



Community members install fencing

**Summary** This project focuses on identifying solutions to unsustainable management of the high altitude grassland environment in Northern Peru known as the "puna".

**For more information see:**  
<https://www.ccrp.org/grants/punas-and-pastures-iii/>

**Los Andes**  
Community of Practice



**Project Partners**

- The Mountain Institute
- CC Cordillera Blanca
- CC Canray Chico
- CC Canray Grande
- CC Los Andes

International Non-Governmental Organization    University in Region  
 Farmer Organization

# Research to Impacts Map: Soil Health

Punas and Pastures 2009-2019



Healthy, native, fenced pasture mixed with tests of improved pasture.

## Widespread soil degradation

In the Ancash region of northern Peru it is estimated that 93% of the natural pastures are under **communal control** and that over 75% are deteriorated from **overgrazing**. These pasture are essential for **carbon and water retention**.

## Approaches that recognize heterogeneity

2010: 20 experimental parcels were established in two sites (one with 22% soil humidity the "wet puna" and one with 12% the "dry puna") in a collaboration between researchers and **farmer research groups**.

## Contextualize and refine landscape management options

2015:

Treatment, fenced plots for 4 years:

- Recuperation of the dominant **native grasses** that are most favored by animals and reduction in overall diversity.
- The wet pasture has three times the production of **biomass** than the dry one (3500 kgMS/ha vs 1100), however this was not evidenced until year 4 .
  - Soil cover** in wet puna was 90%, 78% in the dry puna.

Control plots, available for grazing:

- There were not many differences in plant biomass between wet and dry sites.
- The soil cover in the wet puna was 80%, 48% in dry

Results indicate that the dry puna is more vulnerable to soil degradation and that **fencing** activities should be prioritized in this region and encouraged in all ecosystems.

## AEI Knowledge Mobilization

2012-2013

- 50 **farmer-to-farmer** exchange events
- Open house between 4 communities and **authorities** (n=150)

## Social and Institutional Mobilization

2014: Formation of **pasture committees** (80 families)



## Farmers adapt options to their contexts

2018: The two practices that were most often repeated were fencing of pastures and fallowing of paddocks. These were the only two options used in communal lands. In kin-group managed lands, sheep manure was also used. In private lands up to 6 options were used showing that a higher investment is given to private lands. Other **factors that influenced use** include organizational capacity, training and technical assistance, availability of labor (often low in women headed households) and water, income, market, and climate change.