Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
of the Federal Republic of Germany

Services for a Climate Resilient Infrastructure

Enhancing Climate Services for Infrastructure Investments (CSI)

The Challenge

Every year, emerging economies and developing countries invest billions in long-term infrastructure projects. However, their plans often fail to take account of future climate change. This leads to high risks of damage and misguided investments that harbour potentially serious consequences for the economy and society. Many countries – amongst them Brazil, Costa Rica and Viet Nam – have now launched efforts to raise the resilience of their infrastructure, prioritising this as a target in their *(Intended) Nationally Determined Contributions ((I)NDC)*.

Known as *Climate Services*, user-specific and customized climate information and products (e.g. risk and vulnerability assessments) that enable public and private decision-makers to manage climate risks and opportunities form a major cornerstone for achieving this target. Many countries so far lack the institutional, technical and service-related capacities they need to set up and mainstream *Climate Services* in their planning procedures and regulations. Amongst the first international initiatives to take up this challenge is the *Global Framework for Climate Services (GFCS)* of the *World Meteorological Organization (WMO)*.

Project title	Enhancing Climate Services for Infrastructure Investments (CSI)
Commissioned by	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) within the scope of the International Climate Initiative (IKI)
Countries	Brazil, Costa Rica, Nile Basin – represented by the Nile Basin Initiative (NBI), Viet Nam
Lead executing agencies	Brazil: Ministério do Meio Ambiente (Environment Ministry, MMA); Costa Rica: Ministerio de Ambiente y Energía (Environment and Energy Ministry, (MINAE); Nile Basin: Nile Basin Initiative (NBI); Viet Nam: Ministry of Planning and Investment (MPI)
Implementation partners	German Meteorological Service (DWD), Engineers Canada, national and regional engineering
Term	March 2017 to February 2020

The project *Enhancing Climate Services for Infrastructure Investments (CSI)* forms part of Germany's *International Climate Initiative (IKI)*. In accordance with a resolution by the German Bundestag the IKI receives backing from the country's *Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)*.

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The Objective

CSI aims to empower decision-makers to make greater use of *Climate Services* when planning infrastructure investments and thus help increase infrastructure resilience. In this way, it is helping to achieve the *UN Sustainable Development Goal (SDG)* 9.

The Approach

To achieve its objective, CSI brings together all relevant private and public-sector actors along the *Climate Service* value chain. This includes climate data providers and the stakeholders, decision-makers and engineers who work with this data. All activities are purposefully integrated into the *National Adaptation Plans (NAP)* and NDCs as part of a drive to promote NAP and NDC development and implementation.

CSI prioritises four areas. Specifically, it

- supports the provision and use of *Climate Services*,
- supports the integration of the use of *Climate Services* into infrastructure planning,
- pilots climate risk assessments for infrastructure,
- promotes international knowledge transfer and exchange.

Establishing a sustainable interface between users (e.g. infrastructure planners, operators and owners) and *Climate Service* providers – commonly referred to as a *Climate Service User Interface Platform (UIP)* – enables potential *Climate Service* users to participate in the development process. At the same time, it involves providers in the use of the information for infrastructure planning. The *German Meteorological Service (DWD)* advises *Climate Service* providers and users on the delivery and use of *Climate Services*.

CSI also focuses on climate-sensitive infrastructure planning methods that take risks into account. Together with decision-makers, the project develops recommendations for adapting planning procedures and regulations in line with the *climate-proofing approach*, e.g. via cost-benefit analyses, the development of building standards or environmental impact assessments (EIA).

To identify climate risks, CSI is piloting a climate risk assessment for a specific infrastructure type in each of the partner countries, thereby creating a starting point for prioritising the various adaptation options. Engineers Canada is advising the partner countries on the risk assessment rollout. Based on the *Public Infrastructure Engineering Vulnerability Committee (PIEVC) protocol* that *Engineers Canada* developed to analyse climate risks to infrastructure, the project aims to build local capacity by means of a *learning-by-doing approach*. At the same time, it is compiling handouts and training materials to disseminate this approach and to operationalise the adapted planning procedures and regulations.

Furthermore, CSI shares its experience and *best practices* with national and international forums and posts them on *AdaptationCommunity.net*, amongst other sites.

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