

# UNESCO and the International Sava River Basin Commission to organise a transboundary training workshop in Croatia to test new European technologies for flood risk reduction in SEE river basins

The Sava River flooded dramatically in May 2014 killing 79 individuals, affecting 2.6 million people and causing 3.8 million € in damages and losses across the Sava River Basin. To learn from this past experience and improve future response to floods, UNESCO and ISRBC are organising a simulation workshop on 5-7 December 2017 in Zagreb, Croatia, to foster a more fluid dialogue between riparian specialists and civil protection agencies.

# Zagreb, Croatia, 15 November 2017

The UNESCO Regional Bureau for Science and Culture in Europe, in collaboration with the International Sava River Basin Commission (ISRBC) and with the technical support provided by the Deltares, the Royal Haskoning DHV from the Netherlands, the CIMA Research Foundation and Instituto Superiore Mario Boella (ISMB) from Italy, intends to organise a transboundary training workshop on "Governance and Technology for Flood Risk Reduction: Linking early warning to emergency management in the Sava River Basin".

By bringing together emergency responders, professional volunteers and flood forecasting operators from the Sava River Basin, along with representatives from the Drin River basin, in order to enhance intra-regional cooperation, the organisers aim to improve future response to floods, mitigating their impact and help saving lives.

The initiative ambitions to help bond early warning alerts triggered by the responsible national hydrometeorological services and/or water agencies as flood forecasting operators, with monitoring, response and flood-protection actions performed by all responsible institutions, including the civil protection sector as emergency responders simulating floods scenario on the historical data. Different tools and strategies will be explored, starting from the possibility to integrate modular solutions of the European Union's Horizon 2020 project I-REACT, in particular geolocalised crowdsourcing-social media services combined with the Sava-FFWS System for flood forecasting and warning.

Hydro-meteorological and water agency units as well as departments' representatives will be called along with civil protection authorities and professional volunteers to work back-to-back in an interactive fashion.

The aim of the workshop is to test the overall capacity of the participants to achieve an effective flood risk reduction for the entire Sava basin, on different levels, applied to both scales (from local to national and transboundary levels) and time levels I (in terms of flood occurrences and frequencies). The workshop will demonstrate through well-tailored in-field drill, carried out with the contribution of the Civil Protection of Croatia, that major benefits are possible for Sava riparian countries, and



most likely the Drin river basin for floods-related Disaster. The key for it is the interoperationalisation of integrated forecasting service, such as Sava FFWS, with innovative cyber technologies, such those proposed by I-REACT, case in point real time and geo-localised crowdsourcing functions for a more accurate situational awareness and response in flood related emergencies.

## Contact

International Sava River Basin Commission: Mirza Sarač <u>msarac@savacommission.org</u>

I-REACT Press Office (Scienseed):

Dr. Guzmán Sánchez guzman.sanchez@scienseed.com

UNESCO (Regional Bureau for Science and Culture in Europe): Davide Poletto <u>d.poletto@unesco.org</u>

Sava-FFWS Project Office (Deltares):

Klaas-Jan van Heeringen: KlaasJan.vanHeeringen@deltares.nl



# Additional information

## **International Sava River Basin Commission (ISRBC)**

The International Sava River Basin Commission (ISRBC) has taken significant steps in last couple of years to support and coordinate efforts of the Parties, cooperating under the Framework Agreement for the Sava River Basin, leading to better flood preparedness, including the activities aimed at supporting a number of regional projects.

In 2015 a joint platform Hydrological Information System for the Sava River Basin (Sava HIS: http://www.savahis.org) has been established for the exchange and use of the hydrological and meteorological information and data, as a component of Geographical Information System for the Sava River Basin (Sava GIS Geoportal: http://:www.savagis.org). Currently, the Sava countries are in the process of establishment of flood forecasting and warning system in the Sava River Basin (Sava FFWS). Sava HIS and Sava-FFWS are a very special regional concept taking into account that the Sava River Basin (97,700 km2) is shared by 5 countries: Croatia, Bosnia and Herzegovina, Montenegro, Serbia and Slovenia. Each country has its own models, monitoring and forecasting systems, water authorities and interests.

With these systems, developed through the cooperation of countries within the scope of work of the ISRBC, the Sava countries will be better prepared for emergencies like the one that occurred in May 2014.

### **UNESCO** and Disaster Risk Reduction

UNESCO stands in solidarity with all the people affected by disasters worldwide. It operates at the interface between natural and social sciences, education, culture and communication playing a vital role in constructing a global culture of resilient communities. UNESCO assists countries to build their capacities for preventing disasters and managing climate risk, and with their ability to cope with natural hazards. The organization provides a forum for intergovernmental cooperation as well as essential scientific and practical advice in disaster risk reduction.

The international community adopted the "Sendai Framework for Disaster Risk Reduction 2015-2030" at the Third UN World Conference on Disaster Risk Reduction, held in Sendai, Japan, in March 2015. UNESCO is committed to operating in line with it, in addition to the Sustainable Development Goals and the 2015 Paris Agreement, to promote a culture of safety and resilience.

The work of the organization is being developed and implemented through its different sectors, field offices, designated sites, Category I and II Centres, UNESCO Chairs and Networks.

## Sava-FFWS project

Development of Sava-FFWS, Flood Forecasting and Warning System in the Sava River Basin, was started in June 2016 as a component of the project "Improvement of joint actions in flood management in the Sava River Basin", funded by the Western Balkans Investment Framework and implemented by the World Bank. The entire process is coordinated by ISRBC and a consortium led by Deltares and Royal HaskoningDHV provides the technical support to its implementation.

Sava-FFWS will be based on the Delft-FEWS platform, which has also been applied in a number of basins across the world. Sava-FFWS will be implemented as an open shell platform for managing the data handling and forecasting process, allowing a wide range of external data and models to be integrated. This concept is particularly important for the 5 cooperating Sava countries, where



different models are in use. The resulting system will enable the countries involved to take the right management decisions and implement operational measures to prevent and mitigate severe flood and drought situations on the basis of reliable forecasts. This regional, basin-wide concept will bridge such differences and support collaboration in the field of water management keeping the countries' own autonomy in monitoring, modelling and forecasting and remain open to developing its own models and supplementary forecasting initiatives.



Webpage: savacommission.org



## **I-REACT** project

I-REACT (Improving Resilience to Emergencies through Advanced Cyber Technologies) is a 3-year project (2016-2018) funded by the European Commission Horizon 2020 programme. It aims to use social media, smartphones, and wearables to improve natural disaster management.

The project is coordinated by the Istituto Superiore Mario Boella of Turin. Consortium partners include: Geoville, Eoxplore, Terranea, Alpha Consult, UNESCO (Regional Bureau for Science and Culture in Europe, Venice), Politecnico di Torino, Celi, JoinPad, Fondazione Bruno Kessler, Finnish Meteorological Institute, Meteosim, Bitgear, Ansur Technologies, Technical University of Vienna, Scienseed, CSI Piemonte, Aquobex, Answaretech, and Joint Research Centre (JRC) of the European Commission.

Webpage: i-react.eu

**Motion graphic:** I-REACT in two minutes



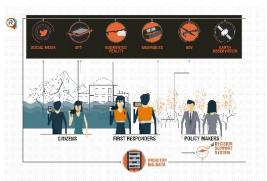
I-REACT brochure: English | Croatian



**Project infographic** 



**Project technologies** 



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