СОДЕЙСТВИЕ ОБМЕНУ ОПЫТОМ СТРАН ЦЕНТРАЛЬНОЙ АЗИИ В ОБЛАСТИ ГИДРОМЕТЕОРОЛОГИЧЕСКОГО ОБСЛУЖИВАНИЯ

Семинар-тренинг

10 – 11 ноября 2021 года

The system of hydrometeorological services in Tajikistan

Samiev S. Head of UMOS and Khamidov V. Head of Hydrology Department

Agency for Hydrometeorology of the Committee for Environmental Protection under the Government of the Republic of Tajikistan

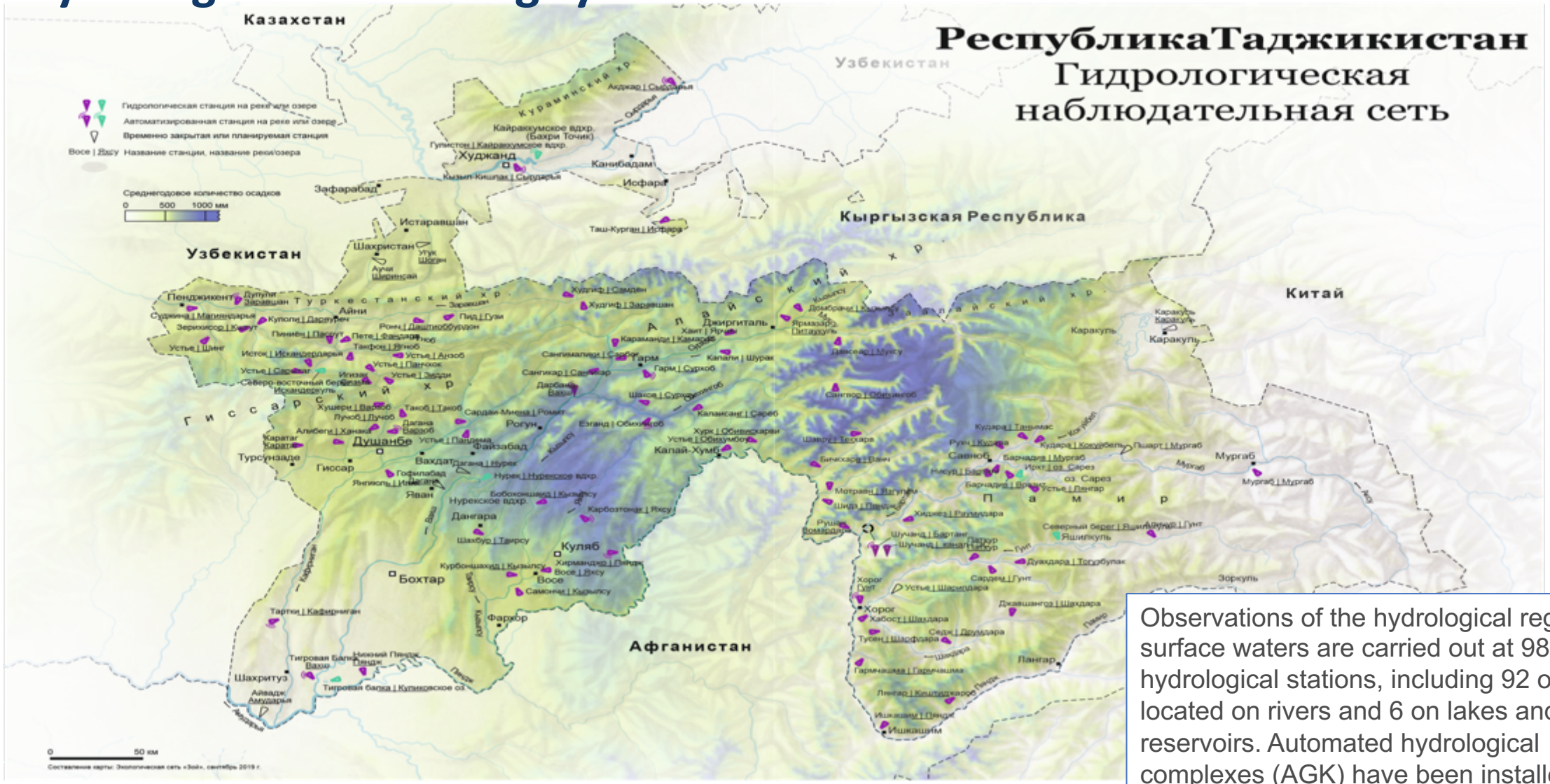
Goals and objectives of the Agency for Hydrometeorology

- ***Main objective:*** **The National Hydrometeorological Service is a government body specially authorized to solve problems in the field of hydrometeorology in the Republic of Tajikistan.**

The main objectives of Tajikhydromet:

- **Hydrometeorological support of the branches of the economy of the Republic of Tajikistan.**
- **Warnings about the possibility of natural hydrometeorological events.**
- **Development and compilation of all types of hydrometeorological forecasts.**
- **Conducting systematic hydrometeorological observations and environmental monitoring.**
- **Maintaining the Republican Data Fund on Hydrometeorology and Environmental Pollution.**
- **Providing quality hydrometeorological products to users.**

Hydrological monitoring system



Observations of the hydrological regime of surface waters are carried out at 98 hydrological stations, including 92 of them located on rivers and 6 on lakes and reservoirs. Automated hydrological complexes (AGK) have been installed in 16 gauging stations

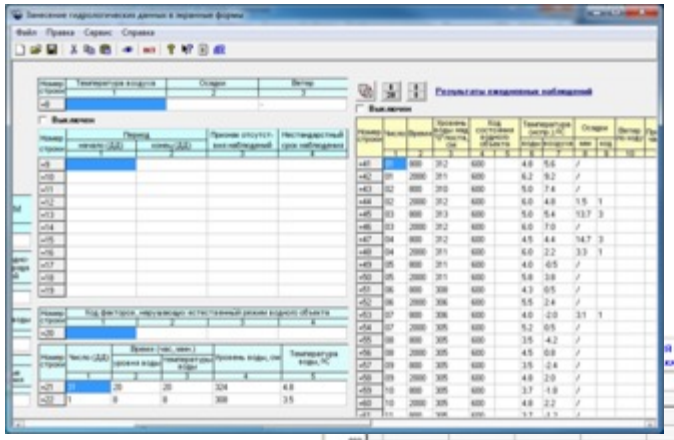
Hydrological monitoring system

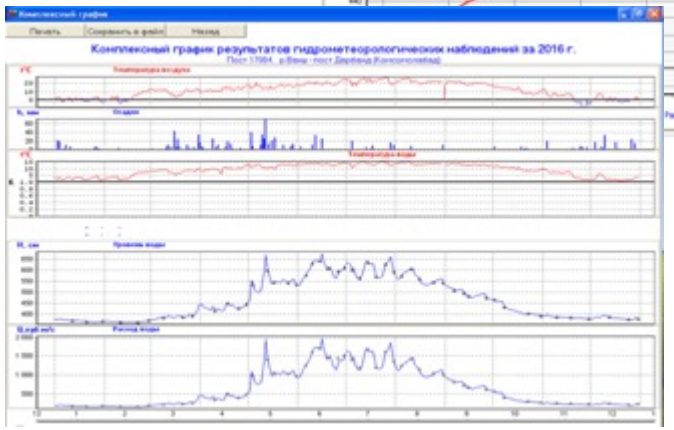
- The network of hydrological posts is designed to obtain data on surface water bodies and their water resources in order to study the hydrological regime, maintain the state water cadastre, as well as provide consumers with primary hydrological data, actual and forecast hydrological information.

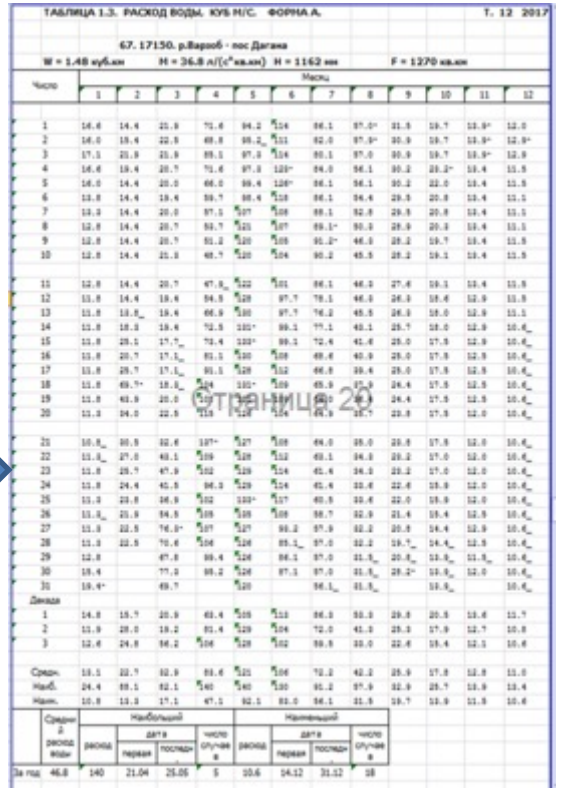
- On the rivers, observations are made of the level, discharge, water temperature, precipitation and ice phenomena.

- Daily operational data is transmitted from 34 gauging stations, which are necessary for the compilation of forecast hydrological information.
- The Department of Hydrology issues forecasts of water discharge for a decade, a month and a forecast of water discharge for the growing season.
- Hydrometeorological support of the population and authorities is carried out by electronic means, by courier and through the media.

Processing of regime hydrological information.







- Observations and their primary processing are carried out at hydrological posts.
- Hydrological stations organize and manage the work of gauging stations, control the implementation of the rules for recording and processing observation data. The materials received from the posts are checked at the station, processed and all information to be entered on the technical carrier is sent to the hydrology department of Tajikhydromet.
- The Department of Hydrology is processing data using the "Rivers-Mode" system. Then the materials are included in the Hydrological Yearbook.

Water quality monitoring system

- Photocolorimeters
- Photometer (SQ-118), NOVA60, palintesn-5000, expert-003
- Conductometer
- Electronic balance .
- pH meter, aqvametr-200, etc.

SHMU EUWI EECCA WECOOP EU - Central Asia Cooperation on Water - Environment - Climate Change IWAC

СОДЕЙСТВИЕ ОБМЕНУ ОПЫТОМ СТРАН ЦЕНТРАЛЬНОЙ АЗИИ В ОБЛАСТИ ГИДРОМЕТЕОРОЛОГИЧЕСКОГО ОБСЛУЖИВАНИЯ

Семинар-тренинг

10 – 11 ноября 2021 года

Water quality assessment methods

Until 2020, assessments of surface water quality were carried out for individual ingredients.

In 2021, water quality assessments began using integrated methods.

- Complexity coefficient of water pollution (KKZ);
- Water pollution index (WPI);
- Combinatorial water pollution index (KIZV).

Based on the results of surface water monitoring, monthly and annual analytical reviews are drawn up on the quality of surface waters in the Republic of Tajikistan.

Challenges

- Lack of qualified personnel in the field of hydrological, hydrochemical monitoring and forecasting.
- Lack of teaching aids and experience in the correct choice of type and placement of automatic measuring instruments.
- Insufficient experience in operating an automated network and using their data.
- Incomplete coverage of monitoring the quality of surface water bodies.
- Lack of equipment and chemicals for monitoring water quality.
- Lack of an effective system of interaction with consumers.

Proposals for development

- Provision of water quality monitoring laboratory with equipment and chemical reagents.
- Organize hydrobiological monitoring.
- Organization of internships and training for specialists in the direction of acquaintance with modern technical and methodological tools for hydrological and hydrochemical monitoring and forecasting, including the experience of creating and operating an automated network of hydrological observations in mountainous areas, information technologies and management tools for hydrometeorological data in leading specialized scientific and methodological centers.
- Improving the quality and timeliness of warnings about various hazardous phenomena, developing and introducing new forecasting techniques with a focus on forecasting mudflows, avalanches, floods and droughts, given that in the Republic of Tajikistan, up to 80% of all damages are caused by these phenomena.
- Improvement and implementation of marketing technologies aimed at effective interaction with interested partners.
- Development of specialized information products for industry consumers, presented in a user-friendly format.