

PIC –INTERREG III –Italia-Albania
Misura 2.1: TUTELA E VALORIZZAZIONE
AMBIENTALE

Task A5 -Oceanografia Fisica

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Academy of Sciences - Institute of Hydrometeorology Tirana



- **Monitoring of atmospheric processes based on observing, collecting, transmitting and evaluating of meteorological elements**
- **Monitoring of water resources (surface waters, ground waters, marine waters)**
- **maritime hydrology - tide and their respective parameters, waves level, hydro geomorphology, coastal lagoons;**
- **monitoring of pollution in surface, ground and marine waters, study of tendency in water quality parameters**

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- ***Department of Meteorology***
 - *Section of National Meteorological Network*
 - *Section of Climatology*
 - *Section of Meteorological Forecasting*
 - *Section of Agro meteorology*
- ***Department of Hydrology***
 - *Section of National Hydrological Network*
 - *Section of Surface Water Hydrology*
 - *Section of Maritime Hydrology*
 - *Section of Groundwater Hydrology*
- ***Department of Environment***
 - *Section of Air Quality*
 - *Section of Water Quality*

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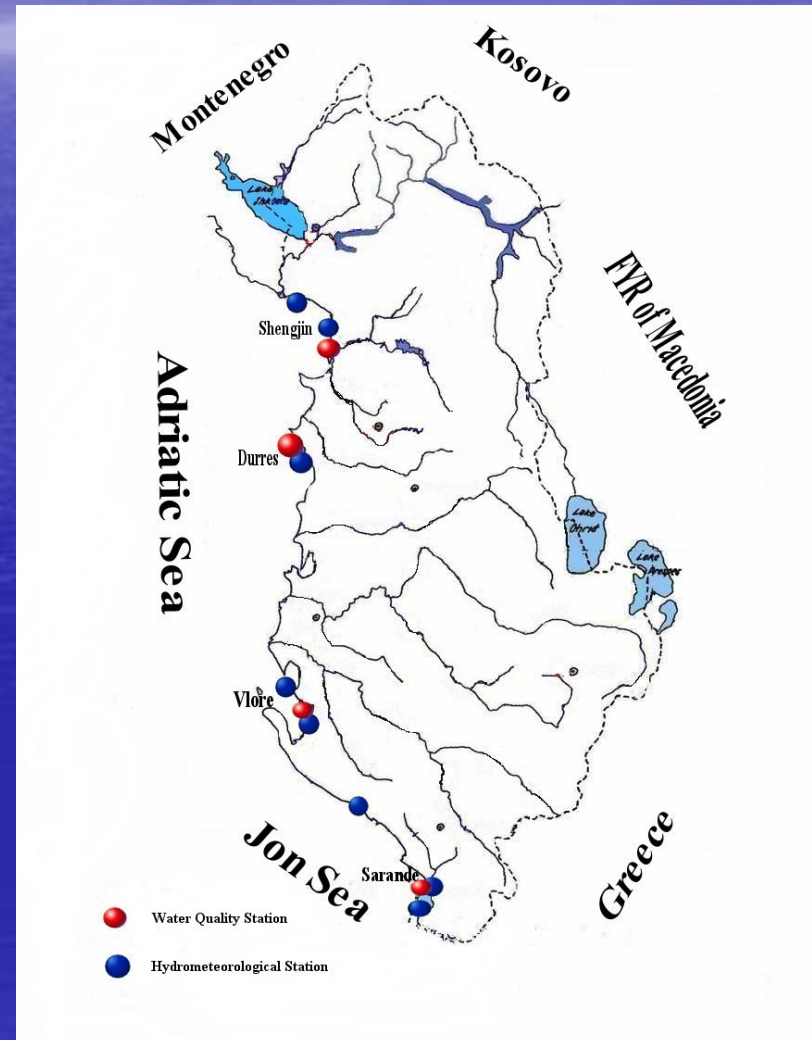
There are a total of 83 employers of which

- 25 scientific researchers (3 Prof. , 10 Dr, 12 Msc and assistants)
- 46 technicians for administration of the network,
- 12 employers in administration.
- Mean age of staff 45.4 years
- Women/Man ratio 41/42
- There are 256 observers contracted by HMI to make the observations.



Meteorological and hydrological network in coastal area

- there are 8 maritime stations for meteorological and hydrological measurements
- There are 4 maritime stations for water quality



Zverneci Hydromet Station

- The geographical position of this station is in front of the Sazan island, near by the Narta lagoon in north of Vlora City.
- Narta Lagoon is the second biggest lagoon in Albania (area 5913 Ha).
- The geographical coordinates : $\Phi=40^{\circ} 30' 52''$ N; $\lambda= 19^{\circ} 23' 36''$.



Hydrometeorological elements:

- Sea level* every 10 min (average), min/max values for every 1 h
- Atmospheric pressure* every 1 hour (average)
- Wind direction* every 10 minutes
- Wind speed* every 10 minutes, maximum values every 1 h
- Air temperature* average, minimum and maximum values every 1 h
- Air humidity* average, minimum and maximum values every 1 h
- Water temp.* average, minimum and maximum values every 1 h



Data Acquisition

- Data Acquisition Unit (OLM4-PS Olimpo rack 19"), Zvernec Station
- Kit GSM (E139 MGPRS)
- HW and SW Central data Acquisition (GTS office in Tirana)



Sampling techniques



- We make sampling for
- Water in column
 - Sediments on core etc.

MAIN NATIONAL AND INTERNATIONAL PROJECTS

- MED-HYCOS (Mediterranean Hydrological Cycle Observation System). *World Bank Group-WMO-IRD (France) 1995-1998*
- National water strategy for Albania. *Phare Contract 95-1145.00*
- Preservation of coastal and legatine ecosystem at Mediterranean region *PNUD, 2000-2006*
- Mediterranean network to Assess and upgrade Monitoring and forecasting Activity in the region (MAMA) *EC 2002-2006*
- Progetto di una rete di monitoraggio delle acque marine dell'Adriatico, Programma INTERREG II, Italy – Albania, 2000-2001
- Italy-Albania Project “Evaluation of Environmental Impact in Ex-Industrial area of Porto-Romano: Effect in ichthyic species object of fish”, 2005-2007
- ADRICOSM-EXT - (ADRIatic sea integrated COastal areaS and river basin Management system pilot project - EXTension), 2005-2006
- ADRICOSM-STAR - ADRICOSM INTEGRATED RIVER BASIN AND COASTAL ZONE MANAGEMENT SYSTEM: Montenegro coStal Area and Bojana river catchments. In the Framework of the ADRICŌSM – Partnership, 2006 – 2008

Some ideas for the C.I.S.M.

A Center for Oceanographic Studies

- It have to do the oceanographic studies according to request of WFD
- It should has its logistic and infrastructure
- It should be a national and international centre for collecting, processing and acquisition data
- It should have a high technology for sampling, analyzing and archiving data for water quality (it means a high technology laboratory, a trained and specialized staff, etc)

Objectives for the future

- Need a scientific council to give the priorities of the oceanographic studies
- High cost for new technology
- Needs for trained and specialized new staff
- Needs new technology for sampling and analyzing of water quality samples
- Needs new technology for meteo and hydrological data getting on line
- Needs a new building and a good position for establishing of coastal network

A coordinative Centre for Oceanographic studies

- It should have a coordinated programme of the existing institutions which deal with the oceanographic activities
- The human resources and logistic infrastructure could involve in the integrated monitoring programs and studies
- Updating of the sampling and analyzing technology

Objectives for the future

- Compiling of Coordinating agreement and approval
- Upgrading the infrastructure and logistic
- Trained and specialized staff

The background is a smooth blue gradient. On the left side, there is a bright, glowing area that resembles a sun or moon reflecting on water, creating a shimmering effect. The rest of the background is a deep, uniform blue.

THANK YOU!