

## Water quality assessments and guidelines for freshwater ecosystems

7<sup>th</sup> WRHC  
**Open Space Workshop**  
29 June 2016  
14:00 – 16:00  
UBA, Dessau

**University of Bonn**  
Janos Bogardi  
*moderator / organiser*  
*et al.* (as listed below)

Sustainable water resources management implies increasing care for water quality. Not only high value water uses need adequate water quality but the resource base itself is increasingly subject of stringent quality requirements in order to maintain the ecosystem functions surface and ground water bodies provide including their vital services for human uses. This includes both protection but also restoration of compromised water bodies. While water quality guidelines are well developed and widely used to monitor the adequacy of water quality for particular (human) water uses water quality guidelines for freshwater ecosystems are rather being in the phase of development than being well established, accepted and widely used in the practice. The key dilemma remains how to reconcile economic and social development objectives, human needs and requirements of freshwater ecosystems.

How can science contribute to the development of feasible water quality guidelines and assessments for freshwater ecosystems while involving stakeholders?

Based on the concept of co-creation of knowledge for sustainability and the preliminary results and recommendations of two UNEP sponsored scientific studies (the World Water Quality assessment and the International Water Quality Guidelines for Ecosystems) the following questions will be discussed:

- Do we have the knowledge needed?
- Do we have adequate data?
- How do we address uncertainty and risks?
- What and how can science deliver?
- Where are the (present) limits of our knowledge?
- What and how can science contribute solving "practical" problems?
- What will be expected from science?
- Are reservations towards scientists are justified?
- What could/should stakeholders absorb from research results?

The workshop is conceived as an open debate forum. The two communities of a co-design and co-creation exercise the scientific community and the stakeholders are represented by two groups.

Short introductions will set the stage:

Co-creation of knowledge for sustainability: a framework for transdisciplinary research

*Wolfram Mauser, LMU Munich*

Water quality for whom? Pressures, stressors, ecosystem services and health. Do we have the right concepts and common vocabulary for co-creation?

*Janos Bogardi, Univ. Bonn*

The proposed 4 phases - 9 steps approach for WQ guidelines and adaptive management

*Jan Leentvaar, UNESCO-IHE, Delft*

Waste water (point and diffuse sources) and aquatic biodiversity; where ecosystems and water use "meet"

*Peter Krebs, TU Dresden and Klement Tockner, IGB Berlin*

WQ assessment and its upscaling, modeling, data: what do they tell us?

*Joseph Alcamo, Univ. Kassel and Dietrich Borchardt, UFZ Magdeburg*

Following these introductory short presentations the stakeholder group representatives respond to the introductory presentations.

The discussion continues in a moderated fashion between the two groups and the audience.

The 120 minutes duration of the Open Workshop is subdivided as follows:

- Introductory presentations (40 minutes in total)
- response by the stakeholder representatives and direct exchange between the two groups (40 minutes in total)
- open discussion including wrap up by the moderator (40 minutes in total)