

# Analysis of Smallholder Vegetable Production

## Systems in the Bolivian Highlands

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### Context

The harsh climatic conditions in the Bolivian Highlands do not provide good conditions to produce vegetables and often small-scale production is not profitable. Nevertheless these smallholders supply the vegetable markets of El Alto/La Paz, one of the biggest markets in Bolivia and there is a rising demand for vegetables. But detailed information about these producers is scarce.

### Objective

This study had the goal to analyse and describe the smallholder vegetable production systems in the Highlands of the department of La Paz, Bolivia. It compares the vegetable production on open field and in greenhouses and offers a general view of the market system.

### Methodology



Survey:  
 • 28 open field,  
 • 25 greenhouse vegetable producers

### Results

#### Characteristics

- High use of chemical pesticides
- Water scarcity
- High use of certified seed
- Lack of information and extension

#### Market system

- Fluctuating prices
- Selling at low prices to intermediaries
- Very often no fixed selling stands in the market
- Missing seedling providers

#### Greenhouse production

- Lettuce = most important crop (oak leaf, butter head, lambs lettuce)
- Manual work, few machines
- Drip and sprinkler irrigation
- Sold to commercializing company
- High investment

#### Open field production

- Crisp head lettuce, onion, broccoli, cauliflower = most important crops
- Manual work, 30% use tractors for the soil preparation
- Furrow irrigation
- Sold in the markets of El Alto/La Paz



	Net income
Lettuce greenhouse	++
Onion	+
Broccoli, cauliflower	-
Lettuce open field	--

### Conclusion

The demand for vegetables in Bolivia is growing and the production in greenhouses and on the open field in the Highlands of Bolivia has potential to respond to this demand. Nevertheless, the low mechanization level, the high use of pesticides and the differences between the two production systems need to be taken into consideration if further action in this sector should be initiated.

