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# WMO RA VI Hydrology Forum

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### History

1947 – Foundation of Hydrometeorological Institute in former Yugoslavia

1951 – first agrometeorological measurements

1975 – foundation of the Sector for water and air quality

1997 – starting the works on automatization of meteorological

measurements

2001 – starting of operative work of numerical meteorological model

2005 – starting of automatization of hydrological measurements

2007 – Montenegro becomes WMO member



- HMI is a government body, under the competence of the Ministry of Sustainable Environment and Tourism
- HMI is funded by State budget (supervised by the Ministry of Finance)

# Work of Hydrometeorological Institute is organized through:

- Law on hydrometeorological services
- Law on hydrographic services

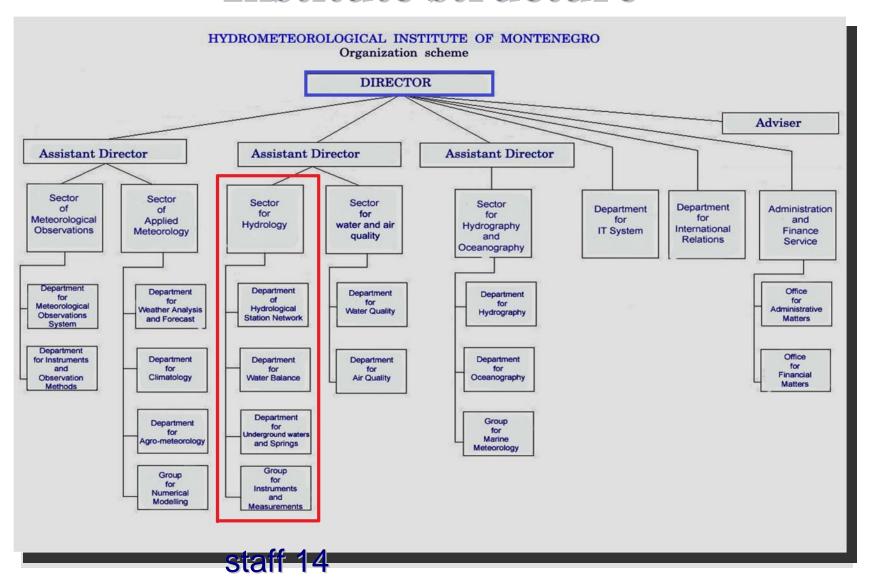
(Off.Gazz. of Montenegro, No. 26/10, 07.05.2010.)



- HMI is organized for following the state of the atmosphere and hydrosphere in global
- Users of our products and data are numerous:
- Ministry of Environment protection and Tourism
- Ministry of Rural development and Water management
- Ministry of Economy
- Ministry of Interior affairs
- Agency for Environment protection
- Public Enterprises
- Media
- University / students
- Insurance companies
- Individuals etc.

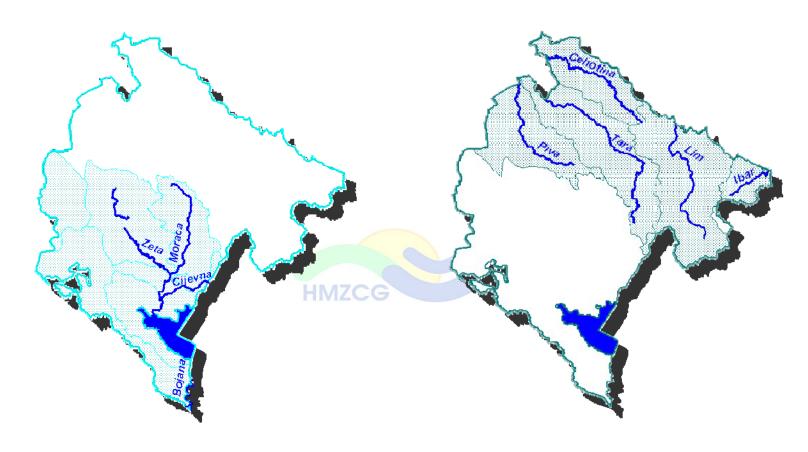


#### Institute structure

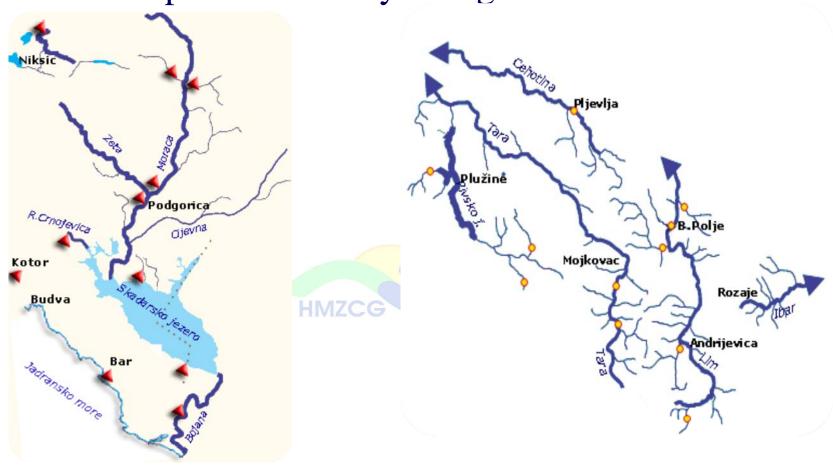


Waters from Montenegro territory flow into two basins:

Adriatic sea (45.4%) and Black sea (54.6%)



❖ Total number of present hydrological station is 35, from which 23 are automatized with on-line data on HMI web site, and we are planning to complete Master plan with 51 hydrological stations.





#### Biggest successes

- Successful projects implementation (project with NVE, DRR project, DMCSEE, Nautical Tourism.....)
- Organization of the new Sector of hydrography and oceanography within the Institute (2008)
- Approaching to EMI structures through DRR project
- On time announcement to the public of extreme weather situations in 2009 and 2010 causing floods and in 2011 extreme snowfalls, which caused a collapse in almost whole country

# Floods 2009/2010 causing huge material losses





# Snow in 2011 causing collapse in the country







#### Happy because of ......

- Good cooperation among different Sectors in the Institute
- Very good and pleasant working atmosphere
- Very good cooperation and exchange of experiences on international level



#### Biggest failures

- Decrease of the number of meteorological stations (till 2010 number of precipitation station was 60, today is just 30)
- Inability of station maintenance
- Inability of purchasing spare parts for stations
- Lack of trained personal for hydrometric measurements and station maintenance
- Inability of realization of Master plan of hydrological stations



#### Unhappy because of.....

- Inability of realization of planned activities, due to lack of funds
- Disproportion of current possibilities and huge number of users requests
- Destruction of hydrological stations
- Limited possibility of measurements of high waters on torrent water currents (as are almost all Montenegrin rivers)



#### National level

- Finalization of the Master plan of hydrological station network
- Providing conditions for discharge measurements among whole amplitude of water levels

#### International level

- Possible engagement of WMO experts in raising awareness on importance of hydro-meteorological data and information
  - Organization of (regional) trainings for meteorological and hydrological technicians

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### Destroyed hydrological stations











### New stations obtained through projects





