Development Zone

The development plan for Prohibited Development Zone

3.The Principles of the Making of Main-Function-Zone Plan in China

(1)The principle of territory partially covered

—— Theoretically, zoning is the concept of covering the entire territory of a country; main-function-zone should be to achieve full coverage of the territory in the long run (including the 9.6 million sq.km land and 3 million sq.km sea).

—— In view of this stage of China's economic development level, the status quo of territory spatial development, government financial resources and management tools, territory partially covered should be more feasible and effective.

——Finally , We adopted the territory coverage program of “partial-coverage at the national level, full-coverage at the provincial level”.

(2) The principle of basically relying on the administrative division

——Theoretically, main-function-zone should not be confined to the administrative division but to be divided according to the natural, economic and social factors.

——It is difficult to promptly adjust the regional economy system which has long been dominated by administrative division in China.

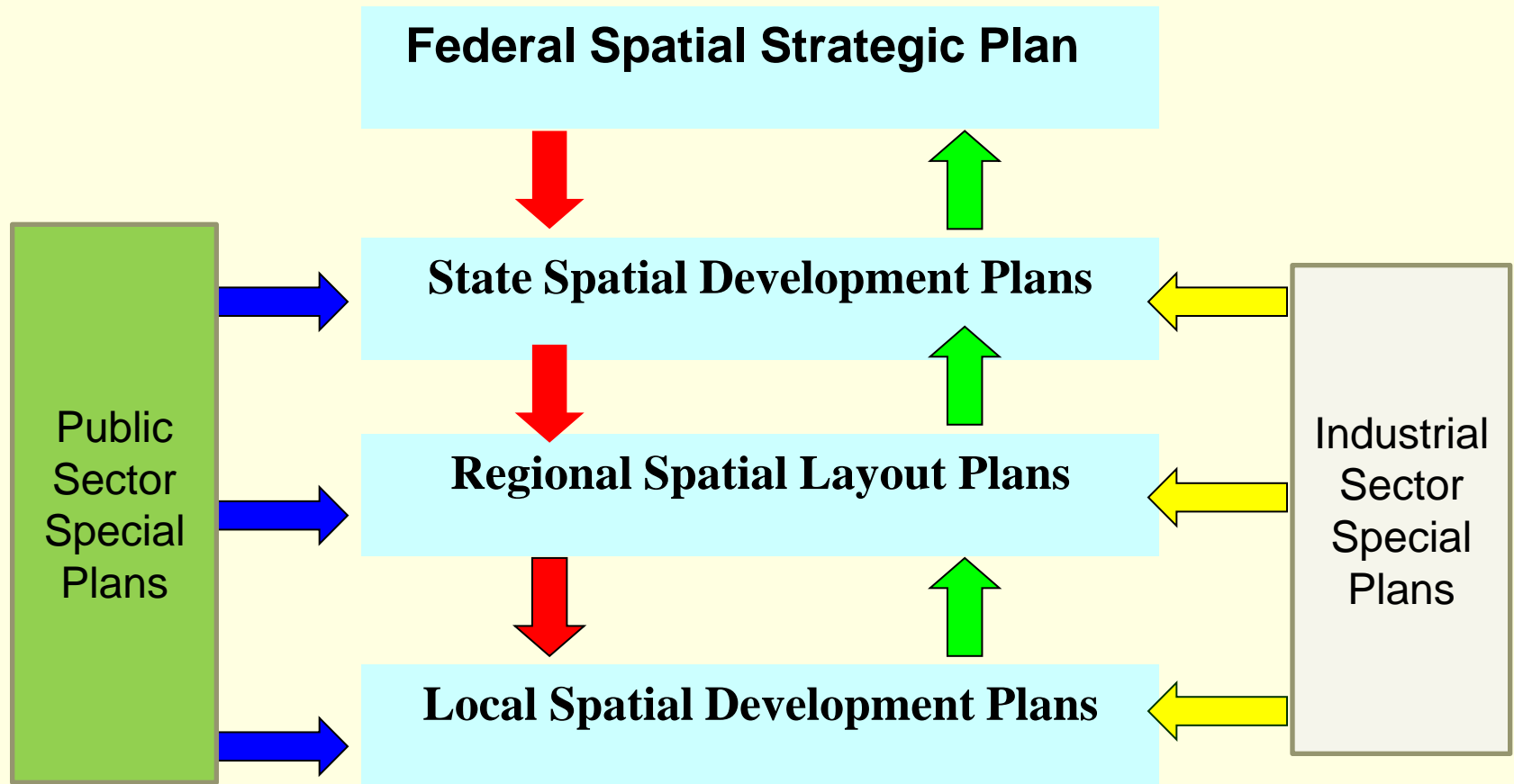
——It is scientific and rational in theory to completely broke the restriction of administrative division but it will be lack of the body of implementation and supervision in the practical applications.

——Therefore, based on the existing administrative divisions, some zones, especially such as *limited development zone* and *prohibited development zone*, should be planned when the administrative divisions need be moderately broken.

(3) The principle of top-down deployment and interaction between “top” and “down”

- Generally, according to the international experience, the standard zoning for the purpose of data statistics and information gathering should follow the bottom-up approach, while the problem areas' division for the purpose of the formulation and implementation of regional policies often follows the top-down approach.
- Because the main-function-zone planning is characterized by overall situation, conduct, restriction or enforcement, its division should follow the top-down approach.
- At the same time, it is necessary to allow some provincial regions to launch pilot for exploration and feedback through the bottom-up approach to facilitate the interaction between top and down (first 8 provincial pilots).

The interaction and response between “up” and “down” of spatial plan system in German



(4)The principle of both scientificness and feasibility

- Criteria formulation, indicator selection, data processing;
- Modern means of science and technology, such as 3S (RS,GIS,GPS) etc..
- To rely on administrative division; to consider the implementation and supervision bodies and their methods .
- To choose the concise, practical, accessible and comparable index.

(5) The Principle of dynamic adjustment

- The unit, boundary, scope, and functions of main-function-zone should keep changing with the economic and social development.
- Appropriate assessment and evaluation system should be established to supervise the regional development activities and the timely feedback and corrective mechanisms also should be set up to provide the basis for the adjustment of the divisions of the main-function-zones.
- The division for main-function-zone will be the strategic plan and layout arrangements for the spatial development in the medium and long term, so it should remain relatively stable but not too frequent adjustments and changes.

4. The Deployment of the Main-Function-Zone Planning in China

(1) To establish both national and provincial planning system for main-function-zone

- In view of the effectiveness and operability of policy implementation thereafter, both the national and provincial planning systems for main-function-zone, mainly based on the central and provincial governments' regulations, should be established.
- Some divided specific blocks can be considered in the city and county below the provincial level, including the basic farmland protection areas, types of development zones , industrial and mining areas , commercial service areas, water source protection areas , public green areas , etc., providing the basic information such as the block type , quantity, scope , statistical data, etc.

(2) The county-level administrative regions are generally taken as the basic units for the national and provincial main-function-zone planning.

■ If the spatial units are too large, e.g. to take the provincial region as the basic unit , the zone's developing function is difficult to be accurately determined. If the spatial units are too small , e.g. to take the township as the basic unit , due to a large number of spatial units, the data collection and processing will be difficult.

■ To select the county-level administrative region as the basic unit for zoning is mainly related to some factors such as “county directly administrated by provincial government”, “township finance governed by county ”, the administrative region of county unit and its stability and so on.

(3) The central government should be responsible for formulating identical criterion of national main-function-zone planning

- In view of the status quo of the national spatial development, developing trends and the strategic position for each region, the central government propose the identical criterion of national main-function-zone planning.
- Whether the eastern coastal region, or the less developed central and western regions, all should be in accordance with the national criterion.
- The territory space will be partially covered by the national main-function-zone according to the identical national criterion.

(4) Provincial governments are respectively responsible for formulating the different criteria for their provincial main-function-zone planning.

- With reference to the national criterion, in view of local actual situation, each provincial government proposes the criterion for provincial main-function-zone planning.
- To allow the provincial criterion difference from the national criterion formulated by central government with priorities, thresholds etc. and being not identical between provinces.
- Provincial main-function-zone should cover all of the provincial territory space and be subject to the national functional zones.

(5) To establish a “focused, targeted, concise and practical” index system

- The index choice should be scientific, accurate, procurable and applicable to strive to avoid the accuracy decrease because of the inter-cross lead by excessive number and class index.
- To give prominence to some key index about the carrying capacity of resource and environmental, such as the per capita arable land resources, per capita water resources, GDP of unit land area, the population of unit land area and so on.

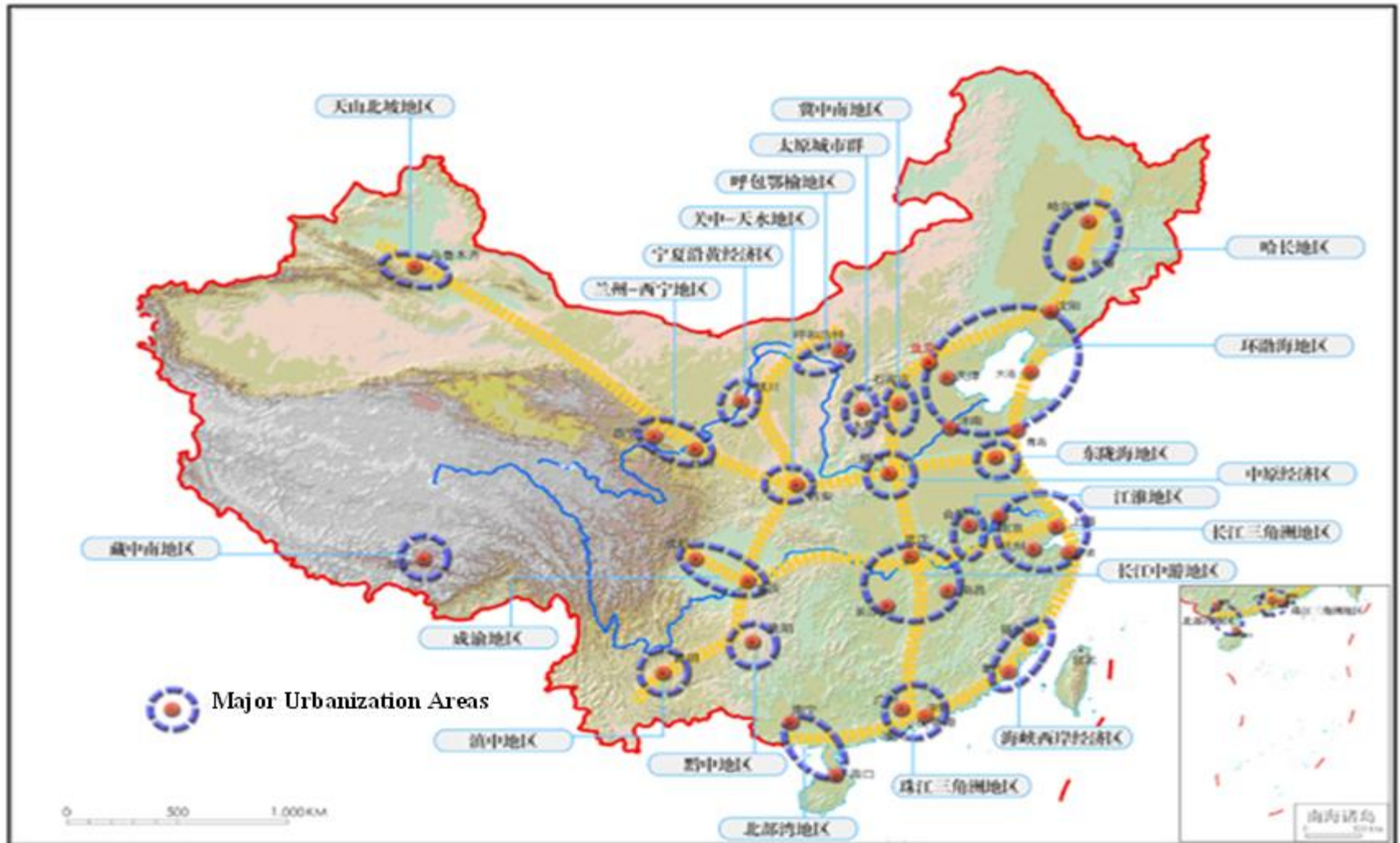
Items	factors	Index
Carrying capacity of resources and environment	Resource endowments	total and per capita amount of land, water, energy, mineral resources; total and per capita amount of cultivated land; total and per capita amount of surface water and groundwater; total and per capita amount of electricity, coal, oil and gas and other energy
	Environmental capacity	Total amount and structure of pollution discharge; emissions of sulfur dioxide and chemical oxygen demand; discharge amount of industrial wastewater, domestic wastewater; production amount of industrial solid waste and household waste; rate of sewage treatment and garbage centralized treatment
	Eco-environmental sensitivity	Area and speed of soil erosion; area and speed of desertification and rocky desertification; frequency and degree of flood and drought occurrence; type and harm degree of geological disasters
	The importance of ecosystem services	Type, number and structure of biological diversity; area and grade of water source zones; the size of forest coverage; the importance degree of wetland area and; the size and degree of soil and water conservation

Current developing Density	Population distribution	The total amount , structure and distribution of population; population density; number of town and rural population; number of floating population; growth rate of <u>natural mechanical</u> and mechanical population
	Industrial development	the total amount and structure of industrials; area of the construction area and its proportion of the total land; unit area GDP, industrial output value, industrial added value; investment, production value, revenue and profit of unit area
	Urban system layout	the town number, size and structure of unit area ; area of built-up district and the proportion of the total; area of transportation land and the proportion of the total ; the level of urbanization
Development potentiality	Geographic conditions	distance of coastal, river, edge, along the railway and expressway; route between cities; accessibility of between the urban and rural
	Development foundation	Economic aggregate, fiscal revenue, the total volume of import and export; amount of foreign capital utilization; per capita GDP, finance income; total and per capita volume of science, technology, education, health and other social undertaking index.
	Development trend	GDP and growth speed of per capita; opportunities and challenges; development strategies and thoughts; plans and policies; the qualitative index of the system and mechanism

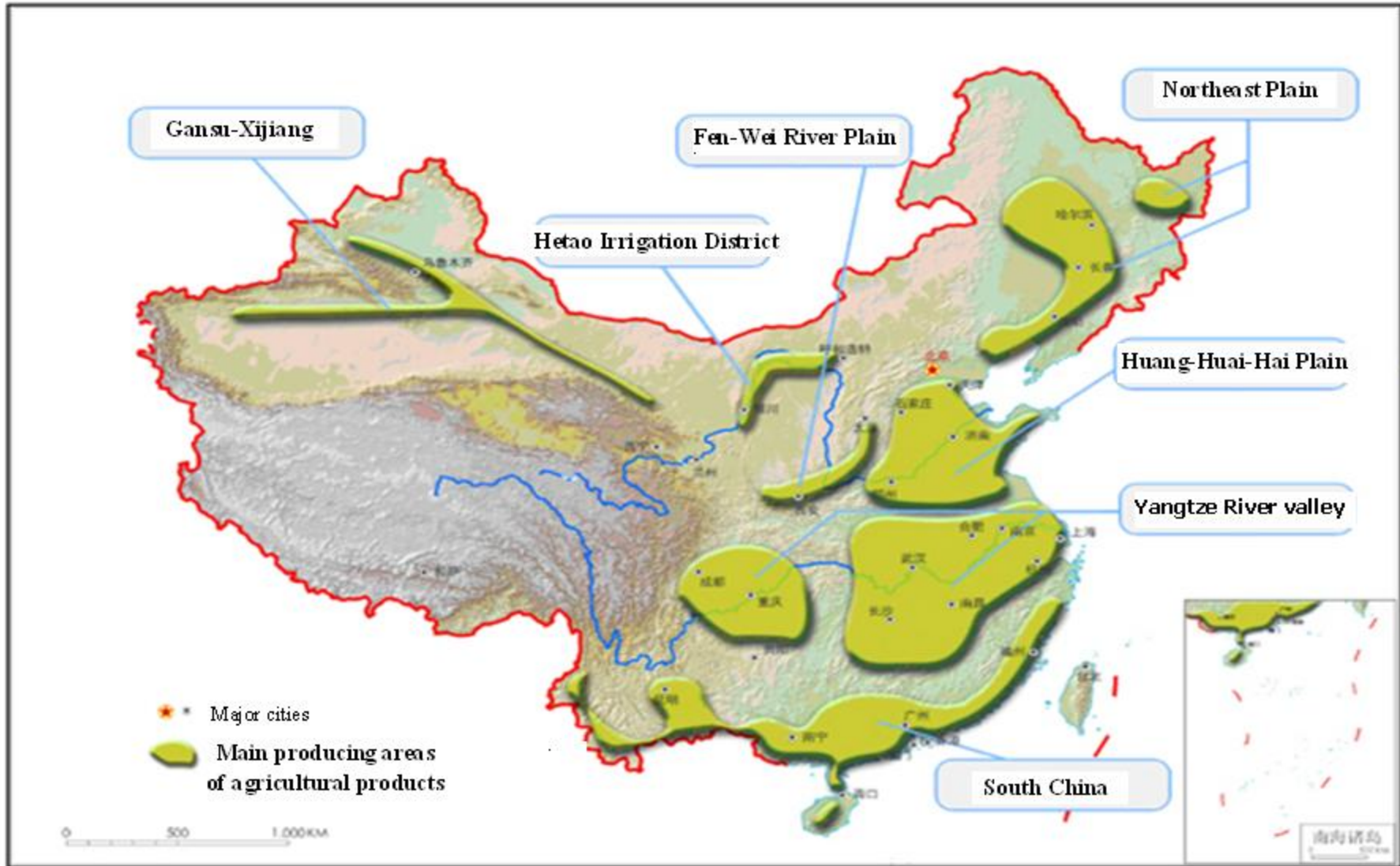
(6) The central and provincial governments should respectively undertake the design and management responsibility for the classification policies

- The State Council instructs the comprehensive economic administrative departments to be responsible for the overall design of classification policies for the national main-function-zone and the relevant departments of the State Council are responsible for formulating the implementation regulations and rules of the specific policies.
- Provincial government departments for economic management should be responsible for the overall design of the provincial classification policies for the provincial main-function-zone and the provincial relevant government departments will be responsible for formulating the implementation regulations and rules of the specific policies .

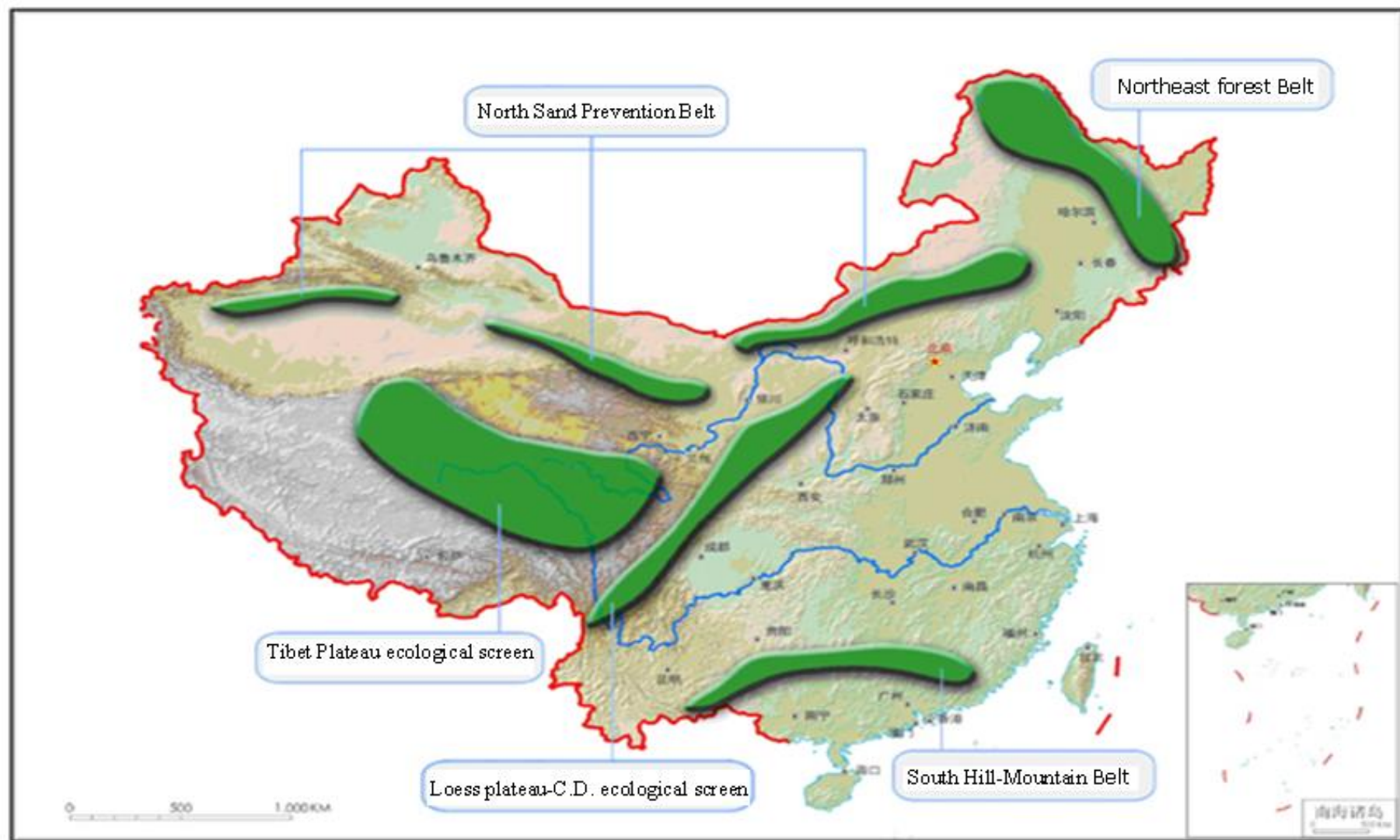
Spatial layout map for “3+18” *Optimized & Key Development Zones* under the “Two horizontal, three vertical” urbanization deployment



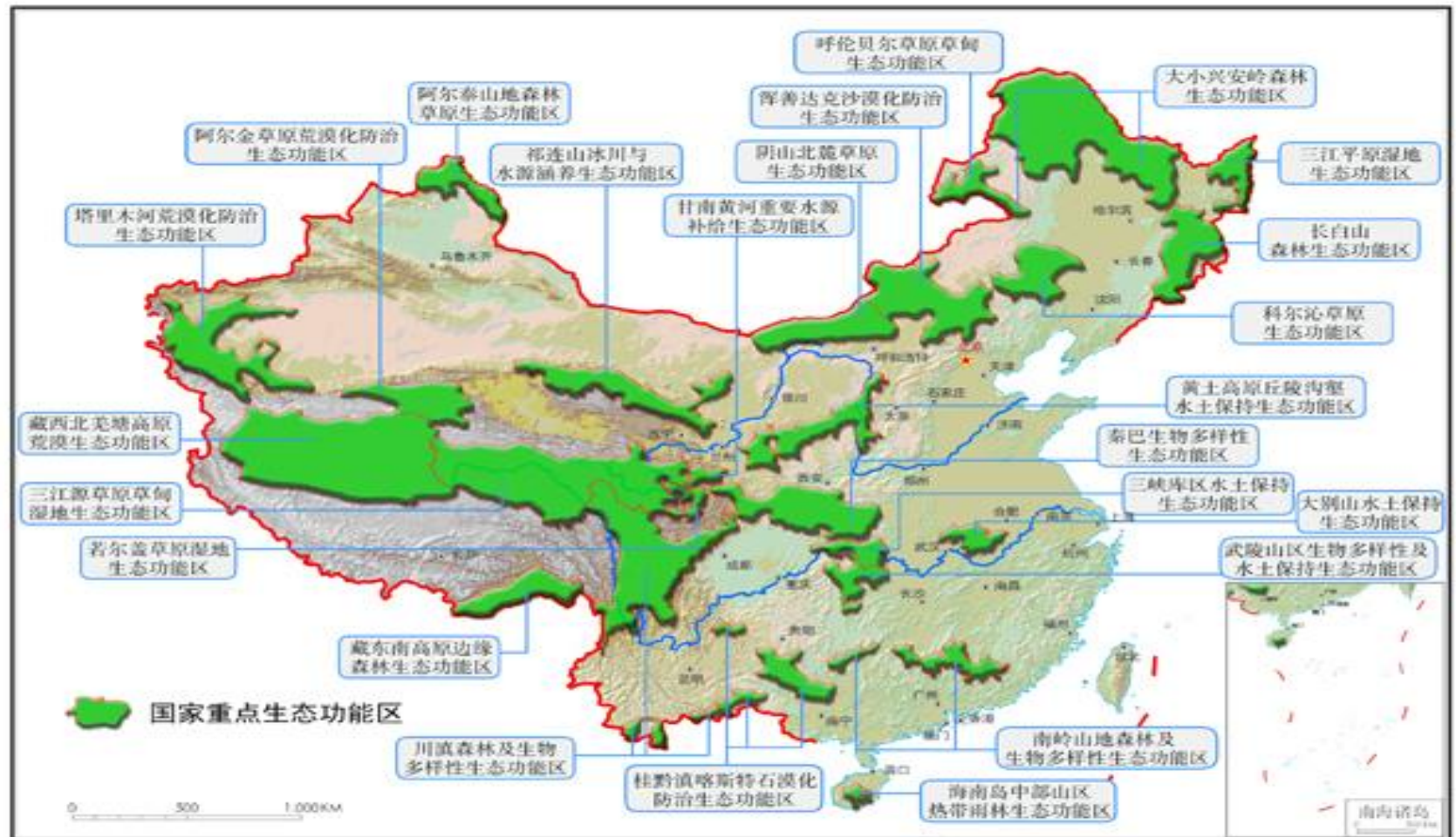
Agricultural spatial layout map for “Seven Areas, twenty-three belts” in China



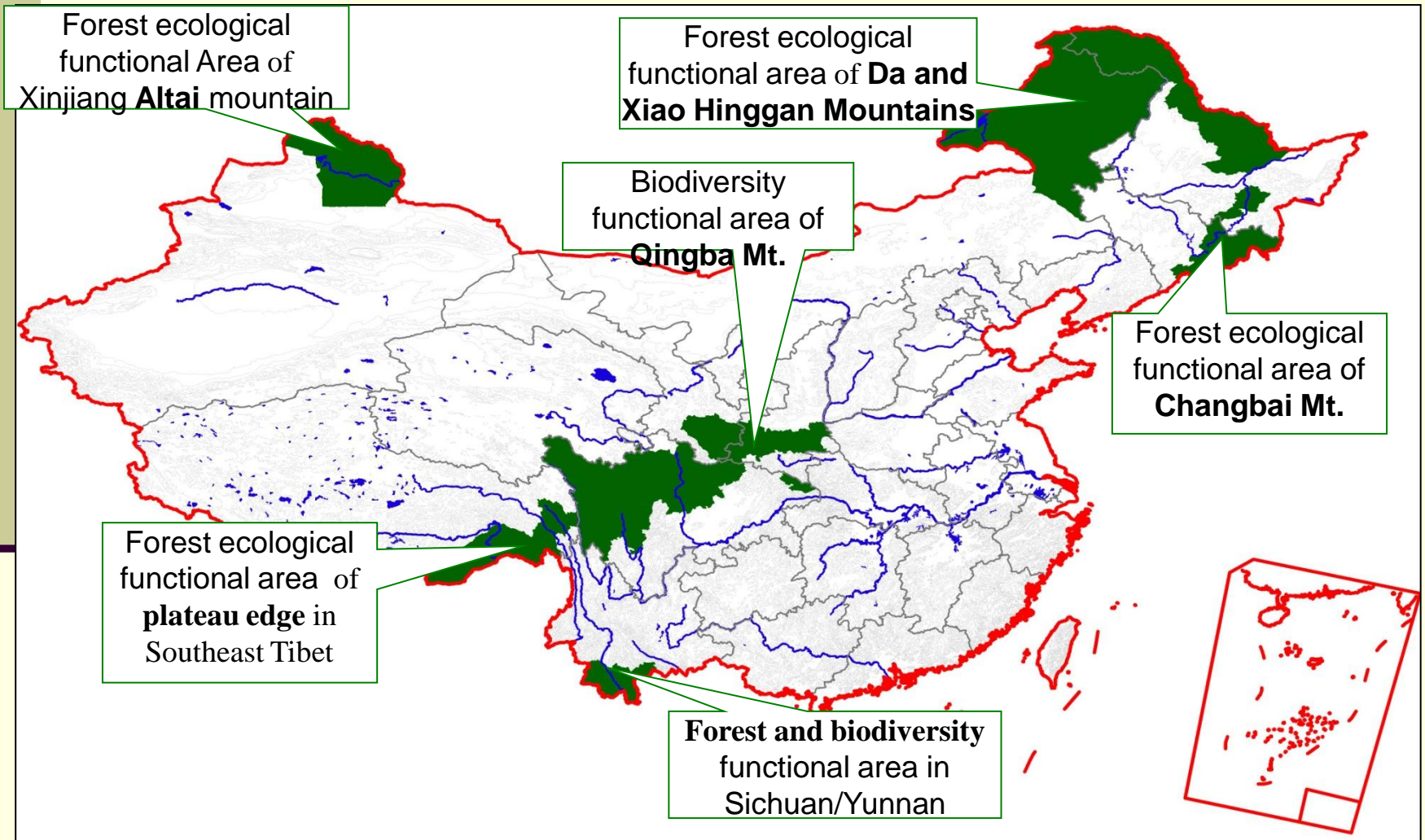
Ecological spatial layout map for “Two screens, three belts” in China



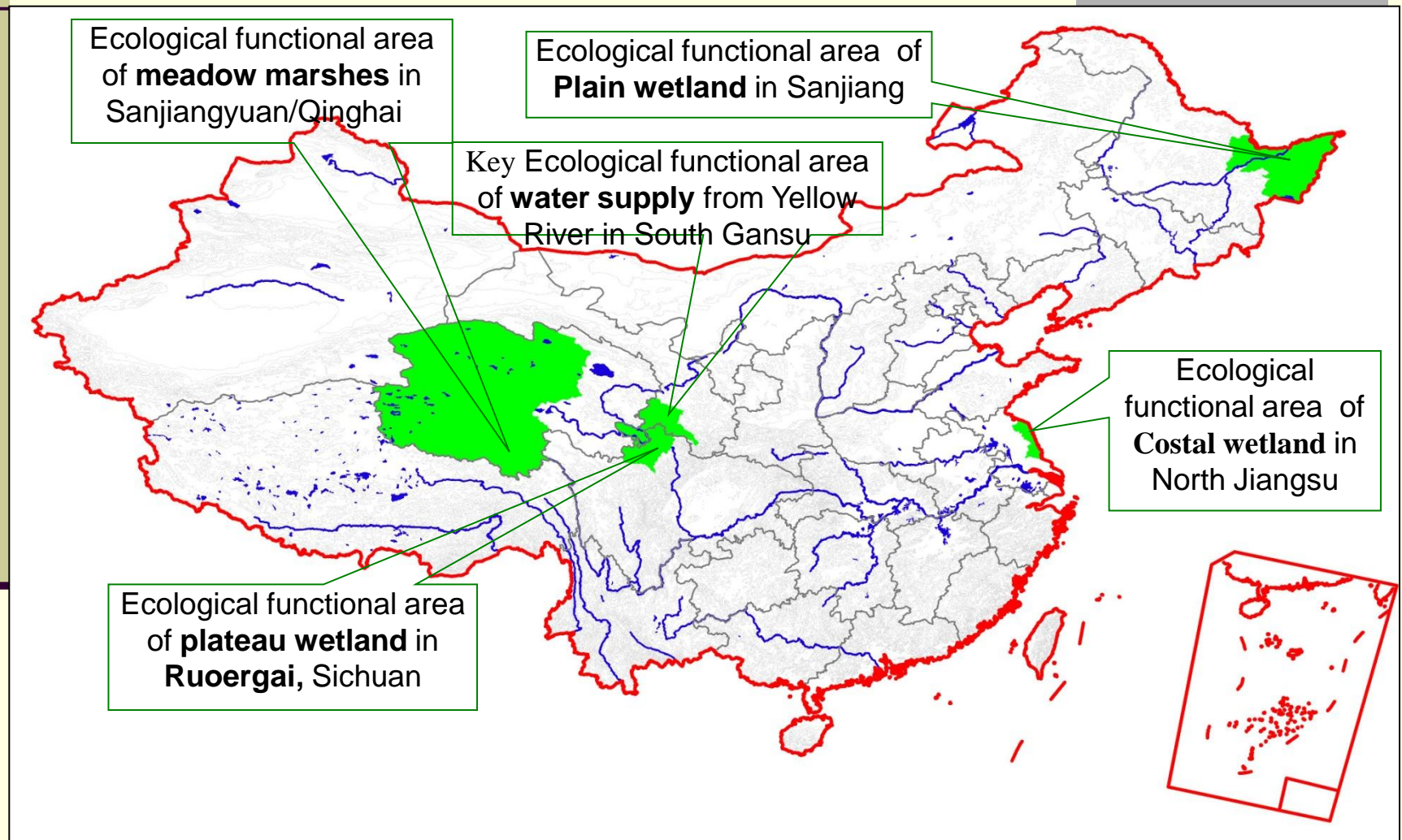
Spatial layout map for 25 important ecological functional areas / *Limited development Zone* in China



Forest Ecological Functional Areas/ *Limited development* Zone in China



Prairie Wetland Areas / Limited development Zone in China



Desertification (sand & stone) areas / Limited Development Zone in China

Prevention and control areas of desertification along the coast of the Tarim River

Alkin prairie desert ecological functional area

Prevention and control areas of desertification of **Hulun Buir prairie**

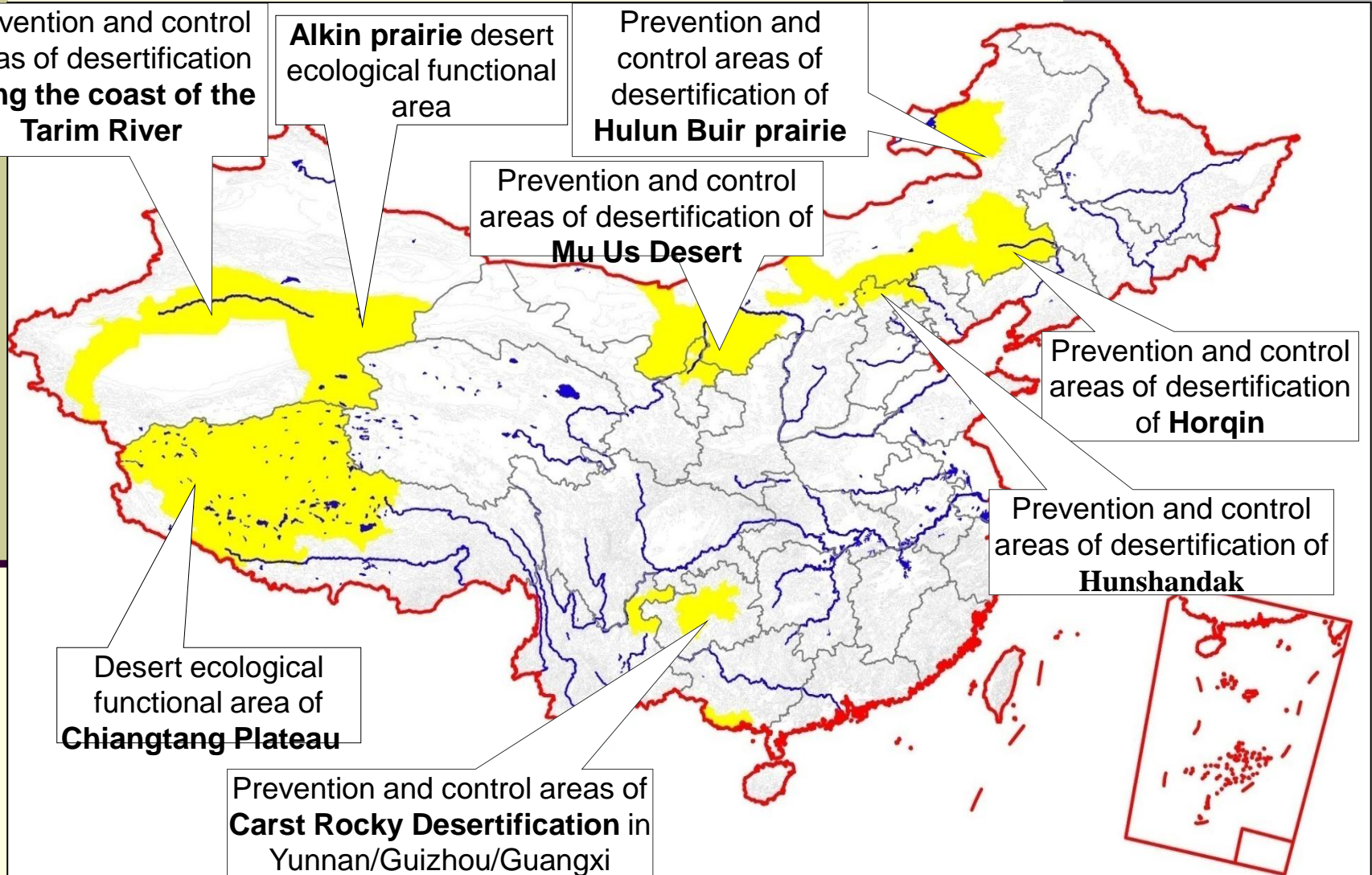
Prevention and control areas of desertification of **Mu Us Desert**

Prevention and control areas of desertification of **Horqin**

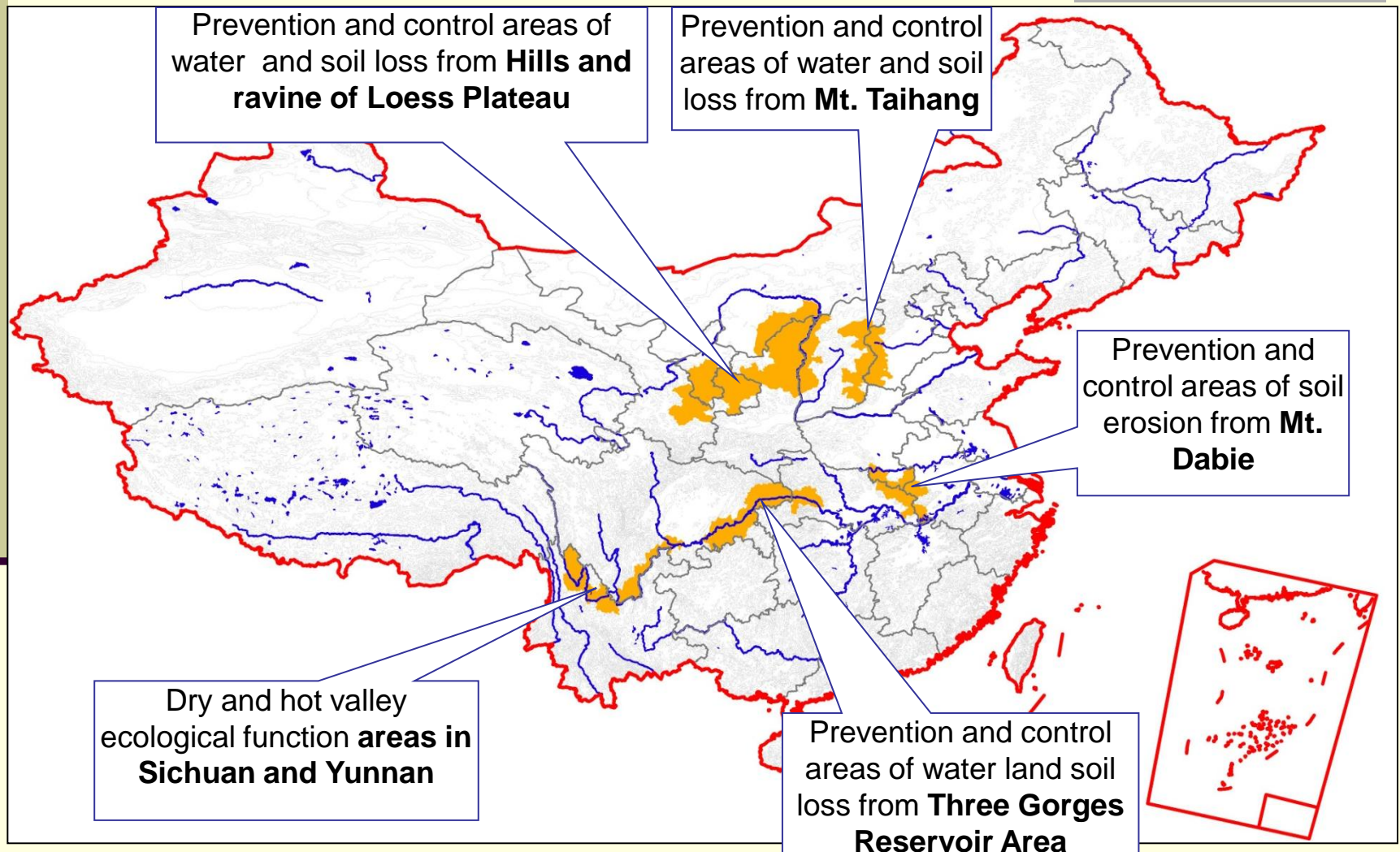
Prevention and control areas of desertification of **Hunshandak**

Desert ecological functional area of **Chiangtang Plateau**

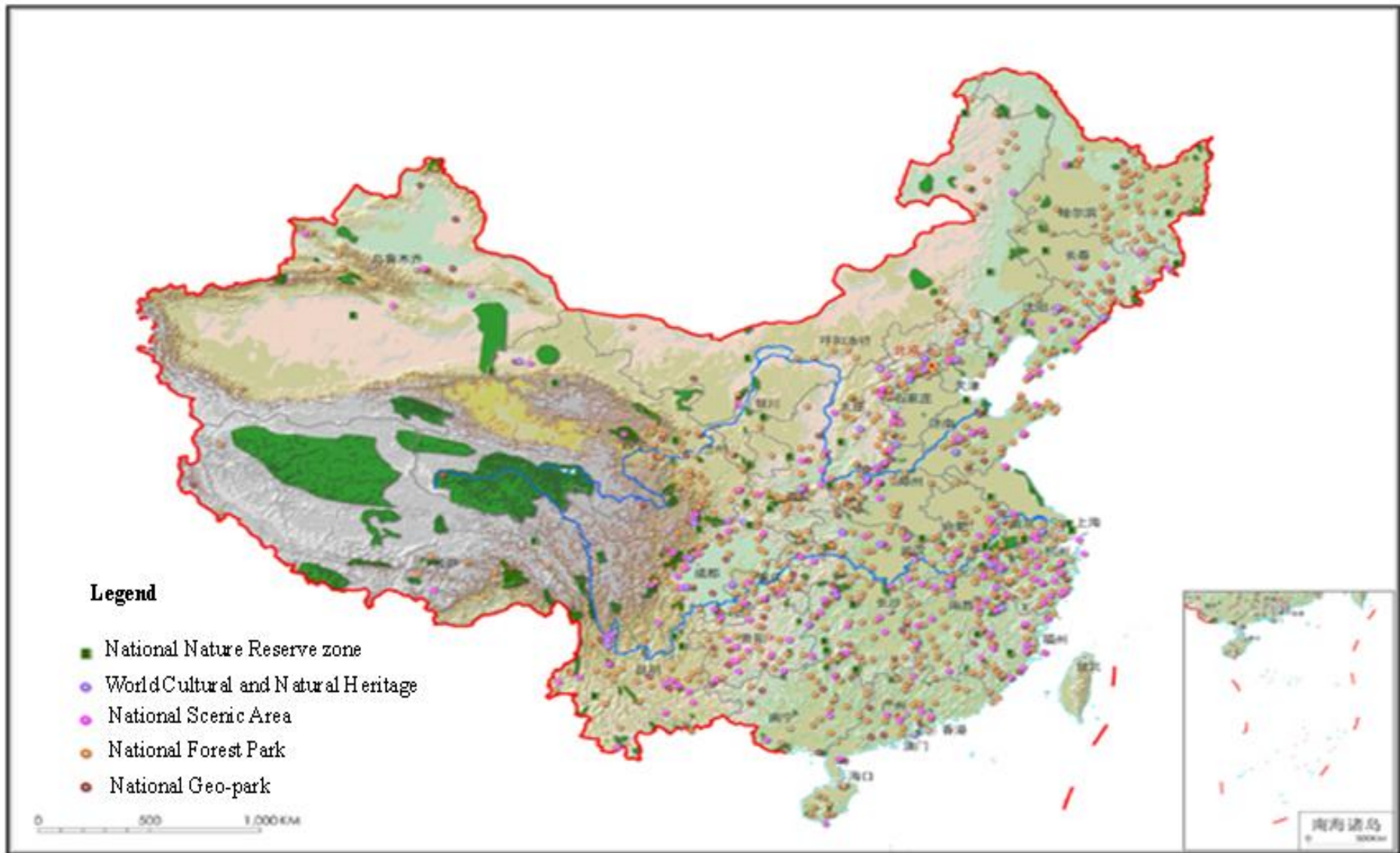
Prevention and control areas of **Carst Rocky Desertification** in Yunnan/Guizhou/Guangxi



The prevention and control areas for water and soil loss/ *Limited development Zone in China*




The spatial layout map of the national *Prohibited Development Zones* with different types



The Fundamentals of National Prohibited Development Zone

Sorts	No.	Size (10 000 sq.km)	Proportion of Accounting for overall land area (%)
National Nature Reserve zone	319	92.85	9.67
World Cultural and Natural Heritage	40	3.72	0.39
National Scenic Area	208	10.17	1.06
National Forest Park	738	10.07	1.05
National Geo-park	138	8.56	0.89
Total	1443	120	12.5

Note: the statistical results up to October 31, 2010. the overlapping parts have been deducted in the total amount.



Thanks for your time and
Welcome your valuable Comments!