

Incorporating Uncertainty into Adaptive, Transboundary Water Challenges: a Conceptual Design for the Okavango River Basin

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In this poster, we present a review and conceptual design to integrate hydrological/ecological models, global uncertainty and sensitivity analysis, integrative modeling and decision analysis for complex and adaptive transboundary challenges. The research uses the transboundary issues within the Okavango River Basin, a shared water resource among the nations of Angola, Namibia and Botswana, as an example for constructing these integrated tools. The objective of this poster is to present a design that integrates a set of tools that builds systematically on past basin modeling research to incorporate the inherent uncertainty within the system and its application for answering practical management questions.

Keywords: Okavango River Basin, Uncertainty Analysis, Adaptive Management, Global Sensitivity Analysis, QnD model, Decision Analysis