

River Basin Simulation for Improved Transboundary water Management in the Nile

Case Study of: Tekezze – Atbara Sub-basin



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Development in the sub-basin



- 1964: KED → New Halfa Scheme



- 2010: Tekezze 5 dam (Ethiopia)



- 2015: UADC (Sudan)

السمنار العلمي الثالث - " معاً من أجل التنمية المتكاملة "

Partners



Research Question

Will the collaboration in the operation of the reservoirs system provide mutual benefits to the two countries, Ethiopia and Sudan?

Present performance of the reservoir system in the T-A sub-basin level

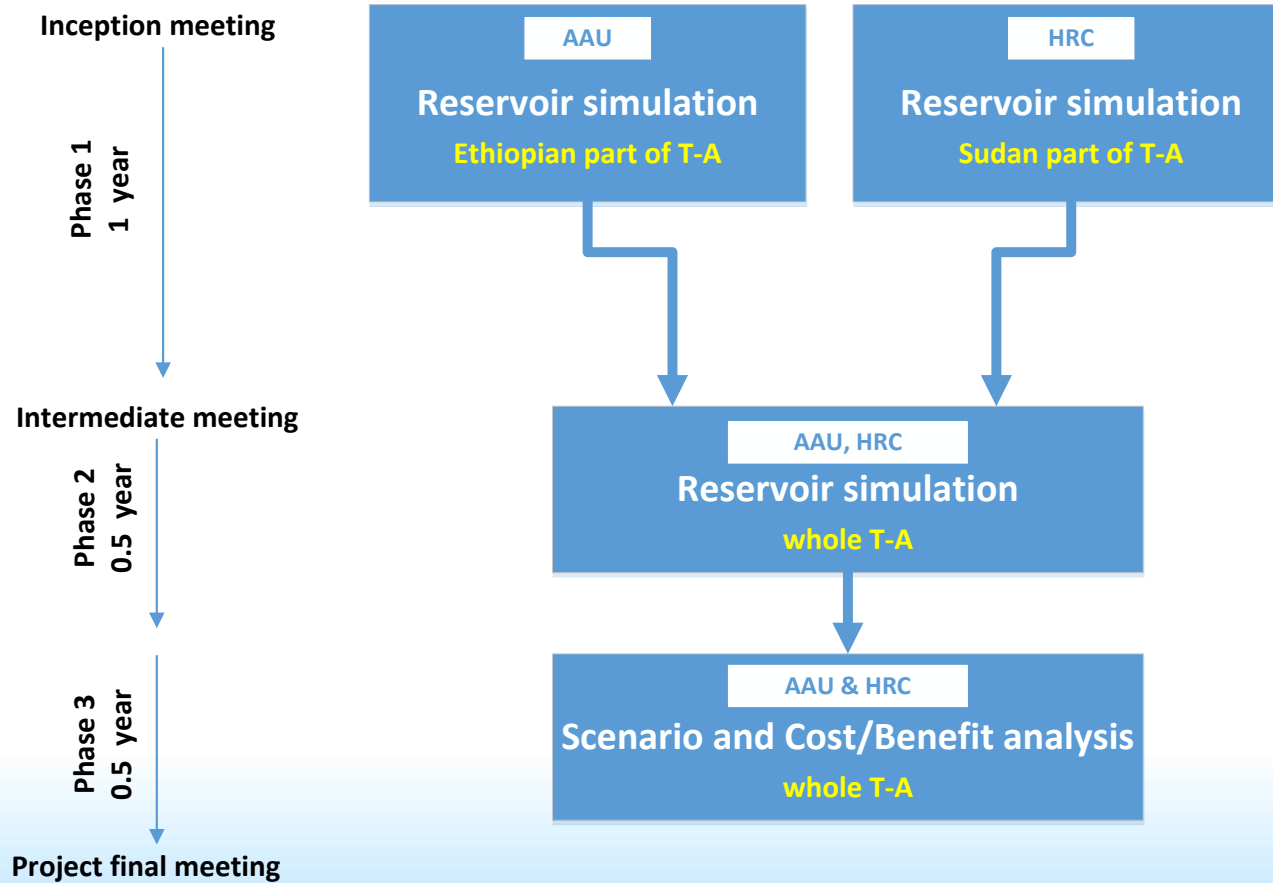
Scenarios of coordinated vs. Non-coordinated operation of the reservoir system.

What is the most optimal operation strategy (ies)?
And what are the costs and benefits of each scenario.

Goals

- Support improved management of the T-A water resources system, based on the evaluation of costs and benefits of different scenarios for coordinated versus non-coordinated operations.
- Strengthen the capacity and enhance trust among Ethiopian and Sudanese researchers

Approach:



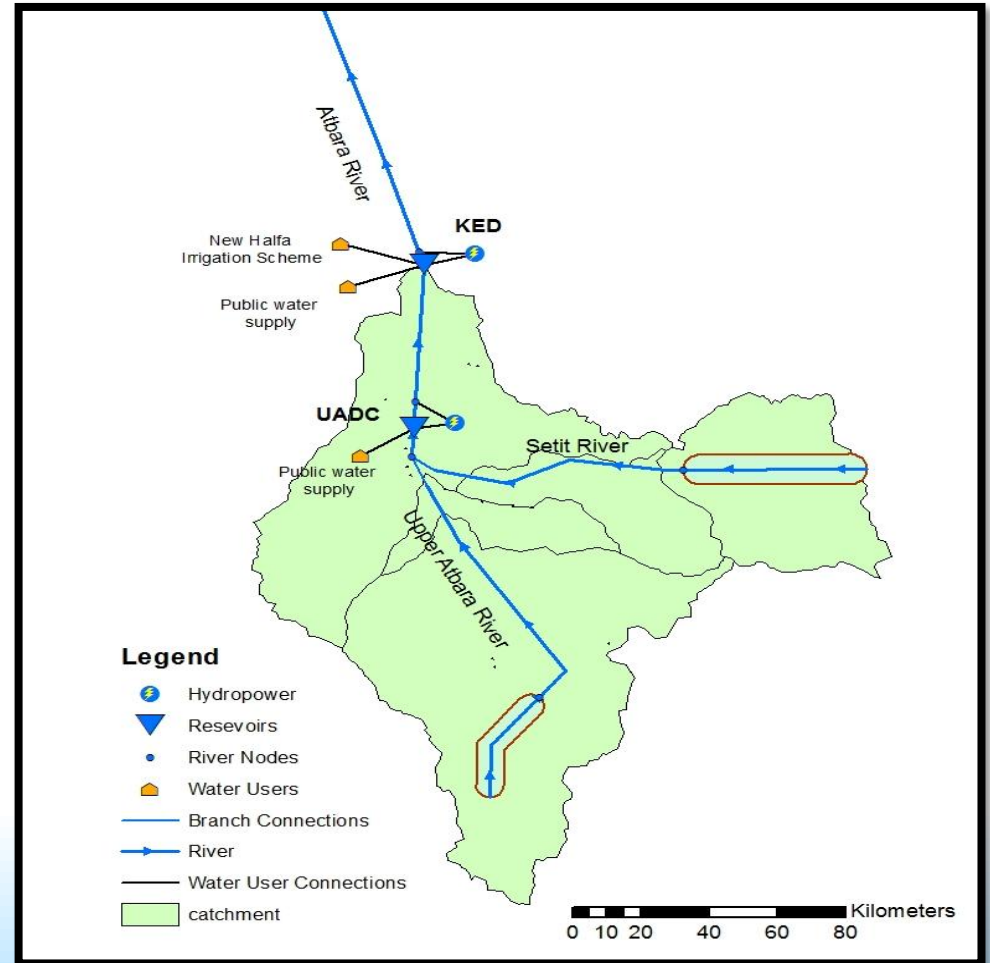
Inception Workshop



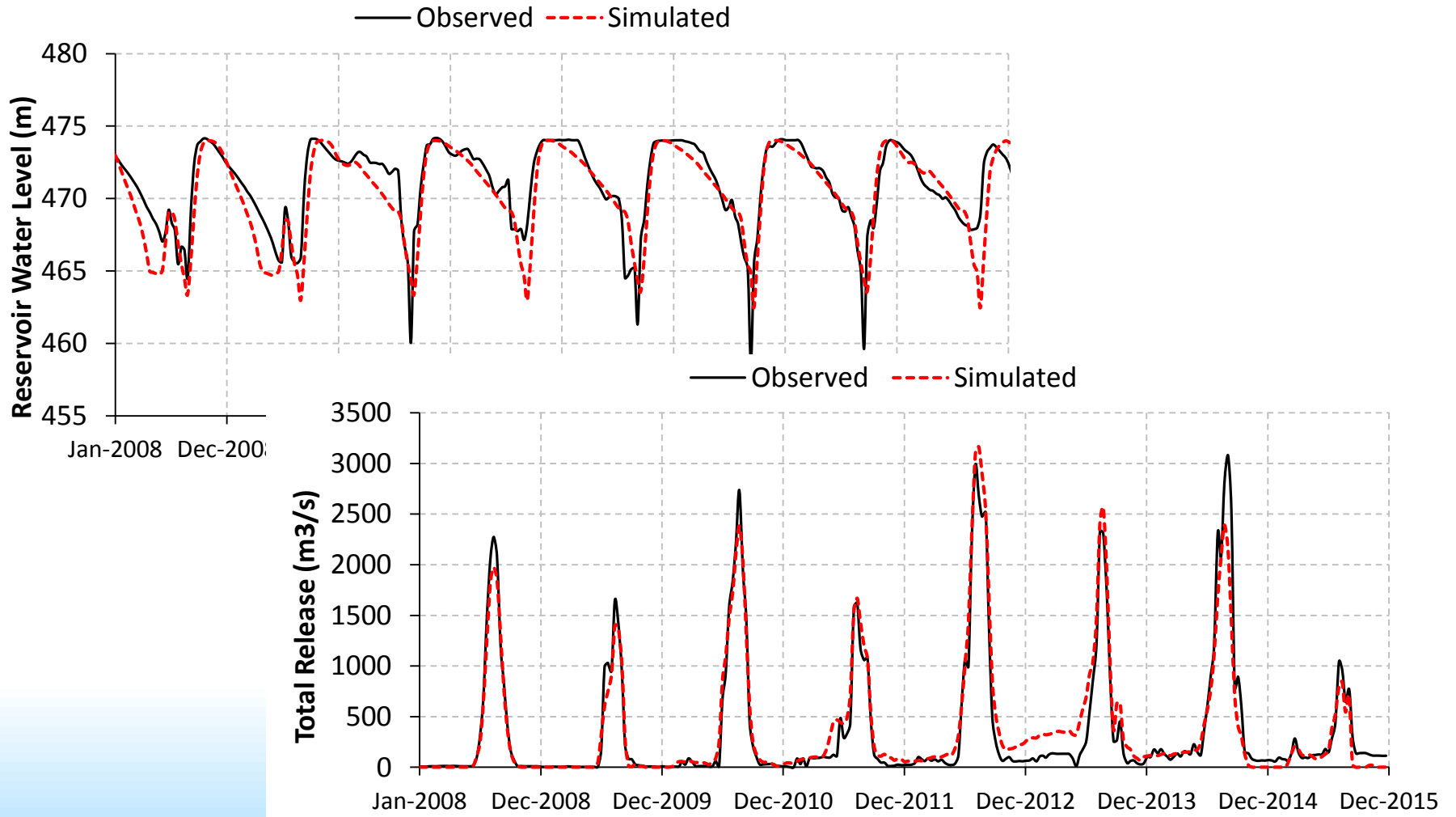
May 2017

Mike Hydro Basin

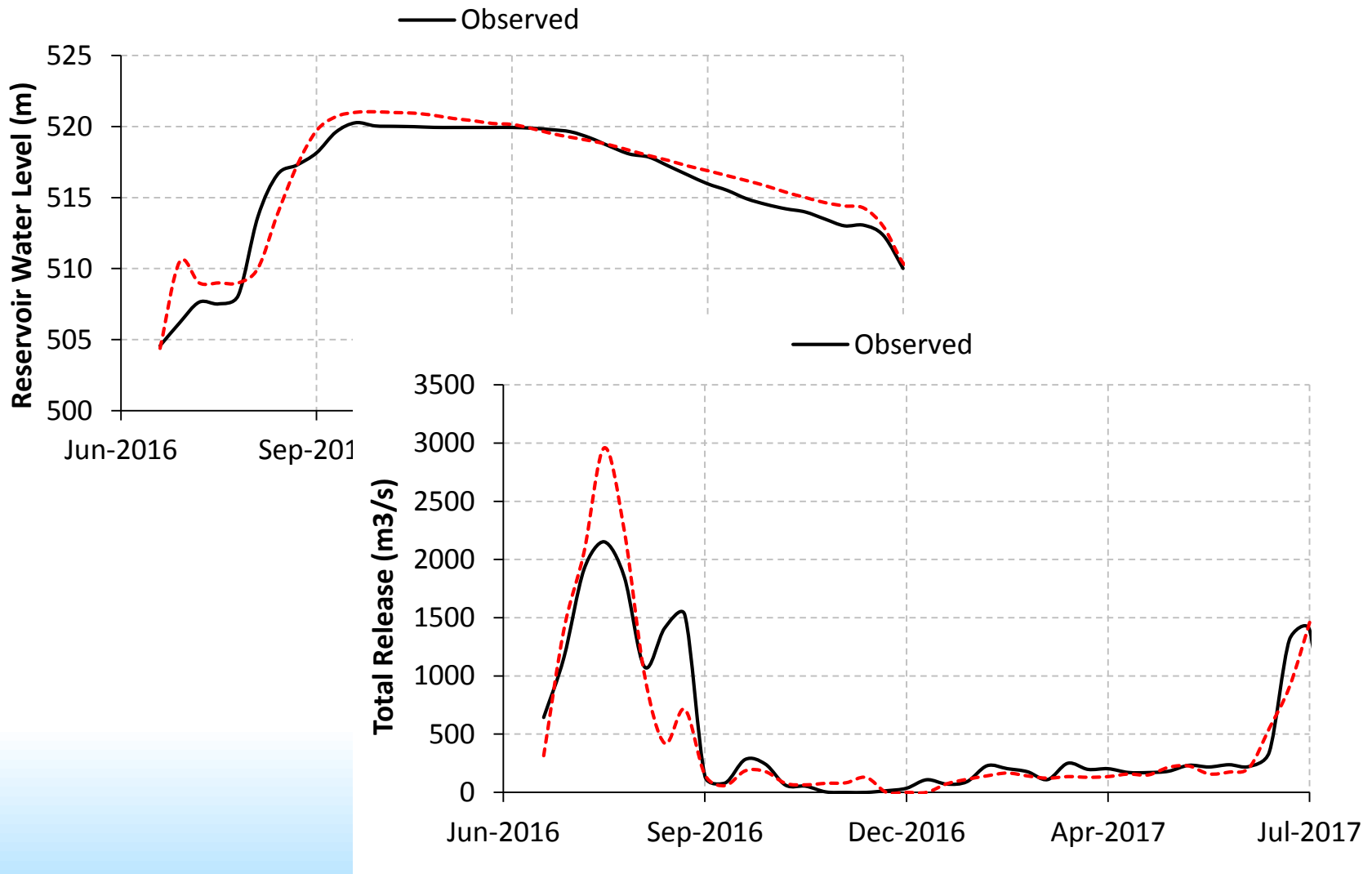
zero-D software modelling package developed by the Danish Hydraulic Institute (DHI). It is designed to analyze water sharing issues at international, national or local basin level for a large variety of applications



Model Verification: KED



Model Verification: UADC



Coming Activities:

- Exchange of data and models with EIWR – AAU to develop the whole model.
- Formulate scenarios for coordinated and non-coordinated operation of reservoirs

Thank You

Research Team:

