

IWMI in India



Innovative water solutions for sustainable, climate-smart development

Rooted in ancient traditions and centuries of experience, skilled water management in India has given rise to a highly productive agriculture, supporting a dynamic society with a large human population. Yet, the country's remarkable achievements could prove fragile under mounting social and environmental pressures, especially the looming threat of climate change.

With two decades of experience in collaborating with Indian institutions and communities, the International Water Management Institute (IWMI) works across the country to spread the multiple benefits of improved water management. We believe this is one of the most powerful and effective ways to meet India's development challenges and help realize the United Nations Sustainable Development Goals (SDGs).

Ten key highlights from our recent research for development in India:

- ***Solar-powered irrigation: Harvesting sunshine to grow more food***
As this practice takes off, IWMI is helping devise innovative business models to extend the benefits. One model centers on a farmer cooperative that pumps irrigation water with solar power and sells excess energy back to the utility, making sunlight into a cash crop. Another model improves access to groundwater in energy-scarce eastern India.
- ***Pradhan Mantri Krishi Sinchayee Yojana (PMKSY): Making it work***
The IWMI – TATA Water Policy Program has analyzed recent irrigation reforms in several Indian states and identified the 112 most irrigation-deprived districts to help guide implementation of the government's PMKSY irrigation scheme.
- ***Watching out for drought with a monitoring and early warning system***
To help India and its neighbors enhance resilience in the face of drought, IWMI and its international partners have created the South Asia Drought Monitoring System,



which aids risk mitigation by using satellite, soil and rainfall data to map dire threats to food security.

- **Safeguarding rural livelihoods: Index-based flood insurance**

In a first for India and the world, IWMI and its partners are piloting a high-tech flood insurance product with 200 farmers in Bihar. A key contribution to climate change adaptation, the product uses advanced modeling techniques with satellite data to trigger fast insurance pay-outs.

- **Underground taming of floods for irrigation**

IWMI is piloting a technique in Uttar Pradesh that turns floods into opportunities by recharging aquifers with excess water through village ponds and recharge wells, so that farmers have more groundwater to irrigate crops in the dry season.

- **Stemming the groundwater crisis: How to manage an invisible resource**

To help contain groundwater overuse, IWMI researches policies and practices for sustainable management of this resource, which also lower electricity bills and boost crop yields.

- **Collective agriculture: New hope for landless farmers**

IWMI research in Bihar has demonstrated that, when marginalized women and tenant farmers pool their labor and share costs, they can boost cropping intensity (growing three crops a year) through better access to irrigation technologies and other agricultural inputs.

- **Climate-smart villages**

In several Indian states, IWMI and its partners are developing an ample portfolio of interventions and training modules that better enable rural communities to cope with climate change impacts.

- **A healthy Ganga for clean water and ecosystems**

IWMI forms part of a consortium that is finding ways to clean up this vital river system, including a major pilot initiative on human waste management, which offers sustainable sanitation for a low-income settlement of New Delhi.



- **Healthy ecosystems in peri-urban communities for better urban development**

Working with a wide array of local and international partners in Bihar and West Bengal, IWMI is exploring how healthier ecosystems can help combat poverty in India's peri-urban areas, while also enhancing urban development.

The IWMI/India Partnership

Hosted by the Department of Agricultural Research and Education (DARE), IWMI collaborates closely with the Indian Council of Agricultural Research (ICAR). The Institute also works through a longstanding partnership with the Tata Trusts, called the IWMI-Tata Water Policy Research Program, based in Anand, Gujarat. IWMI operates in India from its base in the New Delhi complex of the National Agricultural Science Center (NASC), where it shares facilities with other CGIAR centers. IWMI leads the CGIAR Research Program on Water, Land and Ecosystems (WLE) and works closely with other CGIAR programs in India, including Climate Change, Agriculture and Food Security (CCAFS). CGIAR is a global research partnership for a food-secure future. www.cgiar.org

Contact:

Alok K. Sikka, IWMI Representative
2nd Floor, CG Block C
NASC Complex, DPS Marg, Pusa
Opp Todapur
New Delhi 110 012 India
Tel: +91 11 25843536, 25840812, 65976151
Email: iwmi-delhi@cgiar.org

Headquarters – Colombo, Sri Lanka
Tel: +94 11 2880000, 2784080
Email: iwmi@cgiar.org
www.iwmi.cgiar.org