

How to integrate social sciences in hydrological research?

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The integration of interdisciplinary scientific and societal knowledge plays an increasing role in environmental science. Many scholars have long advocated for a joint effort of scientists from different disciplines (interdisciplinarity) to address the problems of the growing pressure on environmental and human systems (Nature, 2015). Such a need was also recognised for the hydrological sciences (HS) e.g. most recently by Vogel et al. (2015). Vibrant new approaches such as “Panta Rhei” (Montanari et al., 2013) and “Socio-Hydrology” (Sivapalan et al., 2012) discuss and propose options for the deeper involvement of hydrologists in socio-economic questions. While there is widespread consensus that coping with the challenges of global change in water resources requires more consideration of human activity, it still remains unclear which roles the social sciences and the humanities (SSH) should assume in this context. Despite the frequent usage of the term “interdisciplinarity” in related discussions, there seems to be a tendency towards assimilation of socio-economic aspects into hydrological research rather than an opening up for interdisciplinary collaboration with social scientists at eye level. The literature, however, remains vague with respect to the concepts of integration and does not allow confirming this assumed tendency. Moreover, the discourse within the hydrological research community on increasing the consideration of societal aspects in hydrological modelling and research is still led by a comparatively small group.

In this contribution we highlight the most interesting results of a survey among hydrologists (with 184 respondents). The survey participants do not think that SSH is presently well integrated into hydrological research. They recognize the need for better cooperation between the two disciplines. When asked about ways to improve the status of cooperation, a higher status and acknowledgment of interdisciplinary research by colleagues do not seem to be major incentives for integrative work. The statement “*Hydrologists themselves should consider and integrate socioeconomic aspects in their own work*” was rated most often as the most preferable option. Our sample seems to be relatively biased toward those individuals who already have an interest or considerable experience in cooperating with researchers from the social sciences or the humanities. Such a bias might indicate that the general interest among hydrology academics in including socio-economic aspects in their research is not as high and widespread as it could and should be.

References:

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