

WEBINAR

PREPARED TO BE UNPREPARED: RESPONSE OF THE WATER SECTOR IN THE DANUBE REGION TO EXTREME WEATHER EVENTS

On 29 September 2021, the fourth Danube Water Program KnowNow Webinar brought valuable insights about global warming-related extreme weather events and helpful responses that can increase the water sector's resilience and ability to secure water service provision.

Moderator Raimund Mair, World Bank Senior Water Resources Management Specialist, welcomed an international audience and handed the virtual floor to Klaus Haslinger, Head of Section Climate System and Climate Impacts at the Climate Research Department of the Austrian Zentralanstalt für Meteorologie und Geodynamik.

Floods, droughts and a messy problem

Starting from the widespread extreme weather events of last summer, Mr. Haslinger walked the audience through a very compact overview of the already noticeable impacts of climate change and the perspectives for the future. Regarding flood risks, the presentation compared past and recent events. It showed that while historic disasters brought flood volumes quite comparable to recent events, factors like urbanization, changes in land use and losses of river retention volumes increased the impacts of recent events, and that a rise in daily precipitation intensity as forecast by the recent IPCC report does not improve the outlook. Regarding future drought risks, Mr. Haslinger pointed to what he calls "a messy problem", with projections in studies varying wildly. Yet the trends point to a steady increase of drought risks for the southern and southeastern regions of Europe.

Panelist Alanna Simpson, World Bank Lead Disaster Risk Expert on Flood Risk Management, commented first, pointing out that in many cities in the region, the existing flood protection mirrors decades-old design standards and that those systems are increasingly at risk of being overwhelmed in intense rainfall events. Urbanization spreading across former stream beds and keeping water levels behind dams as high as possible to provide cities with water further increases the risk.

Ms. Simpson advocates investments in modern flood protection because they pay a triple dividend by preventing costly damage and protecting valuable ecosystems while simultaneously stimulating the economy. “Triple dividend” is not an empty promise here, with the cost/benefit ratio of such measures being an average 1:2,7, and even a lot higher when engaging in close to nature flood protection.

Visible impacts

Next, Ms. Andreja Susnik, Drought expert at the Drought Management Centre for Southeastern Europe took the floor. She notes a disparity between the ongoing changes and the available management capacities. From fifteen years experience in the field, she reports that the behavior of droughts in the region is changing. What used to be occasional summer droughts is now an array of summer, autumn and winter droughts, and the impact is now reaching beyond agriculture to other vital sectors. While Mediterranean countries are traditionally better prepared to handle droughts, Ms. Susnik finds especially central and northern European countries underprepared, lacking proper legal frameworks and management capacities to handle a further deterioration.

Mr. Filip Wanner, Head of the Technology Department of Energie AG Bohemia, confirmed this, reporting serious impacts of the recent flood and droughts in the Czech Republic on the drinking water supply, including dramatic reductions of ground water and river water levels. The resulting difficulties were exacerbated by irresponsible consumer behavior, e.g. filling increasing numbers of swimming pools and irrigating gardens during prolonged drought periods.

Mitigation strategies include a strong focus on reducing non-revenue water by fighting leakages, replacing mechanical with smart meters and interconnecting the existing water networks to transport available water to areas hit by drought. Mr. Wanner's company is also investing in new infrastructures like water tanks and will offer customers separate services for swimming pools, using water from cisterns. Further investments will be necessary to address the threat of surface water pollution during floods, including increasing the capacity of water treatment plants and quite expensive, but necessary investments to improve the rainwater collection infrastructures in cities.

All in all, Mr. Wanner confirms that floods and droughts are already affecting utilities, forcing investments and raising operational costs for water treatment.

Green thinking and a magic word

During the following Q&A, Mr. Haslinger noted that while in the past, huge efforts were made to drain land to make it available for all kinds of purposes, the future development will call for keeping water in the region to increase resilience.

Ms. Simpson welcomes a growing appreciation for keeping water in cities, creating cooling green spaces like lakes and ponds and keeping water available for landscaping and drought

management. She also welcomes an increased public awareness of these issues and related changes in behavior.

Andreja Susnik sees change happening in many countries in Southeastern Europe, but notes that a large share of the current infrastructure projects is not very sustainable:

“I’d recommend to think Green”, she says, adding that **“integrated water management is the magic word”**.

Raimund Mair then closed the session, inviting the audience to register for the coming [2021 Danube Water Conference](#) “Building a Resilient and Water Secure Danube Region” where many of the issues raised during the webinar will be treated in-depth.

Further information, including the presentations and recording of the webinar, can be found on our [website](#)!