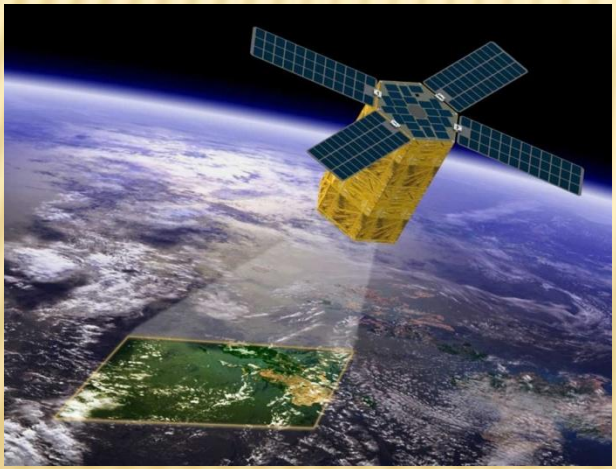
TAJIK AGRARIAN UNIVERSITY
Named after Shirinsho Shohtemur
Tajikistan| Dushanbe

Global Energy and Water Exchanges
A Core Project of the World Climate Research Programme

IDENTIFICATION THE EMERGENCE OF UNSTABLE FACTORS AFFECTING TO AGRICULTURAL PRODUCTS PRODUCTION UNDER CLIMATE CHANGE IN A SIGNIFICANT ECOSYSTEM OF REPUBLICAN SUBORDINATION REGIONS OF TAJIKISTAN USING REMOTE SENSING



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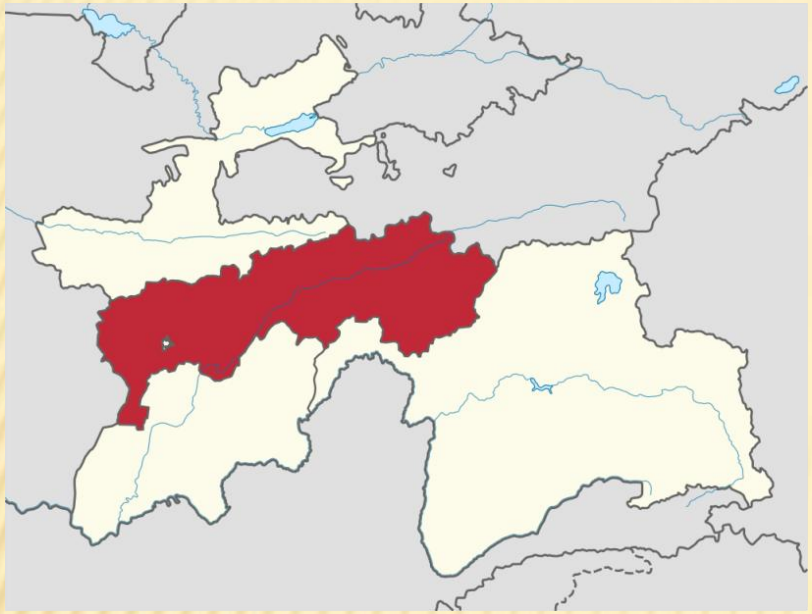
An investigation object



✓ RSR is understood as a joint activity and existence subordinated to the central administration of the State districts and a number of cities territory located in the central part of Tajikistan

✓ The RSR includes 13 districts and 4 cities

✓ Currently, 2,101,000 populations live in RSR and the total area is 28.4 thousand square kilometers, taking into account the population density is 74 people per square kilometer

The region has a developed agricultural production:

the wheat production in the region amounted to 239.8 thousand tons

247.2 thousand tons of potatoes

307.5 thousand tons of vegetables

40.8 thousand tons of melons

Cotton growing and melon growing are almost need to develop - 9.6 thousand tons of raw cotton and 13.5 thousand tons of melons were produced

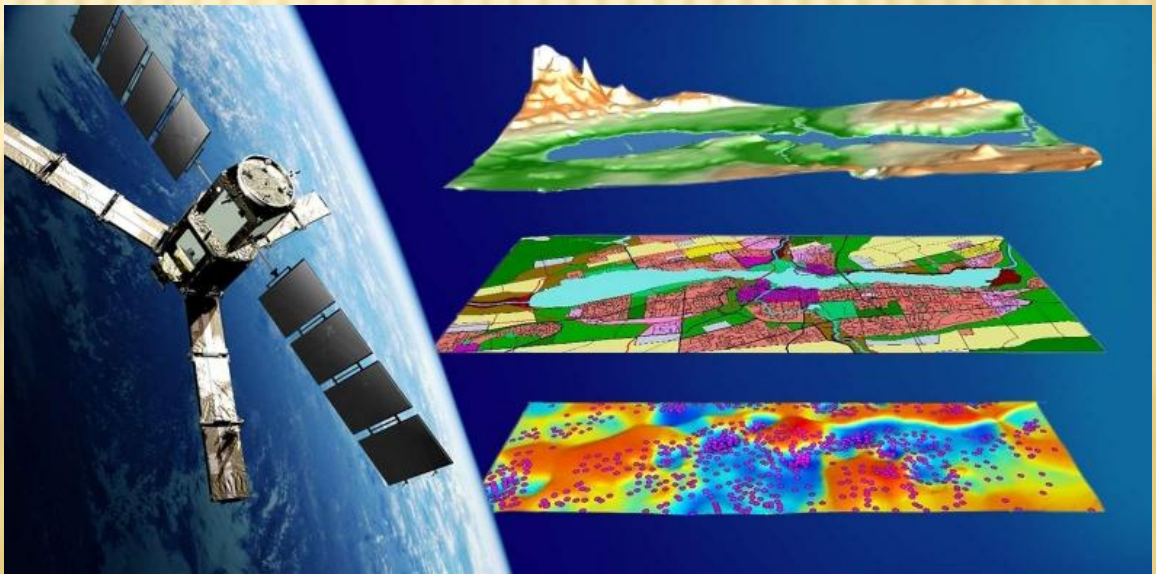
Animal husbandry is developed - in 2013 there were 1167.6 thousand heads of sheep and goats and 524.6 thousand heads of cattle

`Main goal

❑ Application of modern remote sensing technology taking into account use of GIS technology for monitoring the RSR land to identify emerging influencing factors such as gully formation, pasture exposure, erosion, land degradation, salinization, landslides, deterioration of the ameliorative state of land, etc. based on climate change and its extremes on the production of agricultural products last 20 years

❖ Main approaches and challenges

1. Conducting remote sensing of the territory using aerospace images
2. Collection of field data and comparison with remote data
3. Data modeling and development of thematic demonstrative maps on the impact of climate change and its consequences in agricultural production



An expected results:

- Will be identified an ecosystem changes during the last 20 years
- Will be determined the main causes and revealing factors in the production of agricultural products that appeared on the basis of climate change
- Will be demonstrates the results of the impact of climate variability on the environment

THANK YOU FOR YOUR ATTENTION