

# Community-based adaptation and differential vulnerability



EVA Policy Brief  
No. 2

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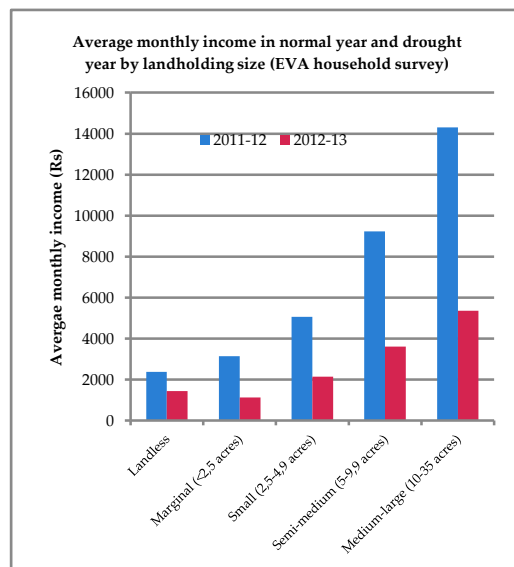
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Community-based adaptation (CBA) is envisaged as an important approach to strengthen local livelihoods in the face of increased climate variability and uncertainty. CBA means that ordinary people, and not only political representatives and policy-makers, participate in the formulation of adaptation plans, and that these action plans are adapted to the local context.

However, there is a risk that CBA approaches disregard the heterogeneity and structural inequalities that often exist in Indian villages. CBA projects and approaches can only succeed if they are founded on a proper understanding of these differential vulnerabilities due to social relations, natural conditions, and economic factors.





## Defining CBA

CBA is defined by the Intergovernmental Panel on Climate Change (IPCC) as “adaptive responses to climate change that provide increased participation by locals and recognition of the local context and the access to adaptation resources and promote adaptive capacity within communities” (IPCC/SREX 2012:300). These responses may arise from

- below, i.e. at the initiative of local individuals or collectives
- above, i.e. from the local, district or state government
- outside, i.e. from NGOs

CBA includes planned adaptation based on deliberate policy decisions as well as spontaneous adaptation.

## Changing vulnerability

Since the Green Revolution, agricultural productivity has increased but so has the cost of cultivation. Price drivers have pushed farmers away from hardy crops like millets to a monoculture of water-intensive crops. Also, groundwater levels have fallen with excessive extraction through bore wells and a loss of common pasturelands has made fodder scarce and expensive, especially during droughts. Additionally, poor market chains and infrastructure have relegated farmers to the role of price-takers in local markets. With the shift to commercial cultivation, labourers who used to be paid in a combination of cash and kind, are now paid only in cash and are vulnerable to food price inflation.

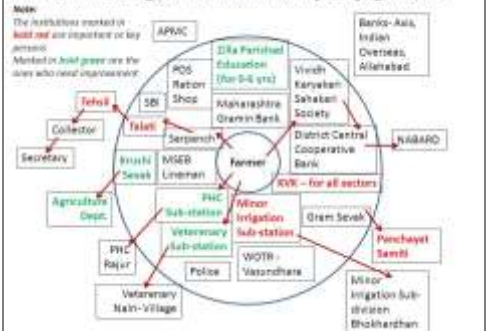
## Differential vulnerability

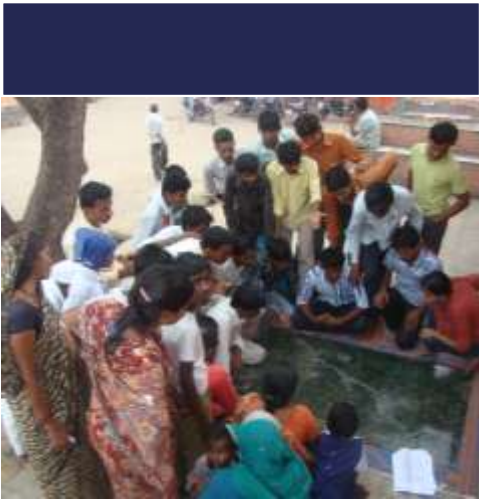
Vulnerability and coping capacity vary within a village according to **ownership** of productive resources, such as land and wells (see figure on page 1). It also varies **spatially** due to differences in soil quality and depth and location of farms near drainage channels or check dams. Command over financial, natural, social, and human resources is often determined by **caste and gender**. The habitations of lower castes tend to be distanced from the main village, which mirrors their exclusion from village-level decision-making processes.

**Laborer's Institutional Map - Pimpalgaon Barav**



**Medium and Large Farmers Institutional Map- Pimpalgaon Barav**





## Approach and methods

The socio-economic vulnerability and governance analyses in the EVA project are based on a study of nine villages in three blocks of Jalna district using three main methods of data collection:

- Participatory Rural Appraisal (PRA) techniques and focus group discussions
- Observations and semi-structured individual interviews
- Household sample survey

## Key message: CBA needs policy support

### Different livelihoods have different risks and needs

Whereas droughts are most serious for farmers, landless labourers need job security in lean agricultural seasons each year. However, competition for jobs increases in drought, and some factories close due to water scarcity. Migration for wage labour is a coping strategy for the poorest, which reproduces poverty through loss of children's education.

Farmers need irrigation to boost productivity and insurance against crop losses. Dairy producers need secure value chains and buyer linkages. Win-win solutions should be sought; e.g., a grazing ban will be opposed by herders but reduced pesticide use will benefit all.

### SHGs and climate resilient livelihoods

Self help groups (SHGs) may be important local safety nets, but they often break down during droughts. Typical productive uses of SHG loans are either highly climate sensitive or depend on small local demand. SHGs need to be advised on entrepreneurial opportunities that are drought resilient; e.g., goat rearing or poultry farming is more robust than buying buffaloes as their feed is less dependent on rainfall. They also need to be provided marketing support.

### Markets matter

Good roads increase access to industrial jobs and markets for perishable produce. Fodder crops are more drought resilient, and if secure buyer linkages are built as in western Maharashtra, farmers may be motivated to switch to fodder crops in drought years to boost dairy production.

### Safety nets and insurance

The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has the potential to be an important safety net, while augmenting local natural resources and infrastructure. However, at present, it is not functioning optimally. MGNREGS work does not halt seasonal migration, and the scheme is being used to build private assets like wells rather than common resources.

Crop insurance is not widely used due to procedural complexities. Greater penetration of crop insurance can help farmers recover from bad rainfall years and give sufficient security for optimal investment in agricultural inputs for higher yields in normal rainfall years.

### Water management needs policy support

Water availability is a critical constraint to crop yields in Jalna, and needs to be addressed by reducing demand and securing supply. A combination of measures is needed; e.g., watershed development, rainwater harvesting, community water budgeting, and less water-demanding crops. Targetted subsidies can help expand the coverage of drip and sprinkler irrigation and farm ponds. Hardy crops like millets and pulses need to be supported by providing price incentives and market access.

# EVA – Extreme risks, Vulnerabilities and community-based Adaptation

Extreme Risks, Vulnerabilities, and Community-Based Adaptation in India (EVA): A Pilot Study in Maharashtra is funded by the Royal Norwegian Embassy in New Delhi. The study is a collaborative endeavour of The Energy and Resources Institute (TERI), Action for Food Production (AFPRO), and the CIENS institutes – Norwegian Institute for Urban and Regional Research (NIBR), Norwegian Institute for Water Research (NIVA), and Center for International Climate and Environmental Research, Oslo (CICERO).

The EVA Policy Brief series presents key policy insights from field-based research conducted in Jalna district before, during, and after the extreme drought of 2012-13.



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For more details

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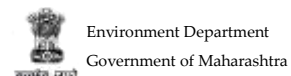
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