



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



RESEARCH  
PROGRAM ON  
Water, Land and  
Ecosystems



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## PRESS RELEASE

### **Ganga floodwater to be stored underground** *New project will reduce floods and boost irrigation*

(30 Oct, 2015 – Uttar Pradesh, India) A new initiative launched today in Uttar Pradesh could revolutionize flood management while at the same time boost groundwater stocks for dry season irrigation. Located in Jiwai Jadid village, 20 kilometers east of Rampur town, the project will be the first ever to adopt the new approach which is being developed by scientists at the International Water Management Institute (IWMI).

The initiative, called Underground Taming of Floods for irrigation (UTFI), channels surplus surface water from flood-prone rivers or their distributary canals during the wet season when there is a high flood risk to a modified village pond. Brick structures in the pond allow the water to flow swiftly down below ground, where they infiltrate the local aquifer. This water can then be pumped back up again during the dry season so that farmers can maintain or intensify their crop production.

“This is an exciting concept which has never really been done before and whose benefits go directly to local and wider communities,” said Paul Pavelic, of the International Water Management Institute (IWMI), who leads the research. “Putting this into practice will save on the large funds spent each year on relief and restoration efforts of flood victims and on subsidies for groundwater extraction during the non-rainy season. We hope our approach would tackle the root causes of the problem rather than the consequences.”

The Ganga basin suffers from regular floods with the mighty Ganga and its tributaries like Ramganga, Yamuna, Mahananda, Koshi all flooding almost annually. During the rainy season, large volumes of excess water run off the Himalayan range often causing great damage downstream. On the other hand, some of the same regions face a shortage of water aggravated by year - round agriculture production which is largely dependent on groundwater pumping particularly in dry season when canal water is limited. To deal with this variability, IWMI’s experts have devised a way to selectively capture excess water flows during monsoons and store this in aquifers underground.

The size of the land around the pilot that would receive direct benefit is currently under investigation. With floods being a common occurrence across the Ganga basin, researchers hope that the scaling up of this intervention would help in effectively protecting lives and assets downstream, boosting agricultural productivity and improving resilience to climate shocks at the river basin scale. This will be especially important to help communities deal with climate change which is likely to bring ever more variability in water supply and rainfall.

The UTFI scheme is being established by IWMI as part of the CGIAR Research Program on Water, Land and Ecosystems (WLE) and Climate Change, Agriculture and Food Security (CCAFS).

The event was attended by the local residents of Jiwai Jadid village, experts from organizations such as The Energy Resource Institute (TERI), Livelihoods and Natural Resources Management Institute (LNRMI). Government officials from Indian Council for Agricultural Research (ICAR), Central Ground Water Board (CGWB) and Central Water Commission (CWC) also interacted with the local community and researchers at the pilot site.

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### Additional information

- The **International Water Management Institute (IWMI)** is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. It is headquartered in Colombo, Sri Lanka, with regional offices across Asia and Africa. IWMI works in partnership with governments, civil society and the private sector to develop scalable agricultural water management solutions that have a real impact on poverty reduction, food security and ecosystem health.  
[www.iwmi.org](http://www.iwmi.org)
- The **CGIAR Research Program on Water, Land and Ecosystems (WLE)** combines the resources of 11 CGIAR Centers, the Food and Agriculture Organization of the United Nations (FAO) and numerous national, regional and international partners to provide an integrated approach to natural resource management research. WLE promotes a new approach to sustainable intensification in which a healthy functioning ecosystem is seen as a prerequisite to agricultural development, resilience of food systems and 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](http://wle.cgiar.org)
- The **CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)**, led by the International Center for Tropical Agriculture (CIAT), brings together the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org).



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- **CGIAR** is a global partnership that unites organizations engaged in research for a food secure future. CGIAR research is dedicated to reducing rural poverty, increasing food security, improving human health and nutrition, and ensuring more sustainable management of natural resources. It is carried out by the 15 centers who are members of the CGIAR Consortium in close collaboration with hundreds of partner organizations, including national and regional research institutes, civil society organizations, academia, and the private sector. [www.cgiar.org](http://www.cgiar.org)

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