From ‘What Works’ to ‘What Will Work’

Climate Informed Evaluations in India

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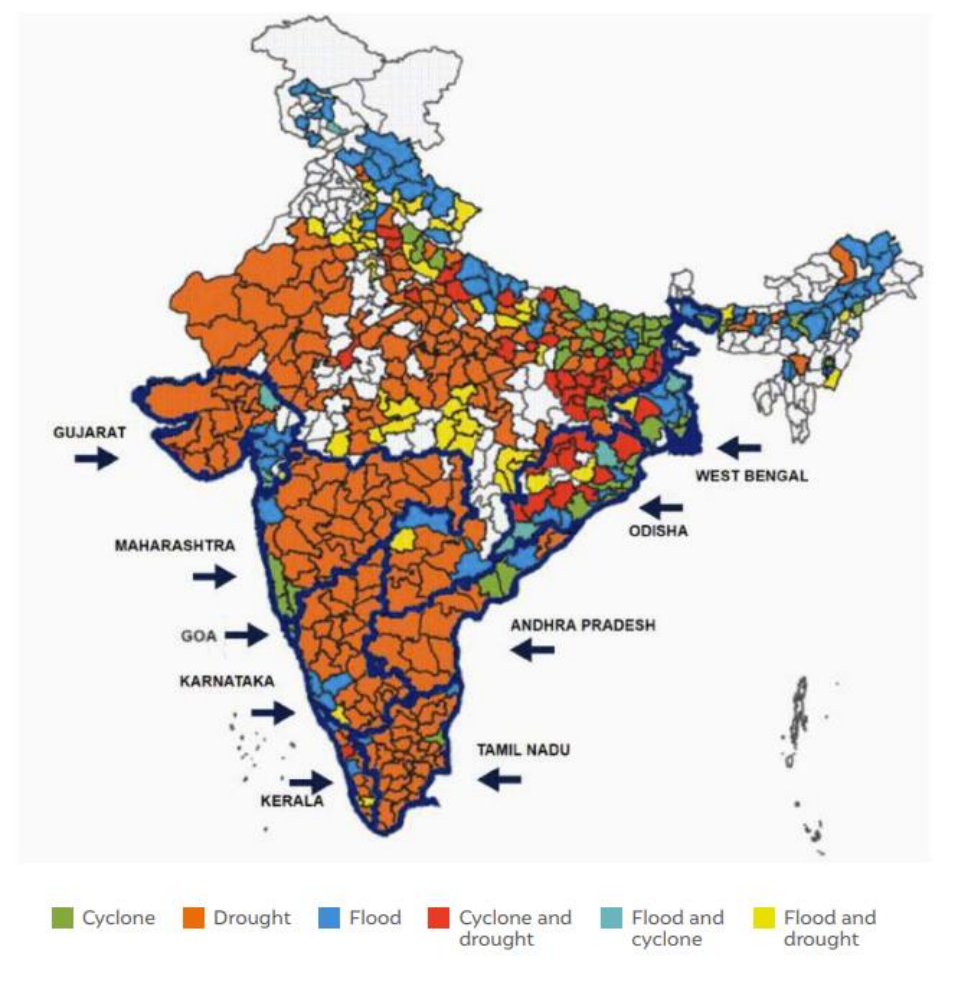
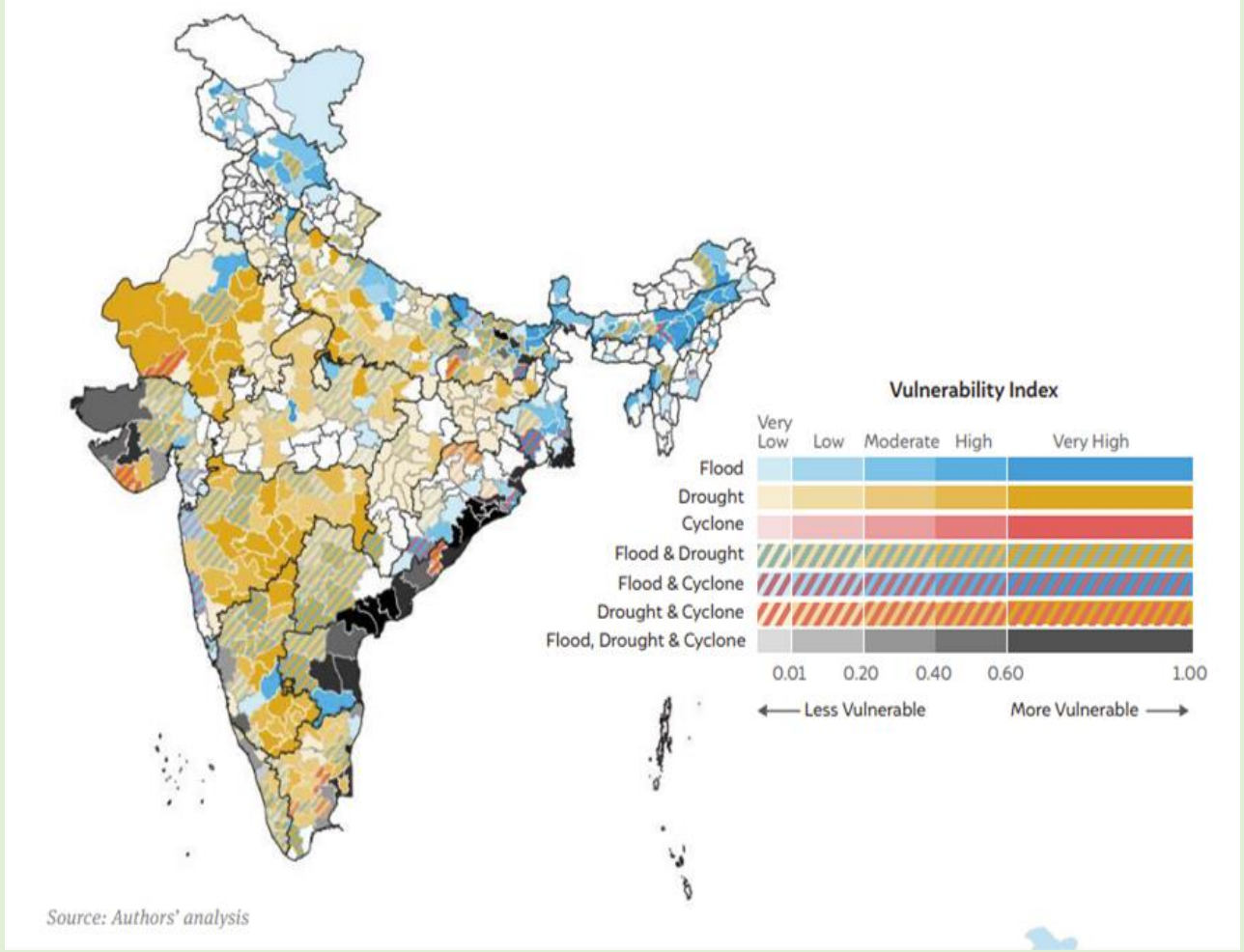
Climate Vulnerability

17/20 Indians are highly vulnerable to extreme events

05 of them are vulnerable to all - floods, droughts, & cyclones

Climate Vulnerability





The National Baseline

The 2021 National Climate Vulnerability Assessment revealed a surprising national profile.

District Scores: Every single district in India falls within a highly narrow vulnerability band of 0.34 to 0.75.

The Strategic Takeaway:

There is no 'invulnerable' district in India. Despite varying hazard exposure, inherent socio-economic vulnerabilities exist everywhere. Every state requires a baseline of adaptation planning, though eastern regions exhibit distinct high-vulnerability clustering.

National Action Plan on Climate Change (NAPCC)

National Solar Mission (NSM):

To promote the development and use of solar energy to meet a significant portion of India's energy needs.

National Mission for Enhanced Energy Efficiency (NMEEE):

Seeks to improve energy efficiency in industry, transportation, and agriculture.

National Mission on Sustainable Habitat (NMSH):

Focuses on promoting sustainable agricultural practices, water use efficiency, and soil health to enhance resilience.

National Water Mission (NWM): To improve water use efficiency, promote sustainable water management, enhance water security, and water use-efficiency

National Mission for Sustaining the Himalayan Ecosystem (NMSHE): Focuses on conservation and sustainable development in the Himalayas

National Mission for a Green India (NMGI or Green India Mission):

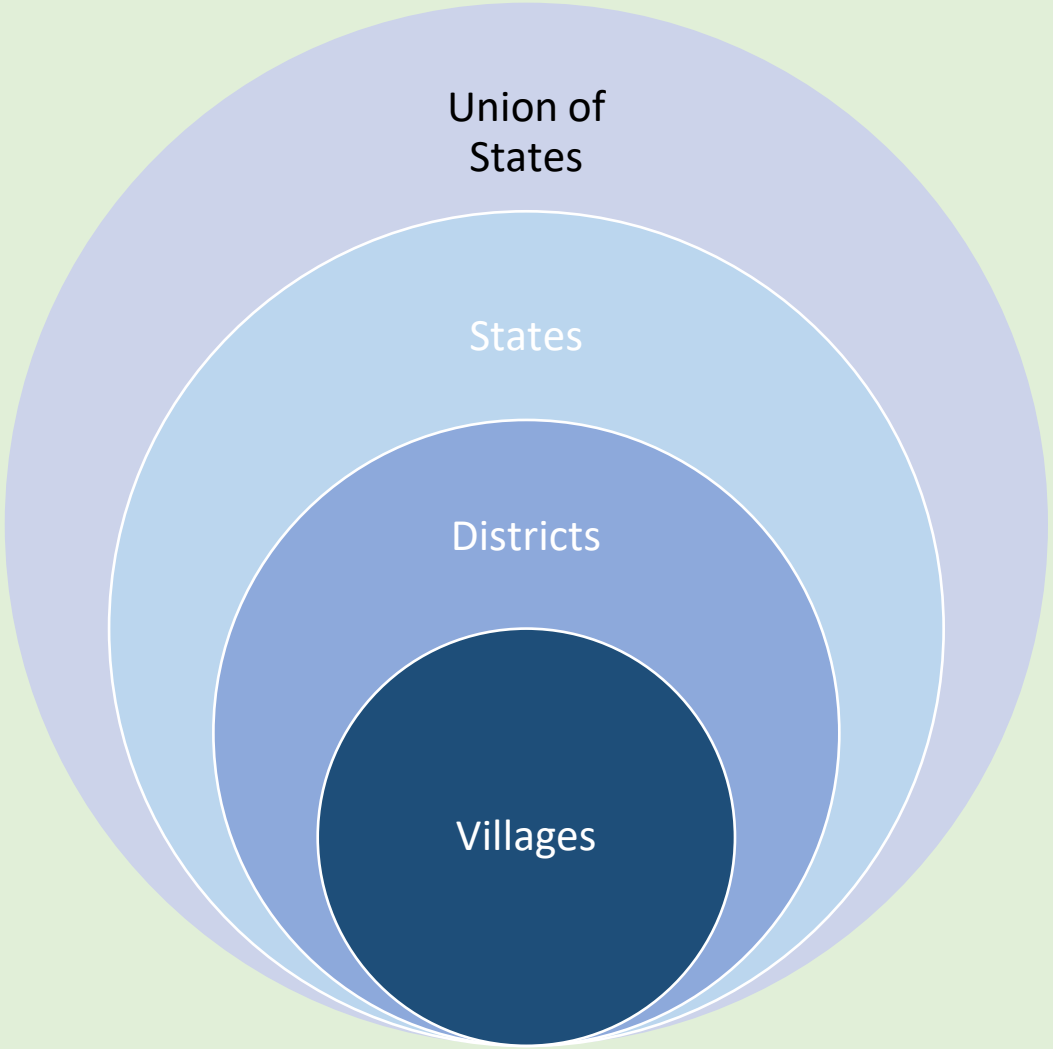
Aims to enhance and conserve biodiversity, restore ecosystems, and increase forest and tree cover

National Mission for Sustainable Agriculture (NMSA): Promotes climate-resilient agriculture practices, water use efficiency, and soil health

Strategic Knowledge for Climate Change (SKCC): promotes research, capacity building, and knowledge generation to improve understanding climate change

Summary of Missions by GOI
2024_PIB_GOI_NAPCC_Press Note.pdf

Nested Systems, Embedded Frameworks



NDMA, MoEFCC, MoPR
NAPCC, National Adaptation Fund for Climate Change (NAFCC), National Disaster Management Plan (NDMP), Sendai Framework (2015-2030)

MSDMA, **State Climate Change Cell, POCRA**
Maharashtra State Action Plan for Climate Change (MSAPCC)
Maharashtra Draught Management Programme

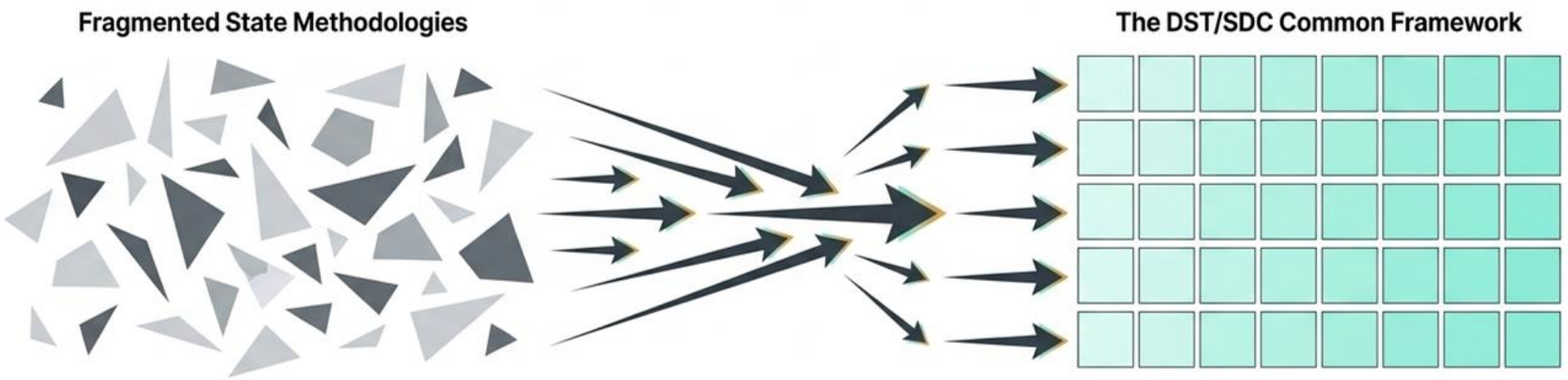
DDMA, District Planning Committee, DEO, DAO, DFO, DWMA
District Disaster Management Plan (DDMP), District Development Plans (annual)

Gramsabha, Gram Panchayat, Frontline Workers
Gram Panchayat Development Plan (GPDP), Community-Based Disaster, Risk Management

Problem

1. Unversal vulnerabilities
2. Multiplicity of policies & programs
3. Federal structure, higher-level thinking evolving faster
4. Evolving local capacity
5. Focus on physical adaptation

The Common Framework



The Challenge

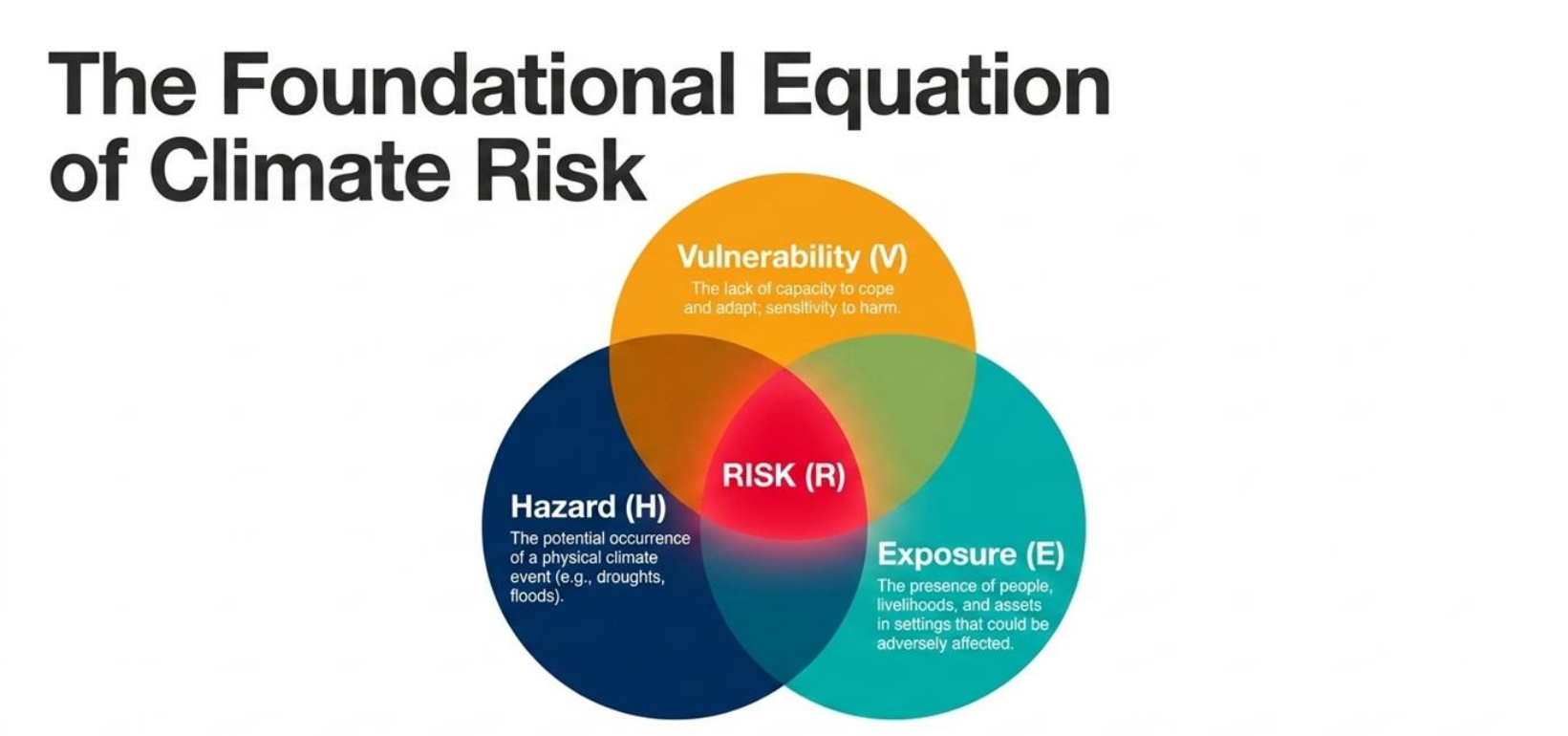
Historically, Indian states utilized fragmented, isolated methodologies for assessing climate impacts, making national resource allocation impossible.

The Intervention

The Department of Science and Technology (DST) and the Swiss Agency for Development and Cooperation (SDC) developed the Common Framework.

The Outcome

Enabled Cooperative Federalism. By applying standardized indicators across 29 states and UTs, the central government can now perform direct "apples-to-apples" comparisons to prioritize adaptation finance.



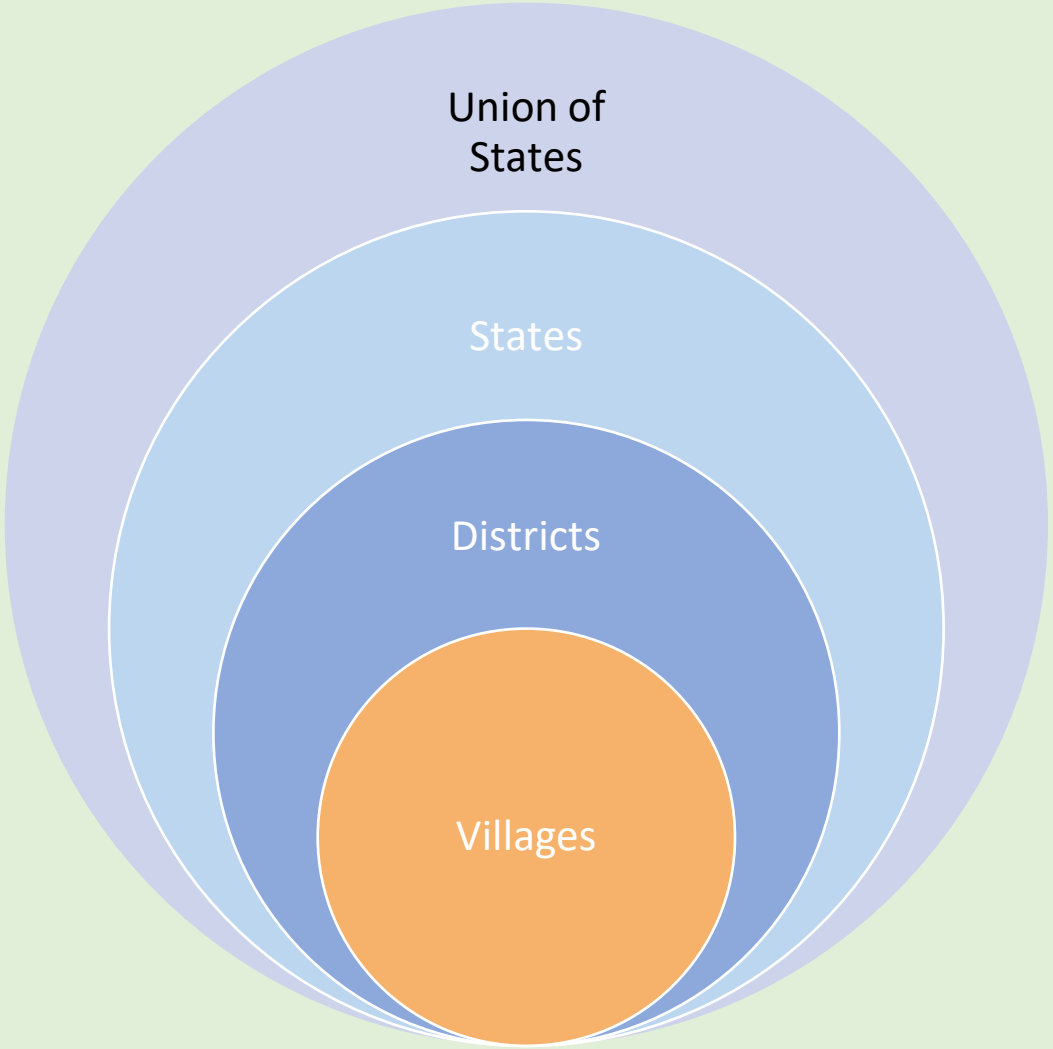
Risk is not just the weather event. It is the active collision of a physical Hazards, human Exposure, and systemic Vulnerabilities

The Indicator Architecture

$$\text{Risk Index} = \sqrt[3]{(HI * EI * VI)}$$

Hazard Inputs (HI)	Exposure Inputs (EI)	Vulnerability Inputs (VI)
Standardized Precipitation Index (SPI) anomalies	Population density per square kilometer	Multidimensional Poverty Index (MPI)
Topographic Wetness Index (TWI) & Drainage density	Percentage of geographic area under rainfed agriculture	Composite MGNREGA Index & Female literacy rates
		Health infrastructure and road density metrics

Nested Systems, Embedded Frameworks



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Approach

UNDERSTAND

ENGAGE / PLAN

LEARN

ACT

Toolkit

Cognitive Adaption	Physical Adaptation	Systemic Adaptation
1. Sensitization	5. **R**isk Assessment	8. Plan + Estimates (DPR)
2. Ranking of Hazards	6. **E**xposure Assessment	9. Demand Raising
3. Trend Analysis	8. **V**ulnerability Assessment	10. Govt. Approval
4. Seasonal Analysis	7. **A**daptation Measures	11. Technical Support
PRA Expert, Champions, Community	PRA Experts, Thematic Experts/Consultants, Champions, Community	Engineers/Technicians, Champions, Elected Representatives

8-12 Learning Sessions of 2 hours each, spread over 16 weeks (Iteratively) →

16-24 weeks over 10 months →

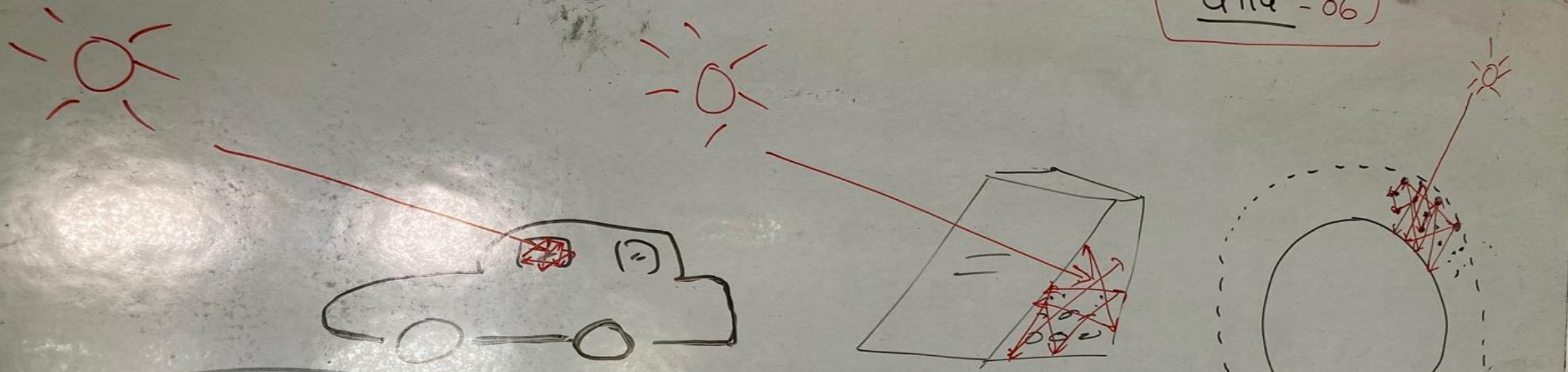
Challenges (½)

- Communities at the grassroots are largely uninformed
- Have accumulated observations
- Have developed practices using tacit knowledge
- Can’t see ‘shape of change’ & ‘underlaying structures’
- Challenge is:
    1. Refining & aligning people’s mental models
    2. Understanding structures causing vulnerability
    3. Helping visualize possible future scenarios

Challenges (2/2)

- Evaluations needs to be
  - More of a process than an event
  - Inclusive and deliberative
  - Holistic and data driven
- How to institutionalize deliberations & sense making?
- Identifying traditional practices of ‘sense making’
- Activating village institutions
- Conducting participatory ST & planning drives
- Facilitating periodic ‘sense making’ exercises

GHG - 06



१. गरमी

२. बारिश

३. बिमारी

४. पंड

५. वनउपज

६. जानवर

७. मवेशी

८. खेती उपज

९. आय

१०. महिला ओपे काम बोझ

११. अकाल

१२. अंकुरण

१३. बाढ

१४. फाल का उपज

१५.

१६. जमीन का उपजाव

१७. मृदा अपर्दन

१८. पलायन

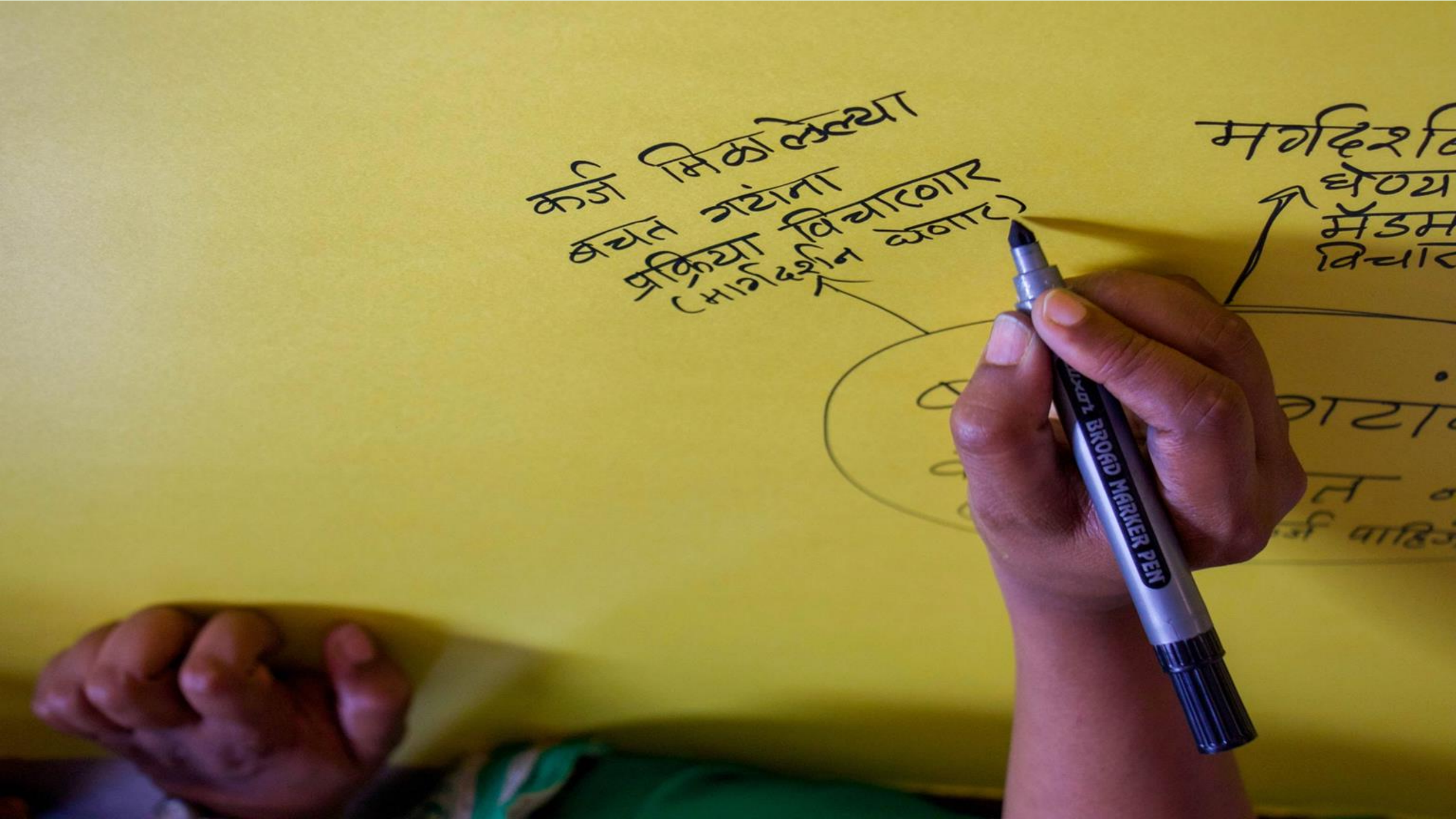
१९. उमस

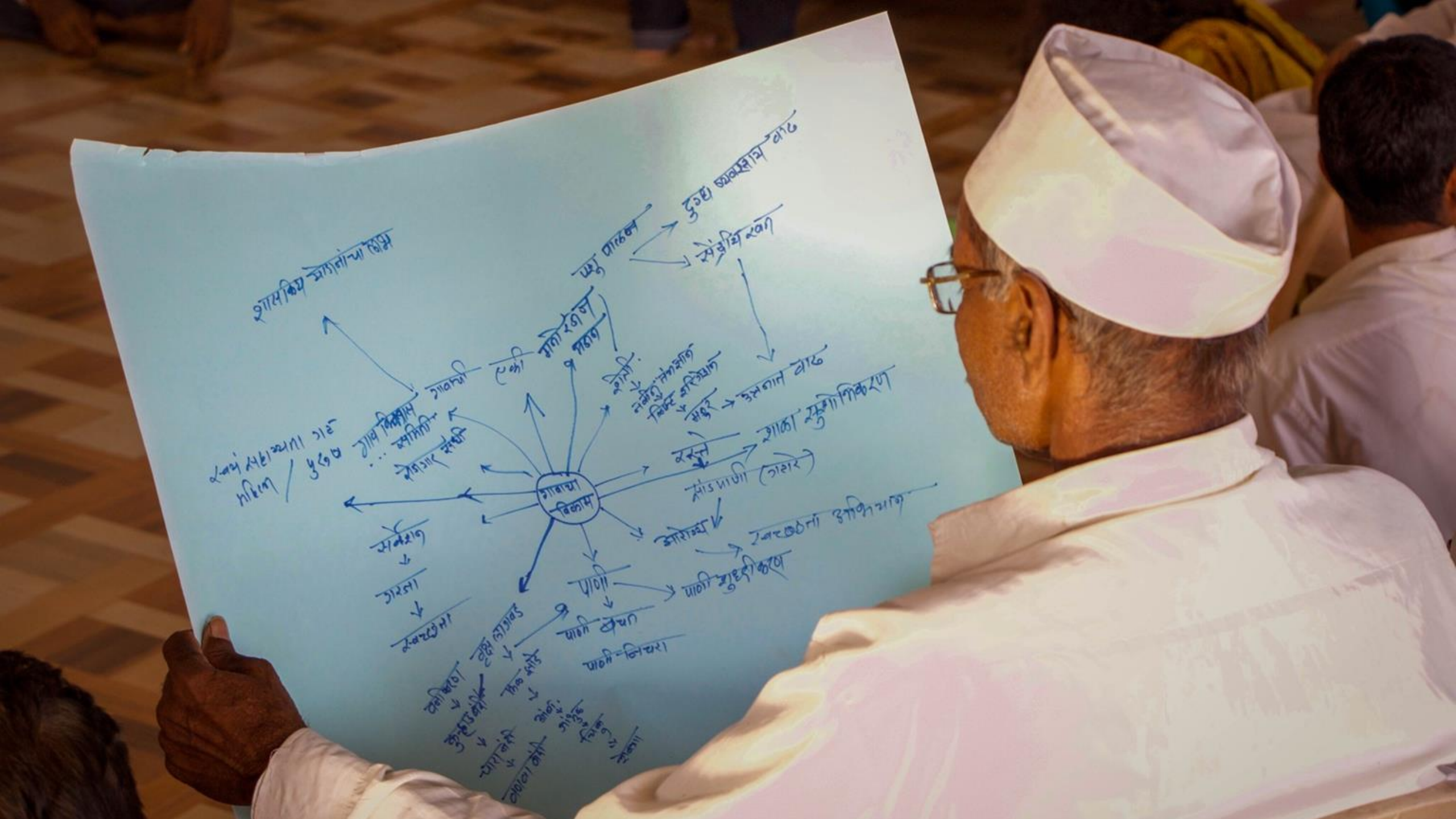
२०. गाज का गिरना

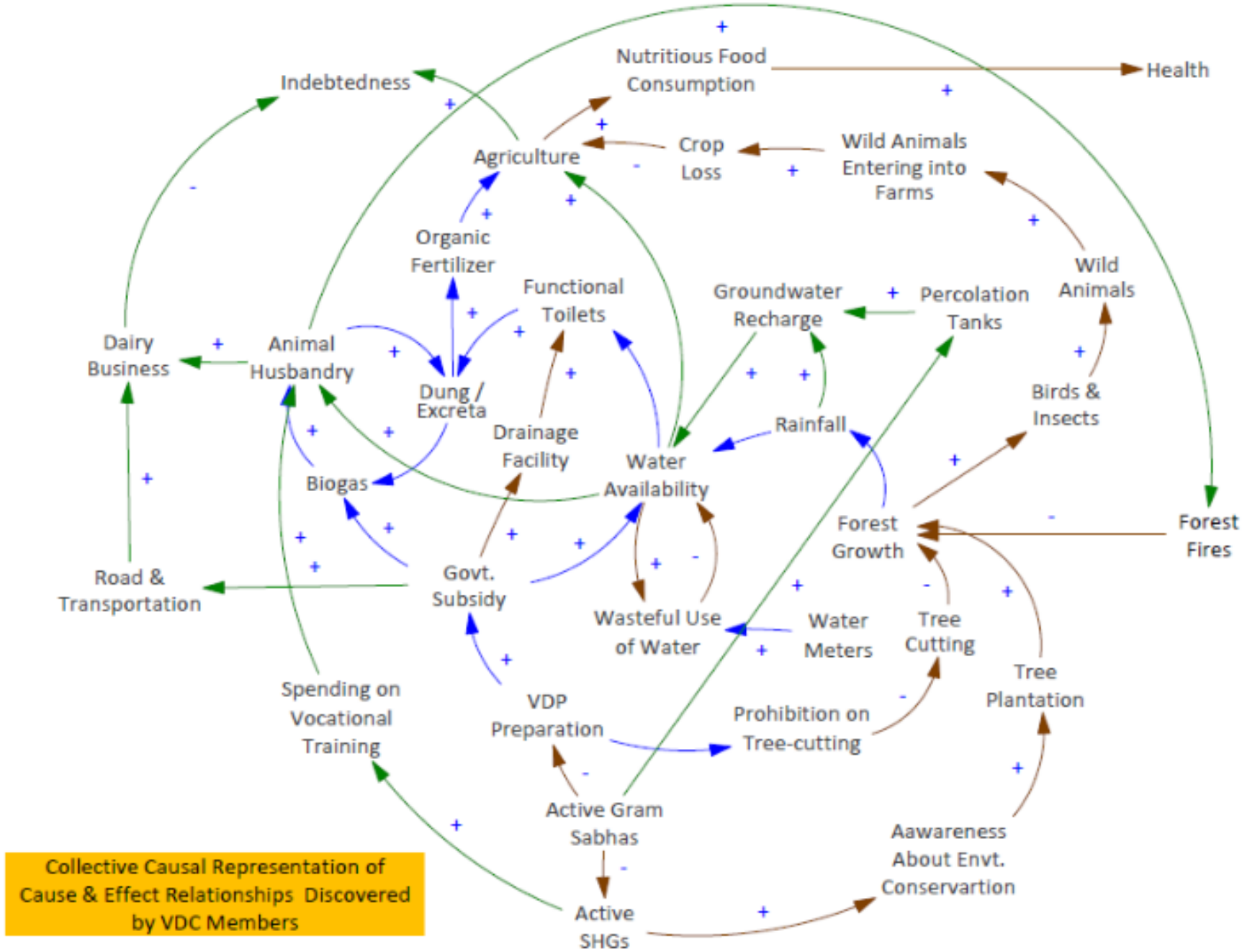
आहार (फुड)


उमस
गड़गड़ाहट
बारिश
अकाल
बाढ़
ओले


MARK

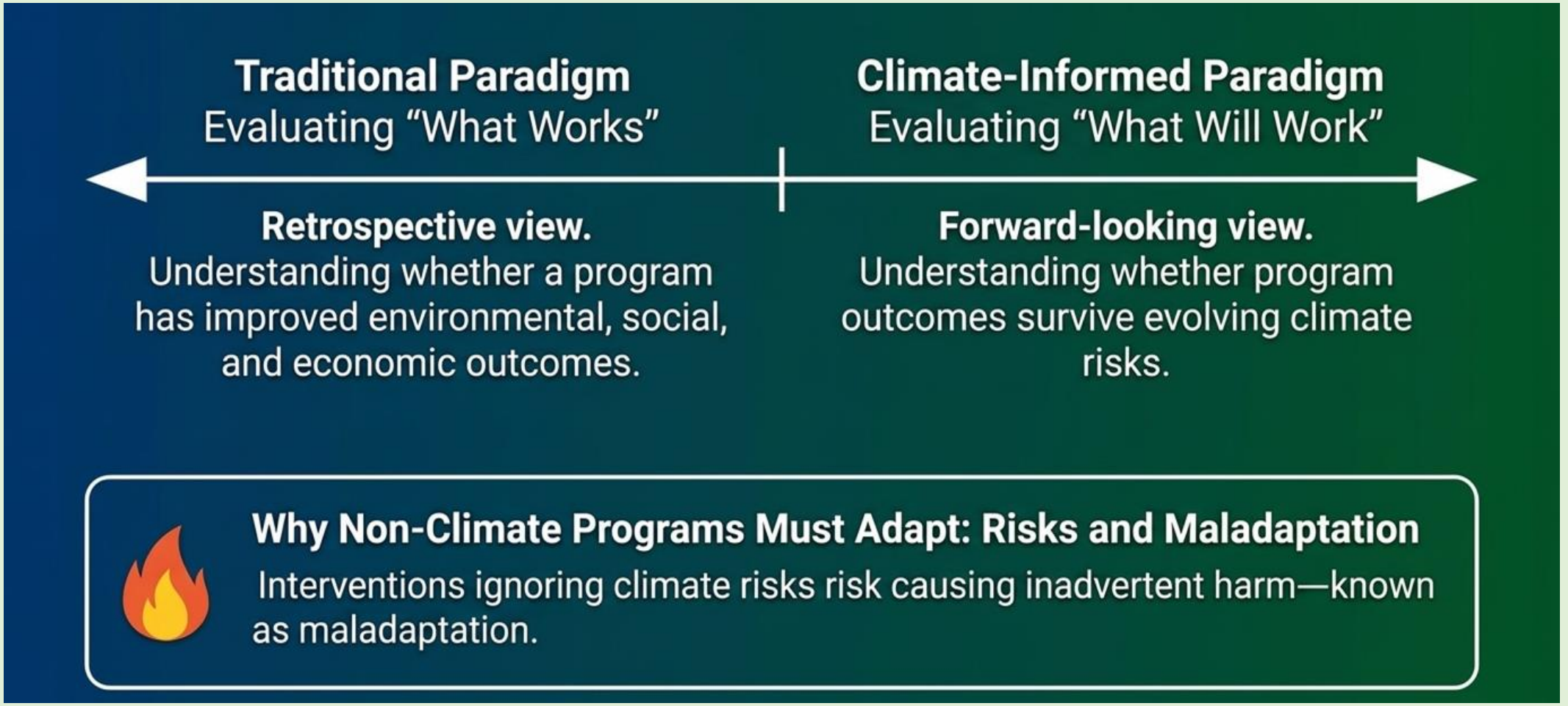

BROAD MARKER PEN


गावाचा विकास



Collective Causal Representation of Cause & Effect Relationships Discovered by VDC Members

The Evaluation Paradigm



Thank You!

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Pranali Initiatives

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