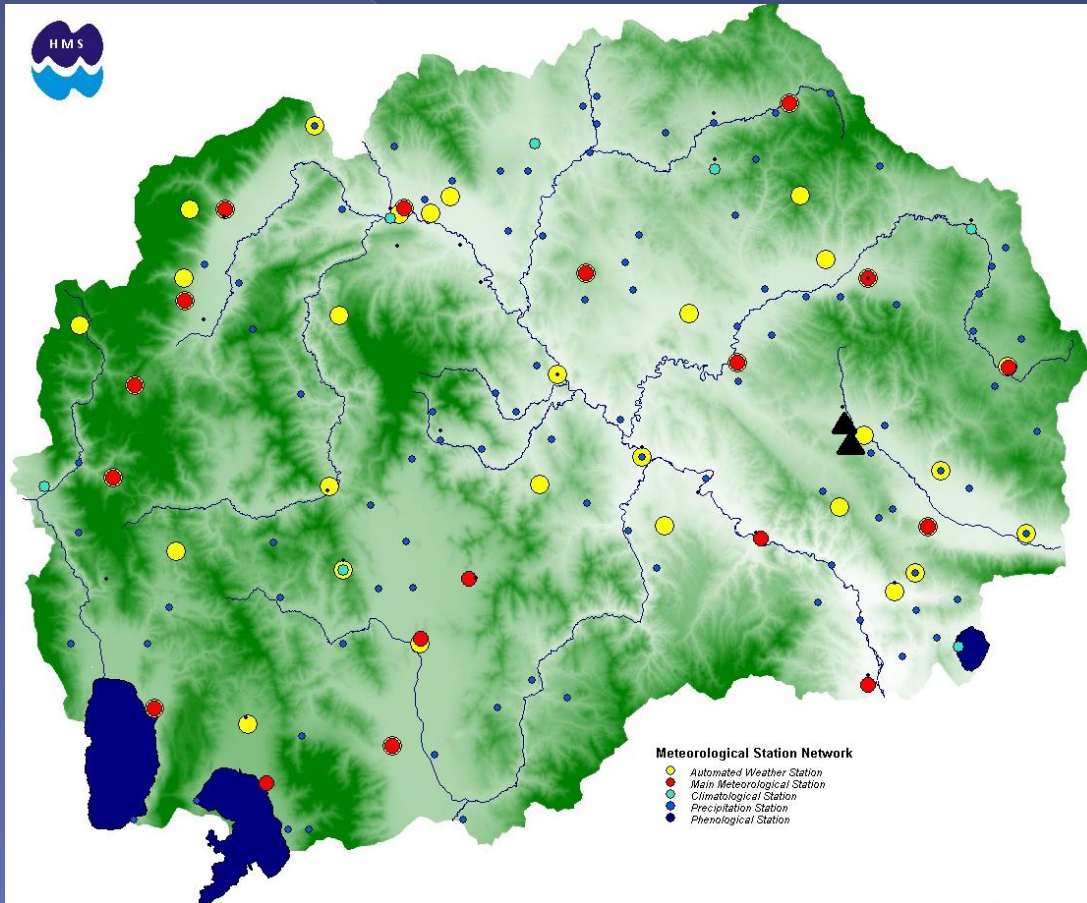


Hydrometeorological Service of Republic of North Macedonia Report on Activities 2018-2019

18th SESSION OF THE INFORMAL CONFERENCE OF SOUTH-EAST EUROPEAN NMHSs DIRECTORS
(ICSEED - 18) TEL AVIV, ISRAEL, 4TH November 2019

Measurements and observations



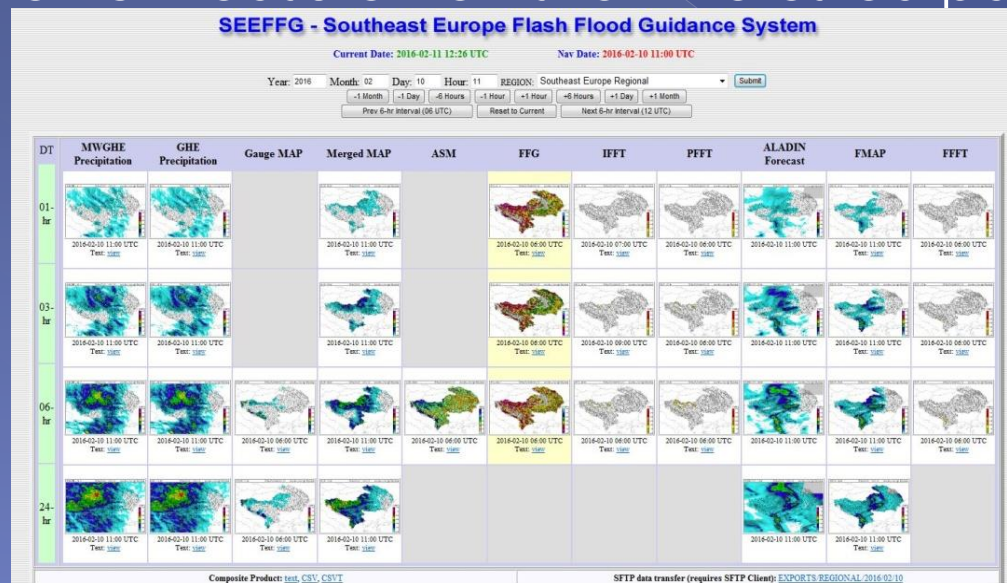
- 186 sites: 9 main, 7 climatological, 24 phenological, 94 precipitation and 46 AMS
- +2 Weather radars (WSR-74 X/S and MRL-5)

MMS	
01	Berovo
02	Bitola
03	Demir Kapija
04	Gevgelija
05	Gjuriste
06	KrivaPalanka
07	Lazaropole
08	Mavrovo
09	Ohrid
10	Polog
11	Pozar
12	Pretor
13	Prilep
14	Skopje
15	Stip
16	Strumica
17	Tetovo
18	Topolcani
19	Vinica

AWS	
01	Berovo
02	Bitola
03	Cresevo
04	Galicica
05	Gjuriste
06	Gradsko
07	Ilovica
08	Jasen
09	Jasenovo
10	Jazince
11	Kavadarci
12	Kocani
13	Kosturino
14	Kriva Palanka
15	Krusevo
16	Lazaropole
17	Makedonski Brod
18	Mavrovo
19	Novo_Selo_Gostivar
20	Novo_Selo_Strumica
21	Ohrid Aerodrom
22	Ohrid Aerodrom
23	Ponikva
24	Popova Sapka
25	Pozar
26	Pozarane
27	Radovis
28	Resen
29	Skopje
30	Skopje Aerodrom
31	Skopje_GaziBaba
32	Skopje_Karpos
33	Slivovo
34	Stip
35	Stip_Kargo
36	Stirovica
37	Strumica
38	Suvi_Laki_berovo
39	Tetovo
40	Topolcani
41	Turija
42	Valandovo
43	Veles
44	Vinica
45	Vodoca_brana
46	Vodoca_Strumica

2018-2019 Projects and activities in the Hydrology Sector

- Adaptation to Climate Change through Transboundary Flood Risk Management in the Western Balkans (Drim/Bojana) – (GIZ)
- Revitalization of Hydrological and Meteorological monitoring network in the Polog Region - (UNDP)
- Monitoring Programme for the Strumica River Basin (UNDP)
- Member of the South-East Europe Flash Flood Guidance System SEE FFG System - (WMO)
- Hydrometric measurements for interested parties



CLIDATA

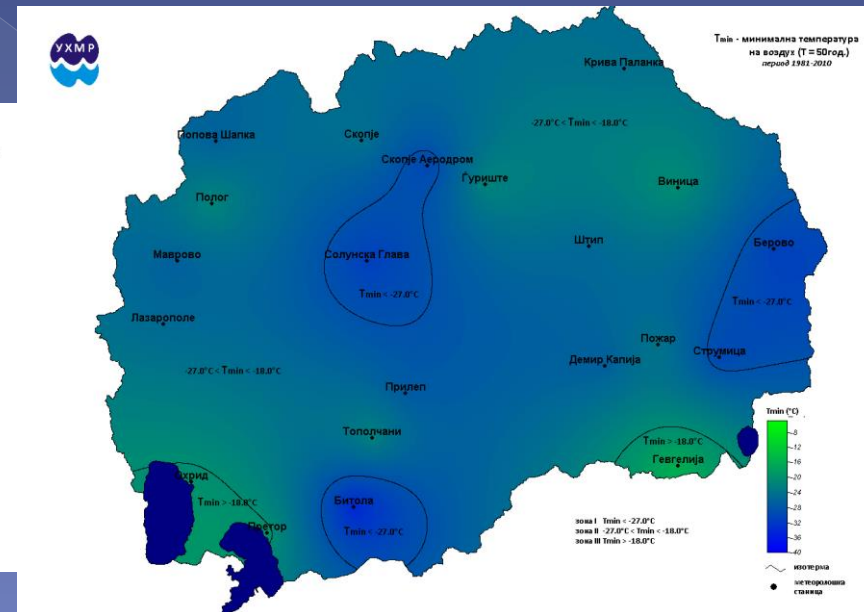
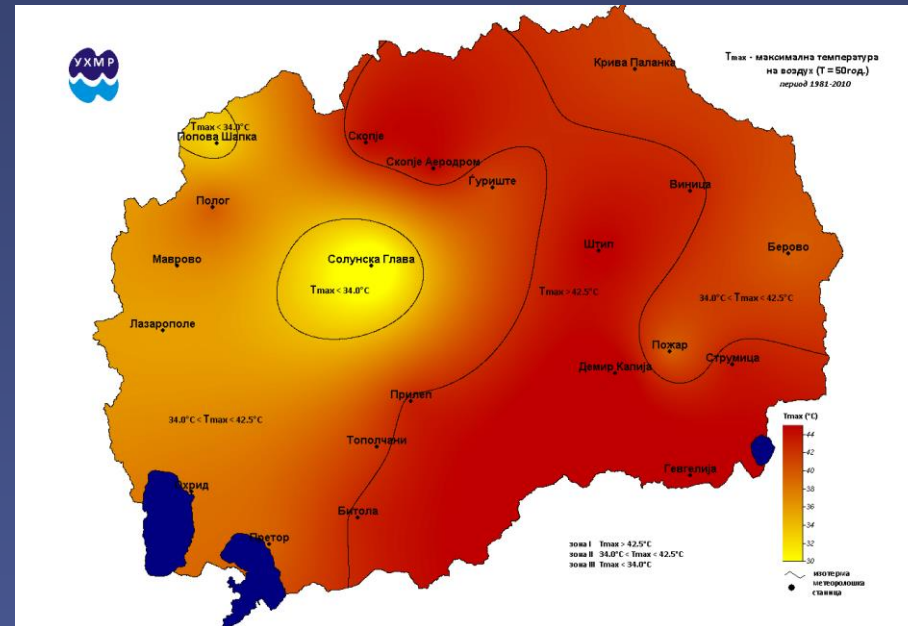
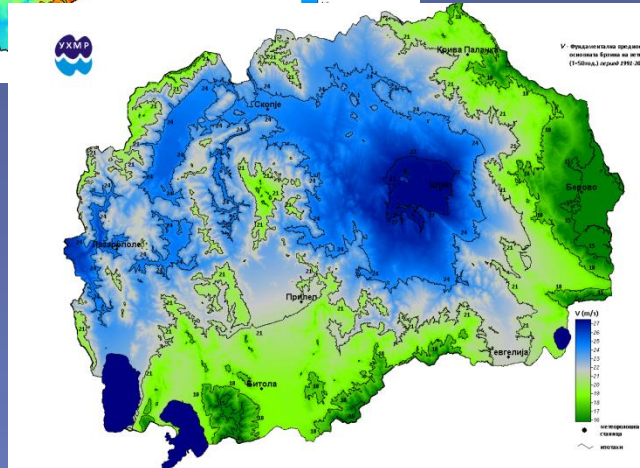
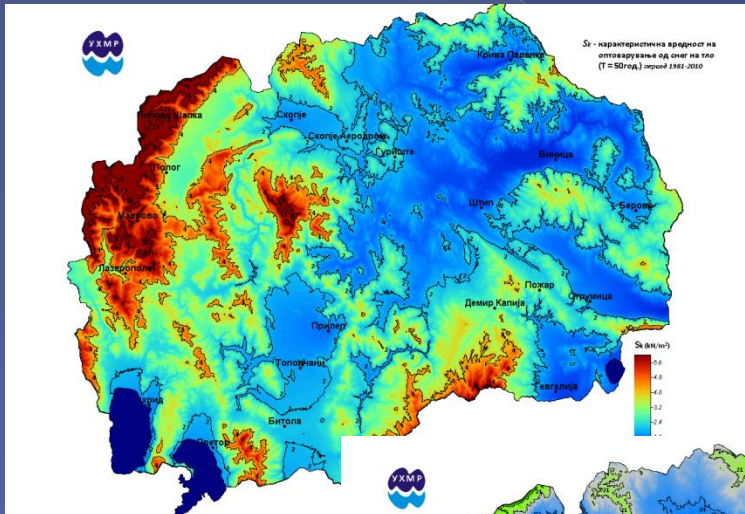
Data management system
old version (2.4v from 2014),
plan to upgrade as soon as possible (but still enable
continual digitalization of historical data and provision
of data for the basic climate services)

National Annexes of climate parameters for
implementation of European standards (EUROCODES)

EUROCODES

(MKC EN 1991-1-3, MKC EN 1991-1-4, MKC EN 1991-1-5)

Temperature, wind speed and snow load maps



UNDP Projects-

Improving resilience to floods in the Polog region (April 2019)

Macedonia's Fourth National Communication and Third Biennial Update Report on Climate Change under the UNFCCC

Scope- to strengthening institutional arrangements for systematic climate observation, data management and control, processing and updating of climate scenarios.

FAO Project-

Assessment of agriculture production through NAEZ and LRIMS and scenario development in the Republic of North Macedonia is to improve agricultural production and increase the adaptive capacity of the country, by establishing National Agro-Ecological Zoning (NAEZ), a Land Resources Information Management System (LRIMS)

Reducing Vulnerability of Agriculture to Climate Change

HMS component: To enhance the technical capacities of the National Hydrometeorological Service (specifically the Agrometeorology Division) to develop climate services tailored to the needs of stakeholders in the agricultural sector and provide early warning.

Skopje - EBRD Green Cities in March 2019 with the aim of introducing its own urban greening programme
HMS provides annual mesometeorological urban measurements and urban climate reports

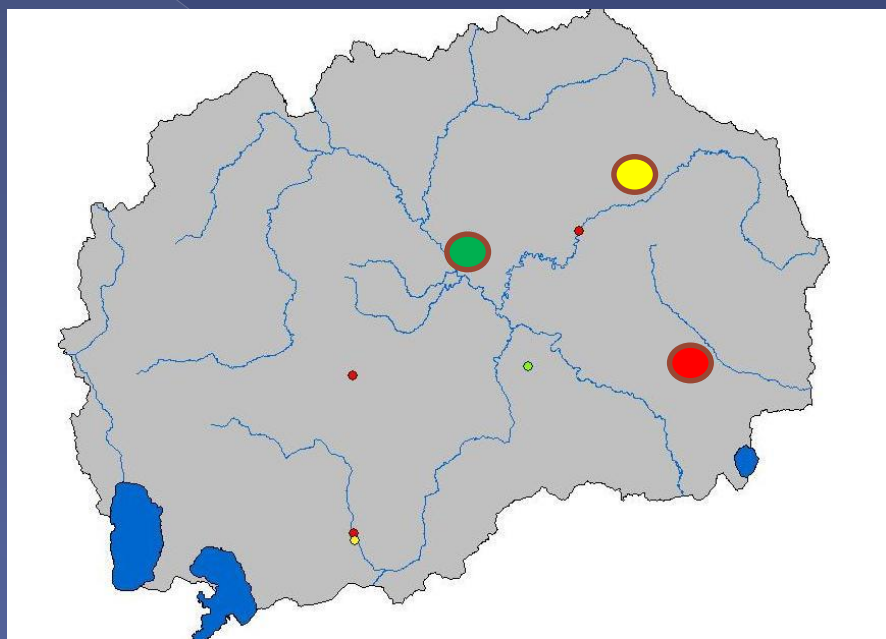
Pan European Phenology Project PEP725




a project funded by ZAMG, the Austrian ministry for science & research and EUMETNET - with the goal to establish an open access database with plant phenology data sets for science, research and education

Ecosystem - based disaster risk reduction (JICA)

HMS and Crisis Management Centre
to strengthen the capacity to implement and promote disaster risk reduction (DRR) activities in line with international, regional and national policies through capacity building for hazard assessment and establishment of implementation mechanism for national and local DRR planning and activities

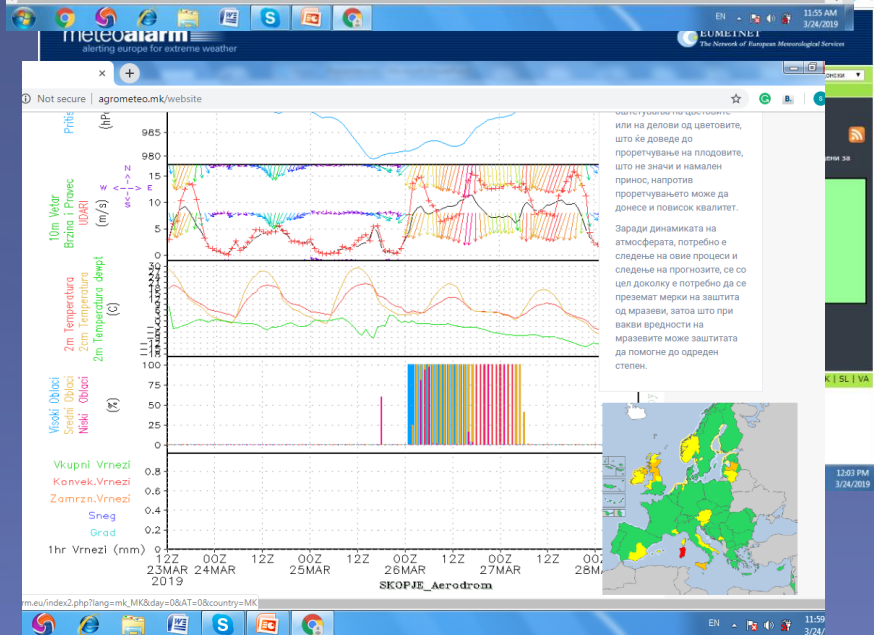
FAO Automatic Meteorological Station Sites



-  **GRADSKO**
-  **KOCANI**
-  **STRUMICA**

Vine yards – central part
Rice region – east part
Organic production – southeastern part of country



agrometeo.mk

Real time measurements, detailed forecast with meteograms from NNM model, Meteo-Alarms etc



Severe weather damages 2018/2019 Hail suppression Programme???

Weather Forecasting

- SEECOP Consortium

(experts visit to Serbian Forecasting centre in November)+Questionnaire

- WMO/VCP

- **METCAP PLUS visualization software**
- **Configuration for NMM-B and NNM-E non hydrostatic numerical weather forecasting models**

- Seasonal climate outlooks

South East European Virtual Centre for Climate Change (SEEVCCC)

- RCOF-meetings building the Consensus statement for the seasonal climate outlook

On 13-14 March 2019, EUMETSAT held an information day for the National Meteorological and Hydrological Services (NMHS) of the Western Balkan region in Skopje, North Macedonia.

The aim of the meeting was to enable the NMHS to maximise the benefits from the operational use of the data and products supplied by EUMETSAT.



EUMETSAT representatives informed about the next generation of Meteosat satellites: the Meteosat Third Generation (MTG) which will provide, as of 2022, an unprecedented amount of meteorological observations from space.

EUMETNET

“AGREEMENT AMENDING THE AGREEMENT DATED 17 SEPTEMBER 2009 ESTABLISHING THE ECONOMIC INTEREST GROUPING EUMETNET”, March 2019

SEE-MHEWS-A

South-East European Multi-Hazard Early Warning Advisory System
Phase II





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