

# Case study: Vulnerability Assessment and Enhancing Adaptive Capacity to Climate Change in Semi-Arid Areas in India 2005 – 2008

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Intercooperation

Pakistan, May 29 to June 1, 2007

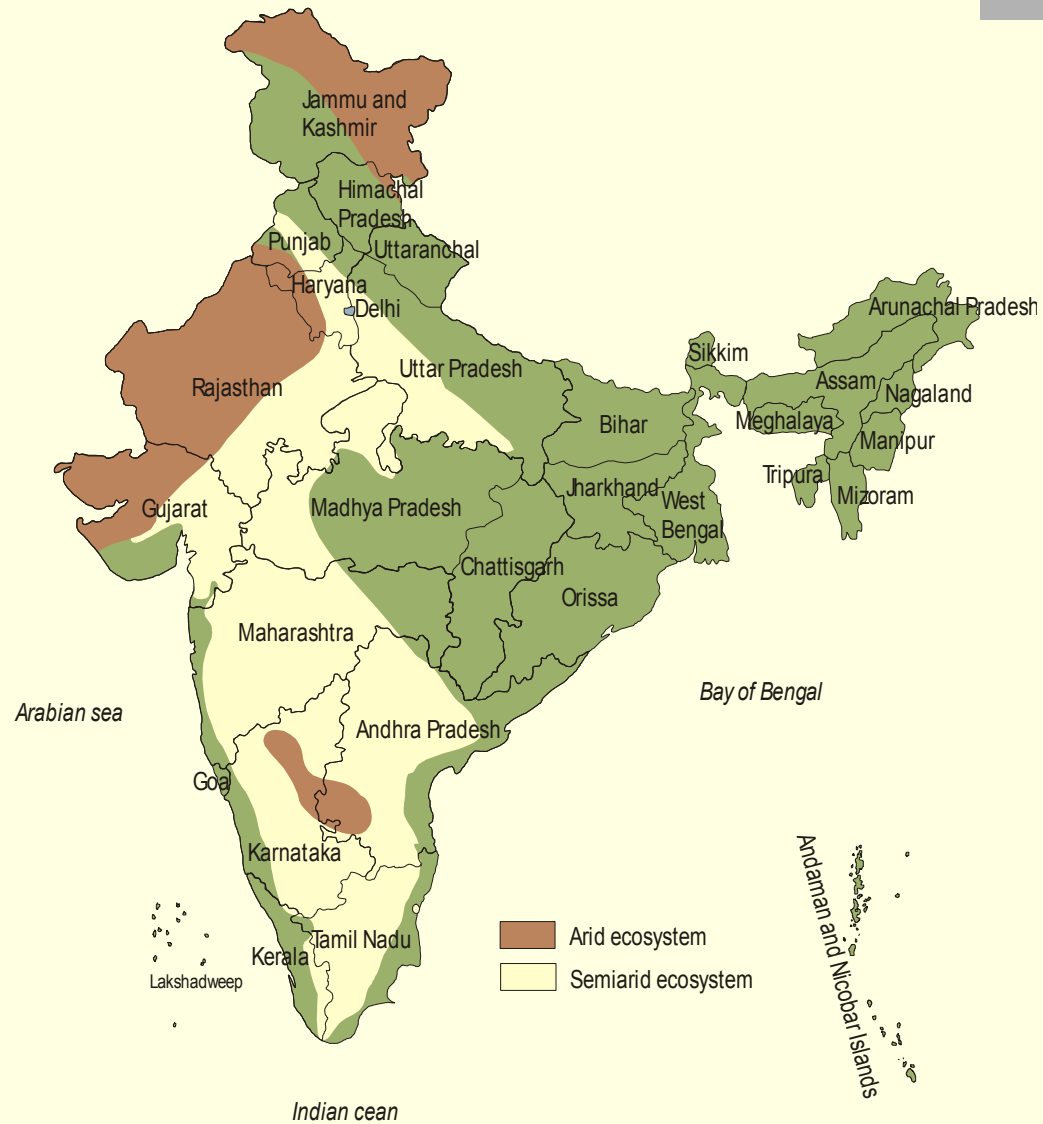
### Hilfe2

Diese Folie enthält zwei Mastergruppen (Master und Titelmaster), welche den Corporate-Design-konformen Auftritt definieren. Der jetzt zugewiesene Empa-Master 1 sieht für die Titelfolie das Empa-Logo vor. Den weiteren Folien ist kein Logo zugewiesen. Für längere Vorträge mit Zwischentiteln empfehlen wir, den Folien mit Zwischentiteln den Empa-Master 2 (mit Logo unten rechts) zuzuweisen. Dazu öffnen Sie via Ansicht > Aufgabenbereich > Foliendesign-Entwurfsvorlage rechts die Masterauswahl. Nun markieren Sie im linken Ansichtsfenster die Folien, denen Empa-Master 2 zugewiesen werden soll (mindestens zwei, ansonsten für den ganzen Satz Empa-Master 1 verwendet wird). Weitere Hilfe erhalten Sie bei Monika Ernst, 4995 (Empa, Dübendorf)

M. Ernst, 2/4/2005

# Where?

## Arid and semi arid regions of India



# Goal

**To secure the livelihoods of rural poor and vulnerable communities by promoting adaptation measures that build and enhance their capacity to better cope with adverse impacts of climate change and by improving their disaster preparedness.**



# Objectives

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- Local community level
  - Identifying key elements and social processes relevant for adaptation and building capacities at local level
- Regional level
  - Optimizing the service delivery system and services at selected sites of Andhra Pradesh and Rajasthan
- National/international level
  - Promoting policy dialogue at different levels considering local needs and knowledge

# Principles and strategies

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- Focus on community level
- Empowering the local population through improved access to resources, technologies and information as well as through effective policy advocacy
- Holistic approach
- Process-oriented
- Multi-stakeholder approach at different levels

# Focus areas

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- Geographic focus
  - Semi-arid areas of Andhra Pradesh and Rajasthan
- Thematic focus
  - Rural energy
  - Water
  - Agriculture

# Components of the programme

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## ■ **Research and analysis**

- Local knowledge for understanding climate variability
- Systematization of local information and knowledge

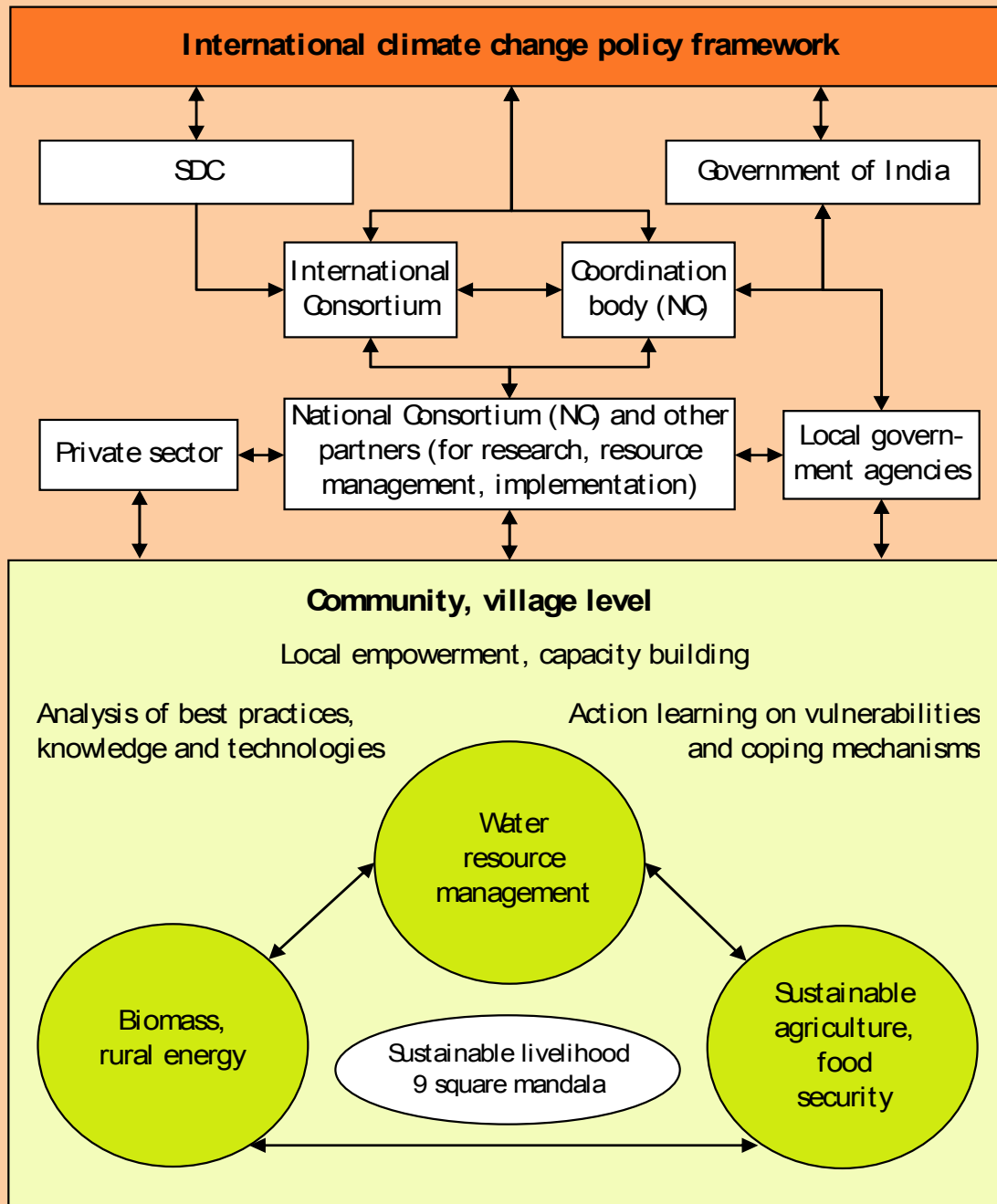
## ■ **Resource management**

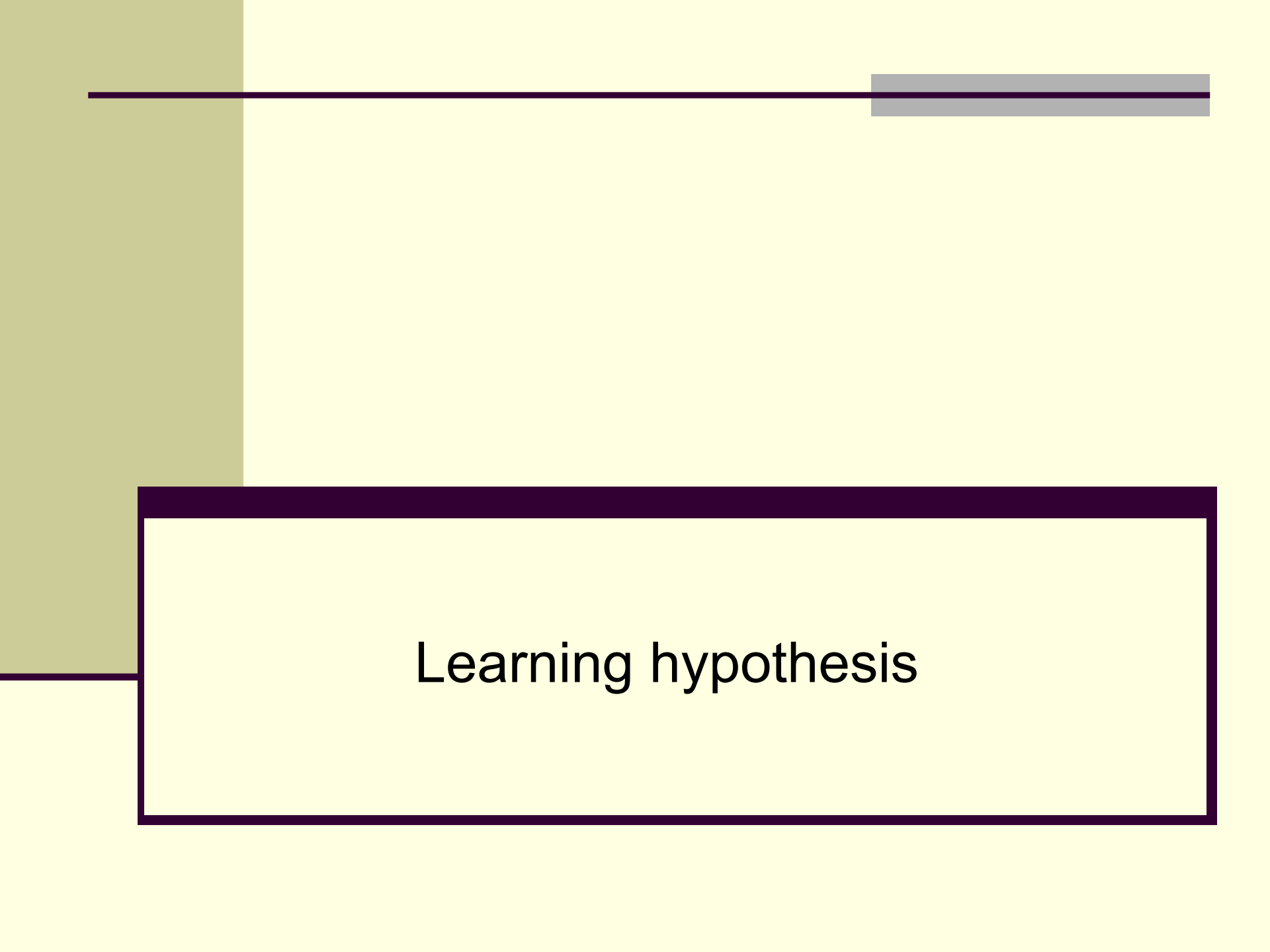
- Sustainable management practices at local level
- Transferring best adaptation practices

## ■ **Capacity building**

- Service delivery system
- Knowledge centres

## ■ **Empowerment**





# Learning hypothesis

# LH1. Energy:

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Biomass based energy production offers an alternative coping strategy for households vulnerable to climate change impacts in semi arid areas.



# LH2. Water:

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Community's access to weather monitoring and prediction data combined with community managed water resource systems can lead to greater water use efficiencies and improved adaptive capacities.



# LH3. Land Use:

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Village level land use and land capability classification maps can provide a basket of options for different rainfall scenarios (drought, normal, excess). They can lead to stabilisation of yields from rain-fed farming, greater food and economic security



# LH4. Livestock:

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Livestock rearing is an important coping strategy in the face of increasingly climate variability. Buffer stocks of fodder (including tree fodder) and the right breeds of livestock and composition of the herds can be important risk reduction strategies and can enhance adaptive capacities.



# Some lessons learnt to date

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- A tendency to increased temperature and a change in rainfall patterns was observed out of 4 case studies.
- The local community is highly vulnerable to small variations in the climatic system. This is not adequately considered in national planifications for adaptation measures.
- Some efficient coping mechanisms do exist already. However, their usefulness in different climate scenarios has to be carefully reconsidered.
- Support is needed for selecting and using appropriate adaptation tools
- For the incorporation of methodologies and tools in the service delivery system it is important to prepare adequate learning aid.

Thank you for your attention!

