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Geospatial Data Empowers Dynamic Monitoring of Urban Land Price in China

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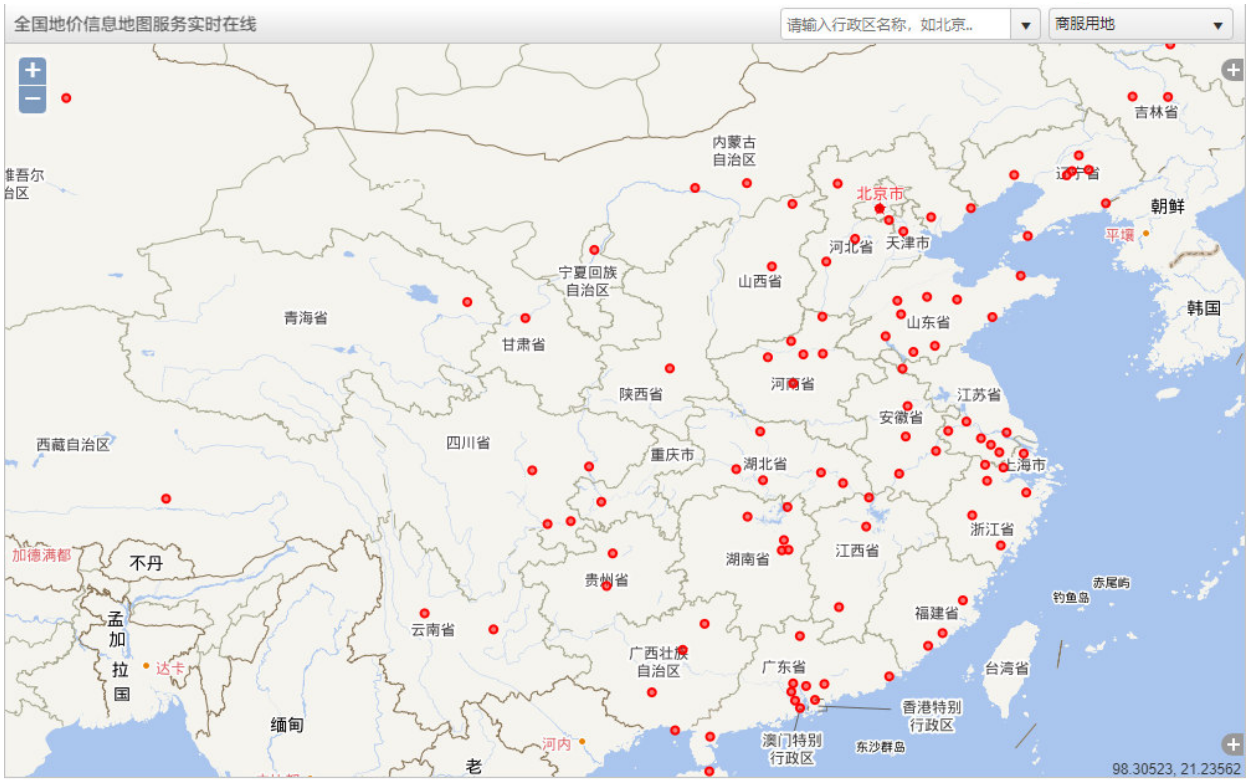
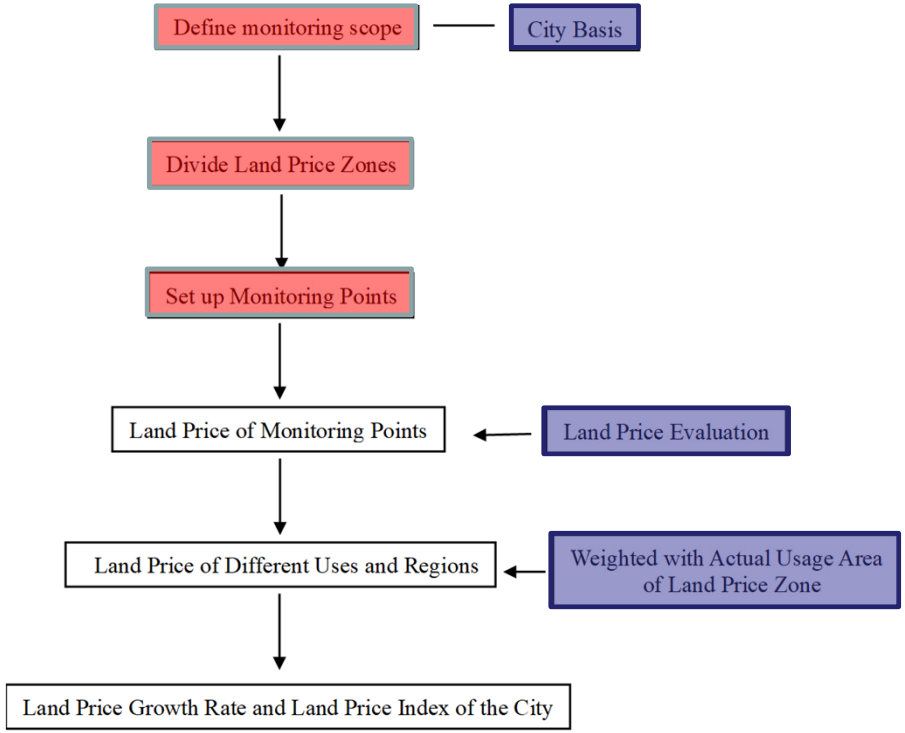
What is Dynamic monitoring of urban land price in China

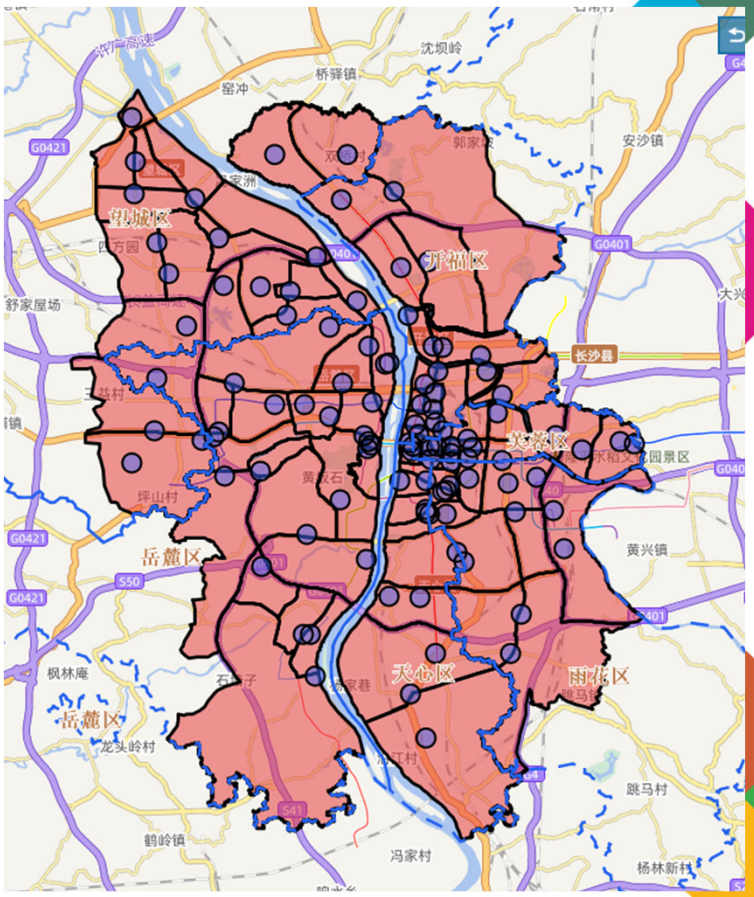


- In order to grasp the heat and trend of the real estate market and provide important data support for macroeconomic analysis, the Chinese government has carried out dynamic monitoring of urban land prices in 105 national key cities.

How is the monitoring going?

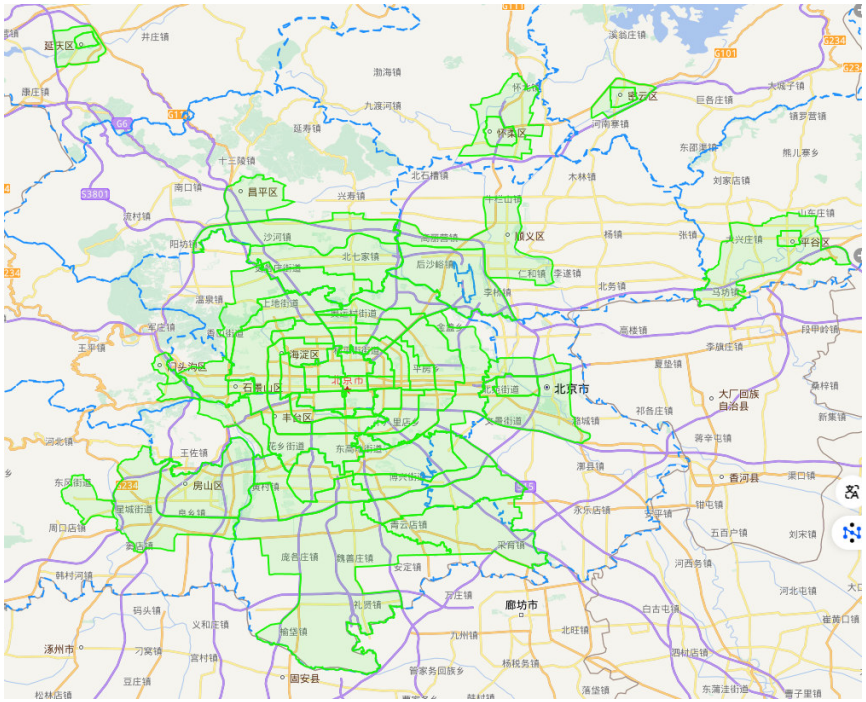
Technical route of urban land price monitoring





Define monitoring scope

Define monitoring scope



Geospatial data--The boundary of urban development（Vector data）

1. Determine the outermost boundary of the monitoring range

- Defining the maximum scope of urban land price monitoring based on the boundary of urban development can effectively meet the work objectives and technical requirements of monitoring ---only the price of urban construction land.

- The boundary of urban development which is vector data with geographic spatial coordinates, defined in the national spatial planning.

Define monitoring scope

Geospatial data--Satellite image（Raster data）

2. Define the current urban construction land scope

- construction land and grassland

Define monitoring scope

Geospatial data--Satellite image（Raster data）

2. Define the current urban construction land scope

- construction land and farmland

Define monitoring scope

Geospatial data--Satellite image（Raster data）

2. Define the current urban construction land scope

- construction land and waters

Define monitoring scope

Geospatial data--Satellite image（Raster data）

2. Define the current urban construction land scope

- construction land and forest

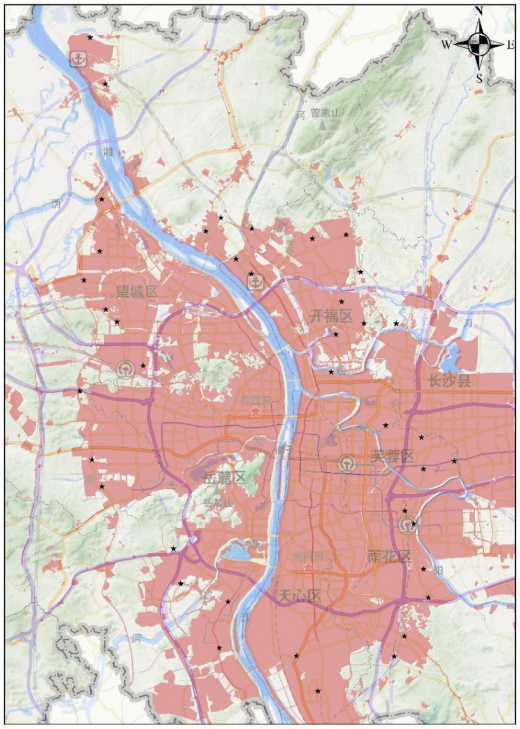
Define monitoring scope

Geospatial data--Satellite image（Raster data）

2. Define the current urban construction land scope

- construction land and green space

Define monitoring scope

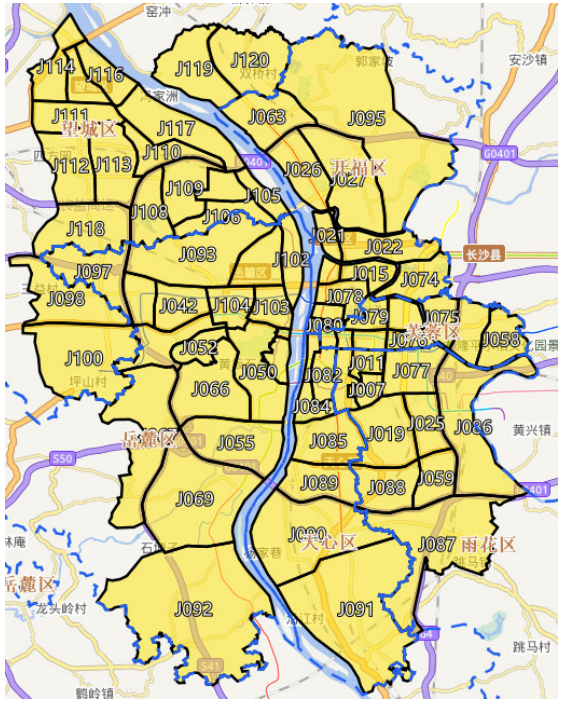


Geospatial data--Distribution map of construction land transaction parcels
（Vector data）

3. Include areas with existing construction land transactions in the monitoring scope

After delineating the current scope of urban construction land, it is necessary to include areas that are currently non construction land but are planned as construction land within the scope of existing land transactions in the monitoring scope.

Define monitoring scope

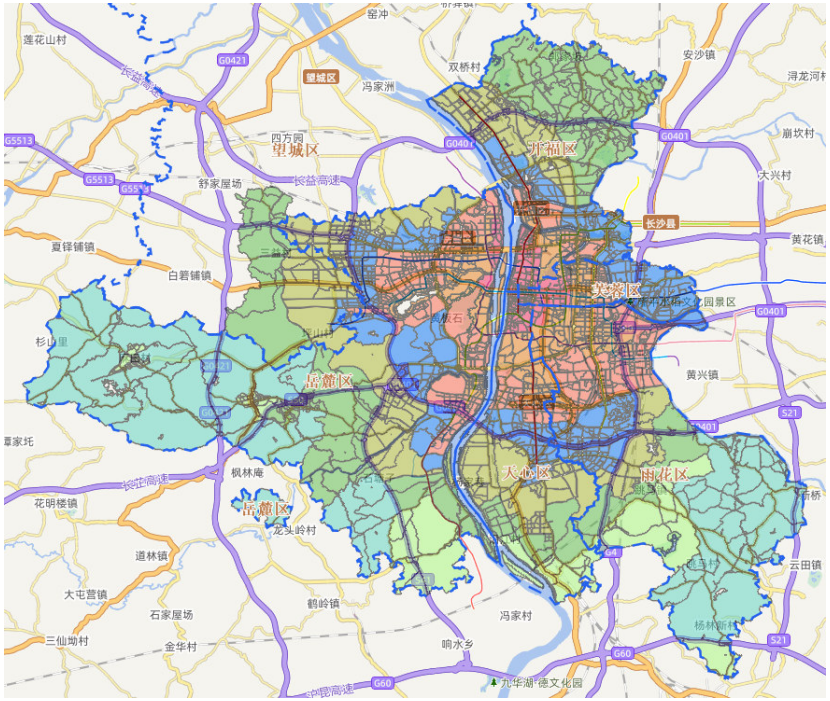


Geospatial data--Administrative boundary data（Vector data）

4. Clarify boundaries of the city

The dynamic monitoring of urban land prices is carried out on a city by city basis, and the monitoring scope of each city cannot cross the administrative boundaries of the city.

Divide land price zones



Geospatial data--Benchmark land price map（Vector data）

The land price zones are divided according to the principle of homogeneous average price.

Benchmark land price maps that provide basic land price information.

Divide land price zones

Geospatial data--Topographic map（Vector data）

The boundary of land price zone is usually based on the land parcel boundary line, block roads, rivers, and other linear features.

Topographic map provide current land features such as highways, streets, railways, and rivers, and cadastral survey maps that provide land boundary information.

Set up monitoring points

Geospatial data--Cadastral survey data（Vector data）

Monitoring points are land parcels established within a land price zone that are consistent or similar to the overall utilization conditions of the land price zone, and can represent the land price level of the land price zone.

Cadastral survey data provide information on the use and location of the land parcel to complete the layout of monitoring points.

Organize the work and the evaluation of monitoring points

Geospatial data--Topographic map（Vector data）

17609 monitoring points

1741 appraisers

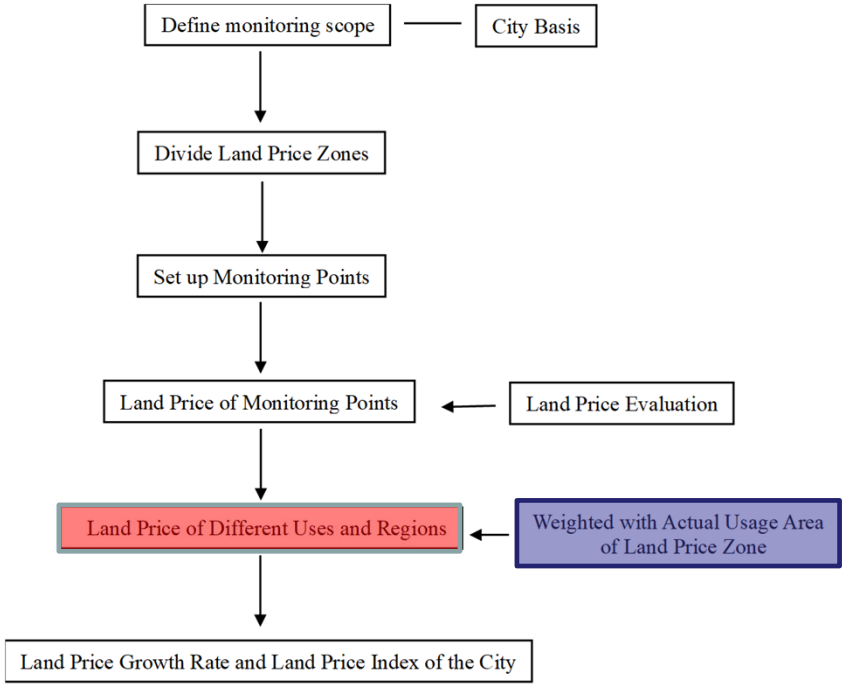
Organize the work

The reasonable allocation of monitoring point evaluation tasks to various appraisers is an important aspect of ensuring orderly and efficient monitoring. The allocation of monitoring point evaluation tasks should aim to allow each appraiser to complete their respective evaluation work within a relatively concentrated area as much as possible.

Evaluate monitoring points

The topographic map provides accurate spatial location information, including appraisers' institutions and monitoring points. Moreover, the appraiser can also understand the location and surrounding environment of the monitoring points in the city on the topographic map, in order to understand and collect the regional influencing factors required for valuation.

Geospatial data provides key calculation weights for indicator measurement



Cadastral survey map provide detailed information

In order to get the land price of whole city, we calculate the average land price zones weighted by actual usage area of land use（commercial , residential, industrial）of each land price zone.

The cadastral survey map has detailed information on the location and use of the land parcel, which can be used to calculate and summarize the actual usage area of different uses within each land price zone, providing weights for calculating the city's land price in different price zones.

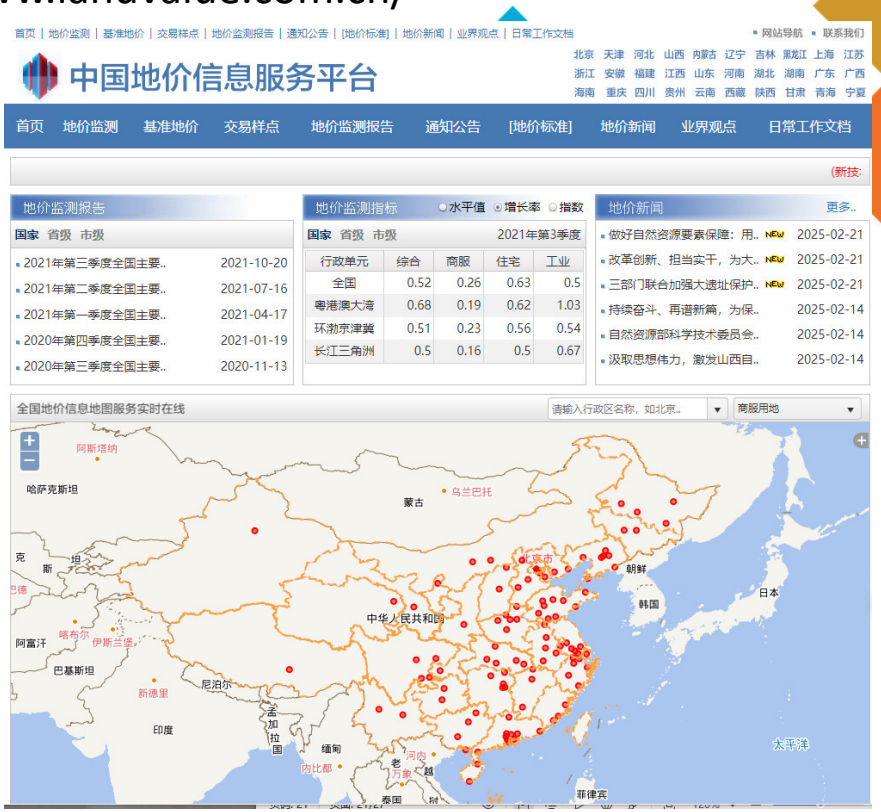
Conclusion

The dynamic monitoring of urban land prices in China provides important data support for the Chinese government to grasp and judge the heat and trend of the real estate market, analyze the macroeconomic situation, and provide daily correction parameters for appraisers based on the land price index;

Provides timely, accurate, and authoritative data on land price changes to the public, enabling them to realize and obtain the right to know about land price changes and market conditions.

Geospatial data enables land price monitoring to be carried out on a large scale, quickly, efficiently, and accurately throughout the country. The successful experience of dynamic monitoring of urban land prices in China demonstrates the powerful role that geospatial data can play in the field of land use management. It indicates that the full and reasonable use of geospatial data can greatly enhance the government's ability in land use management.

If you can read Chinese, you are well come to visit the website of China Dynamic Monitoring of Urban Land Prices. https://www.landvalue.com.cn/



Thank you

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