

Regional data sharing

Examples of successful data sharing

South-Caucasus EW4All Event
14-15 December 2023



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South-East European Multi-Hazard Early Warning Advisory System (SEE-MHEWS)

DATA POLICY AGREEMENT

Data Policy Agreement contains:

- Background/Preamble
- Definitions
- Context
- Objectives of the Policy
- Organizations covered by the Policy
- Observation data covered by the Policy
- Monitoring locations covered by the Policy
- Observation data to be exchanged
- Metadata
- Data quality and measurement standard
- Forecasts and advisories to be covered by the Policy
- Access rights and Data Storage
- Use of exchanged data
- Ownership and acknowledgment
- Future harmonization of data and information
- Disputes
- Come into effect
- Changes to the Policy
- Termination and withdrawal

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Signatures
by the representatives of National Meteorological and Hydrological Services

Signature	Date and place
Director of IGEWE, Albania Fatos Hoxhej	T. Kone 5.11.2019
Director of FHMZ-FBIH, Bosnia and Herzegovina Almir Bijedic	TEL AVIV 05.11.2019 p.
Director of RHMZ-RS, Bosnia and Herzegovina Tomislav Spjic	T. AVIV 05.11.2019.
Director General of NIMH, Bulgaria Hristomir Branzov	TEL AVIV 5.11.2019.
Director General of DHMZ, Republic of Croatia Branka Ivančan-Picek	TEL AVIV 5.11.2019.
Director of DoM, Cyprus Kleanthis Nicolaides	
Director of WDD, Cyprus Charalambos Hajipakkos	
Director General of HNMS, Greece Nikolaos Voglatzis	TEL AVIV 5.11.2019
President of OMSZ, Hungary Dr. Kornélia Radics	TEL AVIV 5.11.2019
Director of IMS, Israel Nir Stav	TEL AVIV 5.11.19
Director of IHS, Israel Guy Reshef	
Director of JMD, Jordan Hussein ELMOMANI	Amman 6.11-2019

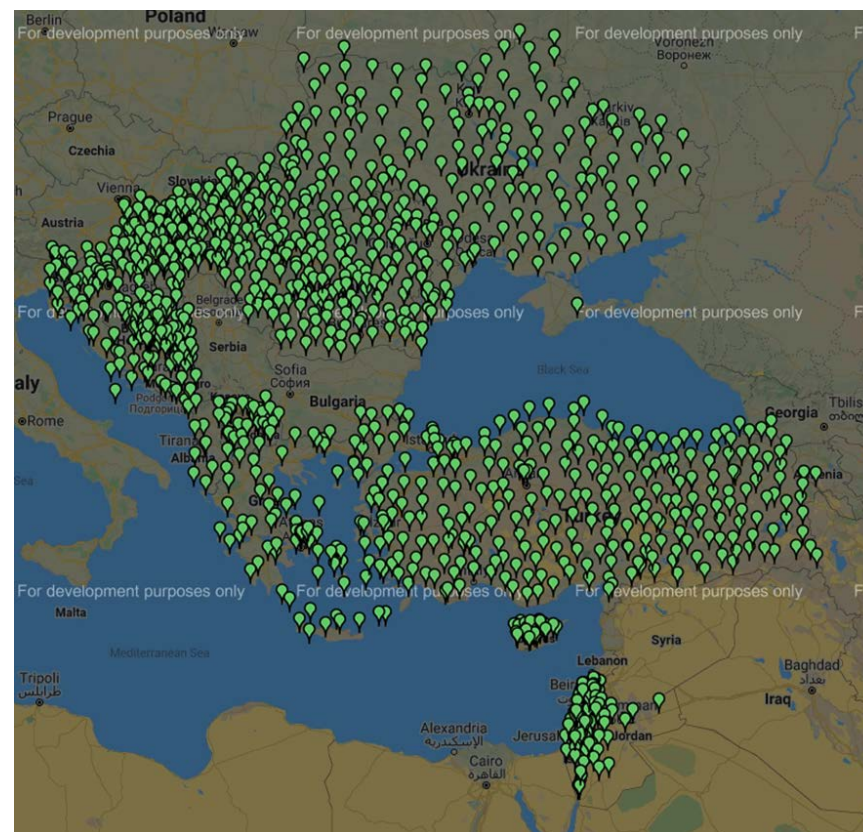
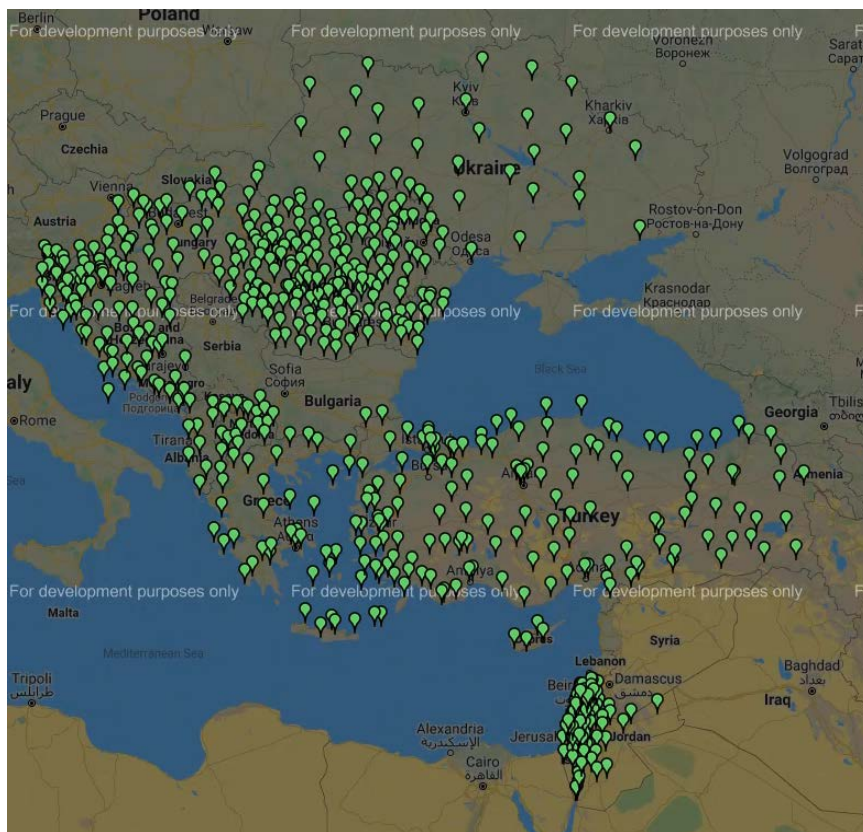
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Director General of DHMZ, Republic of Croatia Branka Ivančan-Picek	Hristomir Branzov
Director of DoM, Cyprus Kleanthis Nicolaides	Nicosia 19/11/20
Director of WDD, Cyprus Charalambos Hajipakkos	
Director of LMD, Lebanon Marc Wehaibé	
Director of IHMS, Montenegro Ljiljana Mitrović	TEL AVIV 5.11.2019
Representative of SHS, Republic of Moldova Lidia Trescilo	TEL AVIV 5.11.2019
Director of UHMR, Republic of North Macedonia Ivica Teodorovski	TEL AVIV 5.11.2019
Director General of NMA RO, Romania Elena Mateescu	TEL AVIV 5.11.2019
Director of NIHW, Romania Nicolae Barbieru	
Director of Meteorology and Hydrology Office, ARSO, Republic of Slovenia Klemen Berjant	TEL AVIV 5.11.2019
Director General of TSMS, Republic of Turkey Volkan Mutlu Coskun	
Director of UHMC, Ukraine Mykola Kulbida	TEL AVIV 05.11.2019
Director General of ECMWF Florence Rabier	TEL AVIV 5/11/2019

Signature
by the representative of European Centre for Medium-Range Weather Forecasts



SEE-MHEWS-A DATA EXCHANGE



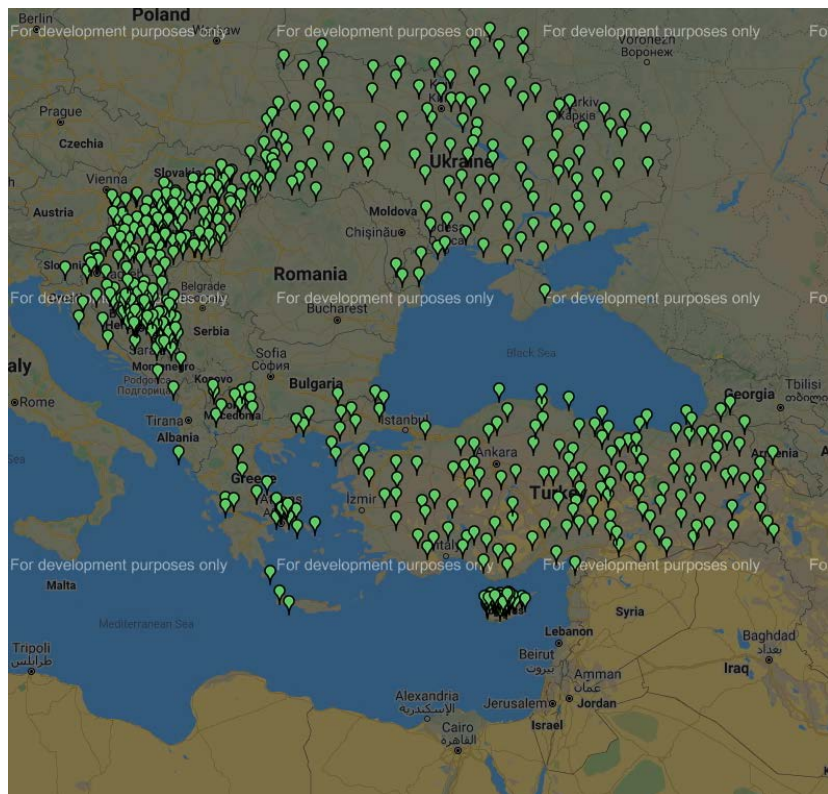
GTS (WMO Global telecommunication system)

Stations shown are only from participants that either signed the [SEE-MHEWS-A Data Policy](#) or started the NRT submission.

GTS + SEE-MHEWS-A

Stations shown are only from participants that either signed the [SEE-MHEWS-A Data Policy](#) or started the NRT submission.

SYNOP OBSERVATIONS – NRT ADDITIONAL



Map shows both non-GTS and more frequent GTS available stations.

	Number of stations - GTS	Number of station - additional	Total # of reports/ day - GTS	Total # of reports/ day - additional
Bosnia and Herzegovina	14	63	222	9072
Croatia	40	21	683	2632
Cyprus	4	37	43	5328
Greece	44	11	282	82
Hungary*	30	90	496	2160
Montenegro	6	4	120	80
North Macedonia	17	14	113	2016
Türkiye	122	144	1640	3456
Ukraine	32	123	256	984
Romania	160	3840	26	3744
	469	4347	3881	29554

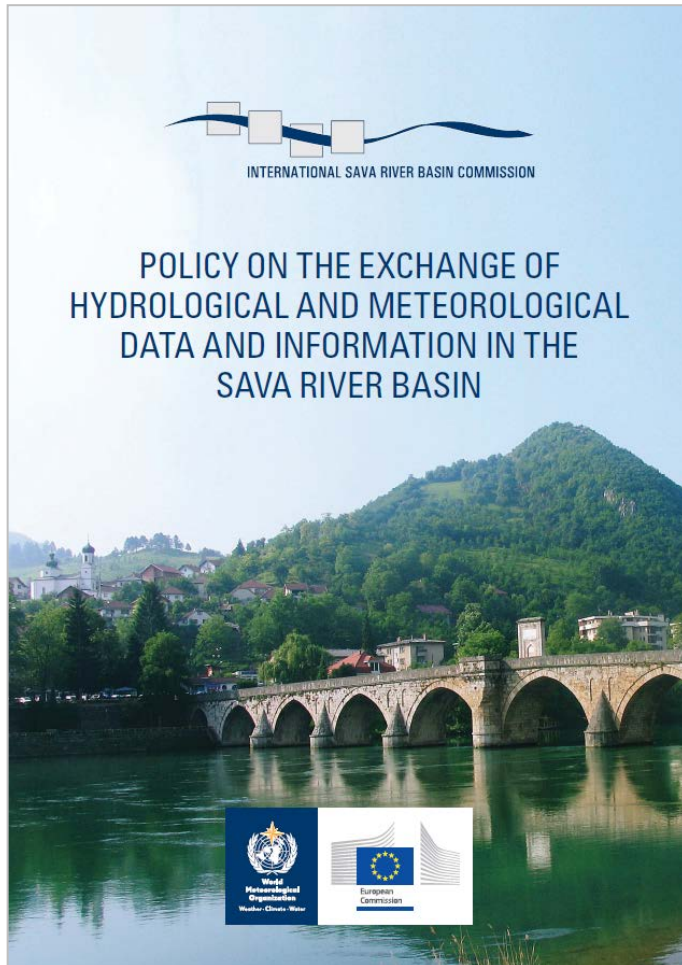
* Hungary started to exchange all data via GTS after initial exchange under the SEE-MHEWS-A

Table summarizes GTS vs. non-GTS (SEE-MHEWS-A only) stations

- ✓ Some countries are already sharing all their data via GTS. The SEE-MHEWS-A Data Policy facilitated some countries to go for open data policy e.g. Slovenia and Hungary

Sava River Data Exchange Policy

A legal background for establishment of Sava HIS



[HM data exchange policy
\(savacommission.org\)](http://savacommission.org)

- ❖ Signed by the NHMSs directors in 2014
- ❖ WMO resolutions transposed
 - Resolution 25 (Cg-XIII) - Exchange of Hydrological Data and Products
 - Resolution 40 (Cg-XII) - Policy and Practice for the Exchange of Meteorological and Related Data and Product
- ❖ Principles (organizations, monitoring locations, data to be exchanged)
- ❖ Routes (procedures, timetable, quality standards, use and redistribution, ownership, charging, future harmonization)
- ❖ Organizations (data providers/receivers)
 - Hydro-meteorological services
 - Water / environment agencies
 - Hydropower companies (still pending)
- ❖ International legal framework
- ❖ National legal framework

Sava HIS

Hub for observed data

1. Standards

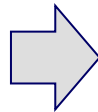
WaterML 2.0 language for describing water data

2. Services

Catalog of water data sources – web services

3. End user applications

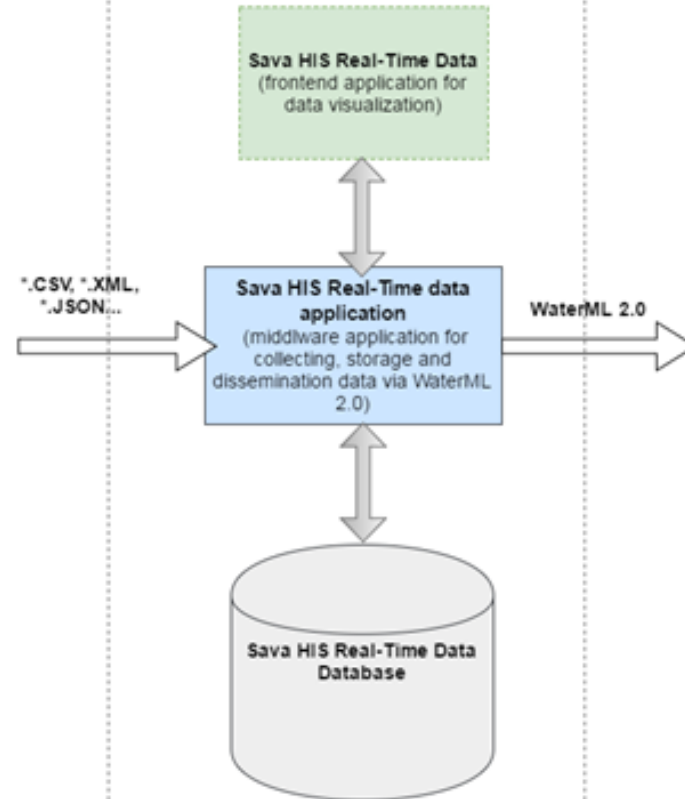
Web apps and desktop software for data access



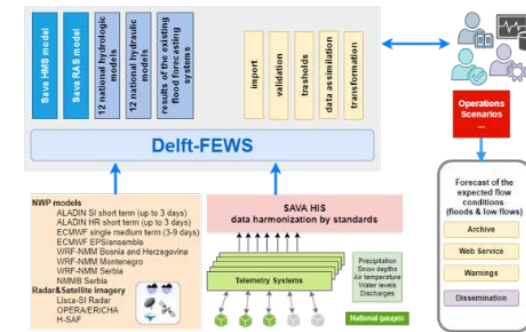
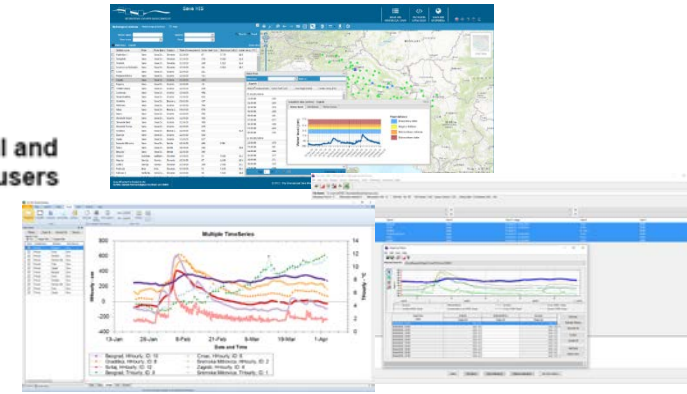
Data providers



Sava HIS Real-Time Data System



Sava HIS hydrological and meteorological data users



Available stations and data

By Data Policy (2014)

❖ 93 hydrological stations

Sava HIS (2023)

Hydrological Stations	BA	HR	ME	RS	SI	Total
	108	131	11	28	32	310

Parameter	Temporal Resolution
River, Lake or Reservoir Level/Stage	Daily (Mean) Hourly
River Discharge	Daily (Mean) Hourly
Water Temperature	Daily (Mean)
Suspended Sediment Discharge	Daily (Mean) Hourly (Turbidity)
Ice Condition	Daily



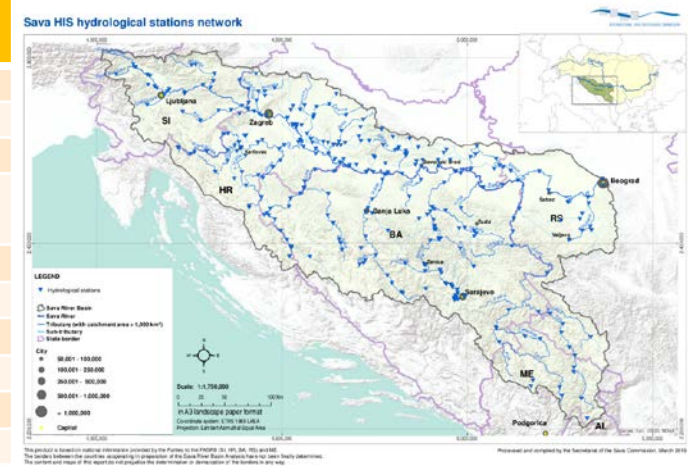
By Data Policy (2014)

❖ 53 meteorological stations

Sava HIS (2023)

Meteorological Stations	BA	HR	ME	RS	SI	Total
	78	49	5	12	76	220

Parameter	Temporal Resolution
Precipitation	Annual (Total)
	Monthly (Total)
	Daily (Total)
	6/12 Hourly (Total)
Air Temperature	Daily (Mean)
	Hourly
Relative Humidity	Daily Hourly
Wind (Speed and Direction)	Daily Hourly
Snow Depth	Daily
Evaporation	Daily (Total)
Solar Radiation	Daily
Sunshine	Daily (Total)
Atmospheric Pressure	Daily



Thank you

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