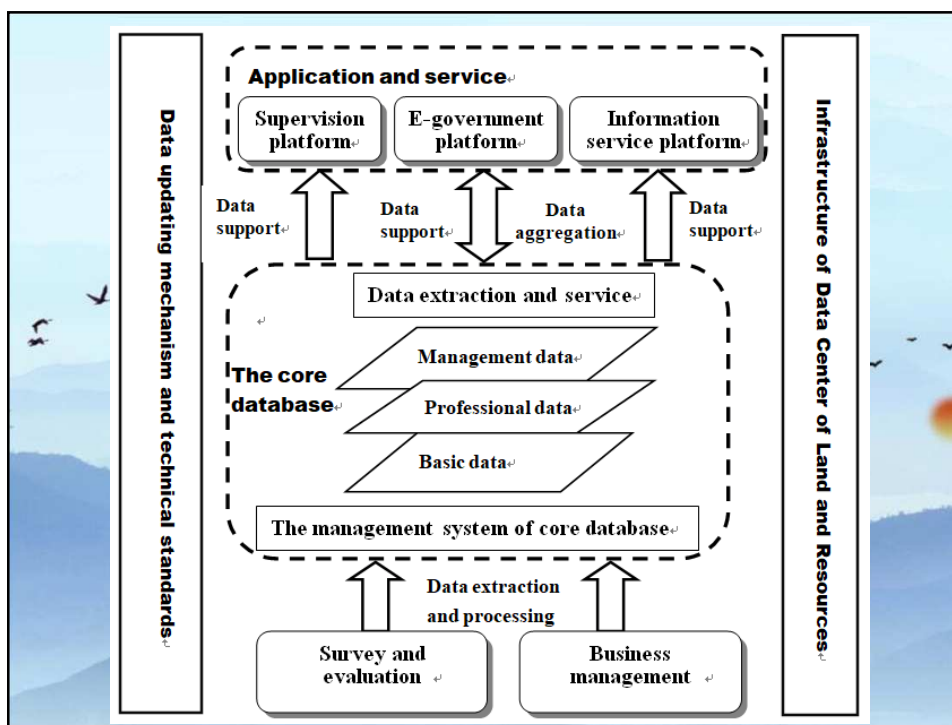


## I Background

- Land and mineral are the important resources , which are the foundation for achieving sustainable development.
- Since establishment in 1998, former Ministry of Land and Resources(MLR) has implemented a series of major informatization projects and collected massive data , including land, mining, geology and geological environment data.
- In April 2018, as the reform of government administration, the Ministry of Nature and resource (MNR) was established, more kind of data are covered, such as water, forest, grassland, mountain, barren land.....

3



## “One Map”- “electronic sand table”of national land and resources

**Unified base map:** unified basic geography and remote sensing images

**Nationwide coverage:** 9.6 millions square kilometers

**Integrated data:** all the data layers can overlay and work together

**“Electronic sand table”:** reflects the quantity, quality, distribution and potential of resources



5

## “One Map” database

includes 5 categories :

- ◆ Geography data
- ◆ Land data
- ◆ Mineral resources data
- ◆ Geology and geological environment data
- ◆ Real estate registration data

23 subcategories, 6992 spatial layers, constitutes the national “One Map” of land and resources

6

## Overview

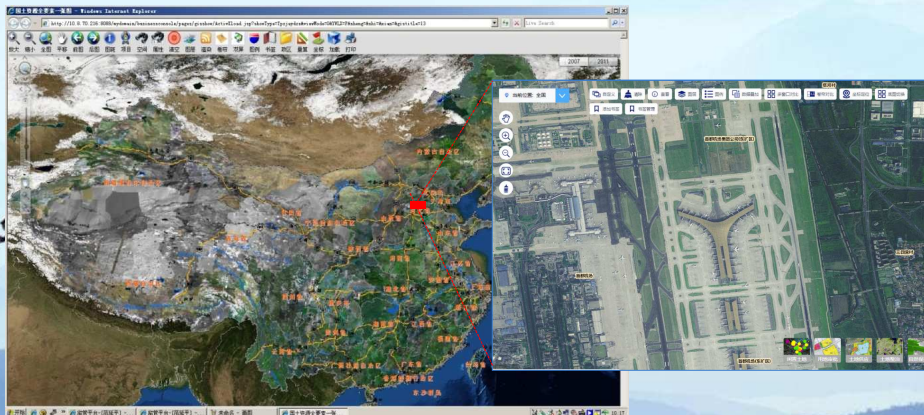
### I Background

### II main data of “One Map”

### III Application in Nature Resources Management

7

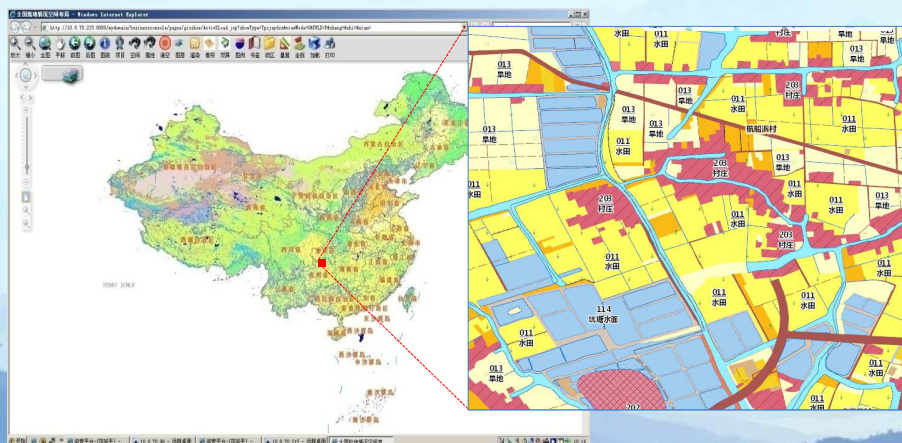
## Remote sensing images



- ◆ National coverage
- ◆ From 2007 to the present, update yearly
- ◆ Main Resolution 2 m
- ◆ Eastern: <1m Western: 5-10m

8

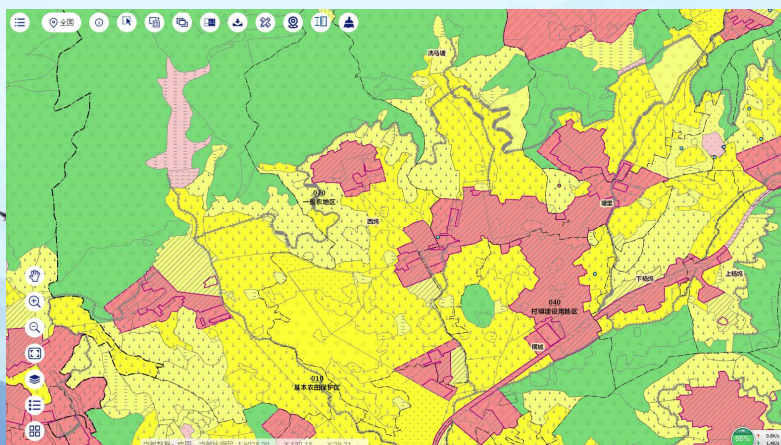
## Land use



- ◆ land use status data from 2009 to the present
- ◆ Scale: 1:10000 ( one to ten thousand )
- ◆ National coverage, update yearly

9

## Land use plan

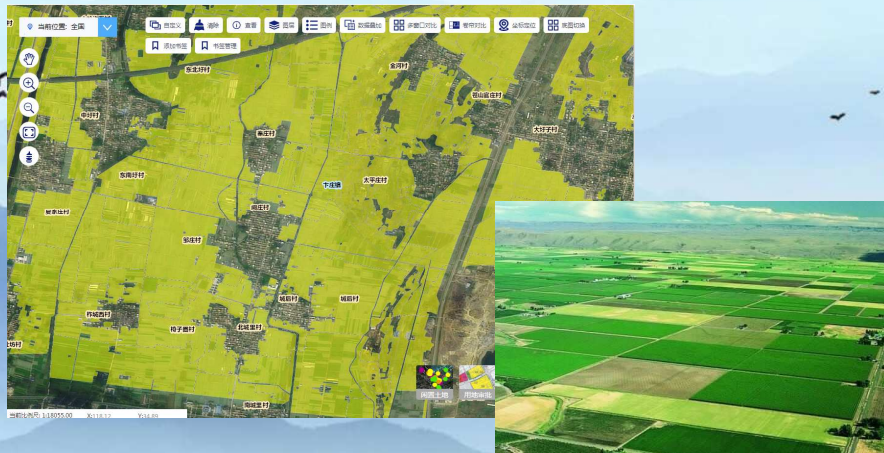


- |                                      |                            |
|--------------------------------------|----------------------------|
| ◆ five levels with different scales: | ◆ Municipal level 1:250000 |
| ◆ National level 1:4000000           | ◆ County level 1:50000     |
| ◆ Provincial level 1:500000          | ◆ Township level 1:10000   |

10

## Permanent basic farmland data

Including **every pieces of** permanent basic farmland in our country, such as the location, area, type of land, quality, responsibility for protection and protection signs. There are **45.41 million** polygons in the database.



11

## Approval data of construction land

The Approval data of construction land include nationwide construction project approved data from 2009 to present.



12

## Mineral resource plan

Including national Mineral exploration and evaluation plan , Mineral exploitation and utilization plan, and of Mineral environmental protection and control plan.

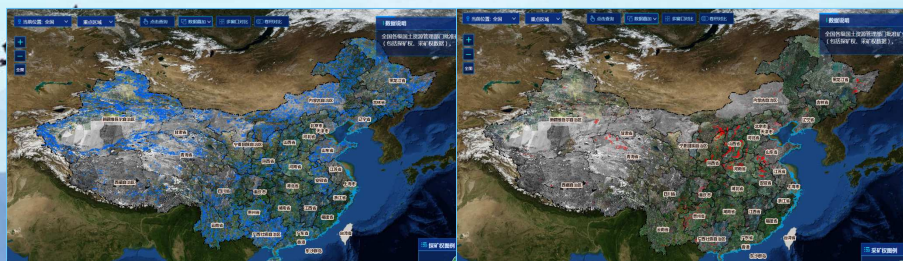


13

## Mining rights data

Including exploration right data and mining right data.

The quantity, distribution and attribute of national exploration rights and mining rights are very clear in map.



exploration right data

mining right data

14

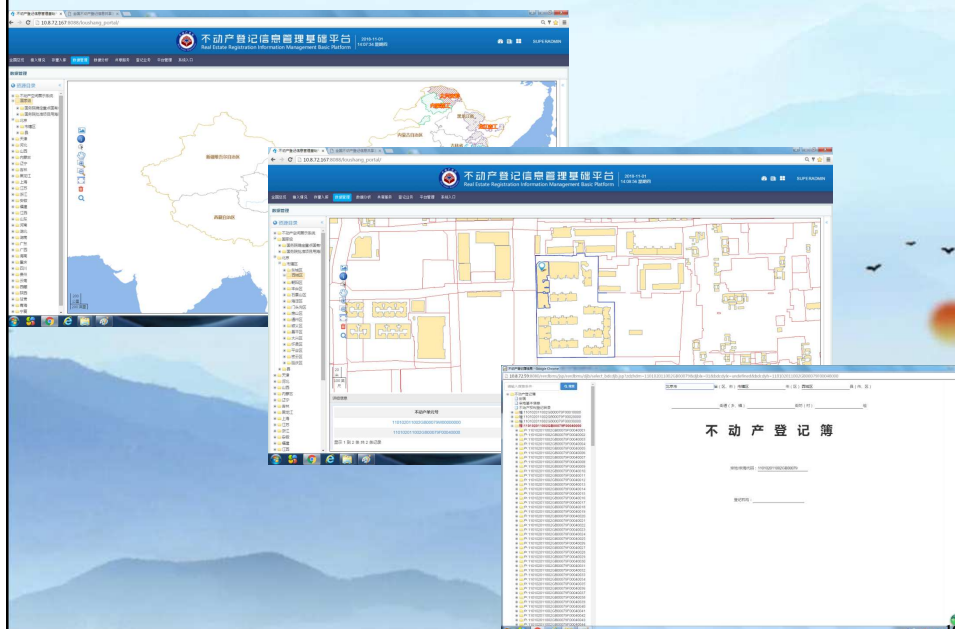
## Geological disaster data

Including data of major geological hazards such as collapse, landslide, mud-rock flow and subside, totaling more than 70,000.



15

## Real estate registration data





## Overview

### I Background

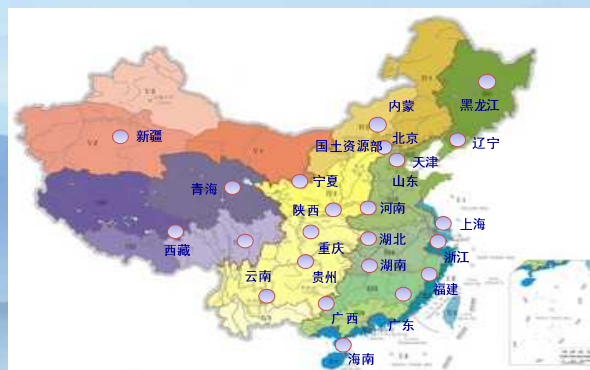
### II Main data of "One Map"

### III Application in Nature Resources Management

17

## Four levels "one map" system

- All 31 provinces have built province level "one map"
  - Most of municipalities have built municipal level "one map"
  - Some county have built county level "one map"
- All four levels "one map" provide strong data support for resource supervision, business approval and information services.



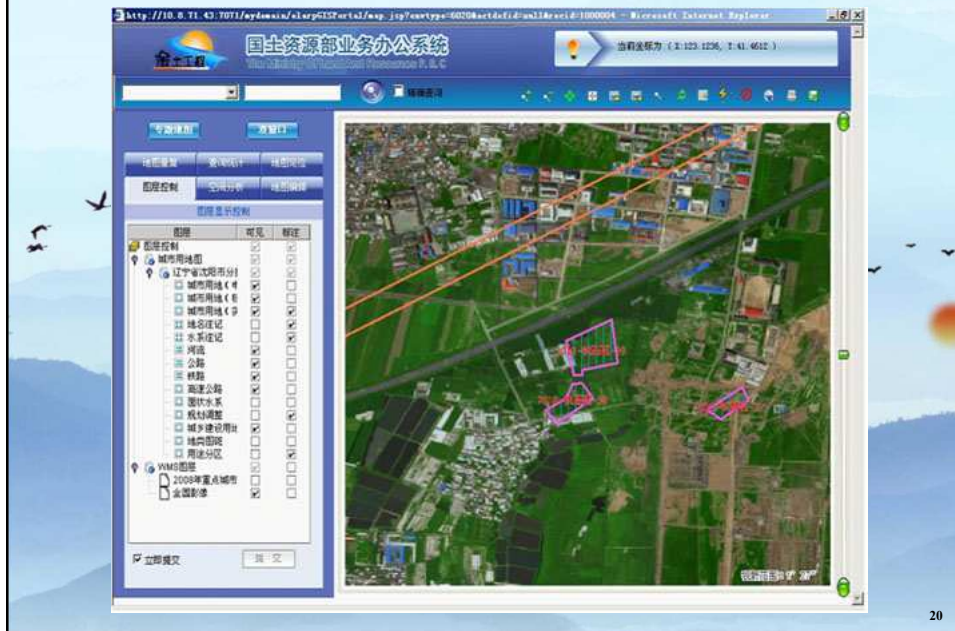
18

### One map strongly support the whole process management of administrative approval



The time limit for administrative examination and approval has been shortened by more than 50%.

### Eg1 . Assisting approval of construction land



## Eg2. Illegal land use spot



Fig.1 Remote sensing image at T1



Fig. 2 Remote sensing image at T2



Fig. 3 Extract the polygons of newly-increased construction land

21



Fig.4 Data of the general land use planning within this area.

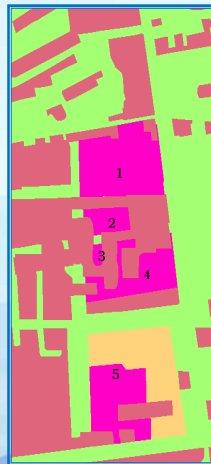


Fig.5 The polygon of newly-increased construction land overlay data of the general land use planning.



Fig. 6 The polygon of newly-increased construction land overlay the spatial information of the approved construction land.

Polygon No. 1, polygon No.2 & No.5 are not within the constructive expansion permitted zone

Polygon No.1 & polygon No.5 are not within the approved construction land.

22



**基本情况** ● **Project land use information**

**用地情况** ● **Illegal information**

**违法情况** ● **Information of investigation and punishment**

**查处及落实情况**

行政处罚内容	自觉(督促)履行落实情况	申请强制执行内容	强制执行落实情况	落实到位率
罚款金额(元)	17098.39	17098.39		100.00%
没收违法所得金额(元)				0.00%
没收违法建筑面积(平方米)	5573.40	5573.40		100.00%
拆除违法建筑面积(平方米)				0.00%
其他				
	建议处分	处分落实情况	移送司法机关	追究刑事责任落实情况
省部级(人)				
地厅级(人)				
县处级(人)				
科及以下(人)	1	1		
其他(人)				
*结案情况	<input checked="" type="radio"/> 已结案 <input type="radio"/> 未结案			
备注				

**Fig.7 Polygons of Suspected illegal land**

**Polygon No.1 & Polygon No.5 are not within the approved construction land.**

23

### Eg 3. Assisting approval of mining rights



**全国矿产储量数据库**

矿业数据综合查询系统

矿业基本

矿业名称

矿点编号

矿点名称

矿点地址

矿点类型

矿点状态

矿点备注

矿点经纬度

矿点高程

矿点面积

矿点容积

矿点储量

矿点品位

矿点质量

矿点评价

矿点管理

矿点审批

矿点发证

矿点年检

矿点注销

矿点归档

矿点打印

矿点导出

矿点导入

矿点删除

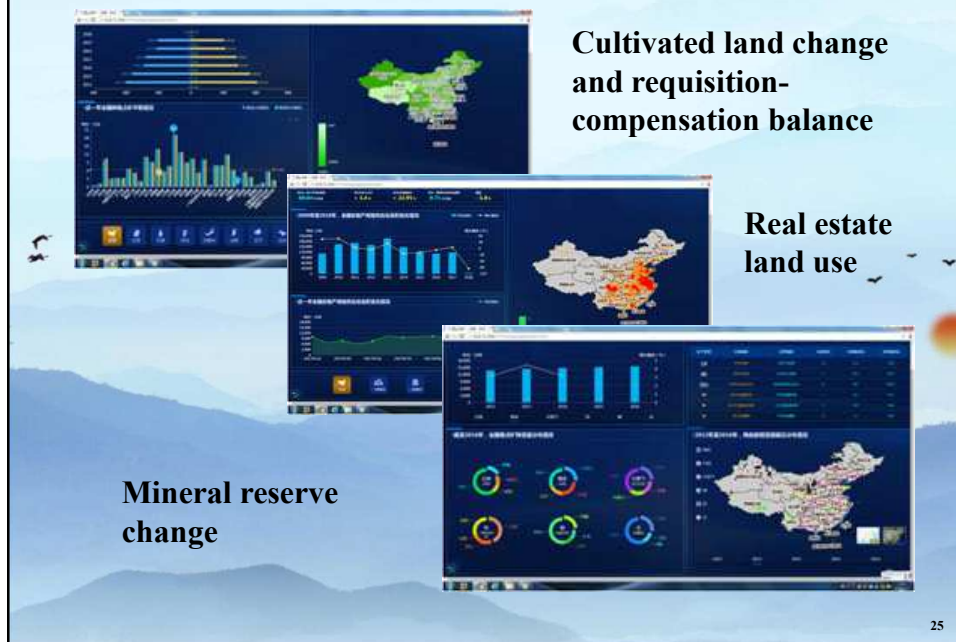
矿点刷新

矿点帮助

矿点退出

24

## Eg 4. Analysis of resources situation



At the first “Digital China” Construction Summit in 2018, “one map” were rated as one of the 30 “Digital China” construction annual best practices, and included as one of 13 “Digital China” construction annual best promotions.



