Hydrological monitoring in Republic of Moldova

Vitalii Jocot

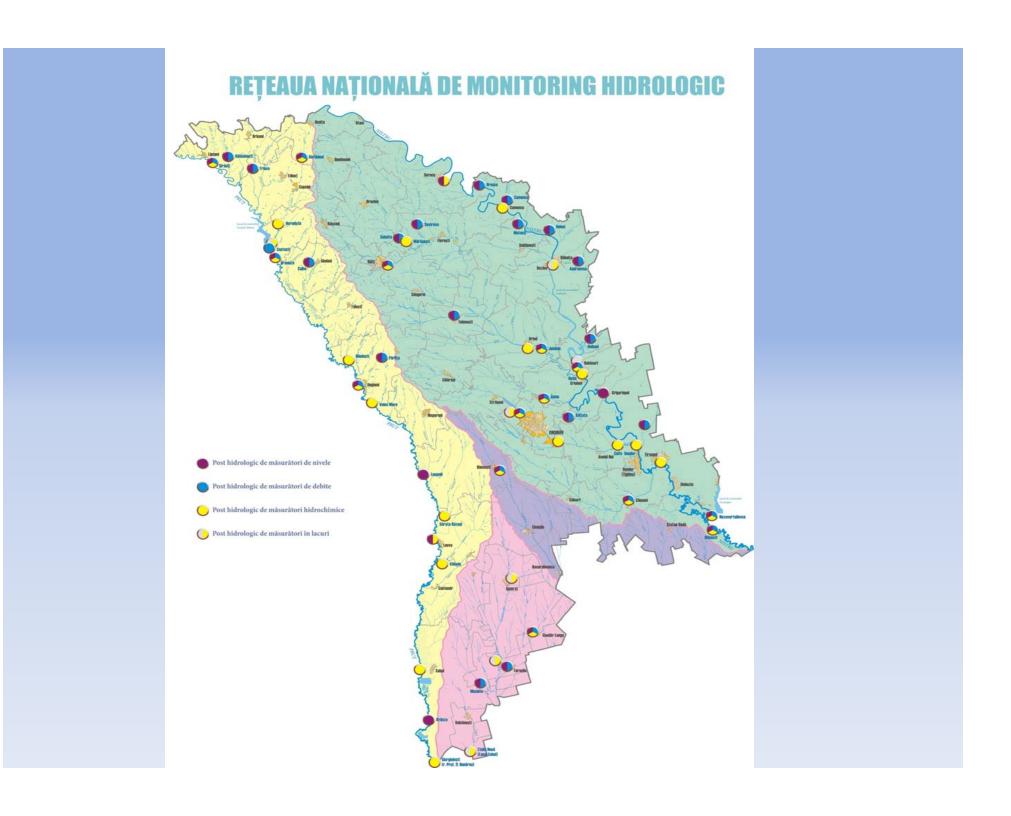
hydrological engineer of the State Hydrometeorological Service

Koblentz may 8 – 10,2012

Hydrological monitoring

According to the Law of Environmental Protection in June 16, 1993 № 1515-XII, Law on hydrometeorological activity from February 25, 1998 № 1536-XIII, State Hydrometeorological Service carry out hydrological monitoring of the state.

Hydrologic network includes one hydrological station and 46 gauging stations located on the Dniester and Prut rivers, their tributaries and rivers of southern interfluve.



The Hydrological Department of the State Hydrometeorological Service assure operative- method of management of hydrological network

Tasks of the Hydrological Department (DH) are:

- Make hydrological observations.
- •Providing local and central public authorities, business and households, with operational hydrological information.
- water levels and discharge daily into the rivers Dniester and Prut
- •data on the occurrence of floating ice and ice bridge
- •Investigation, forecasting and early warning of natural disasters related to water.
- •Editing data on annual and multi-annual surface water resources and conditions.
- Editing State Water Cadastre
- Organization and hydrographical surveys on the territory of Moldova.

- •advice on possible high water levels in small rivers of Moldova based on precipitation forecast,
- •hydrological report of past spring floods, floods, sudden change of water or ice mode of rivers.

Main methods are:

- •Forecast layer flow (volume) Spring floods for Dniester and Prut rivers and small ponds;
- Forecast rain floods in rivers of Moldova
- •The probability of hydrological forecasts are on average from 75 to 85 %.

From August 16, 2010 State Hydrometeorological Service began using scale of 4 colours, showing the following gradations of dangerous phenomen's risk it self:

- •The Green code: not forcasted any dangerous phenomenon's;
- •The Yellow code: weather conditions or potentially hazardous according to environmental conditions;
- •The Orange code: the weather conditions or environmental conditions presents a real danger;
- •The Red code: weather conditions or environmental conditions are very dangerous.

Content of the proposed code is available for use both by the media, as well as population, contributing significantly to establishing the degree of risk in different situations.

Between, by typing those code's, State Hydrometeorological Service provides appropriate information to human population about possibilities where can be potentially dangerous phenomen's, related to Weather, Climate and Water, as well as the high and exceptional Air pollution.

Also on the SHS website (www.meteo.md) in chapter of Warnings for each international code are described in detail the risks and recommendations for all hazardous phenomen's above mentioned, possible in Moldova.

Modernization of hydrological monitoring projects implemented in Moldova

Governments of Moldova and Czech Republic, projects "Monitoring of surface water and flood defense on Raut and Prut river basins"

World Bank Project "control (management) natural disasters and climate risk in Moldova»

Corporation project "Millennium Challenge" - "Irrigation Sector Reform"

The aim and tasks of the Raut river project

During 2006-2008 was conducted Moldavian and Czech Republic project "SURFACE WATER MONITORING AND DEFENSE AGAINST FLOODS IN RAUT RIVER BASIN".

Within this project were achieved:

- •Identify sectors for optimal arrangement of five hydrometric sections (Ciulucul Mic river h/pTelenesti, Raut river h/s Balti, h/p Jeloboc, Cubolta river h / p Cubolta, Cainari river h / p Sevirova);
- Preparation of standard network, installing automatic observation stations;
- Training SHS staff to perform monitoring.

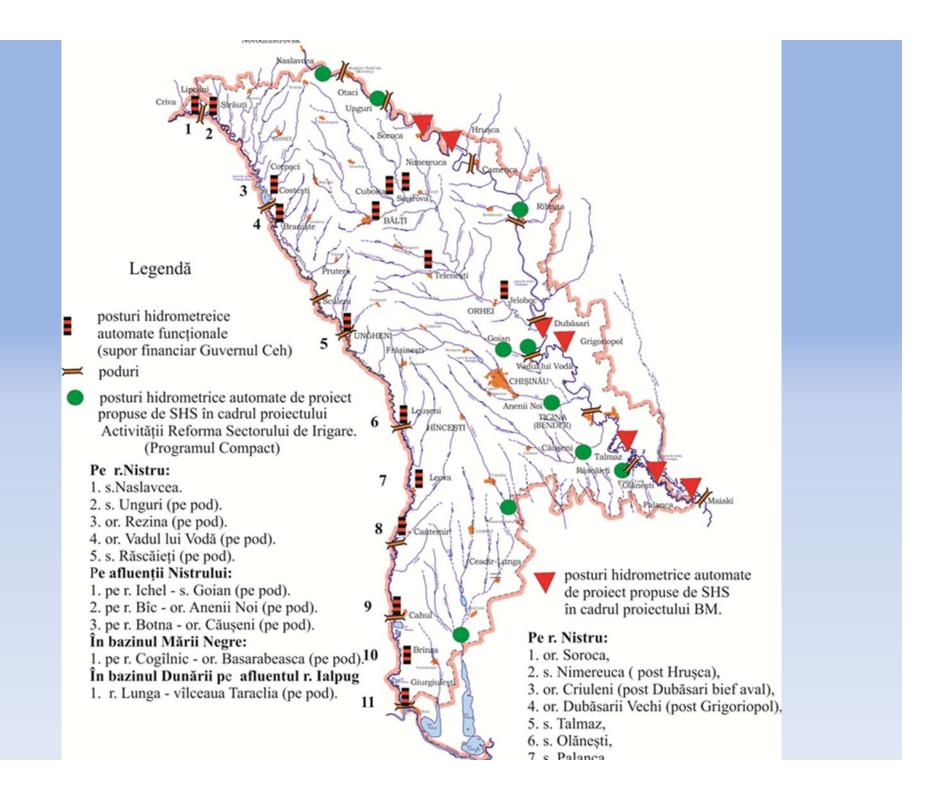
The target and tasks for river Prut project

With help of the Czech Government and Czech Development Agency, on the Prut river was installed 11 automatic hydrological posts.

As a result of project, implementations will be provide on the border river, hydrological monitoring that will allow the State Hydrometeorological Service specialists to monitor the water conditions and to ensure public authorities, businesses and households with operative information, forecasts and warnings of possible flooding.

World Bank Project "Observations of natural calamity and climate risks in RM

- Creating an automated system for monitoring the water resources of the Dniester River (purchase and installation of 7 automatic hydrological posts).
- Building an hydrological station on the Costesti- Stinca water tank.
- The project also plans to purchase software for early notification system for floods warnings.
- Purchase and installation of Doppler weather radar system,
 which will improve forecasting risk system of flooding.



Automated hydrological monitoring

