THE BIGGER PICTURE: WATER DATA IN THE INTERSECTORAL CONTEXT

All that was said, shown and asked: The summary report for those missed an exciting session, including thoughts on pending disruptions, necessary cooperations and healthy relations of goals, approaches and financial means.

After a short coffee break, the Forum entered session 2, presenting "The bigger picture: water data in the intersectoral context", intersectoral meaning that the water sector is connected with a multitude of other sectors, developments and influences which affect water security.

The world of tomorrow, today

Nagaraja Rao Harshadeep is the Global Lead for Disruptive Tech at the World Bank. He started his breathtaking presentation of what data are available nowadays and how to visualize them by musing that the Danube region with its 800.000 square km and 18 nations is probably the world's most international river basin, and that whatever one does on his homegrounds, will affect something in another place.

From there he moved on to his core theme, disruption: Disruption of data value chains by new sources, management and analysis approaches, changing access and growing outreach meets disruptions of production value chains and stakeholder value chains.

Time to reimagine development in new and smarter ways – based on data that are sometimes not there, and sometimes, as Mr. Harshadeep states with a look at archives full of dusty papers, "we have the data, but only termites could digest them." He advocates a comprehensive rethinking of the way we gather, handle, share and present data to create a global information ecosystem.

To prove his point, he presented a rapid-fire show of state-of-the-art dashboards and interactive information systems, remarking that "everything I'm showing you here is free public domain stuff".

In summary, Mr. Harshadeep predicts a whole new world of hydro-informatics emerging, supported by "disruptive" technologies, and offering great potential to leverage global, regional, and national data and analytics for local benefit.

He left a slightly overwhelmed audience with an encouraging:

"Disrupt – or be disrupted. Thanks!"

Data as a matter of trust

The Global Water Partnership is a multi-stakeholder action network and intergovernmental organization advocating for integrated water resources management. It is comprised of 3,000+ partner organizations in over 180 countries, and Regional Coordinator Konstantin Ivanov covers 11 of those countries from his Bratislava office.

"Every user was looking at water as something which belonged to them",

he says. "Integrated management aims at changing this perspective to create a cross-sectoral policy approach." Such an integrated approach relies heavily on a solid database to support for evidence-based decisions in water management. Data from a variety of sectors needs to be shared to help with cross-sectoral decision making.

GWP facilitates data exchange between different sectoral institutions, uses databases to support for decision-making and an integrated information system for water resource management discussions.

The Global Water Partnership runs support programs for integrated water resource management implementation, has started a pilot program named Water Information Sharing Exchange in five countries, offers an online toolbox that is currently undergoing a comprehensive update, has introduced a Drought Watch tool to support proactive drought management and offers a program for natural and small water retention measures.

In his presentation, Konstantin Ivanov stresses that databases are fundamental to water resources assessment and management. Collaboration across sectoral and organization borders is essential to obtain the necessary broad knowledge base needed for IWRM approaches: "We need to establish trust between partners to encourage them to share what is in their domain, and we need systems to ensure that data collected with public funds are made available in the public domain.«

The Austrian system

Closing the second session of day 1, Ms. Gabriele Vincze of the Austrian Umweltbundesamt presented insights into Austria's approach to the structured collection of digital data for Water Resource management. In a development that reaches back to the late 19th century, gathered pace with the growing environmental awareness from the 1970ies on, and is now part of a Europe-wide effort, Austria has created a comprehensive Water Information System with partly public and partly restricted access. It integrates numerous databases from water quality to floods, and from a fish database to a macrophyte database in a data warehouse. Data are used for a wide variety of national and international review, research and reporting purposes.

Austria's data management is organized along the "gather once, use many times" efficiency principle, which involves strict quality assurance and meticulous data description. Ms. Vincze stresses data quality as a main issue:

> "Data sharing depends on data quality. You need to know who collected the data, what is their quality, how reliable are they. Especially for the policy sector you need reliable data as basis for decisions."

Asked during the question round at the end of the session about the financial dimension of data work, Ms. Vincze said that it usually does not take much to build a database. But maintaining it and keeping it available through all technology changes and more or less frequent system migrations involves considerable, and costly, manpower:

> "In Austria, the costs of operating the System are in the upper six-digit range annually."

In this context, Konstantin Ivanov recommends to "not only think about the costs of gathering the data, also think of how you intend to make them available. In many cases we have lots of data, but analysis is too expensive or data sitting somewhere and people not aware of it." Nagaraja Rao Harshadeep, viewing data gathering and decision-making as the opposite ends of the data value chain, recommends thinking from decision-making backwards to define what kind of ecosystem is needed. Generally, he recommends thinking big:

> "There is no need for little data pools running on little systems. Let's create dashboards for each level from one big data pool!"

And on this big note, Day 1 of the first Danube Water Forum came to a slightly belated close.