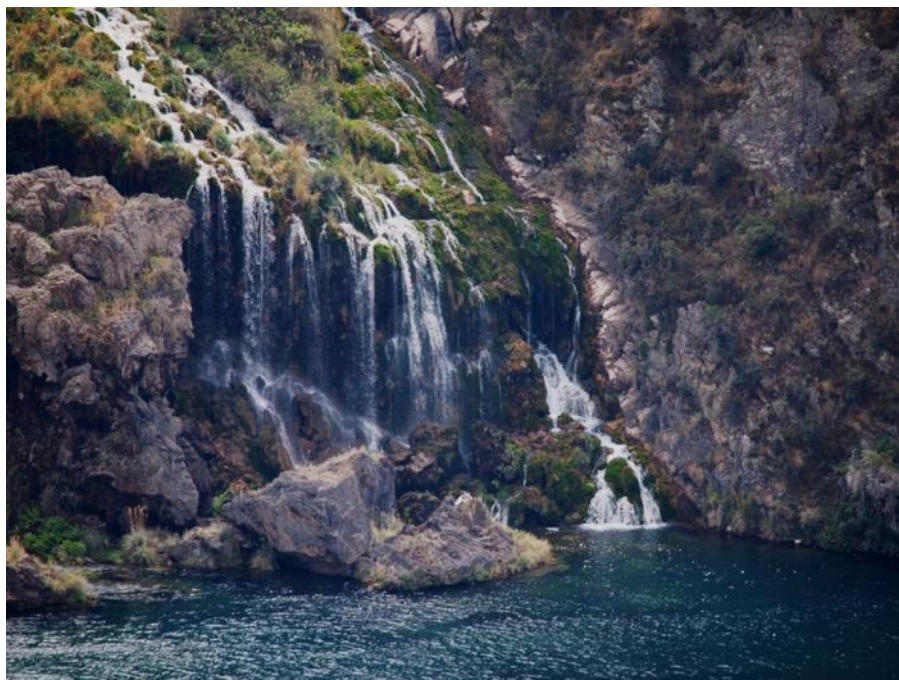


Securing mountain goods and services, and building prosperity, through local enterprise: works in progress

Andrew Taber
Executive Director



11 December 2017



Mountain goods, services and people are a global asset

- Cover approximately 22% of Earth's land area
- Provide vital ecosystem services – 60-80% of freshwater for people & industry
- 25% of terrestrial biodiversity including 6 of 20 globally important food crops
- Home to 915 million people (13% of the global population)
 - High levels of poverty and food insecurity
 - Extraordinary traditional knowledge and innate resilience of mountain people



Out-migration to neighboring country ↘

Isolated communities, no government services

National Parks – “on paper”

Receding glaciers

Human-wildlife conflict

Threatened endemic species

Changing and extreme temperatures and rainfall

Mining impacts water quality

Degraded rangelands

Extreme poverty – unresolved land tenure

Deforestation, erosion, landslides

Illicit Crops

Seasonal water flow variability affects millions downstream ↘

Eroding new road



Lowland climate Refugees

Contemporary Mountain Landscapes: a cacophony of challenges for sustaining mountain goods and services



Much is Changing in Mountain Regions





Poor mountain communities need livelihood options that:

- Rely on diverse products and services with favorable market and policy conditions
- Engage both men and women, and build socially equitable prosperity
- Value local culture and tradition
- Dissuade young people from leaving
- Enhance resilience
- Secure ecological services and biological diversity



Case Study 1: Medicinal & Aromatic Plants (MAPs), Nepal

Adapting an age-old demand for modern times





Aconitum ferox



THE IMPACT

Reached **>18,000 households cultivating MAPs (>2,000 m)**

- 11,000 directly trained - 40% women
- *Potential reach w/resources: 50,000 households*

>US\$ 3,500,000 generated for farmers from sales of cultivated MAPs

Annual individual household income from MAPs sales: **\$30 to \$35,000**

- Community monitoring of wild MAPs populations and habitats
- MAPs being cultivated on >2,500 ha. of degraded lands.
- 250,000 endangered Himalayan Yews planted





Case Study 2: Building prosperity and ecological resilience in pastoral systems in the Peruvian Andes

- The “Puna” (alt. 3200–5000 m) grasslands and wetlands are drying out due to climate change (glacier retreat) and overgrazing
- Reduced dry season water flow from the Puna is impacting 70% of Peru’s population
- >500,000 people vulnerable to climate change - 50% poverty rate
- Prognosis: CC models predict 3X global average relative temperature increases at altitudes of >3,800 m



Camelid-based pastoral productions system



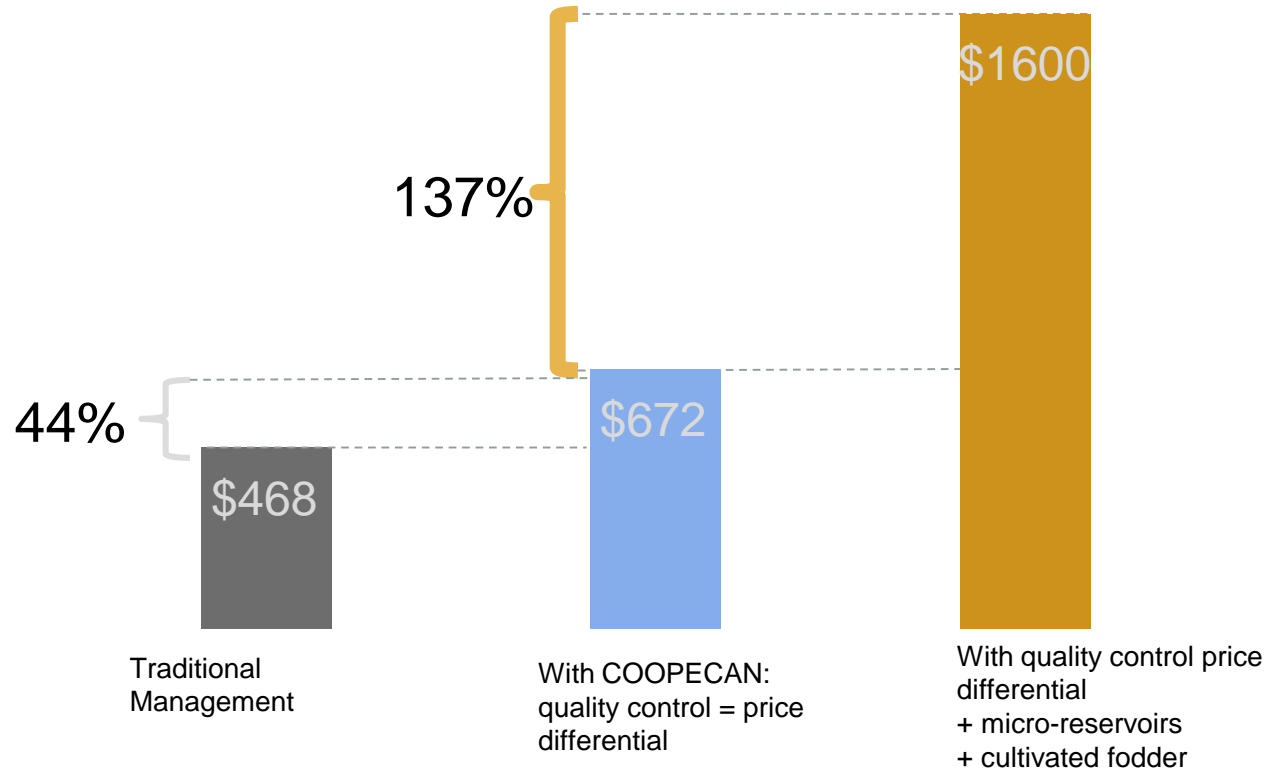
Growing challenges from water loss and ecological degradation of range lands



The Solution: Ecosystem-based Adaptation modern + ancestral environmental management



Estimated increase in annual net income of average cooperative member (150 alpacas) from interventions



Scaling up to the Andean Grassland Landscape

Distribution of the vicuña
the camel with the golden fleece



A pathway to reach the whole Andean grassland ecosystem through technical support and microcredit to enable:

- Ecosystem-based adaptation for rangeland, wetland and water management
- Intensification of domestic livestock production
- Ranching of vicuña and guanaco – using the latest animal welfare techniques
- Building prosperity and resilience of some of South America's most marginalized communities



Other options that can blend improving livelihoods with securing mountain goods and services

- Tourism development:
 - Trekking trail based eco-tourism
 - Diversified climbing destinations
 - Cultural and historic tourism
- Other mountain products
 - Fibers: animal and vegetable
 - Unique crops
 - New products that are viable give improved transportation linkages



Key Needs

- Investment (microcredit)
- Technical solutions: science + traditional knowledge
- Training and capacity building
- Cooperatives and business building
- Market connections
- Certification schemes
- Policy improvements





There are pathways for mountains that can:

- Secure mountain goods and services
- Build prosperity in formerly impoverished communities
- Reduce out-migration (especially of the young)
- Reduce vulnerability and bolster resilience
- Benefit billions of “mountain dependent people” downstream

