

EGU2020-13296

<https://doi.org/10.5194/egusphere-egu2020-13296>

EGU General Assembly 2020

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Benefits of Cross-Border Cooperation for Achieving Water-Energy-Land Sustainable Development Goals in the Indus Basin

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The Indus Basin, a densely irrigated area home to about 300-million people, has expected growing demands for water, energy and food in the coming decades. With no abundant surface water left in the basin and accelerating use of groundwater, long-term strategic and integrated management of water and its interlinked sectors (water-energy-land) is fundamental for the sustainable development of the region. Cooperation among riparian countries is an alternative to current situation that could help achieving water-energy-land related Sustainable Development Goals, maximizing socio-environmental benefits and minimizing costs. We show a scenario-based analysis using numerical models (The Nexus Solution Tool) where we link local issues and policies to the Sustainable Development Goals, showing magnitude and geographical location of required investments to meet SDG and the associated impacts. Finally, we discuss the barriers to cross-border cooperation and explore cases of partial cooperation, which confirms significant environmental and economic benefits.