

# Understanding Household Migration Decisions in Response to Floods: A Case Study of North Bihar, India

*Ignite Talk*

*Presented by: Dr. Richa*

*Senior Program Associate, WRI India*

*Email: [richa.richa@wri.org](mailto:richa.richa@wri.org)*

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# Global Scenario of Floods





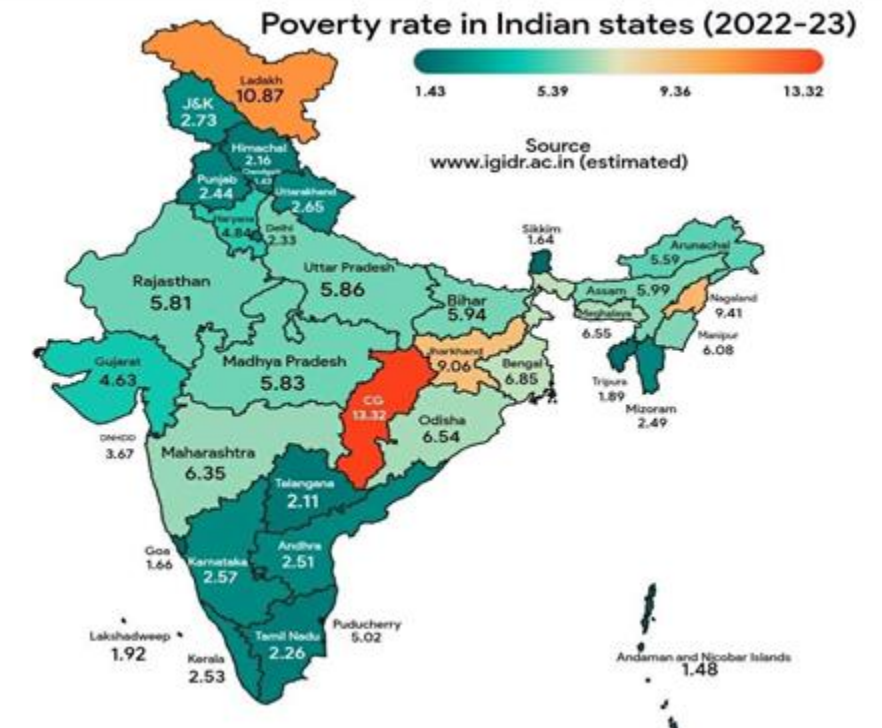
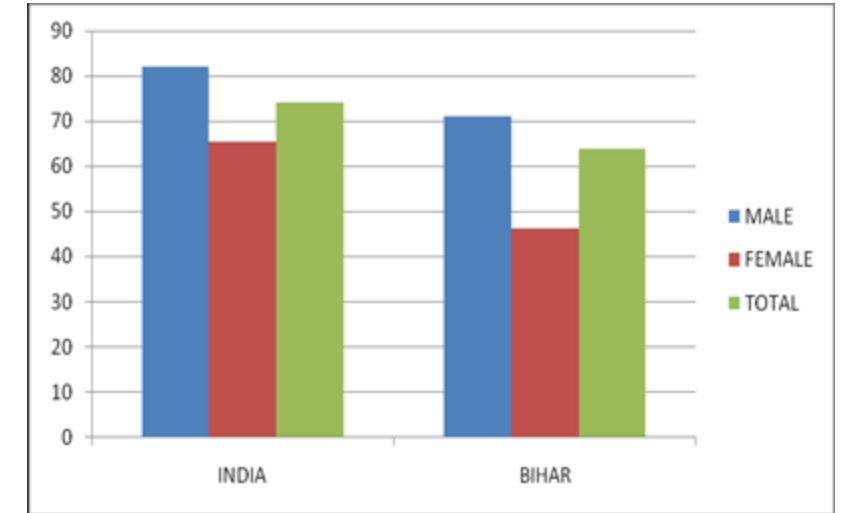
# Local Impact: Bihar Case Study

- Villages are submerged
- Livelihoods are destroyed
- Life-threatening situation
- Migration is a way to survive post-floods



# Poverty and literacy Statistics: Bihar

- The majority of the population is highly vulnerable in Bihar
- North Bihar districts are the worst districts on the vulnerability index due to their high exposure, and lower adaptive capacity due to high poverty, and high unawareness due to low literacy level (Dasgupta et al., 2021, and Census of India, 2011)



# The Research Challenge



How do you capture the perceptions of people who cannot engage with written surveys?



Due to low literacy, it is difficult to explain the technical terms of climate change, hazards, floods, and migration to the targeted set of respondents.



Our explanation of floods and their impacts can lead to bias, and the respondents will only answer the way we construct a case to them



**Let us find an alternative: To voice the “*unheard voices*”**

# Conventional Surveys



THE LENGTHY SURVEYS OFTEN  
FAIL TO TAP THE REALITIES OF  
LIVED FLOOD EXPERIENCES



IT CAN LEAD TO FATIGUE AND  
DIFFICULTY OF UNDERSTANDING  
OF WRITTEN QUESTIONS







LANGUAGE CAN BE A BARRIER  
TOO



## Innovative Method: Pictures

- Pictures are simple, but powerful tools to elicit people's perception of floods
- Older to younger people express their ease in responding to pictures






Q1. . Identify the type of flood (based on intensity) that you experienced in the recent past (in the last three years). Please choose the most relevant picture out of four in the given table.

Level of intensity and likely scenario of future floods in your area (people's perception)	
 <p>1. Very low intensity: Water level rising ONLY in the rivers, canals, and ponds</p>	 <p>2. Low intensity: Water inundating roads and residential colonies</p>
 <p>3. High intensity: Water reaching inside the homes</p>	 <p>4. Very high intensity: Floods sweeping homes, and other fixed/tangible properties</p>

# Sample Cards

- We designed a **picture-based questionnaire**
- **This includes** images showing floods, local coping strategies, and even migration choices.

Q4. Identify the best option for livelihood diversification (for Benefit-Cost >0) for your household with respect to floods of different intensities?

Level	Options				
	1 Crop diversification 	2 Shift to Plantations and Horticulture 	3 Fishing 	4 Cultivation of Foxnuts (Makhana) 	5 Migration 
Very low intensity					
Low intensity					
High intensity					
Very high intensity					



# Participation



# Why it works

- With pictures, people immediately engaged. They laughed, pointed, debated, and shared stories they would never write on paper.
- Pictures evoked emotions: fear of water, hope of safety, pride in traditional practices. The silenced voices came alive.

**This method reduces bias, breaks literacy barriers, and captures genuine community perceptions**

# Bigger Lesson

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Bihar is not unique.

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In Sub-Saharan Africa, farmers facing drought often cannot read long surveys. Pictures can help capture their strategies too.

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In Southeast Asia, fisherfolk exposed to storms and rising seas could also benefit from picture-based surveys.

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Even in Europe, migrant populations face language barriers. Pictures bridge those gaps





# Universal Tool

- This study is more than an Indian case study
- It's a replicable global method for inclusive climate adaptation research.
- Pictures gave the poor of Bihar a voice in adaptation planning. Imagine what they could do for vulnerable communities everywhere.

# Policy Relevance and Key Message

- If we want inclusive climate policies, we must design research methods that bring every voice to the table.
- Because policies that ignore the most vulnerable are **not just, and they are not sustainable.**

**Join me in exploring how pictures can speak when words fall short!!!**







**Thank You**

Source: Images from the field-survey (North Bihar), March-May, 2022