

Photo: Andreas Haller



# Urbanization Impacts on Andean Smallholders

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**FWF**  
Der Wissenschaftsfonds.

**IMC**  
Innsbruck 2019  
International Mountain Conference

# Outline

- Background
- Three hypotheses
- Workshop questions
- Outlook

# Background

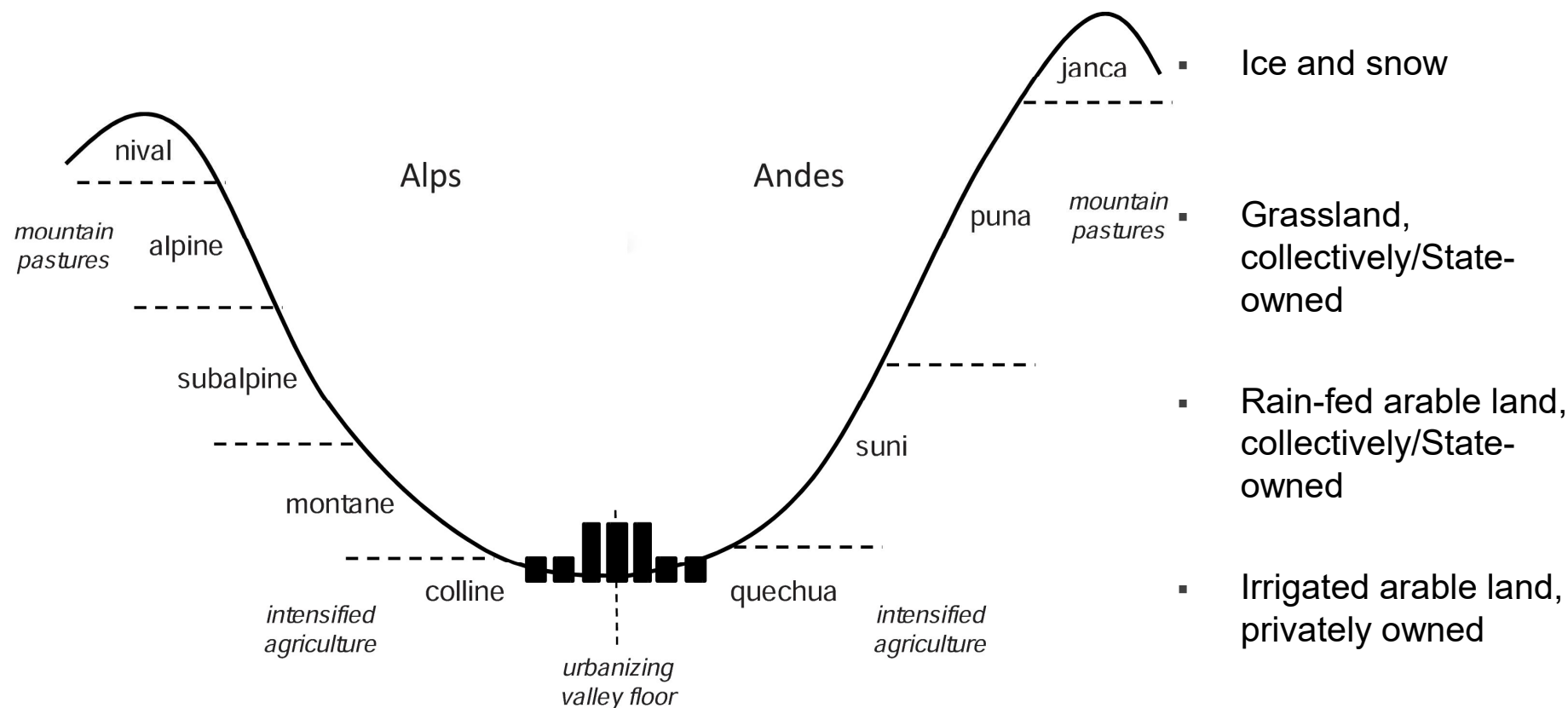
## Past project

- How do smallholders adapt agriculture to urbanization?
- PhD project on the intermediate city of Huancayo, Peru
- Inductive research process
- Combining land change and environmental perception analyses
- Findings reformulated as hypotheses

Figure: Andreas Haller

# Background

## Vertical complementarity



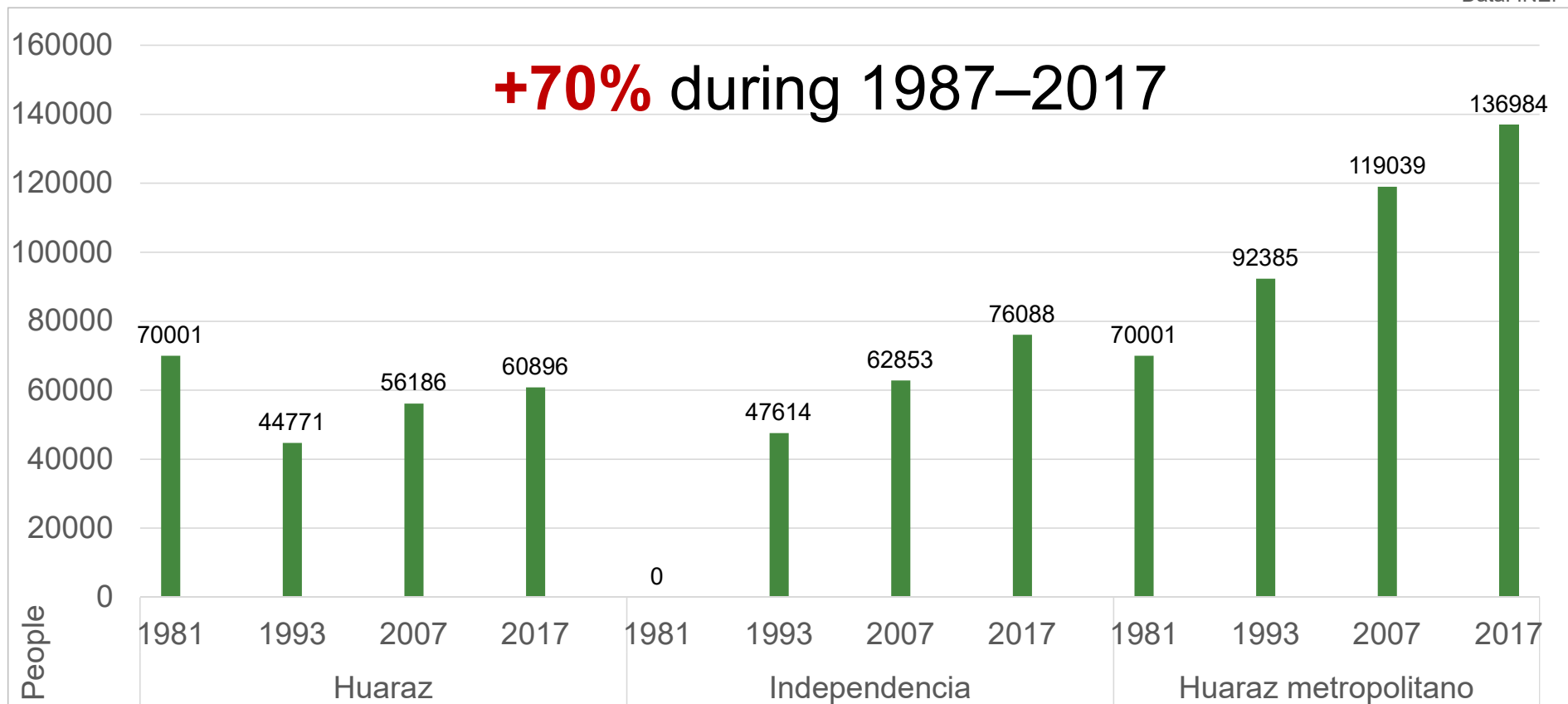
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# Background

## Population number (Huaraz)

Figure: Andreas Haller  
Data: INEI



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# Background

## Built-up area (Huaraz)

Photo: Andreas Haller



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# Three hypotheses

## (1) Quechua region

- Large areas are owned by nonagrarian actors
- Smallholders lease additional land for market-oriented production
- Irrigation enables year-round generation of income
- Urbanization causes changes in the Quechua region
- Land owners expect rising land prices and sell to developers
- “Inverse von Thünen” can be observed on the valley floor

# Three hypotheses

## (2) Suni region

- Land often owned by agrarian communities
- Mainly subsistence-oriented production of roots and tubers
- Rainfed agriculture is limited to November–April
- Eucalyptus is high in demand by the construction sector
- Eucalyptus can be harvested year-round in the Suni region
- Wood production substitutes food crops on steep slopes



# Three hypotheses

## (3) Puna region

- Land often owned by agrarian communities
- Rather extensively used for livestock raising
- Mainly market-oriented production of wool, meat, and milk
- Animal products are increasingly demanded by urbanites
- Sheep and cattle prefer soft grasses rather than hard bunch grasses
- Range burning activities increase

# Three hypotheses

## Problems

- Urbanites aim at safeguarding “their” high-mountain ecosystem services
- Land use intensification by smallholders conflicts with the ongoing trend of protecting “nature” for cities
- Smallholder agriculture might get stuck “between valley and peak”
- Conflicts regarding ecosystem services trade-offs will increase

# Workshop questions

## Globalization and Andean urbanization

- Consumer behavior and lifestyle patterns copied from global trends
- Globalization causes westernization *and* re-indigenization
- Tensions between lifestyles and worldviews emerge
- Privatization and polarization/fragmentation of space
- Demand for gated condos, shopping malls, private cemeteries, etc.
- Peruvian economy reacts to these trends

# Workshop questions

## Globalization and Andean urbanization

- Oligarchy-like “12 apostles of the Peruvian economy”
- Grupo Intercorp, Grupo Romero, Grupo Raffo, Grupo Wiese, etc.
- Transnational/multinational Lima-based corporations
- Traditionally involved in agriculture, fishing, mining, manufacturing, construction, and financial activities
- Geographic and sectoral diversification as a growth strategy



# Workshop questions

## Globalization and Andean urbanization

- Increasing investment in Andean urbanization since the late 2000s
- Investment in real-estate development, wholesale and retail trade, accommodation, and education
- Production of serviced lots, residential buildings, shopping malls, supermarkets, hotels, and private schools/universities



Logos: Grupo Intercorp

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# Outlook

## New project

- Can these hypotheses be confirmed?
- Running November 2019–November 2023
- Funded by the Austrian Science Fund (FWF)
- Focusing on intermediate cities of the Quechua region
- Cajamarca, Huancayo, Cusco
- Stay tuned!

Photo: Andreas Haller



**Thank you for your attention**  
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