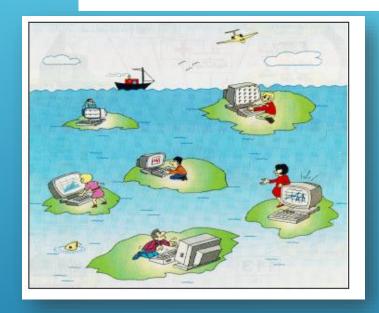
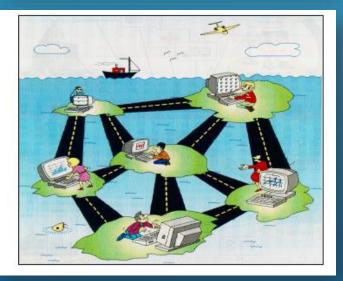
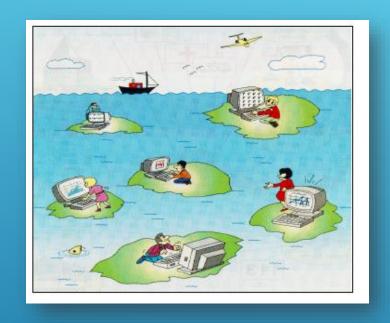
This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.



## NATIONAL SPATIAL DATA INFRASTRUCTURE IN KYRGYZSTAN



Zhakshylyk Toktosunov
Director of SOE "Cadastre" under the
State Service for Land Resources,
Ministry of Agriculture of the Kyrgyz
Republic





# NATIONAL SPATIAL DATA INFRASTRUCTURE IN KYRGYZSTAN

Goal: standards and uniform rules for the presentation of data, metadata, services

# Status of the spatial data infrastructure in Kyrgyzstan

**Government Decree Kyrgyz Republic** 

- dated February 15, 2019 No. 20-r: "ROAD MAP" for the implementation of the Digital Transformation Concept "Digital Kyrgyzstan 2019-2023"
- Item 16 Phased establishment of the National Spatial Data Infrastructure:
- 16.1. Create a geo-information portal of the Kyrgyz Republic;
- 16.2. Create a cartographic base and a system of geodetic support;
- 16.3. Apply Geospatial Data for Statistical Purposes:
- statistical register;
- population and housing census;
- statistical maps;
- dissemination of statistical information





# STATUS OF THE SPATIAL DATA INFRASTRUCTURE IN KYRGYZSTAN

- From 01.2018: Ongoing Kyrgyz-Norwegian project, within whom produced aerial photography for 23,000 km2.
- ➤ Training linear kart for Bishkek, 160 km2.
- ➤ Geoportal for providing access to ortho-photo maps for state and other bodies .



### **GEOPORTAL**

- □ collection of existing maps to support statistics across the country.
- □ development of principles, standards and procedures for data exchange between relevant data holders in Kyrgyzstan.
- ☐ Internet portal (geoportal) for data dissemination.
- photomaps and line charts will support the preparation and publication of statistical data.
- aerial photography results will be used as a base map in the Geoportal.

#### BASE LAYERS OF THE GEOPORTAL



**Group 1.** Coordinate/geodesic basis;

Group 2. Georeferenced images of the area;

Group 3. Vector layers of the used digital coverage;

**Group 4.** Identification information;

**Group 5.** Administrative boundaries;

Group 6. Cadastral information;

**Group 7.** Land cover;

# BASIC PRINCIPLES FOR CREATING OF NSDI

- Maximum use of spatial data already created in the Kyrgyz Republic;
- > Availability of information resources containing basic spatial data;
- Mandatory use and provision of already created basic spatial data when carrying out work to update them;
- Establishment of uniform conditions and tariffs for the provision of spatial data.

#### **Spatial data for NSDI**

#### **Basic layers of the Geoportal**

- Digital terrain models;
- Primary and orthorectified data from aerial and space surveys;
- Unified address system;
- Administrative boundaries;
- > cadastral information;

#### Thematic layers

- ✓ Water resources data
- ✓ Geological data;
- ✓ Data of natural disasters (MES)
- ✓ Forest resources data
- ✓ Statistic data
- ✓ Etc.

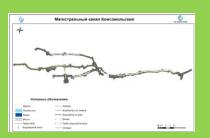
#### Cadastral data



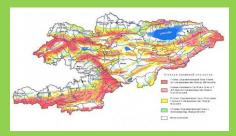
#### Geological data



#### Water resources data



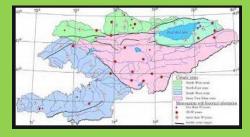
### Data of natural disasters (MES)



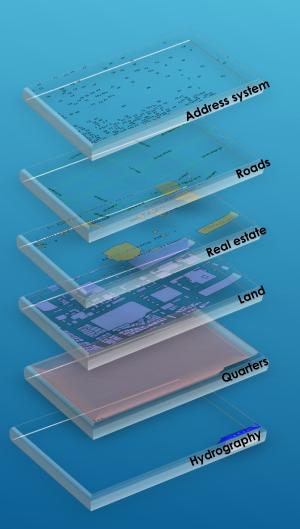
#### Forest resources data

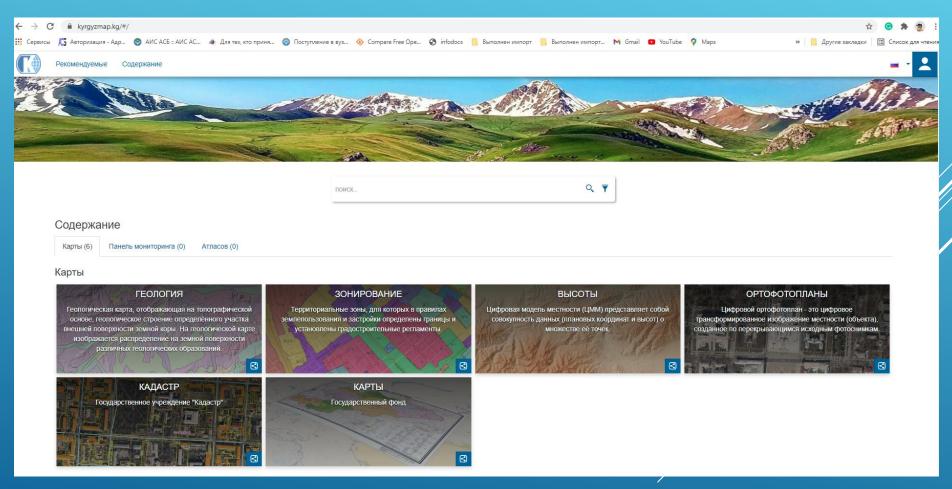


#### Static data



## Geoportal with base layers





https://kyrgyzmap.kg/

## Land use map

#### **Land inventory**



Compiled on the basis of aerial photograp and satellite images

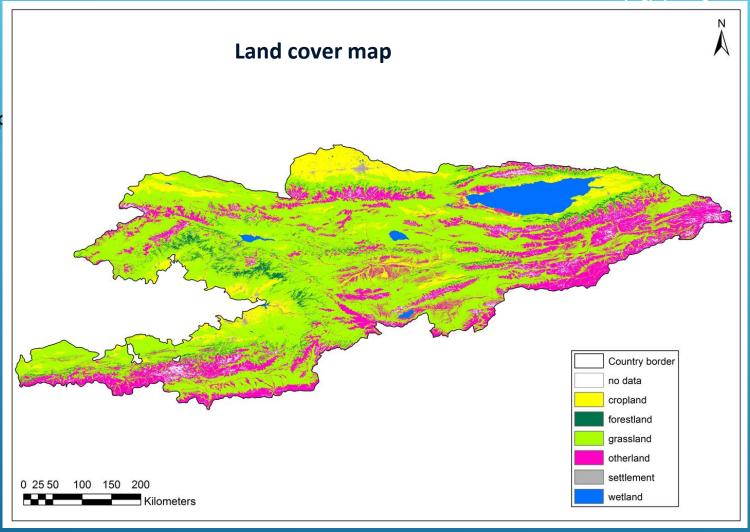


**Types of land** 



**Cartographic information** 

- squares
- **□** Borders



### Address register

#### Darek.kg



**Developed on the basis SOATE** 

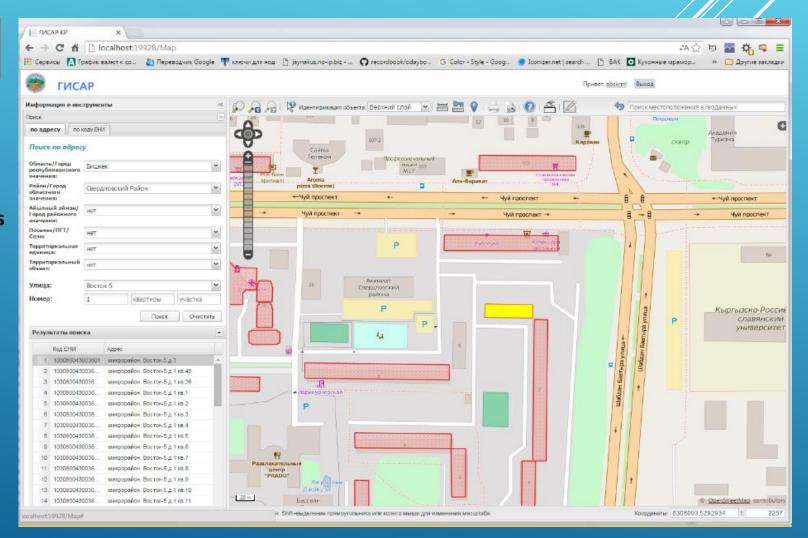


More than 30 thousand streets



Over 3 million objects real estate

- **☐** Search by address
- ☐ Search by code



# Database of the Ministry of emergency situations

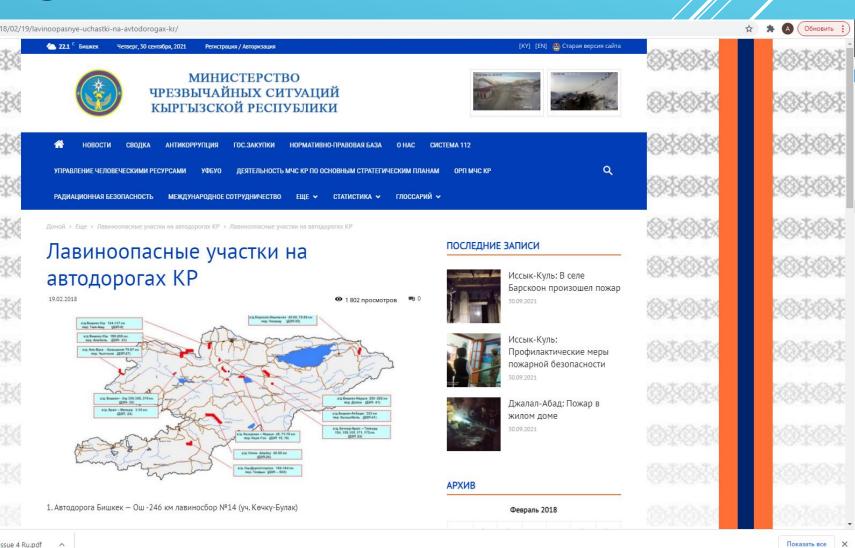
#### mes.kg



**Developed on the basis geonod** 



More than 5 thousand data



# Database of the State Agency for Forest Resources

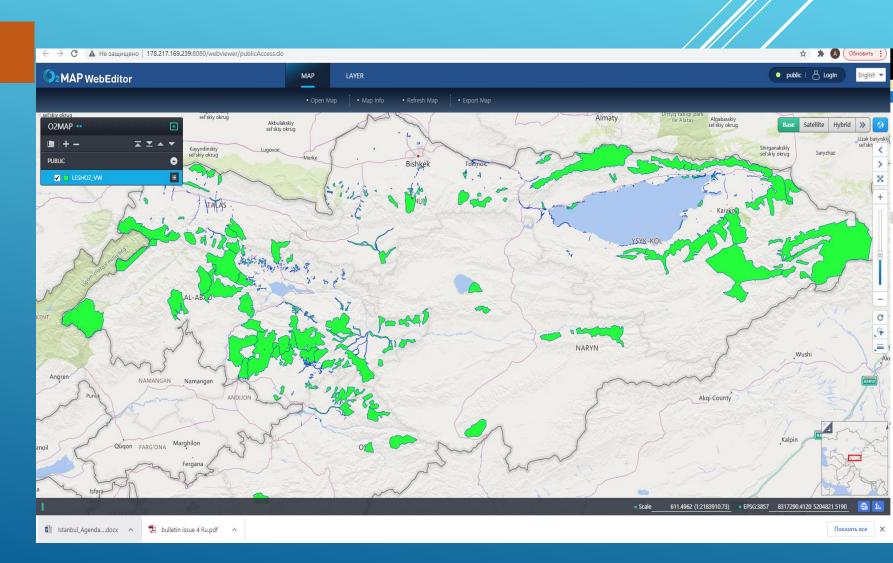
#### Forestry.caiag.kg



**Developed on the basis** geonod



Over 30k data



## Database of the State Agency for Water Resources

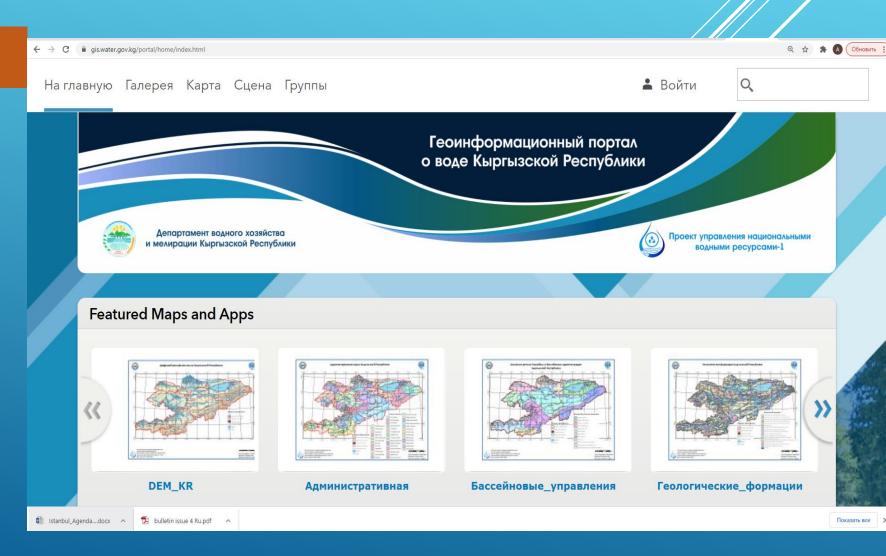
gis.water.gov.kg



**Developed on the basis ArcGIS server** 



Over 80k data



# Open Data Cube (Sibelius Project)

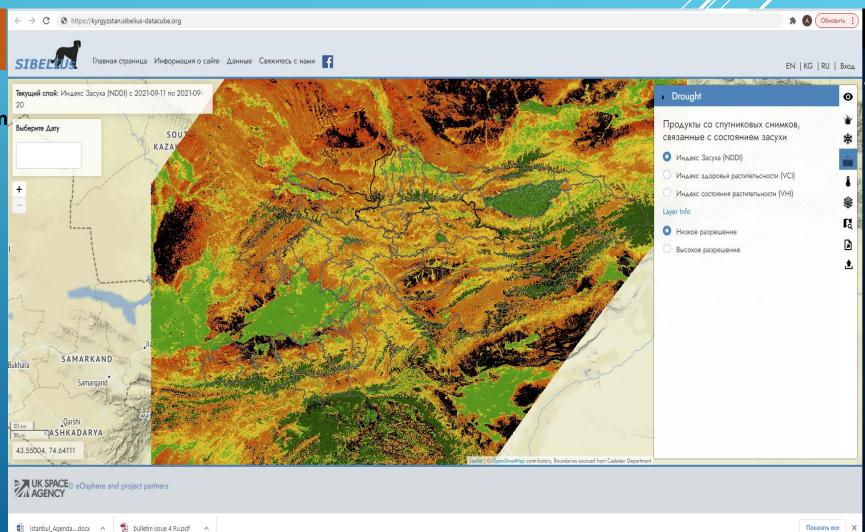
kyrgyzstan.sibeliusdatacube.org



Designed In the project's boun.
Sibelius



satellite imagery from open sources



## ►Thank you!