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**Cooperación Suiza en Bolivia**

# Mainstreaming DRR and CCA in small municipalities

## Cases from Bolivia

Sergio Perez, SDC, Division Latin America and Caribbean  
based on information provided Oscar Paz and Javier Zubieta  
(Helvetas), and Roberto Méndez (SDC Bolivia)

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## Challenges tackled:

A more resilient Bolivia to reduce the impacts of natural disasters and climate change on life, infrastructure and economic activities

Local governance strengthened on DRR and CCA, with stakeholders versed on and applying DRR and CCA measures

DRR and CCA integrated in territorial planning and local investment

Agricultural production of the most vulnerable groups better protected to disasters and climate change

## Work in rural municipalities (local)

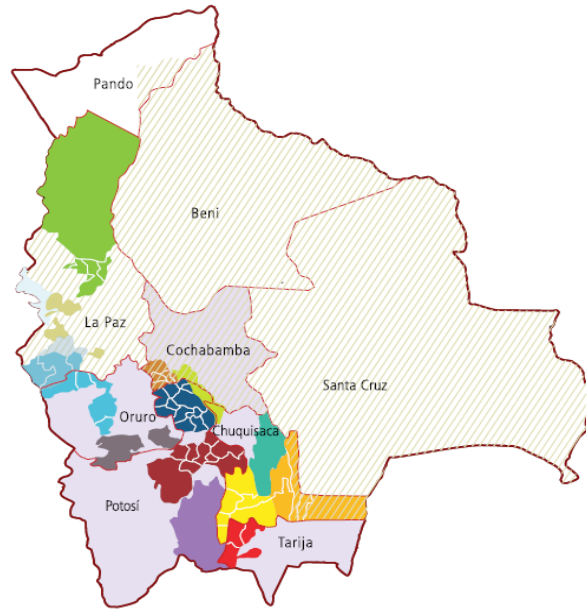
### 12 municipal associations ("mancomunidades")



Risk Management Units (UGR)



Municipal DRR budgets



Development/Use of risk maps in planning and investment



Emergency Operation Centers (COE)



Farmers insurance, protection measures



## Tools to support DRR&CCA policies and regulations at subnational and municipal levels

- Analysis of **DRR and CCA** for autonomy statutes and Organic Charts.
- Departmental and municipal **risk management plans and ACC.**
- **Handbook** for Organization and Functioning of **Municipal Risk Management Units (UGR) with ACC approach.**
- Orientation guide to **mainstreaming DRR & CCA** in Municipal and Departamental Development Plans.



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## **Examples of good practices in DRR/CCA at local and municipal levels**

- 1. Gradual implementation of Early Warning System for DRR and ACC. Cochabamba**
- 2. Protected water recharge area in the community of Pucahuasi as a DRR&CCA measure. Chuquisaca.**
- 3. Inverse Marketplace for DRR with a gender perspective. Cochabamba**



# 1. Gradual implementation of Early Warning System for DRR and ACC in Cochabamba.

## Context

Caine Watershed, high mountains in the Andes. Semi-arid, trend to reduced precipitation and shorter rainy season. Very poor population, agricultural activity.

## Main hazards

Frosts, hails storms, droughts.

## Objective

Provide population with timely information for preventive measures to avoid damage to **agricultural production** due to frosts.



Implementación gradual de un Sistema de Alerta Temprana (SAT) para la Reducción del Riesgo de Desastres (RRD) y la Adaptación al Cambio Climático (ACC)



## **Early Warning System for DRR and ACC in Cochabamba.**

### **Actors involved**



- Municipal authorities (majors and councillors)
  - Municipal level technicians
- Community leaders, agricultural producers
  - General population

### **Main processes and activities**

- Councils approved regulation setting-up UGRs and COE as part of municipal government structure.
- Setting-up 4 agrometeorological stations, communication infrastructure (Internet), computers, routers
- Risks maps (local, technical and scientific knowledge)
- Training, capacity building (workshops, field schools)
- Emergency Brigades
- Action Plan for Frosts Control

## **Early Warning System for DRR and ACC in Cochabamba.**

### **Success factors**

- Strategic alliances between key institutions (municipalities, SENHAMI, private providers, international donors, agricultural producers)
  - “Mancomunidades” (municipal associations) allow for pooling of resources.
  - Integration local knowledge into technical knowledge

### **Hindering factors**

- Problems with municipal governance require longer implementation time.
- Changes in technical staff.
- Need for better understanding of whole risk cycle (to avoid focusing just on response) at departmental level
- Faltering support of municipal authorities to municipal technicians
- Articulation with SENAEMI must be strengthened



## 2. Protected water recharge area in the community of Pucahuasi as a DRR&CCA measure in Chuquisaca.

### Context

Mancomunidad del Chaco Chuquisaqueño  
Extreme poverty, low HDI. Expanding agricultural frontier.

### Main hazards

Drought (changing rain cycles). Water sources at risk from deforestation, expanded agricultural frontier, livestock.

### Objective

Protect water recharge areas to **guarantee enough water supply** for human and animal consumption.



## Protected water recharge area in the community of Pucahuasi as a DRR&CCA measure



### Actors involved

- Community (beneficiaries)
  - Municipal authorities
- Supra-municipal authorities
- Also: NGOs, international donors

### Main processes and activities

“Community protected area” for water recharge (wiring, pipe network, storage tank, protective mesh, signaling, native reforestation).

- Knowledge exchange (field visit)
- Formal declaration as “community protected area” by the municipality
- Labour provided by the community
- Setting-up drink water committee

## **Protected water recharge area in the community of Pucahuasi as a DRR&CCA measure**

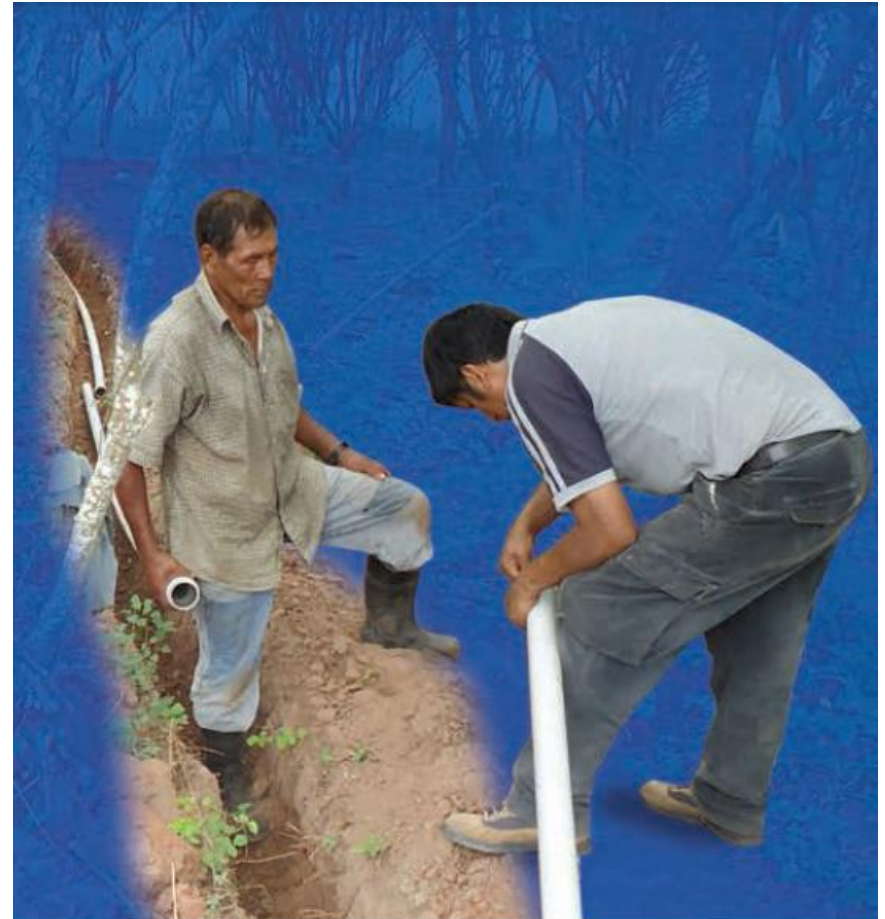
### **Success factors**

- High involvement of the community in all steps
- Commitment of municipal authorities (legally, logistically).
- Longer-term perspective: search of sustainable solution through negotiation.
- Based on local culture, customs and practices.
- Credible local leaders with moral authority
- Transparent communication to all community members
- Local water committee elected democratically
- Regulation and norms agreed with community
- All users pay agreed tariffs

## Protected water recharge area in the community of Pucahuasi as a DRR&CCA measure

### Hindering factors

- Lacking human capacities and budget for water quality control.
- Fears of land owners (caused by imposition, insufficient transparency or miscommunication)





### **3. Inverse marketplace for DRR with a gender perspective in Cochabamba**

#### **Context**

Agricultural activity. Poverty, migration. Former experiences with unsatisfactory emergency response.

#### **Main hazards**

Frosts, droughts, hail storms, flash floods, landslides.

#### **Objective**

Empowerment of affected population as active actors instead of passive recipients.

#### **Actors involved**

##### Demand side:

- Rural population, community leaders, agricultural producers (men and women)
- Municipal councillors and majors, municipal technicians, school principals

##### Supply side:

- Departmental Government, Secretary for Mother Earth, UGR (department level)

## Inverse marketplace for DRR with a gender perspective



1. A process for disaster response
2. Actions for disaster reduction

- Identification of actors taking part in disaster response management
- Meetings with municipal authorities, technicians and community leaders to analyse proposals
- Meetings and interviews with female leaders (due to low participation of women)
- Identification of projects with a DRR and ACC approach, to be demanded to departmental government
- Elaboration of technical factsheets.

1. Proposal for an improved process for disaster response
2. Portfolio of risk reduction projects

## **Inverse marketplace for DRR with a gender perspective**

### **Success factors**

- Adapted communication:
  - Radio (Quechua, Aymara, Spanish),
  - Posters (town halls, schools, institutions), flyers, educational booklets.
  - Music CDs (buses)
- Learning during the process:
  - Municipal technicians acknowledge own deficiencies and improve their capabilities
  - Community focused only on demands for disaster response, now demand more integral solutions (whole risk management cycle)
  - Government institutions now pay attention to local cultural dynamics to avoid generating unintended conflict.
- Women's perspective: based on solidarity between families
- Bottom-up qualified demand

## **Inverse marketplace for DRR with a gender perspective**

### **Hindering factors**

- Changes in technical staff
- Work overload at municipal governments
- Red tape
- Lack of budget for pre-investment activities (studies)





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*Muchas  
gracias...*



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*We reduce risks and face climate change*