

TAKING THE PULSE: A WATER SECURITY DIAGNOSTICS FOR THE DANUBE REGION

The world is approaching a water crisis of enormous proportions, with demand forecast to exceed supply by 40% as early as 2030. How do we quantify the risks for the Danube region? A panel of distinguished experts provided answers.

Moderator Camilo Lombana Cordoba, World Bank Senior Water Supply and Sanitation Specialist, first handed the floor to his colleague, Senior Water Resources Management Specialist Raimund Mair, who outlined the reasoning behind and the anatomy of the World Bank Water Security Diagnostics Initiative and the current Danube Water Security Diagnostics, launched in 2021 in the frame of the Danube Water Program.

The huge importance of water

Gauging water risks makes sense because so much depends on water. EU-wide, 16,3 million enterprises, 44 million employees and more than a quarter of the EU's annual gross value added depend on the availability of water. Through the last three decades, droughts caused 86 billion EUR in damages. From 2002 to 2013, flood damages accumulated to 150 billion EUR. By 2050, annual damages might multiply by a factor four, and poor water quality can reduce economic growth by a third.

In 2017, the World Bank launched its Water Security Diagnostics Initiative, applying the Bank's expertise, instruments and resources to produce studies with an impact on political decision-making, creating a "Water Writ Large" narrative in a country or region.

Taking the pulse of the Danube

Studies for Moldova, Romania and Kosovo are already available, and this year the Danube Water Security Diagnostics started. Building on previous analytical work conducted in the frame of the Danube Water Program, the report will provide a broad sector analysis, identify current and potential future security "hot spots" and give recommendations for action.

For an in-depth look at the methodology of the Danube Water Security Diagnostics, Mr. Cordoba handed the stage to Taher Kahil, Research Group Leader at the International Institute for Applied Systems Analysis.

75 indicators and one holistic approach

Introducing a systems-based approach to water security diagnostics, a seven-step assessment process produces a quantitative and qualitative status, insights into the trajectory of future developments, and recommendation for action to improve resource management, service delivery, risk mitigation and building resilience. Altogether 75 diagnostic indicators help to assess water security, water endowment, water sector architecture and performance, and water security outcomes.

Taking a holistic approach, the Danube Water Security Diagnostics will help to reveal important entry points for action to improve water security, covering the “3 i’s: information, institutions, infrastructure”.

Green development or brown development?

Next, World Bank Program Leader Simon Davis Ellis contributed a view at the broader context of infrastructural development in the Danube region, with special focus on the Western Balkans, where the current analytical work is seeking to develop a narrative for green growth. “At the end of the day, countries have the choice between brown and green development, and green can be expensive and socially disruptive.”

Mr. Ellis notes that the European Green Deal provides a helpful context here, but with a limited reach:

“We hear a lot about the energy sector, and a lot of the dialogue is about decarbonization, but elsewhere there isn’t much of a strong narrative, and green growth needs a broader view.”

Calling for a broader view

This includes a fiscal point of view, using taxation and subsidies to steer behavior, and the implications of the necessary reforms for the financial resilience of countries. It includes a holistic view of cities and their livability, and it includes concepts for creating resilience in the face of natural disasters. “Water feeds in to so many of these things”, remarks Mr. Ellis, mentioning that initiatives like the Danube Water Program are currently widening their focus beyond service delivery to include water security issues ranging from pollution to flood and drought risks, and from securing water resources for the agricultural industry to keeping hydropower going during droughts.

Solving these issues will demand cross-border cooperation, large investments and the development of sustainable models of operation and maintenance of critical infrastructures. Which brings Mr. Ellis back to the value of reliable diagnostics:

“It is really important to identify emerging trends, to focus on priorities and to prioritize investments.”

Knowledge generators in search of relevance

In the subsequent panel discussion, IIASA Scientific Project Manager Barbara Willaarts pointed out the importance of science and research for informed political decision-making, noting that in spite of all progress there is still a noticeable gap between science and politics, for three obvious reasons.

Firstly, the scientists' perspective is dictated by their research agenda, and this does not necessarily translate to a social agenda. Secondly, to communicate their science, the scientists' main channel are peer-reviewed papers, and those do not necessarily include the questions and answers that policymakers can work with. Thirdly, scientists need amounts of time that are not available in policymaking.

“As knowledge generators, we need to make our research more relevant”,

says Ms. Willaarts.

“We have to hit the target and bring solutions to real problems.” She sees a necessity for transdisciplinary collaboration, communication beyond scientific papers, and even beyond the policy level, presenting data and tools in broadly accessible and understandable ways:

“Everybody agrees that evidence-based decision-making is fundamental. Therefore, let's be meaningful and let's do science with a real-world impact. We have no time to lose.”

A story of loss and gain

Next, Hector Alexander Lozano, Senior Water Resources Management Specialist at the World Bank, gave examples for real-world impact from his work in Latin America. He reports that, whether operating on a regional, national or a local level, the main task is always gathering all stakeholders, government, banks, investors, regulators and operators around a table, giving them a coherent narrative, a single storyline.

“This is, as a matter of fact, one thing that the World Bank is very good at: To boil 75 or 100 indicators down to a coherent story, translating complex challenges into a story of potential losses and gains.”

Mr. Lozano mentions a study for Mexico City with its 23 million inhabitants: “Here, we managed to explain that in spite of all pressure, two specific activities had the potential to save a huge amount of water – which made more sense than a complex program they would have had to develop over years. It is all about introducing metrics that everybody understands and introduce measures on a local level to address the most important issues.”

The healthy impact of reports

Last to take the stage was Baton Begolli, Water Policy Advisor at the Inter-Ministerial Water Council of Kosovo. He reported on the effects of a completed Water Security Diagnostics report for Kosovo:

“This report illustrated that Kosovo is the most water-stressed country in the region. It generated discussions about how we are supposed to meet a growing demand in the face of more and more frequent and longer droughts. Together with the Covid crisis, it changed our approach to water sector planning. We used to pay a lot of attention to services and none to the sources. Now the general public became aware of the need to conserve and preserve existing water resources, monitor dams, introduce groundwater monitoring. Now we are in serious negotiations about new multi-purpose dams. Another upside is that even during frequent government changes, the document provided enough common ground to keep decision-making processes going without any hiccups.”