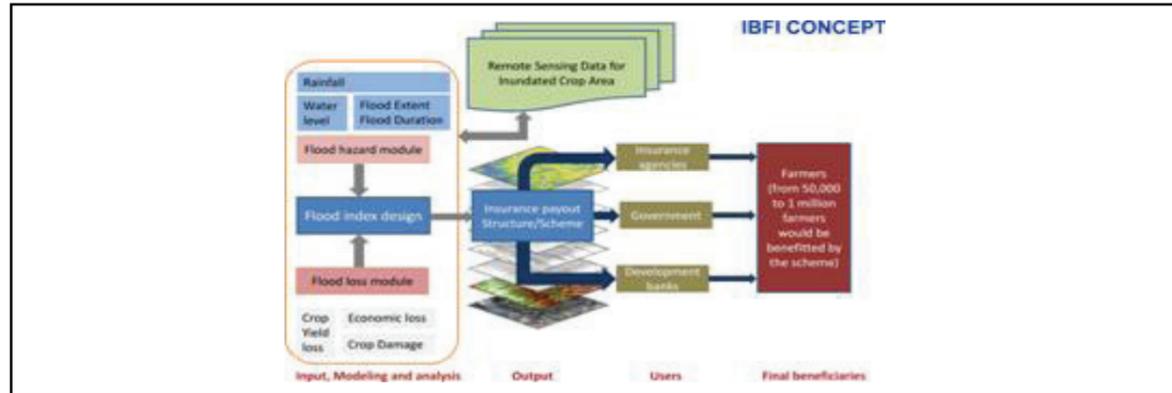


## Tackling vulnerability through Index-Based Flood Insurance (IBFI)

Priority for Actions 1, 2, 3 and 4 – Risk assessment, Disaster risk financing, enhancing agriculture resilience and flood proofing livelihoods



Application field: IWMI has developed IBFI in order to support its water risks and disaster risk management solutions work; by determine flood depth, duration and extent to enhance agricultural resilience and reducing the risks of communities from recurrent floods, based on Earth observation data and flood modeling tools. Effective end-to-end solutions will be developed in collaboration with a range of organizations and experts from central and state government bodies, insurance industry, community-based organizations (CBOs) and non-governmental organizations (NGOs).

Methodology available / workflow: Index-based flood insurance (IBFI) is an innovative approach to developing effective payout schemes for low-income, flood-prone communities. This project aims to integrate hi-tech modelling and satellite imagery with other data to predetermine flood thresholds, which could trigger speedy compensation payouts. Effective end-to-end solutions is being developed through public-private partnership for scaling up and sustainability through invest in disaster risk resilience agenda. The project will cover India and Bangladesh, making it the first attempt to develop IBFI at a large scale.

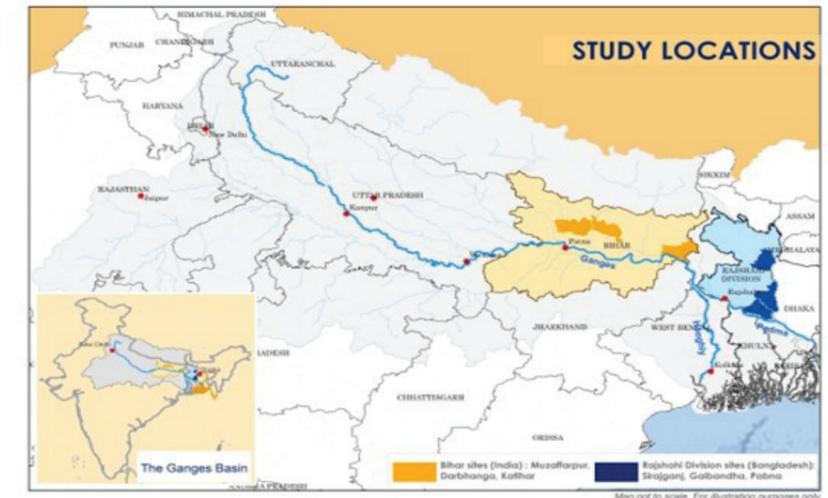
Key results:

- Proof-of-concept on IBFI coupled with the flood hazard model and remote sensing (RS) data for the pilot sites developed.
- Digital flood mapping tool to monitor and quantify the impact of floods on crops, and its application in insurance schemes.
- Design and pilot test a set of farmer-friendly flood insurance contracts for at least three districts with a considerable number of marginalized female farmers/poor people to ensure contracts are not gender biased.
- Business Models and Economic analysis of IBFI is being developed
- Obtaining feedback from government, insurance industry, community-based organizations (CBOs) and nongovernmental organizations (NGOs) through workshop and policy dialogue forum.

GP-STAR Factsheet

## Enhancement of Earth Observation and Modelling for improved flood resilience in Asia

Pre-operational pilot



Impact: IBFI is one such solution that is both cost-effective and can better target post-disaster relief. IBFI will boost public-private partnership to invest in the institutions and policies that will build community resilience in the face of the new climate reality. IBFI has the potential to be a part of a more wide-ranging and multi-faceted approach to make sure that flood-affected regions remains flood resilient in years to come.

- Amarnath et al. (2017) Index-Based Flood Insurance (IBFI) for Mitigating Risks in Agriculture: Current Status, Challenges and Way Forward. IWMI Working Paper (In Review)
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- Amarnath, G., & Rajah, A. (2016). An evaluation of flood inundation mapping from MODIS and ALOS satellites for Pakistan. Geomatics, Natural Hazards and Risk, 1-12.
- Malik S. et al. (2017) Towards developing a business model for Index Based Flood Insurance (IBFI). IWMI Working Paper (In Review)

<http://ibfi.iwmi.org> and

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