SHMÚ – basic facts Martin Benko Slovak Hydrometeorological Institue

Slovak Republic

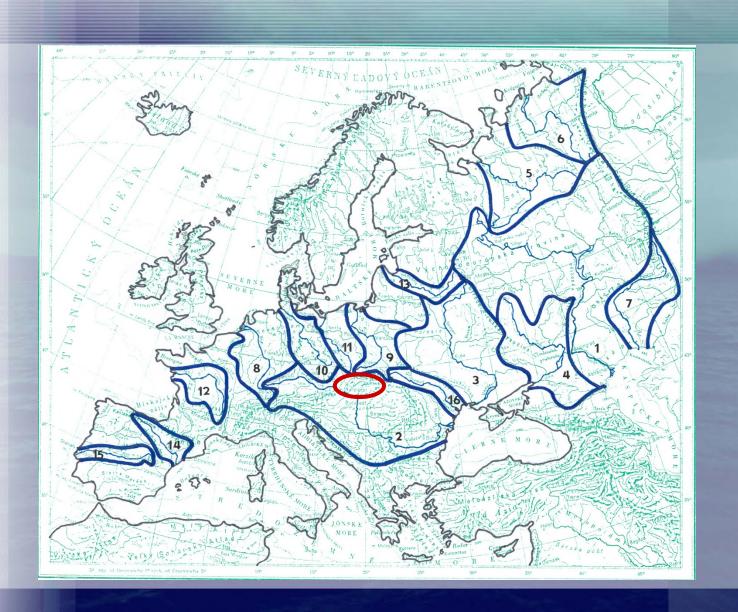


Area: 49 036 km2

• Population: 5 435 000

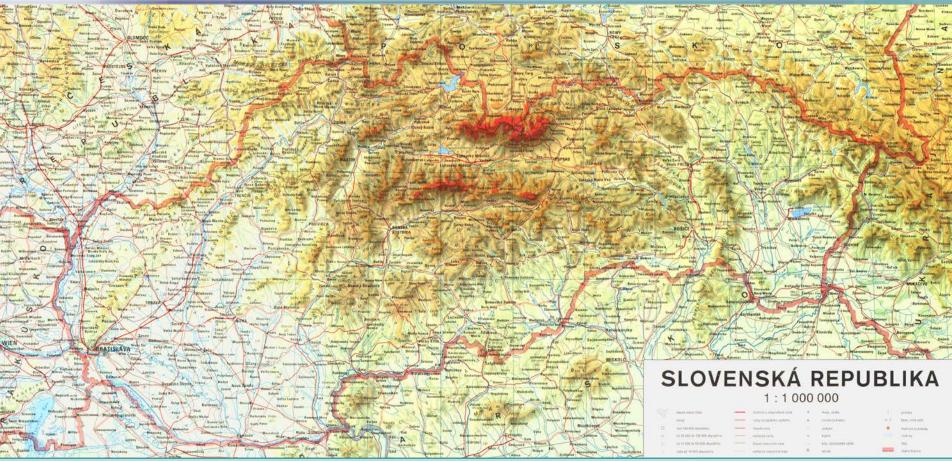
Capital: Bratislava











The lowest point (Streda n. Bodrogom): 94 m a.s.l., the highest point (Gerlach): 2655 m a.s.l. Average annual precipitation total is 747 mm; 65% is evaporated, 35% represents runoff. The average temperature – January: from -1°C to -12°C; July: more than 20°C to about 14°C. The length of Slovak rivers: 8437 km totally, 3156 km regulated.

SHMI - basic facts

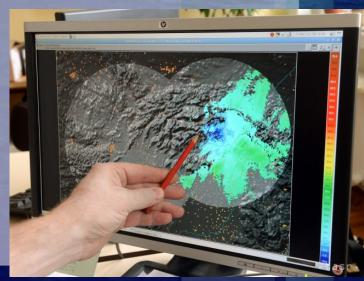
- 3 main group of activities:
 - Meteorological service
 - Hydrological service
 - Air quality
- Main goals:
 - monitoring of parameters characterizing the state of air and water,
 - study and description of processes in the atmosphere and hydrosphere,
 - creation and issue of meteorological and hydrological forecasts, warnings and information

According to the law no. 201/2009 "The Law on State Hydrological Service and the State Meteorological Service"



Basic activities

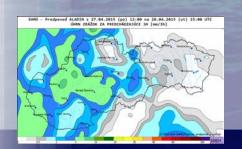
- Monitoring of atmosphere and hydrosphere (operational running of state hydrological and meteorological networks) includes quantity and quality
- Monitoring of radiation (operation of radiation network)
- Monitoring of ambient air (operation of the national air quality monitoring network)
- Operation of the aeronautical meteorological services
- Evaluation of emissions
- Issuing of predictions and warnings
- Making studies, expertises and assessment activities
- Cooperation in the creation of European programs (Copernicus, INSPIRE), implementation of EU Directives
- Implementation of various projects
- International cooperation within ECMWF, EUMETNET, EUMETSAT, WMO, ALADIN, RCLACE, etc.



Organizational structure

SHMU is divided into different sections:

- Meteorological service
- Hydrological service
- Centre of forecasts and warnings
- Aviation meteorological service
- Air quality
- Supporting activities (informatics, economy, administration)













State Monitoring Networks

State Meteorological Network		
automatic weather stations	94	
synoptic meteorological stations (professional)	20	
climatic stations (voluntary)	56	
precipitation stations	540	
automatic precipitation stations	197	
stations for measuring the solar radiation	5	
mast meteorological observatories (mast 200m)	1	
agrometeorological stations	55	
phenological stations	217	
stations for environmental radioactivity monitoring	18	
station for the measurement of total atmospheric ozone	1	
upper air station	1	
radar observatories	4	

State Hydrological Network		
gauging stations for surface waters	418	
monitoring objects for water sources	359	
groundwater observation probes	1143	
monitoring sites for the collection of surface water quality data	438	
observation objects of groundwater quality	591	

National air quality monitoring network		
automatic monitoring stations for air pollution	34	
stations for monitoring regional air pollution and rainwater quality	4	







- Certified quality management system according to ISO 9001: 2015
- R & D Certificate of Competence issued by the Ministry of Education and Science of the Slovak Republic dated 10 February 2016
- Four entities accredited by the Slovak National Accreditation Service (SNAS) according to STN EN ISO / IEC 17025: 2005
 - Calibration laboratory: accredited to calibrate temperature, air humidity, air pressure, airflow, rain gauges and air pollution measuring instruments.
 - Testing laboratory: accredited for carrying out physical and chemical tests of ambient air samples and atmospheric precipitation.
 - Testing laboratory Water quality: accredited for the groundwater sampling and conducting physico-chemical and chemical analyzes of collected samples.
 - The National Air Quality Monitoring Network: accredited to carry out continuous measurements of ambient air pollution, PM sampling, and to provide studies and interpretations on test results.
- Aeronautical Meteorological Service: Certificate of the air navigation service provider no. ANSP-2/2017









Membership in international organizations

- WMO World Meteorological Organization
- **EUMETSAT European Organization for the Use of Meteorological Satellites**
- **ECMWF European Center for Medium-Range Weather Forecast**
- **ALADIN Country grouping of the forecasting model**
- RCLACE Regional cooperation for modeling in a limited area in Central Europe
- **EUMETNET European Meteorological Network -Association of 30 European National** Hydrometeorological Services based in Brussels













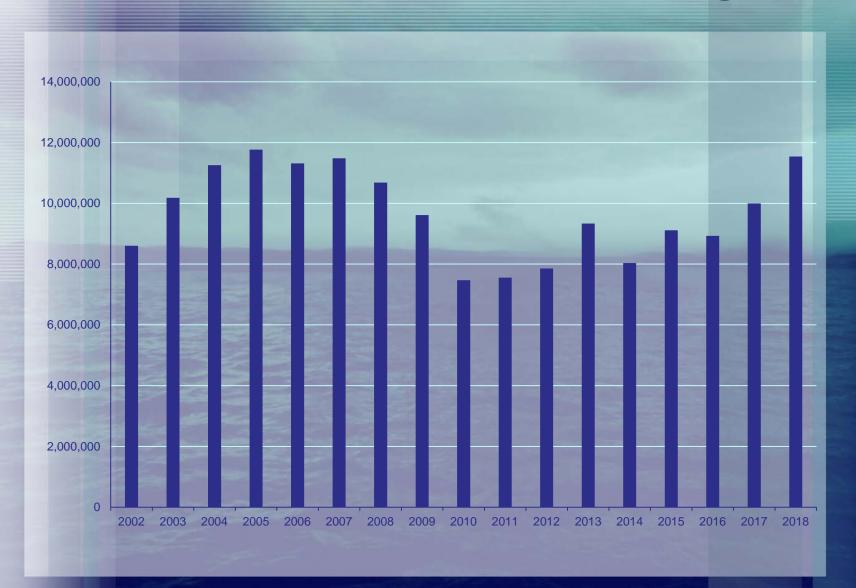
Financing of Activities

- Contribution from the state budget
- Revenues from own activities
- Projects and grants

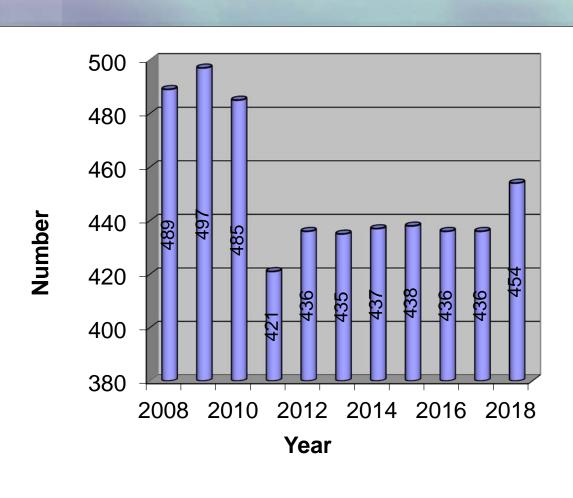


Total income 2018: 18,27 M€ State budget: 66%

Contributions from the state budget



Number of Employes



Thank you!

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