

SP12: Elaborating Value Chain Strategies for Indigenous Vegetables

Project partners:

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I. Objective

a. Overall aim and objectives of the sub-project

Value chains are a key framework for understanding how inputs and labour are brought together and then used to grow, transform, or manufacture a product; how the product then moves physically from the producer to the customer; and how value increases along the way. In the subproject three different value added chains should be investigated:

1. A value chain for the supply of rural areas,
2. A value chain for the supply of the urban population and
3. A so-called co-ordinated value added chain, which is directed to the supply of supermarkets.

Food security, the livelihood situation of producers and consumers, environmental and gender issues will be considered in the value chain concept. The results are directed at relevant economic and political decision makers. Accordingly, the results will be prepared so that recommendations can be systematically derived, facilitating decision making.

b. Relevance of sub-project to the objectives of the project (main outputs)

In the technically straightened sub projects the necessary knowledge should be generated for an improvement of the production systems. These investigations do not refer to a special value chain, but cross section subjects. They are relevant for the value chains considered in the project. The subproject is focused on particular value chains. The analysis of the value chains should allow being able to carry out a comprehensive assessment concerning the strengths, weaknesses, chances and risks. Results of the technical sub projects will be considered in the analysis. As final product recommendations are presented about how the overall efficiency of production, processing and marketing can be improved. These should be processed especially for the use by relevant decision makers.

c. Research and / or technical goals of intervention

Over the past decade, many developing country governments and international development agencies have concluded that increased smallholder participation in higher value agri-food markets is essential for meeting economic development and poverty reduction objectives. The supply of vegetables - particularly indigenous vegetables - has however not matched the growing demand. Most farmers in developing countries are poor, only semi commercially oriented, not organized, and lack inputs and skills to enable them to satisfy the dynamic market requirements. Decisions concerning effective action need a strategic framework for identifying upgrading strategies potentially available for improving value chain participation for small producers (Bolwig et al. 2010) Finally a method of value chain analysis will answer the following questions.

- What are the major socio-economic and environmental drivers of three different indigenous vegetable value chains?
- How can country producers become more efficient in production of fresh vegetables?
- How can value chains, as embedded in the domestic and local economic, legal and social-cultural environment, optimally use their business environment?
- What major upgrading opportunities are available and which parties are most suited to facilitate value chain upgrading? In addition, the market potential for organic vegetables and its effects on producers and consumers will be assessed.
- How can poverty, environmental and gender concerns systematically be integrated into the concept of value chain analysis.

The starting point of the analysis of value chains is the identification of the involved actors as well as an exact description of the functions which they pursue within the value chain. This working step is called mapping. Presently, it is strongly pointed out that in addition to the immediate actors involved in the chain, there are also other relevant actors who can contribute indirectly to the success, for example, financial institutions, extension services and research institutes.

II. State of knowledge

The value chain literature documenting the complexities of linking small, rural and poor producers to larger producer-exporters, and particularly Northern markets, has received much attention in recent years (Trienekens 2011). The treatment of domestic value chains has been much less prominent in the literature. It is important to recognize that the translation of aggregate value chain level impacts into poverty reduction outcomes at a community level occurs through a complex process. There are a number of conditions that must be met in order for improvements at value chain level to result in poverty reduction outcomes. The value chain perspective provides an important means to understand relationships that connect the chain, mechanisms for increasing efficiency, and ways to enable businesses to increase productivity and add value. It also provides a reference point for improvements in supporting services and the business environment. It can contribute to pro-poor initiatives and better linking of small businesses with the market (Seville/Buxton/Vorley 2011; Memedovic/Shepherd 2008). Increasingly, the value chain approach is being used to guide and drive sustainable initiatives focused on improving productivity, competitiveness, entrepreneurship, and the growth of small and medium enterprises (SMEs).

Vegetable value chains in particular have important implications for food security and food safety (Keatinge et al. 2011), as cash crops for income generation and from a nutritional point of view (Waibel/Mithöfer 2011). Indeed, the impact of value chains on environmental and poverty concerns is the centre of attention (Riisgaard et al., 2010); however, the effect on food security and livelihood patterns along the value chain from producers to the consumers is still neglected to a large extent. Similarly, food safety is an outcome of the entire value chain, influencing all actors from primary producers, middlemen and to final consumers (Asfaw 2011).

However, holistic approaches capturing the entire value chain and its effects on food security and sustainable livelihoods are rare. In addition to productivity concerns, household characteristics, health and institutional issues, and vulnerability to food insecurity play an important role. In this sub-project, vulnerability refers to the peoples' propensity to fall or stay below a determined food security threshold and is a function of peoples' exposure to risk and of their resilience to these (Løvendal/Knowles/Horii 2004).

III. Detailed description of work plan

b. Planned milestones of the intervention

Activity	Milestone	Timeframe	Partner
<i>Assessment of the economics of vegetable production at farm level</i>			
V1: To develop a conceptual framework	Literature review has been conducted and conceptual framework developed	02.2013-05.2013	LUH, EU
V2: Develop a questionnaire for the panel survey (1wave 1-3)	Questionnaire has been developed and pretested	06.2013-01.2014	LUH, HUB

HS3: Participation in the first wave of the panel survey	Representative household survey (1.wave) is conducted, data set is cleaned.	02.2014-06.2014	HUB and DIW, LUH, EU
V3: To assess the market potential for organic vegetables and its effects on producers and consumers	Reports on the market potential of organic certified indigenous vegetables	07.2014-01.2015	HU and DIW, LUH
HS4: Participation in the second wave of the panel survey	Representative household survey (2.wave) is conducted, data set is cleaned.	02.2015-06.2015	HUB and DIW, LUH, EU
V4: To identify major socio-economic and environmental drivers of indigenous vegetable value chains affecting the vulnerability to food insecurity	Reports on the vulnerability of food insecurity of indigenous vegetable value chains	06.2015-12.2016	HU and DIW, LUH
V5: Preparing an exit strategy for handing over the results to local partners	Capacity building and future collaboration with African partners	01.2016-06.2016	HUB and DIW, LUH, EU
HS5: Participation in the third wave of the panel survey	Representative household survey (3.wave) is conducted, data set is cleaned.	02.2016-06.2016	HUB and DIW, LUH, EU
HS6, V6: Analysis of the 1-3 waves of data and writing of scientific research articles	Survey data analyzed, and policy recommendations to improve the food security and livelihoods of indigenous vegetable producers and consumers provided.	07.2016-12.2017	HU and DIW, LUH
<i>Discussion and identification of supporting and inhibiting factors of the efficiency of co-ordinated value chains and identification of possible ways of upgrading</i>			
V7: To identify the relevant actors of local and coordinated vegetable value chains and describe their respective functions	Mapping of existing value chains and a description of supporting environment (extension, experimental stations, financial institutions)	01.2014-12.2014	HUB
V8: To analyse of the governance structures in co-ordinated value chains (Grades & standards, power distribution)	Report on current and expected rules governing existing value chains with special attention an environment, gender and smallholder	01.2014-12.2015	HUB
V9: To analyse the infrastructure and institutional conditions in co-ordinated value chains and evaluate the performance different value chains	Report on value chain performance and recommendations for upgrading strategies	01.2015-12.2017	HUB

IV. Utilization

This cross-cutting sub-project covers all three targeted value chains (output 1, 2 and 3) and delivers the results and implications to the dissemination and capacity building activities (output 1 and 6). The sub-project provides a comprehensive analysis of the current situation and impact assessment for the entire project regarding livelihoods of the rural and urban poor. The sub-project will closely work together with the market sub-projects to recommend where e.g. barriers to entry into the vegetable chains exist. Information about production risks and benefits are important for the breeding sub-project to provide affordable technologies.

V. Cooperation with other subprojects / cooperation with third parties

- Tanzania: Sokoine University of Agriculture (SUA) – John Msuya: Local partner in Tanzania, collaboration regarding the assessment of consumer preferences on vegetables. The IUW has successfully collaborated with SUA in prior projects on bioenergy value chains.
- Kenya: African Center of Technology Study ACTS – Ann Kingiri: Local partner in Kenya; collaboration regarding a PhD student.
- Kenya: Egerton University in Kenya; collaboration regarding the survey implementation.
- Germany: HUB – Department of agriculture and horticulture, DIW Berlin (Prof. Tilman Brück): The organization of the panel data collection with the corresponding workshops and interviewer training will be coordinated by HUB – Department of agriculture and horticulture, DIW Berlin (Prof. Tilman Brück). The IUW supports the organization of the survey through a PhD student.
- Germany: HUB – FAH Gender & Globalization (PartoTeherani-Krönner and Christine Bauhardt): Cooperation regarding quantitative analysis of women's role in the vegetable value chain assessing the formal and informal household activities and their impacts on food security and livelihood.
- Wolfgang Bokelmann, Humboldt University Berlin: Cooperation on vegetables market constraints and needs to follow up the impact on farmers in terms of food quality and safety standards and additional costs and potential price premiums.