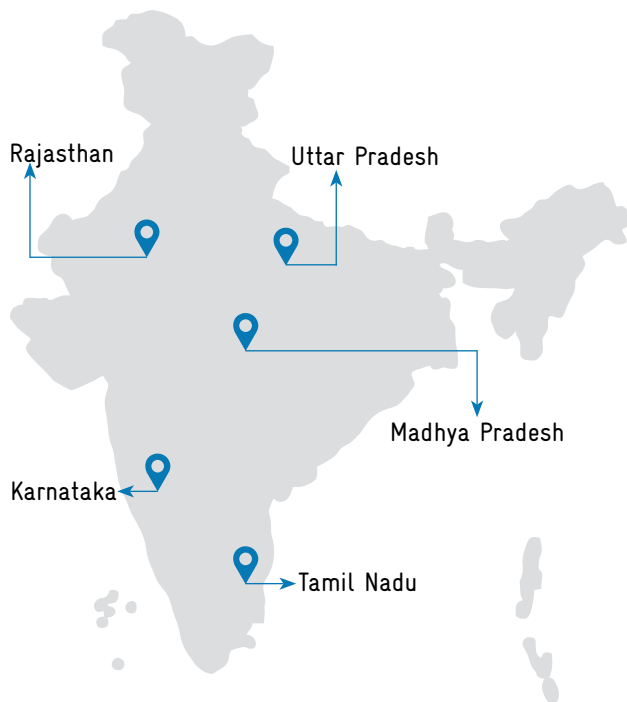


Water Security and Climate Adaptation in Rural India (WASCA)

Impact Highlights (March 2021)

The Indo-German bilateral project 'Water Security and Climate Adaptation in Rural India (WASCA)', commissioned by German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ, works with the Ministry of Rural Development and National Water Mission (Ministry of Jal Shakti), Government of India. The project objective is "water resource management is enhanced through an integrated approach at national, state and local level with regards to water security and climate adaptation in rural India". The project is developing and demonstrating approaches and models in five of the biggest states of India (Madhya Pradesh, Rajasthan, Uttar Pradesh, Tamil Nadu, and Karnataka¹), covering 37% of country's area and 39% of its population.

¹Supported by WASCA through a special project 'Technical support to Jalamrutha Scheme and Government of Karnataka for Water Security'.



Note: The geographical map used in this document is for informational purposes only and does not constitute recognition of international boundaries or regions; GIZ makes no claims concerning the validity, accuracy or completeness of the maps nor assumes any liability resulting from the use of the information therein.

WASCA has evolved a sub-basin based Composite Water Resource Management (CWRM) planning approach for facilitating convergent planning under Mahatma Gandhi NREGA² with relevant stakeholders including communities, public institutions, civil society, research organisations, private agencies etc. This approach is based on GIS (Geographical Information System), and remote sensing technologies and has been accepted nationally and by state governments as a comprehensive and climate adapted planning approach for water security.

Over the past decades, challenges related to availability of sufficient and safe water for various purposes have increased in India, and are evident in the form of increasing water supply/demand gaps, more contaminated water, ever growing water losses in various forms and increasing numbers of water-related conflicts.

2,264 development blocks³ in India (32% of the total blocks) experience water stress due to over exploitation and irrigation deprivation, which is the first major challenge. The second challenge is low levels of soil moisture, varying from 5% to 14%, in the project locations. The third challenge is higher losses due to evapotranspiration, varying from 320 mm to 820 mm annually in these 10 districts, which amounts to a loss of about 65% of annual average rainfall.

Project Interventions and Results

The WASCA project works in 115 blocks, of which 37 blocks belong to the high water stress category. Immediate and urgent actions are planned through the CWRM planning process for enhancing water availability through watershed based location specific interventions, coupled with groundwater recharge measures.

So far, 5,345 Gram Panchayats (GP; local governance institutions for rural areas) covering an area of 7.4 million hectares and a population of 22 million, have prepared CWRM plans in just one year that have identified 700,000 water-related interventions, most of which have already received budgetary approvals worth Euro 500 million (-INR 4,433 crore) by the national and state governments, have been identified and will be implemented over next two years. These budgets leverage a host of central and state level flagship schemes such as Mahatma Gandhi NREGA, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Jal Jeevan Mission (JJM) etc.

These 0.7 million interventions constitute significant adaptation, as well mitigation measures against the climate change impacts on the water security scenario of rural India.

²**Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**, is an [Indian labour law](#) and [social security](#) measure that aims to guarantee the 'right to work'. This act was passed in September 2005. It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

³In the Indian context, a community development block refers to an administrative division/unit in rural areas which collectively comprises of smaller village-level administrative units, which are called Gram Panchayats (GPs).



To enhance timely, convergence based and quality implementation of these plans, 100 short-term experts have been deployed at district levels to capacitate more than 5000 front line staff from various government agencies in the pilot districts of select states.

The ten WASCA pilot districts have identified more than 50,000 water bodies with an approximate storage capacity of 400 million cubic meters. Project's interventions will lead to an additional storage of 100 million cubic meters in these. This shall reduce dependence and over-extraction of groundwater for daily water needs (irrigation, livestock and other domestic purposes).

It is crucial to enhance soil moisture to support local sustainable farming systems. For this purpose, 664 km² of degraded areas with activities in about 10,000 locations related to soil and water conservation are planned. To reduce water losses i.e. evapotranspiration losses, many of the interventions identified have a special focus on water use efficiency and water productivity enhancement in the WASCA pilot districts.

All of these are expected to provide substantial benefits to about 3.6 million people, 55% of whom will be women. They will also benefit through direct wage employment and asset creation as part of Mahatma Gandhi NREGA. The impact of the project interventions is expected to far exceed this, since WASCA has now been requested by the MoRD to provide capacity development support to scale up the GIS-based planning to all of the 1,01,584 local councils (GPs) in the four states of Rajasthan, Uttar Pradesh, Madhya Pradesh and Bihar. This constitutes 38% of the total GPs in the country and is very significant, as the project was initially designed to pilot interventions in only 8 districts and 4,744 GPs.

To mainstream these WASCA experiences among stakeholders and upscale the CWRM planning approach at national and state levels, knowledge products have been jointly published with partner ministries. All these mid-term impacts have been achieved despite the COVID-19 pandemic related lockdown affecting most of the project period (March 2020 to March 2021) and this has been made possible by the effectiveness of the digital tools and partner-led approaches developed and demonstrated by WASCA.

Contribution to International and National Agreements on Water and Climate Action

WASCA contributes to the following Sustainable Development Goals (SDGs):

SDG 1: No Poverty, SDG 2: Zero Hunger, SDG 6: Clean Water and Sanitation, and SDG 13: Climate Action. With its focus on water related climate action and integrated water resources management (IWRM), the project significantly contributes towards SDG 6.5.1 by ensuring efficient, sustainable, and inclusive water outcomes.



Knowledge Partners



Water Security & Climate Adaptation in Rural India (WASCA)	
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
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