

WEBINAR

(DR)OU(GH)T OF SIGHT, (DR)OU(GH)T OF MIND: RELEVANCE AND RISKS OF DROUGHTS FOR THE WATER SERVICES SECTOR IN THE DANUBE REGION

Titled “(Dr)Ou(gh)t of Sight, (Dr)Ou(gh)t of Mind”, the latest edition of the Danube Water Program’s KnowNow webinar series took a 75 minute-peek at the scary perspectives of the developing climate crisis – and possible approaches to increase the resilience of water services. Key takeaway: Remedies are at hand – and people will make the difference.

In spite of the webinar’s title “(Dr)Ou(gh)t of Sight, (Dr)Ou(gh)t of Mind”, the Europe-wide record drought of this year’s spring and summer was still fresh and present in everybody’s mind, and for a refresher, Andrea Toreti, Senior Researcher at the European Commission’s Joint Research Centre, gave an overview of the size and impact of this indeed historic event.

A drought like no other

Noting that this year, extreme drought events hit not only Europe, but China, East Africa and the La Plata Basin in South America as well, Mr. Toreti walked the audience through the particulars of an event of historic proportions: Starting with snowfall deficits in the winter of 2021/22 and culminating in summer heatwaves that started very early and hit historic highs, the drought affected 60% of the European Union, with the Po and Danube basins heavily hit. Rivers and lakes dried up. The severe precipitation deficit affected water and hydropower systems. River estuaries saw sea water intrusions of up to 40 Kilometers upstream. The drought affected water supplies, dike stability, river transport, energy production and of course agriculture: Cultures like Soybean, Sunflowers, Rice and Maize saw significant losses. Comparing the 2022 event with past droughts,

Mr. Toreti noted that analyses are still underway, but many indicators point to this year's drought being the worst on record, and that you have to look back as far as 1540 for similar climate anomalies. He then turned to future drought risks and their relation to different global warming predictions, showing that the climate crisis will see no winners: All continents are threatened by future drought events of unprecedented severity. Drought is a global challenge, and larger and larger areas of Europe are at risk, and absent effective mitigation and adaptation measures, severe droughts may well become the norm by mid-century.

A national emergency

Andrea Di Piazza, Senior Analyst at Utilitalia then opened the panel discussion with a report from hard-hit Italy where the worst drought in 70 years lasted through the first seven months of this year, starting with 70% less snowfall in the Alps and culminating with the already mentioned salt water inflows into the Po, Italy's longest river. Mr. Di Piazza reported that the Italian government was forced to declare an emergency status, restricting water use and taking numerous measures to ensure drinking water supplies and the biological balance in rivers. Reductions in agricultural irrigation, interconnections between affected water service networks and additional drinking water pumping systems managed to mitigate the impact of the drought in the short term, but the summer of '22 threw a glaring spotlight on the necessity of large investments. Mr. Di Piazza pointed to the giant differences in quality between the water networks in northern and southern Italy. While in the north, the share non-revenue water hovers around 14%, it is a staggering 70% in Sicily. The necessary repairs, a nationwide governance regarding use of purified wastewater, new water storage structures and complementary water resource creation by, e.g. desalination can make Italy's water sector resilient enough to face a growing frequency of extreme weather phenomena in the Mediterranean climate hotspot, and the Italian National COVID Recovery Plan offers financing options for investments in the sector.

Water in winter, customers in summer

Vjekoslav Poropat, Technical Manager at Istarski Vodovod, a top five utility company in Croatia, then reported from a neighboring Mediterranean shore. His company serves a large share of the Istrian peninsula with 2500 Kilometers, 96 reservoirs, 55 pump station, and 65000 water meters, and faces a very specific problem of attractive regions with long seashores: tourism. In winter, Istarski Vodovod serves roughly 100.000 inhabitants of the region from an abundance of water, in August, with water resources running low, there are 250.000 additional tourists with high expectations regarding their comfort. In 2022, a new tourism record and a record drought added up to create a seriously difficult situation for the company in spite of its high inbuilt resilience: network leakages have been reduced to about 17% in Istria, a large lake reservoir acts as a reliable backup, and connecting all distribution systems gives high flexibility. Still, the region was forced at times to restrict watering lawns and washing cars – with spectacular success by the way: Two days after the restrictions were in place, water consumption was down 17%. "People were very disciplined", notes Mr. Poropat. "They understand that if they didn't stop watering, within two weeks they would run out of water for tourists."

The problem with overtourism

Stjepan Gabric, World Bank Senior Water Supply and Sanitation Specialist, added some background on the situation. The World Bank has recently carried out a study on the coastal regions in Croatia. He pointed to the serious conflicts that arise from shrinking water supplies that are pushed to their limit by explosive growth in the development of coastal regions in Croatia and everywhere around the Mediterranean. Mr. Gabric is quite critical of the tendency to create

development projects without thinking where the necessary water supplies should come from. He predicts that, while investments in reducing water losses in systems everywhere in Croatia from a national average of 50% to 25% should suffice to cover the growing demand until 2045, the availability of water will eventually turn out to be a very serious limiting factor to tourism.

First things first

Mr. Roland Liemberger, Independent Non-Revenue Water Advisor, Austria, followed up with the practical perspective of creating more resilience. He advocates a first-things-first, step-by-step policy that necessarily starts with reducing non-revenue water. The situation in this respect varies widely throughout the Danube region and Central Europe in general, with regions like Istria already very well managed, but some urban agglomerations in the region performing worse than e.g. the already very problematic Southern Italy. Mr. Liemberger notes that when it comes to reducing water losses, success stories are quite rare, not the least because of a lack of political will: Spectacular investments like pumping stations and desalination plants are always more attractive than digging up leaking pipes. He hopes that the drought of '22 will serve as a wakeup call that makes utilities think hard what they can do with their current and future budgets: "They have the tools, the equipment, the know how – reducing water loss isn't rocket science", he said.

No rocket science

Stjepan Gabric added that while really dry places like Israel succeeded in making investments in water recycling and desalination pay, not the least by supporting a very advanced agriculture, most regions in Europe are not under similar pressure: "We have the water", he says. We just need to use it in smart and sustainable ways, and we need to invest into the infrastructure for that." Which brought the panel back to the water loss question. Mr. Liemberger brings it down to a very simple formula: "It is all about being better than yesterday. First improve the speed and quality of repairs. Find the leaks and repair them. Many are totally obvious at first glance. Today is better than tomorrow, and "in three weeks" is not an option. Utilities that lack the necessary resources should team up with a local contractor. Next step is systematic leak detection. Do it quick and cheap: If your system volume is not metered, put a simple mechanical meter in so you can monitor the volumes. Next step is network zoning. After all that, we need to think about pipe replacement, but that is a huge investment."

It's not about the pipes – it's about people

In this regard, the panelists also agreed that staff upskilling and reskilling is a most important and often overlooked factor. "Investing in staff is much cheaper than in pipes", said Stjepan Gabric. "Again and again, what makes the difference is not the money, not the pipes, it's the people. And it's not so much their knowledge, it's being interested. You need to motivate utilities to be reasonable and efficient. In the end, energy tariffs will be a very strong motivation to change behavior."

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