

CLIMATE RISK MANAGEMENT IN HIGH ANDEAN COMMUNITIES OF CUSCO AND PUNO - PERU

Early Warning System for extreme cold events

Lima, 10 October 2011

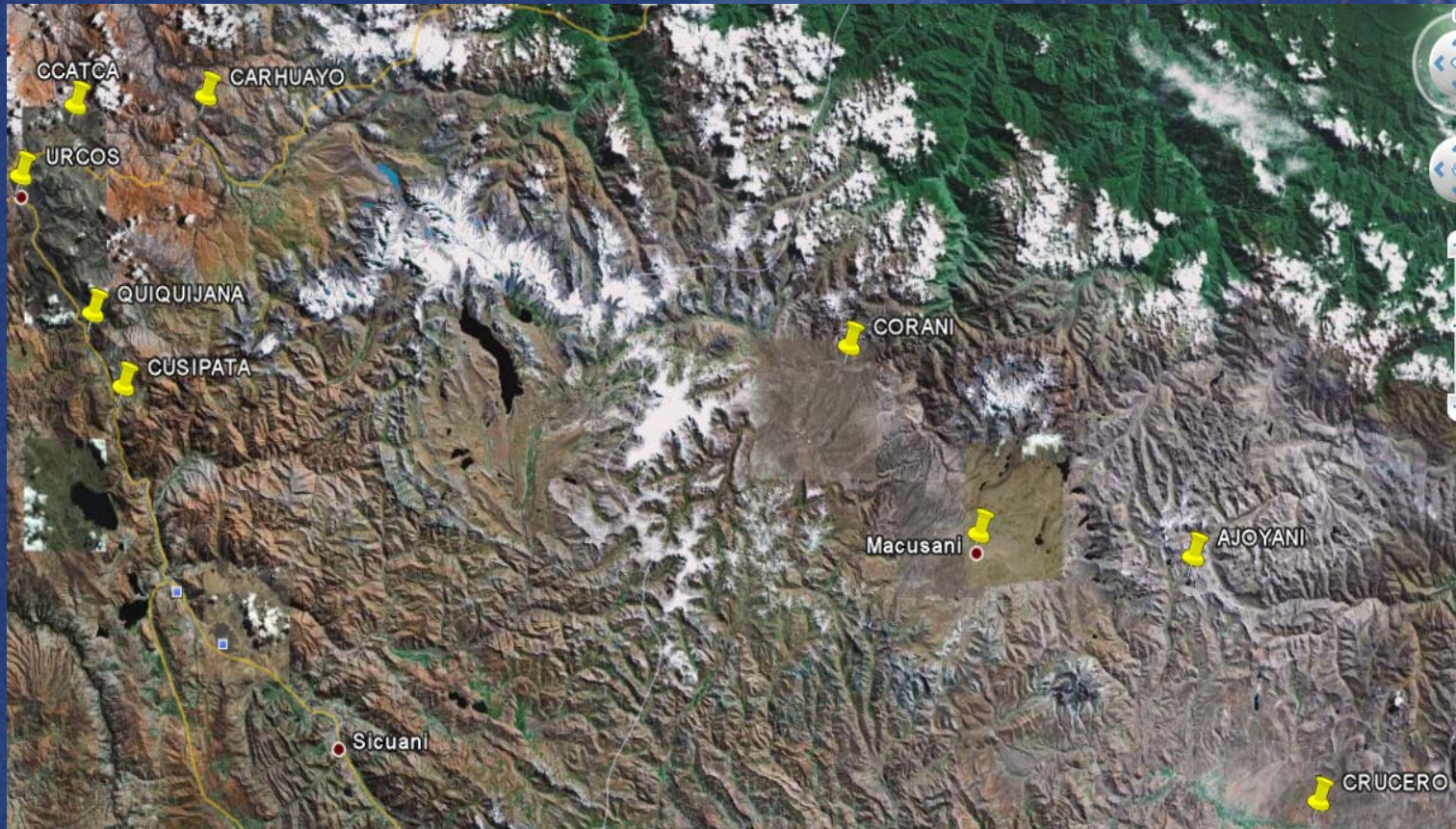




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Area of Intervention

9 districts in two provinces in Cusco and Puno



Characteristics of the population

- Agricultural lands : 0.40 has
- Daily expenditure per cápita : 1.02 soles (approx. \$0.35)
- Source of income: 65% agriculture, small livestock (20 alpacas and sheep and one cow)
- Consumption patterns: poor and extreme poor
- Under nutrition: chronic=58.4%, Extreme = 2.1%, Anemia 71%
- Children without vaccination records: 7.1%
- Household size: 5 persons per room.
- Dwellings with thatched roofing: 51.7%
- Dwellings dependent on candelight: 60%
- Access to basic water and sanitation: 50%

Situation at community level

- Unorganized to confront disasters
- Loss of ancestral practices
- Lack of communication media, roads, telephone, radios
- Assistance-based culture in front of disasters
- Lack of knowledge regarding Civil Defense System
- Lack of management tools to prevent and confront disasters
- Community organization focused on infrastructure management
- Low level of capacity and empowerment

Common threats in last three years:

- Natural: Droughts, frosts/hail/snow, earthquakes, landslides, heavy rains, fires, plagues
- Economic: debt, rise in prices, underemployment, decrease in salaries





The most vulnerable

**Human insecurity and
very high vulnerability:
48.3% of households**

**Human insecurity and
vulnerable to threats:
30.2 % of households**

**Human insecurity and
less vulnerable: 21.5%
of households**





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Proposal of Early Warning System

- The EWS will become the principal element to reduce disaster risks in poor populations that live in high Andean areas exposed to recurring cold events, in order to protect lives, livelihoods and mitigate the economic and social impacts



Human Security Focus
Link to the three liberties



Liberty to live without fear:

Strengthen the civil defense committees, develop an EWS, participatory development of district risk maps, emergency preparation strategies (for example, alert protocols, communication networks and community organization). The project achieved an increased resilience of the population.

Liberty to live without misery:

The focus was on the improvement of populations' capacities to protect livelihoods and accelerate recuperation in case of a disaster

Liberty to live with dignity:

The promotion of a better quality of life. Human rights have been guaranteed, through the promotion of a culture of preparation and prevention. Respect for the culture, language, way of life, practices and in particular integration of quechua cosmovision.





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Components of EWS

Knowledge of risks
Development of risk mapping
At district level

Response capacity
Capacity development
Community and institutional
Coordination - COEN
Simulations and drills

Monitoring
Of dangers:
SENAMHI
Traditional local indicators
Local measurement
instruments

Communication system
Diagnostic of the community,
Local communication network
Communication protocols





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Stakeholders involved in EWS

Farmer communities:
Executive board.
Community leaders, Brigades,
Internal social network

Technical Assistance:
SINAGERD
UNDP

Local govts
Regional govts
Civil Defense Committees
District, Provincial, Regional.

National entities
SENAMHI
National COEN



Elements that guarantee the sustainability of EWS

- 1.- Community organization
- 2.- Awareness raising and capacity building
- 3.- Articulation processes, community, district, province, region, country, through INDECI, Regional Govt, SENAMHI.
- 4.- Formation of community, district, provincial leaders (Brigades, volunteers)
- 5.- Methodology of I.E.C.
- 6.- Insert EWS in the Education sector





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Lessons Learned

- 1.- Necessary to guarantee the participation of stakeholders beginning with planning phase, in local participation instances.
- 2.- Methodology design requires a structured process adapted to context.
- 3.- Familiarize with SINAGERD and apply a critical and constructive attitude towards change.
- 4.- Develop local strategies for proposal's sustainability.
- 5.- Human Resources with high dosis of creativity, innovation and understanding of adult training methodologies.



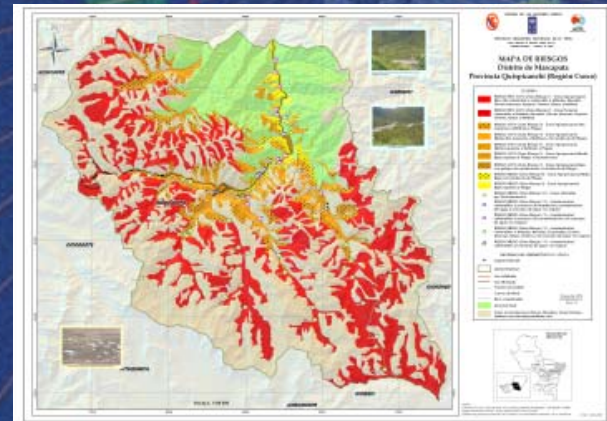
Impact in the dimensions of Human Security

PERSONAL SECURITY



Improved preparation
before disasters.

Preparation plans for
disasters



ECONOMIC SECURITY

Protection of livelihoods in front of disasters.



FOOD SECURITY

Improved attention to health
and nutrition.



COMMUNITY SECURITY

:

Strengthened cohesion
of communities.

Promotion of a culture
of prevention.

Active participation of
women.





Thank you!

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