



WEST CHAMPARAN  
GANDAKI  
RIVER BASIN  
INDIA

# FLOOD RESILIENT SANITATION

ICIMOD along with its partners Megh Pyne Abhiyan (MPA) and Water Action (WA), is piloting Eco-San Toilet, or *Phaydemand Shauchalaya* (Beneficial Toilet) as it is locally known, in *Naya Tola Bishambharpur* (NTB) village, *Nautan Block* in *Pashchim* (West) Champaran district of Bihar.

*Expected Outcome: Upscaling of Eco-San Toilets in Bihar can vastly improve health and hygiene outcomes in the state, and other flood prone areas in the HKH region.*

## WHY?



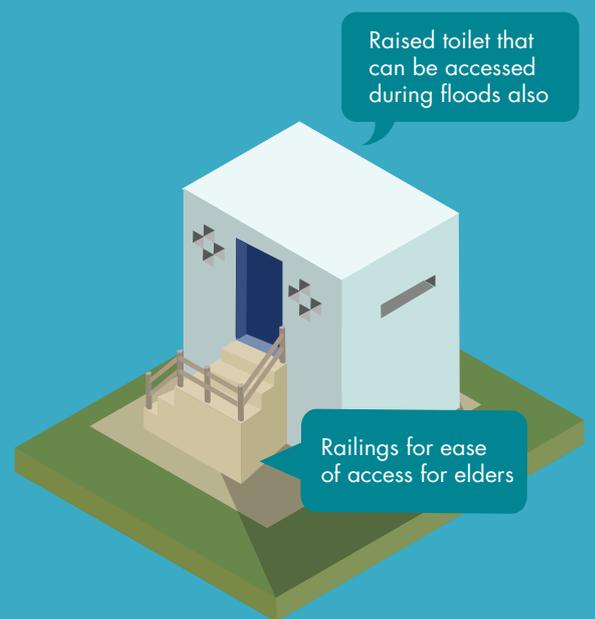
In Pashchim Champaran, the year 2007 saw the most number of blocks (16) getting affected by floods. In 2010, this number was 12.



Settlements near the river course are most vulnerable to floods. Around 0.2 million people across 223 villages were affected in 2007.



The flood-prone nature of the landscape prevents its recognition as 'flood impacted'. This ensures inaccessibility to basic services and post disaster recovery assistance.



# WHAT?

The 'Ecological Sanitation' (Eco-San) toilet is an innovative sanitation technology that:



- Is flood resilient and odorless
- Is a double chambered toilet that converts human waste to 'humanure' which is used as fertilizer in agricultural fields and kitchen gardens
- Separately collects urine which can be used as a substitute for Urea in the crop fields or vegetable gardens after mixing with water in the ratio 1:7 (Litres)
- Does not require flushing and hence, saves water.
- Collects waste above the ground and so prevents groundwater from being contaminated.
- Provides the community, especially women, girls and the elderly, a secure and clean enclosure for defecation even during floods.

# HOW?

The pilot implementation entails:

- A participatory process where all recipients take ownership by localizing the relevance, design, construction and maintenance of critical utilities. This aids in bringing about behavioural change.
- Integrating local and external perspectives and knowledge on ecologically sensitive, climate responsive, and disaster resilient community.
- Identifying and building capacities of local masons to construct the toilets;
- Constructing toilets in batches so as to gradually introduce the structure in the community for building consensus towards its use, maintenance and benefits;
- Monitoring use and evaluating utility of the facility which is not just a toilet but also a resource. This will positively enhance ownership among community members.

The Central Government (Govt.) and Govt. of Bihar recognize the EcoSan toilet as an alternative sanitation technology. This has helped pave the way for engagement with government representatives and programs at the district level. Financial support to out-scale the concept will be sought under the Swachh Bharat Mission for the construction of the Eco-San toilets, and the National Rural Drinking Water program for safe drinking water possibilities.

