

How do the landless adapt?

Cultural Ecological Analysis of the Rice Production Systems in West Bengal, India

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Presented at the International Rice Congress, 16-19 October 2023,
Manila Philippines

Context

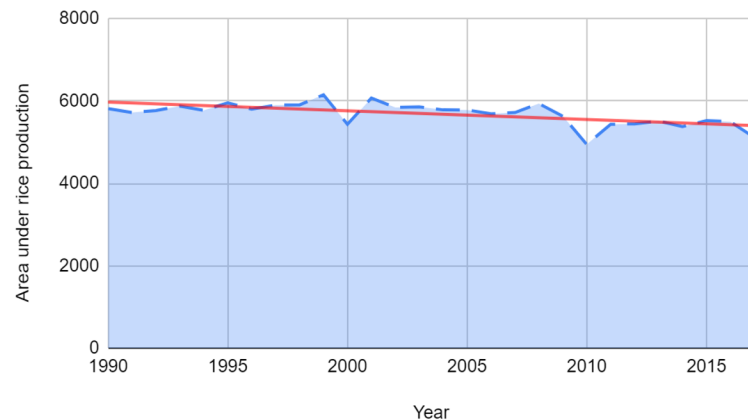
West Bengal - largest producer with 12.87% of India's rice production (Ag. Statistics at a Glance, 2022)

Gradual decline in area under paddy cultivation in the state.

Possible reasons: high **fragmentation** of land (Bagchi et al., 2021), **erratic rainfall** (Singh, 2022)

Gap in data and evidence on where, why and how this is happening

Area under rice production in West Bengal



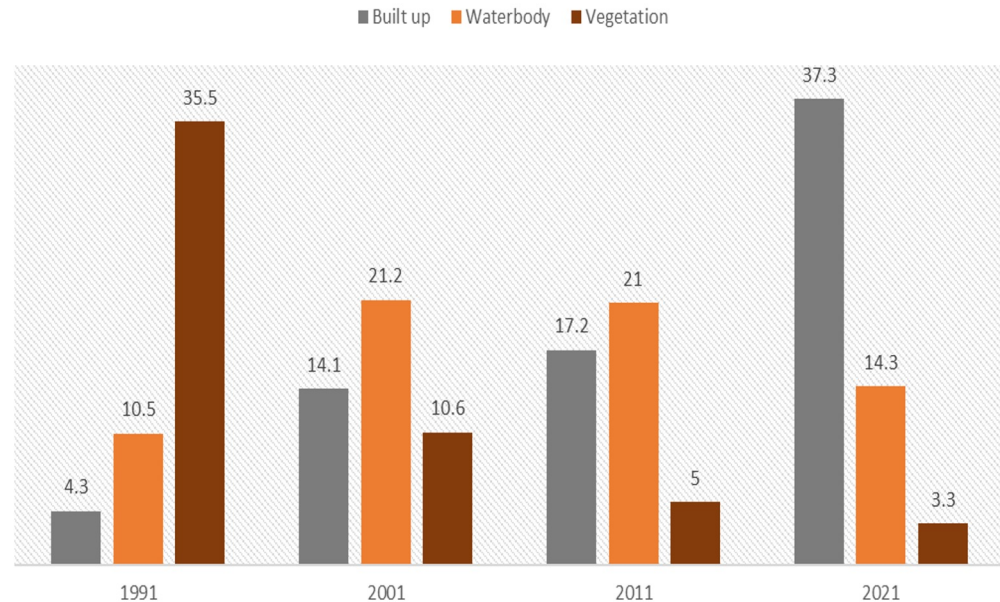
Source: District Level Database (DLD), ICRISAT-TCI

Zooming in: South 24



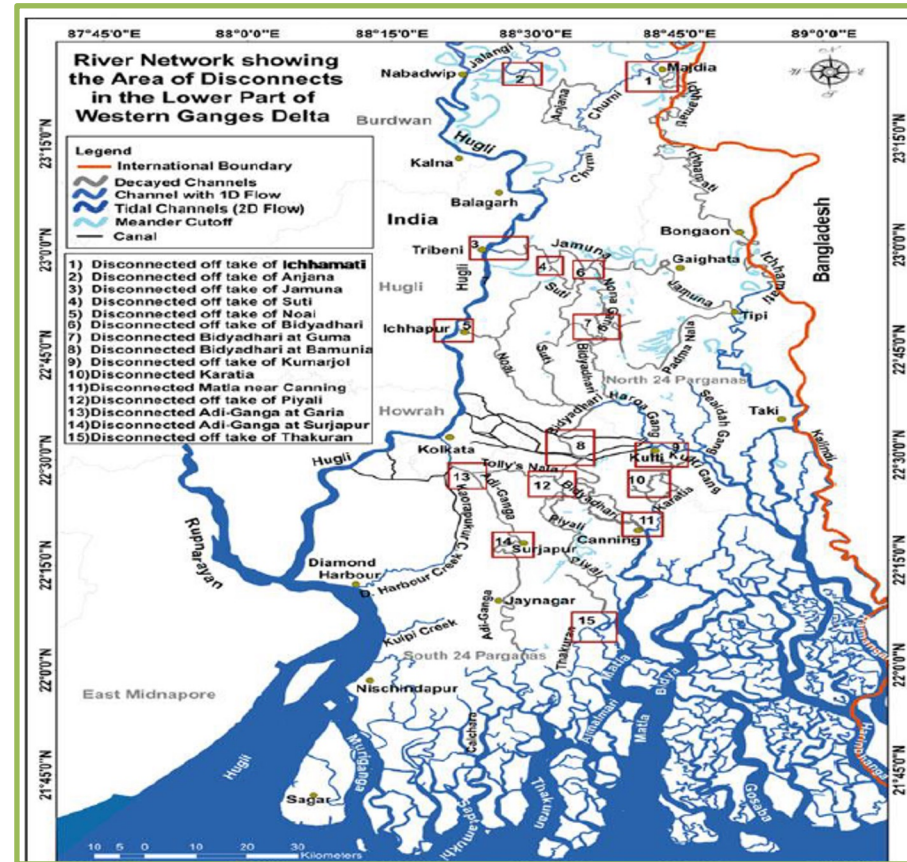
- **Climate hotspot district** in West Bengal (IMD, 2022)
- **Second most populous district**, high presence of **marginalized communities** (Census, 2011)
- **4th in paddy cultivation acreage** in the state (NDAP, 2018)
- **Massive urbanization** due to location- proximate to Kolkata
- Change in **land use** (Alam, Banerjee, 2022) according to Remote Sensing and GIS data

Land Use Change in South 24 Parganas



Dive into the history

- The **colonial past**: ‘taming’ of the watery labyrinth (Bhattacharya, 2020)
- **Post-colonial urban planning** paving way for ‘urban environmentalism’ (Bose, 2013) mega-urbanization project at the cost of wetlands
- **Increased siltation, massive urbanization** blocking water networks the lower part of the Western Ganges Delta (Bhadra et al., 2017)
- **Ecological implication** resulting in changing land use pattern in the region



Bhadra et al., 2017

Study Location: Balarampur

- **Balarampur, block of Sonarpur**
- **One of the learning lab sites under CGIAR Initiative on Gender Equality (HER+) in India**
- **A village bereft of almost all its agricultural land**
- **FGDs, KIIs including Oral History-tools used to document the change from rural rice-based village to a peri-urban region bereft of on-farm cultivation**
- **Attempt to understand how farmers here adapt to landlessness with specific interest in exploring gendered vulnerabilities**



Balarampur: As they saw it change

**Oral history from key informant - women of varied age groups
(between 25-65)**

“We used to have paddy fields here, but then the waterways have been obstructed and people do not find paddy cultivation profitable enough”- Woman farmer, 65

“When I was young, my parents would do paddy here, but now no one does paddy anymore. All paddy fields are sold off. Some of it has become factories”- Woman farmer, 35

“In earlier times we didn’t have to go to the market to buy our own supply of rice, these days we have to”- Woman farmer, 33



Forms of Adaptation

- Income diversification within the agri-food system, *closer home*:

Now with well connected roads to the city, the men can find work”- Woman farmer, 47

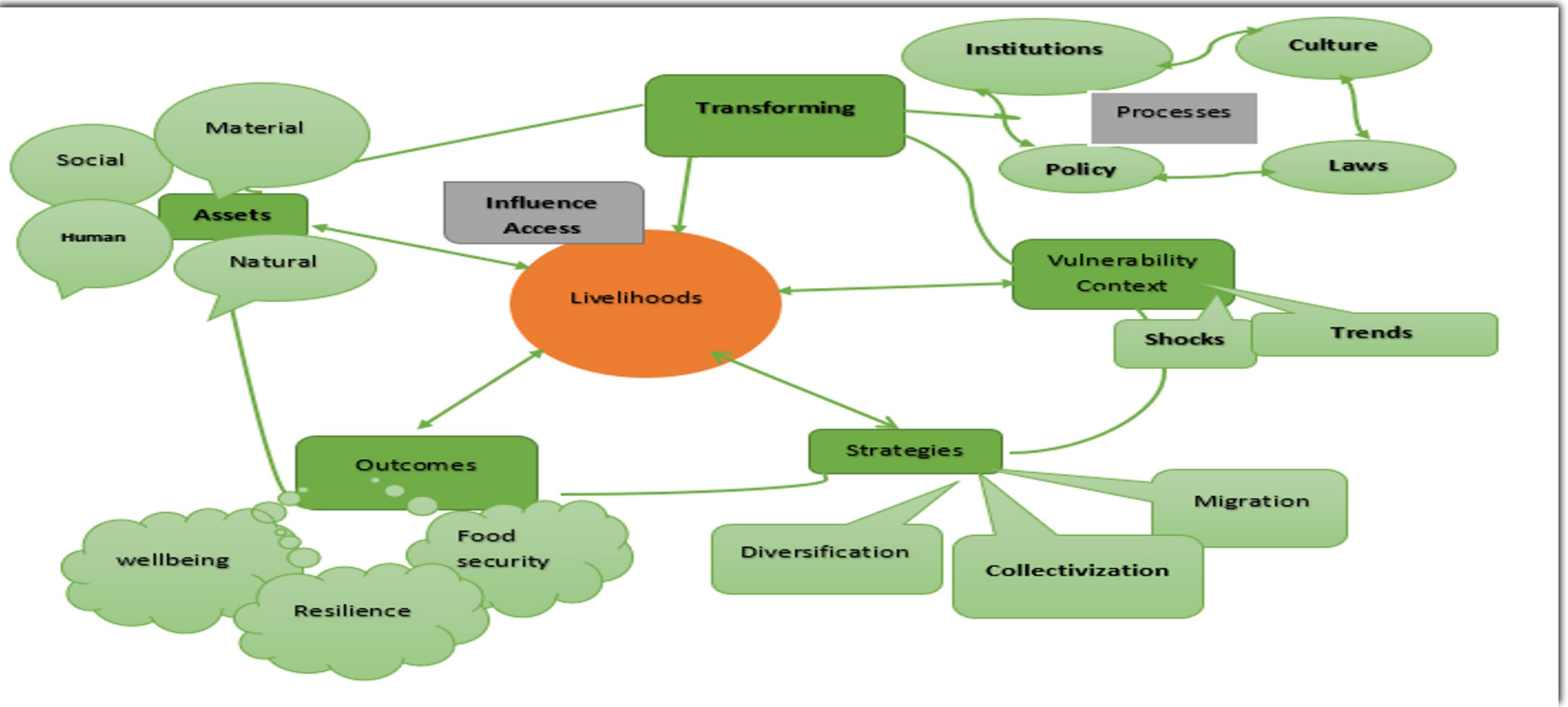
We prefer raising poultry. It helps us gain quick money, stay within home and also ensures food sufficiency for the family- Woman farmer, 30

- Innovating using local knowledge, *and collectivization*

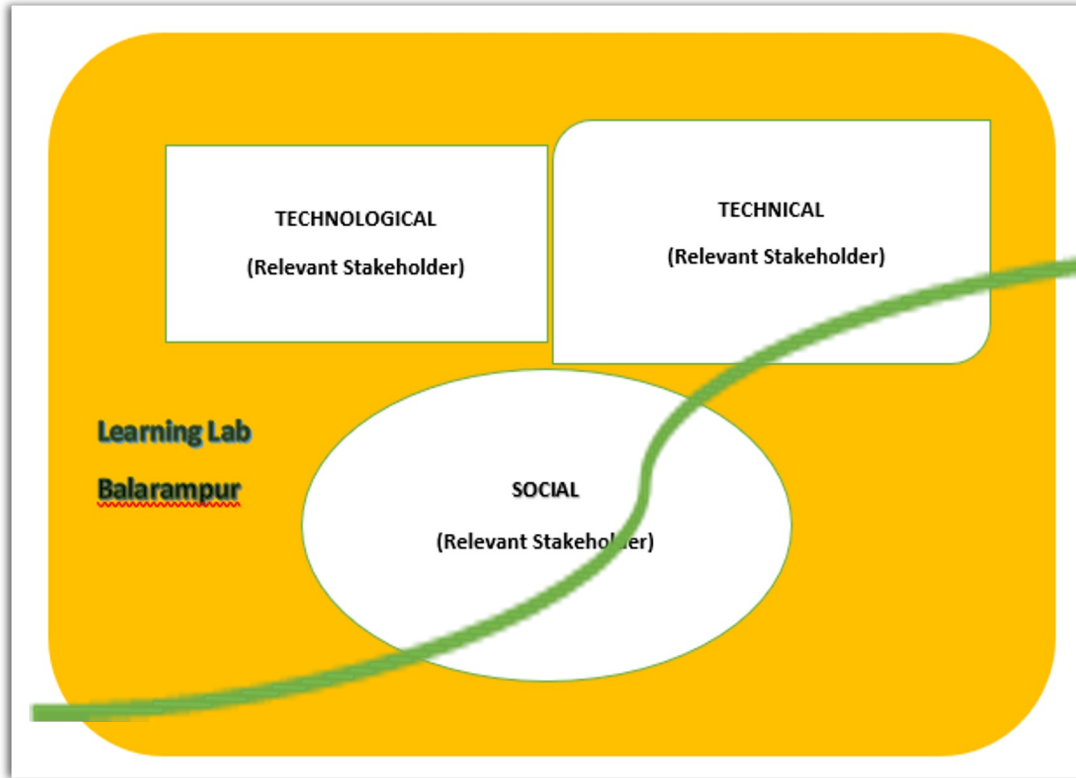
Buying feed for poultry becomes costly, but we have realized that we can make use of the food waste to make feed for our poultry. No one taught us this, we innovated this within our groups - Woman farmer, 35

Our group formation has given us confidence. We now come together more often, discuss our concerns and worries, we feel connected - Woman farmer, 50

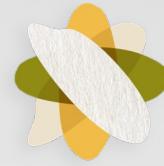
A Livelihoods Systems Perspective for Resilient Future



Socio-technical Innovation Bundles



STIBs as an important tool to operationalize livelihood system framework in the ground



6TH INTERNATIONAL RICE CONGRESS

Thank you!



INITIATIVE ON
Gender Equality