



The role of knowledge co-production in groundwater governance and conflict resolution

Berdakh Utemuratov and Prof. Christine Kirchhoff

University of Connecticut, Civil and Environmental Engineering, Storrs, United States (berdakh.utemuratov@uconn.edu)

This paper reviews the available water and groundwater governance literature with the specific aim of highlighting and critically examining the role of knowledge in supporting "good governance" of groundwater resources including how knowledge co-generation/co-production may contribute to enhancing governance and in particular, improving cooperation and reducing conflict over managing shared resources. The global literature review existing thus far only been used to make generic recommendations on the importance of knowledge for groundwater governance and have not been specifically examined regarding co-production of that knowledge nor the role of knowledge in conflict management between different actors.

Often environmental issues need interdisciplinary approaches and analysis which may not be possible to combine into one measurement scale as each of them might represent various aspects and stakeholders. They might be talking in different languages of understanding and see uncertainties differently. We think that in the case of groundwater, this uncertainty would be even more complicated due to its invisible nature, which becomes visible only upon its extraction. The intrinsic complexity and heterogeneity of groundwater, combined with the relatively limited monitoring results in cases where many of the aquifer physical and hydro-geological dimensions are poorly known. Hence, improving our understanding of and knowledge about natural resources as well as the society might guide us in designing better governance institutions for more sustainable use of this unseen resource.

The global consensus is that there are no blueprints for effective knowledge – policy processes in improving groundwater governance, as in the case of groundwater, knowledge gaps are complex and context specific due to its unseen nature. Thus, the current research aims to unveil some aspects of knowledge co-generation in supporting the good governance, while trying to answer the above questions.