

The use of space systems for the Earth remote sensing to solve the problems of the economy of Kazakhstan.

For today, the space system for the Earth remote sensing of the Republic of Kazakhstan (hereinafter - ERS RK) has been created and is successfully operating as part of 3 optical spacecraft - "KazEOSat-1", "KazEOSat-2" with a ground control complex and a ground target complex for receiving and processing of space remote sensing systems and optical spacecraft for technological purposes "KazSTSat".

Space systems provide images for state bodies and organizations of the Republic of Kazakhstan in order to solve the problems of agriculture, water resources, ecology, geology and emergency situations. More than 35 geoservices designed to solve more than 40 industry tasks have been created in Kazakhstan since 2018

Thus, all agricultural lands of the Republic of Kazakhstan, which make up more than 33 million hectares, have been digitized; according to the results of space monitoring, unused arable lands are identified.

Production and consumption waste is also monitored.

The Ministry of Emergency Situations receives daily data on fires and floods for timely emergency response.

In 2022, platforms with digitalization and automation of various business processes of state institutions were developed.

1. Platform for control and monitoring of the rational use of agricultural land "JerInSpectr", aimed at ensuring the automation and digitalization of business processes to take action on the fact of violation of land use.

2. A prototype of the Unified Subsoil Use Platform Minerals.gov.kz was developed - a digital platform that will automate the functions of interested state bodies and departments, as well as simplify and speed up business processes for obtaining licenses for exploration and production. Potential subsoil users (investors) will receive a complete picture of the requested area, from infrastructure to geological and geophysical reports.

3. In order to monitor the distribution of land to meet the needs of the population in pastures, an Interactive Map of Agricultural Land (JERKARTA.GHARYSH.KZ) has been developed, which also shows the land returned to state ownership in 2022.

This approach makes it possible to fully apply the possibilities of the Earth remote sensing data from space both in the digitalization and automation of business processes, and in the development of interaction between state bodies and business entities.

Kazakhstan is ready to cooperate in the field of providing and exchanging data from the space system for the Earth remote sensing.