# Towards a Healthy Output Description: Towards a Healthy Towards a Healthy Output Description: Towards a Healthy Output Description: Towards a Healthy Towards a Healthy



**Project Overview** 

A Research Project for Cleaner Waters & Improved Ecosystems





This two-year project, which began in early 2015, will contribute to cleaning and restoring the Ganga's riverine ecosystems. In collaboration with key organizations, the project will address challenges like reduced flows and the discharge of untreated toilet waste and waste water along the Ganga and its tributaries

### PARTNERS

World Wide Fund for Nature (WWF)

Indian Institute of Technology Kanpur (IITK)

National Mission for Clean Ganga (NMCG)

Institute of Rural Management Anand (IRMA)

The Water and Sanitation Program (WSP)

# Research to Action

Potential use of this research

### 1. Local urban authorities

- For preparing evidence based sanitation plans and urban action plans to abate pollution which meet the needs of vulnerable groups
- For designing and implementing feasible and context-specific models for septage and sewage management

### 2. National and state authorities

- For targeting investments and developing comprehensive strategies for pollution control
- For having a better understanding of the tradeoffs, cost and benefits associated with environmental flows
- For designing a science based framework for implementation of environmental flows







## REDUCING FECAL POLLUTION IN SMALL AND MEDIUM CITIES -

Discharge of untreated waste and wastewater into the Ganga is considered one of the major threats to the health of the river. The project will focus on the 3 selected cities of Unnao, Mughalsarai, and Gangaghat in the state of Uttar Pradesh, where technical, economic and institutional solutions will be analysed for reduction of pollution caused mainly by domestic wastewater and fecal sludge.

A study of the replication potential of the most promising solutions and the related costs and effectiveness of such replication will be undertaken. Innovative business models for waste reuse along with low cost wastewater treatment would also be studied.

### KEY OUTPUTS

- 1. Integrated baseline assessments of 3 cities to identify problems and opportunities for pollution prevention
- 2. Catalogue of stakeholder recommended solutions for pollution abatement in the selected cities
- 3. Feasibility studies for the most promising solutions in the selected cities
- 4. New entry points for equitable engagement for women and men in pollution abatement
- Analysis of the basin replication potential for the most promising solutions and of the benefits of such replication

# RESTORING THE FLOW OF THE RIVER -

Agriculture, industrialization, population growth and an emerging middle class are rapidly increasing their water demand, a demand that is met with increasing water abstractions which are leaving many river stretches running dry.

This project will study the current water uses, allocations and abstractions, and will further analyze the costs, benefits and the trade-offs of restoring environmental flows. Environmental Flows are the flows required for the maintenance of the ecological integrity of rivers, their associated ecosystems and the goods and services provided by them.

### KEY OUTPUTS

- Integrated baseline assessment of the Upper Ganges basin on major river flows, water uses and related institutions
- 2. Cost-Benefit analysis of environmental flows implementation
- Trade-off analysis of environmental flows implementation
- Framework for environmental flows implementation and trade-off management



To encourage program outreach, IWMI along with its partners will create platforms for engaging and working with decision makers. Subject experts along with local, state and national authorities will be involved along the whole research process in both the validation of the methodologies and the results through a consultative process.

The CGIAR Research Program on Water, Land and Ecosystems Focal Region Program in the Ganges Basins (WLE Ganges) is a research-for-development initiative that seeks to restore and bolster opportunities for increased agricultural productivity through key ecosystem services, especially in the resource poor areas in the region.

The CGIAR Research Program on Water, Land and Ecosystems (WLE) is a global research program that promotes a new approach to sustainable agricultural intensification in which a healthy functioning ecosystem is seen as a prerequisite to agricultural development, resilience of food systems and human well-being. This program is led by the International Water Management Institute (IWMI), a member of the CGIAR Consortium, and is supported by CGIAR, a global research partnership for a food-secure future.

wle.cgiar.org/ganges



# Contact information & Partners

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Project webpage: http://wle.cgiar.org/healthyganga

www.iwmi.org









