

Income Risk and Coping Strategies of Small-scale Vegetable Farmers in the Central Rift Valley, Ethiopia

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Background

Horticultural production offers opportunities for poverty alleviation in the developing world due to

- increasing income and employment opportunities, and
- commercialization of rural areas. [1]

The high income generating potential and comparatively insignificant economies of scale make horticulture production an attractive business for small-scale farmers. [1]

Yet, farmers involved in horticultural production face an increased income risk due to

- high price volatility,
- higher production costs, and
- perishability; consequently, farmers become price takers. [1–3]

Potential strategies of small-scale farmers to cope with income risks include

- crop diversification [4],
- income diversification [5],
- collective action (e.g. related to storage, transportation or processing) [6], and
- consumption smoothing: credits, self-insurance through savings or livestock [7].

Methods

Field Study in the Ethiopian Central Rift Valley in September 2015

Study Site

- the Ethiopian Central Rift Valley is characterized by lakes
- this allows for irrigation-intensive horticultural activities, i.e. vegetable production
- vegetable production is dominated by small-scale farmers [8]

Research Question:

How do small-scale farmers in the Ethiopian Central Rift Valley cope with the income risk associated with vegetable production?

Qualitative Approach for Exploratory Research

- based on literature research and semi-structured interviews conducted with stakeholders of the Vegetable Value Chain
- hypotheses and interview questions were formulated based on literature review
- semi-structured interviews were conducted with 14 small-scale vegetable farmers



Fig. 1: Map of Ethiopia [9]



Fig. 2: Map of East Shewa, the study site [9]

Results

“Income from vegetable is like a lottery when it comes, it comes with big reward. With the price gone down it is horrible”

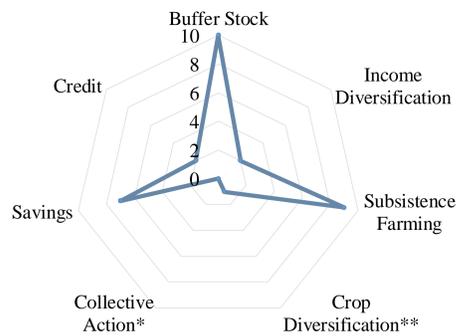


Fig.3 : Coping Strategies employed by interviewed Farmers

* related to storage, transportation or processing
** intra-harvest diversification of vegetable productions

Strategy	Observations	Remarks
Crop diversification	<ul style="list-style-type: none"> ▪ inter-harvest diversification ▪ almost no intra-harvest diversification ▪ additional staple crop production for domestic use 	<ul style="list-style-type: none"> ▪ farmers argue that economies of scale at farm level make intra-harvest diversification of vegetable production infeasible ▪ subsistence farming contributes to households' food security ▪ staple crops produced in excess can also be sold
Income diversification	<ul style="list-style-type: none"> ▪ roadside selling (selling produce of other farmers) ▪ off-farm income as daily laborers 	<ul style="list-style-type: none"> ▪ income diversification only within the agricultural sector
Buffer stock	<ul style="list-style-type: none"> ▪ households can sell livestock in case of an emergency 	Depending on the type of livestock, it can: <ul style="list-style-type: none"> ▪ be an additional constant income source ▪ facilitate farm work ▪ contribute to a diversified diet
Collective action	<ul style="list-style-type: none"> ▪ no cooperatives related to storage, transportation or processing ▪ existing cooperatives focus on input supply and irrigation schemes ▪ family and neighbor networks 	<ul style="list-style-type: none"> ▪ most farmers state that benefits from cooperatives are marginal ▪ functionality of cooperative depends on its size and social cohesion ▪ family and neighbor networks seem more reliable
Savings	<ul style="list-style-type: none"> ▪ farmers build up savings in good times 	<ul style="list-style-type: none"> ▪ relevant to finance the next season
Credits	<ul style="list-style-type: none"> ▪ loans offered by banks and cooperatives ▪ cooperatives and input suppliers offer products on credit 	<ul style="list-style-type: none"> ▪ input supplies on credit offered by cooperatives seem to be more relevant than bank loans

Most important challenges identified by farmers are

- price volatility,
- dependency on middlemen, and
- lack of processing plants.



Conclusion

Small-scale vegetable farmers in the Ethiopian Central Rift Valley...

- ...face uncertain income;
- ...are aware of the need to develop coping strategies in order to decrease the risks associated with vegetable production;
- ...rely mostly on livestock, subsistence farming and savings for income risk mitigation;
- ...do not necessarily organize in cooperatives to mitigate risks;
- ...view other value chain actors as responsible for market risks;
- ...do not yet take sufficiently advantage of the opportunities offered by networks and self-organization;
- ...recognize but do not exploit the potentials of cooperation on processing, storage and transportation.

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