

Management of Transboundary Rivers between Ukraine, Russia and the EU -Identification of Science-Based Goals and Fostering Trilateral Dialogue and Cooperation

Initiative: Trilaterale Partnerschaften - Kooperationsvorhaben zwischen Wissenschaftler(inne)n aus der

Ukraine, Russland und Deutschland

Bewilligung: 09.02.2016

Laufzeit: 2 Jahre

Projekt-Website: https://tu-dresden.de/bu/umwelt/hydro/ihm/meteorologie/forschung/forschungsprojekte/

projekt-mantra-rivers?set_language=en

The proposed project aims at setting the basis for an Integrated Water Resources Management (IWRM) exemplarily for three transnational river basins: the Western Bug (shared by Ukraine, Belarus and the EU), the River Desna (shared by Russia and Ukraine) and the Western Dvina (shared by Russia, Belarus and the EU). Water quality problems that need to be dealt with in a transboundary setting are the connective element of these basins. As a first step, an assessment of the status quo is envisioned, which includes a systematic investigation of challenges in the chosen river basins with a differentiation between perceived problems, political disputes and a science-based assessment. It is planned to set up a meta-data base indicating the availability and quality of meteorological, hydrological, hydro-chemical and hydro-ecological data. On this basis, problems of transnational data consistency, scarcity, completeness etc. will be addressed. Methods of data harmonization will be tested on small transnational datasets. As a pilot study, water quality monitoring stations in the Desna and Western Dvina river basins will be upgraded with state of the art German instrumentation. Based on the status quo, a definition of minimal data requirements for IWRM conceptualization is planned. Finally, strategies will be identified towards a sustainable water management, including scientific assessments, technical solutions, conservation measures, capacity development and the promotion of transboundary cooperation.

Projektbeteiligte

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Challenges for transboundary river management in Eastern Europe three case studies Assessment of Water Balance for Russian Subcatchment of Western Dvina River Using SWAT Model The Desna River Daily Multi-Site Streamflow Modeling Using SWAT with Detail Snowmelt Adjustment Integrated approach to study river fluxes, water and sediment sources apportionment in sparsely monitored catchment

<u>Problems of hydrological monitoring in transboundary rivers of Eastern Europe (on the example of the Western Dvina)</u>