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Enhancing Climate Services for Infrastructure Investment in the Nile Basin

Using climate services for planning water-related infrastructure investments

The challenge

The Nile Basin is one of the most vulnerable regions to climate change impacts according to the IPCC (International Panel on Climate Change), and yet has a low adaptive capacity. Countries are investing billions in infrastructure every year, but new infrastructure projects are often implemented without considering their vulnerability to climate change. This leads to high risks of damage, loss, and misguided longevity investment with potentially serious consequences for the economies and societies.

To increase the reliability and structural integrity of water infrastructure that provides energy and food security in the Nile Basin, riparian countries need to strengthen their capacities for mainstreaming climate change considerations into investment decisions on existent and newly planned infrastructure. This includes institutional arrangements and technical processes, climate risk assessments, climate information products and advisory services for climate proofing.

Our approach

The objective of this global project is that decision-makers in the Nile Basin increasingly use climate services when planning infrastructure investments. The project's focus is on strengthening the provision of climate services by NBI through:

- guidance on integrating climate scenarios for hydrological assessments of water resource development,
- provision of climate information for use in hydraulic infrastructure planning, and



Project	Enhancing Climate Services for Infrastructure Investment (CSI) – Nile Basin
Commissioned by	Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) under the International Climate Initiative (IKI)
Implementing partner	Nile Basin Initiative (NBI), Climate Risk Institute (CRI) Canada
Project region	Nile Basin: Burundi, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda
Duration	2017 – 2023
Financial volume	€ 1.5 million

- guidance on appropriate methods on climate risk assessments for water resource development, based on NBI's Climate Risk Assessment and Climate Proofing Guidelines.

In cooperation with partners around the globe, the project strengthens technical and institutional capacities and networks to enhance the use of value-added climate data in the basin, from processing climate data to user-focused climate products and advisory services in the water sector for carrying out data driven climate risk assessments.

The aim is to establish NBI as an intermediary climate services provider, linking those providing and refining climate data with planners and engineers that require the information for their plans and designs.





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Results in figures ...

3 climate forums brought together around **200 experts** from **10 countries** to develop a joint understanding of the current and future uses of climate services for infrastructure investments in the basin.

1 baseline assessment, climate services catalogue and action plan on the current availability and use of climate services for hydraulic infrastructure investments in the Nile Basin countries has been disseminated.

5 trainings on climate risk assessments of infrastructure projects were given to **50 experts** from each of the Nile basin countries.

Climate risk assessments have been carried out for **7 infrastructure projects** of the Nile Equatorial Lakes Investment Programme (NELIP) at feasibility stage and offer **lessons learned for all NBI member states**.

NBI's climate proofing manual for the basin has been developed based on the Protocol of the Public Infrastructure Engineering Vulnerability Committee (PIEVC) and will be used to climate proof NBI projects at pre-feasibility and design stage.

A web-based climate proofing hub has been developed, providing access to capacity development (e-learning and a practitioners' network), and climate service products (online climate proofing manual, and climate scenario database).

... in stories

“It is very important for engineers to build capacity around climate risks. We need to work together to know how to design for the future.”

Statement by a member of the Nile Technical Advisory Committee (Nile-TAC) at the first Nile Basin Climate Week

NBI engineers and planners have scaled their capacity to mainstream climate risk considerations into infrastructure investment planning. The process has started with learning exercises on two test cases and has subsequently been scaled-up to a climate risk screening of the NBI's investment program's proposed multipurpose reservoirs. Going forward, climate risk assessments have now been mainstreamed as a standard requirement for all investment projects prepared through NBI.

... in a nutshell

Climate Services mean providing climate information in a way that assists decision making by individuals and organizations. Climate services require appropriate engagement along with an effective access mechanism and must respond to user needs. By enhancing the use of climate services for infrastructure investments, the project makes a direct contribution towards achieving SDG (Sustainable Development Goal) 13 (taking urgent action to combat climate change and its impacts). At the same time, the joint implementation under the Nile Basin Initiative serves as a direct contribution to strengthening cooperation in the Basin, and therefore to achieving the SDG 6.5.2 (establishing arrangements for water cooperation in all transboundary basins).

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