



# Evaluation of Global Food Value Chains concerning Sustainability: Development of a Methodology and Case Studies of Indian Products with Swiss Target Market

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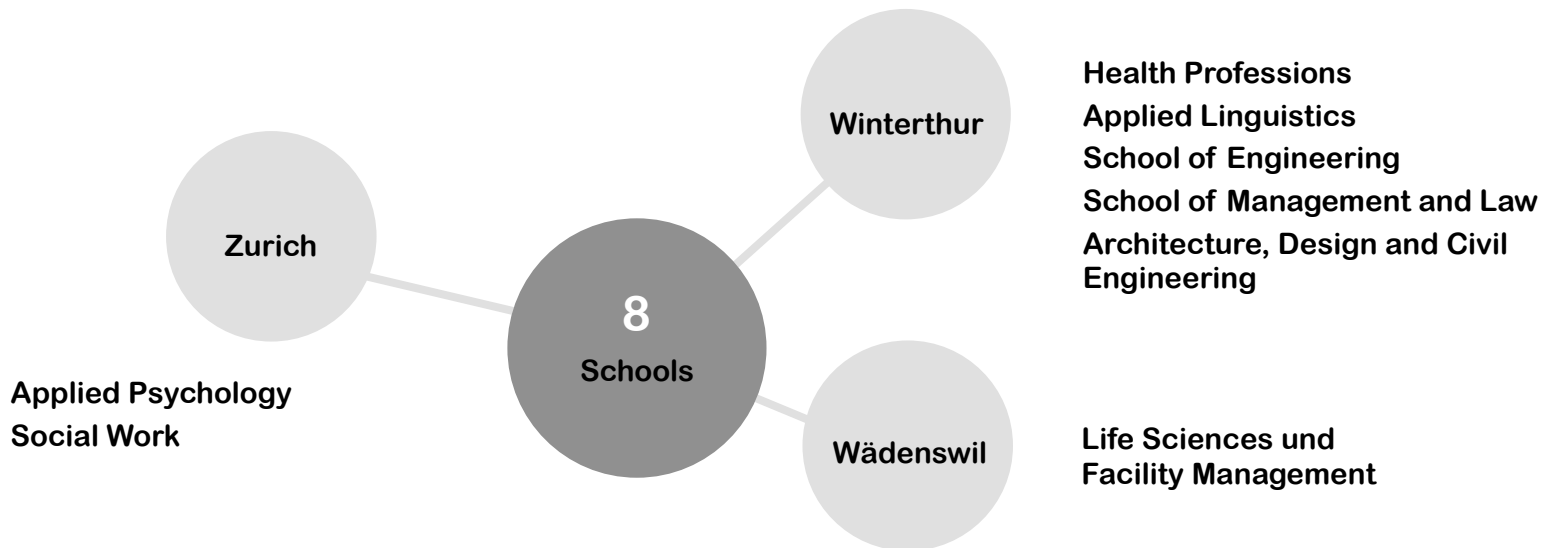
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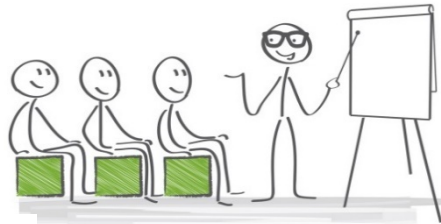
# The ZHAW in numbers

- ZHAW Zurich University of Applied Sciences:
- 11 000 students (Bachelors and Masters)
- 2800 staff members
- 8 schools in 3 locations



# Institute of Natural Resource Sciences

- Facts and figures (as of December 2015):



Illustrations: Fotolia.com

533 **BSc students**  
51 **MSc students**  
736 **participants in continuing education**  
(CAS courses, training courses, conferences)



182 **staff members**



400 on going **projects** in R&D / Services



27 million  
**in proceeds**



## Locations

- Campus Grüental and Campus Reidbach, **Wädenswil**
- Vineyard, **Halbinsel Au**
- Center da Capricorns, **Wergenstein**







# Institute for Social and Economic Change (ISEC)



**The Institute for Social and Economic Change (ISEC) is an All India Institute for Interdisciplinary Research and Training in the Social Sciences. The aim of the Institute is to create a blend of field-oriented empirical research and advances in social science theories leading to better public policy formulation. The Institute focuses on interdisciplinary research in analytical and applied areas of social sciences, encompassing diverse aspects of development. The aim of the Institute is to establish fruitful contacts with other institutions and scholars engaged in social science research through collaborative research programmes and seminars, and to conduct training courses and refresher programmes for university and college teachers and public functionaries.**



# Institute for Social and Economic Change (ISEC)

*The ISEC campus is located in Bangalore on the south-western outskirts of the city set amidst 16 hectares of verdant green landscapes.*

*The Infrastructure on the campus:*

- ❖ *An academic and administrative complex,*
- ❖ *Student hostels. Any time more than 100 students enrolled for the PhD Program.*
- ❖ *A good guesthouse for visiting scholars.*
- ❖ *Residential facilities for 77 faculty members and staff.*
- ❖ *Four well-equipped seminar halls.*
- ❖ *Two committee rooms.*
- ❖ *A spacious 300-seater auditorium.*





## University of Agricultural Sciences Bangalore (UAS B)



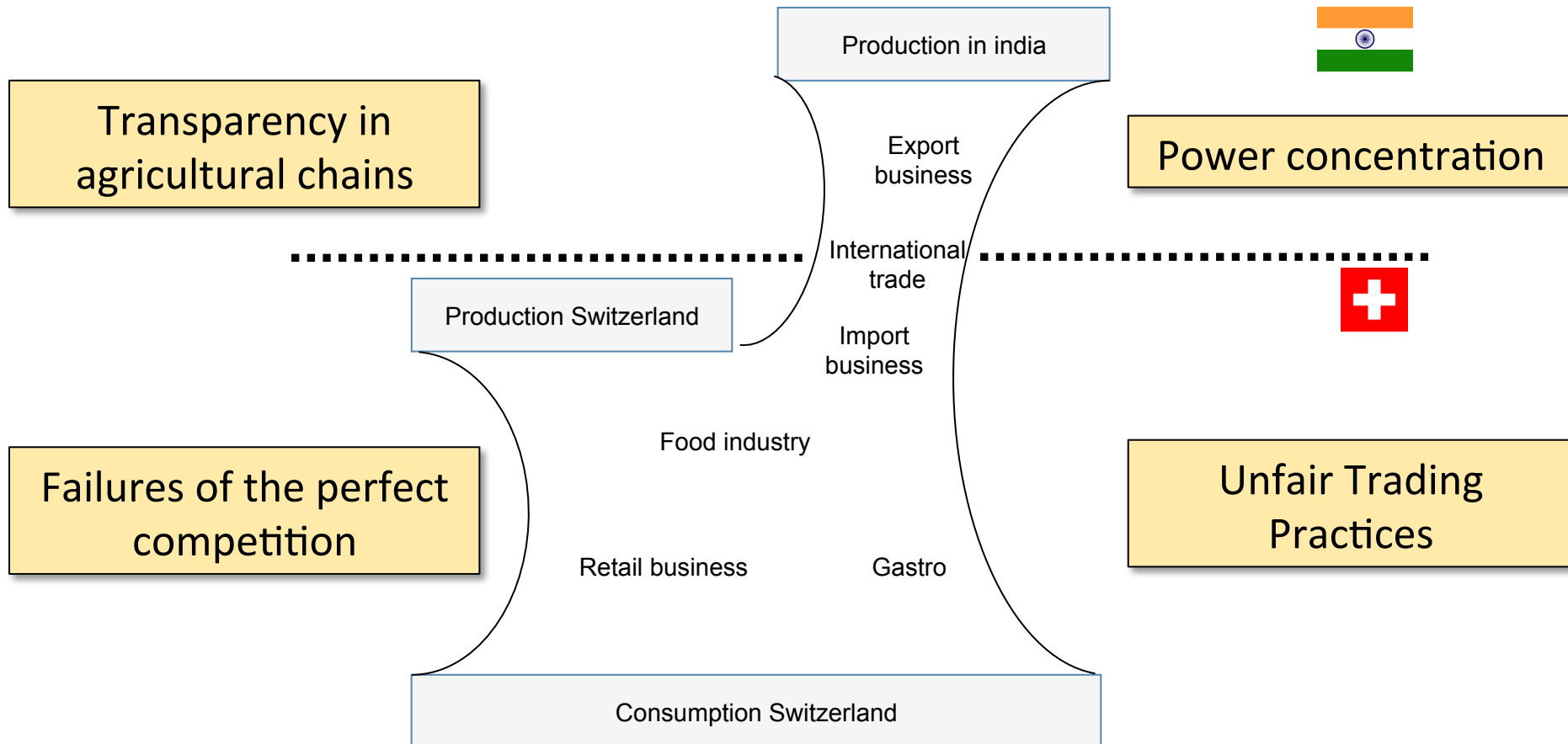
- One of the top 5 State Agricultural Universities of the Country
- With 1046 (UG and PG) students
- 465 Faculty
- 4 Colleges







# Main challenges in (global) value chains:







## Project Goals

- Our project aims to **develop specific tools for evaluating global food value chains concerning sustainability with focus on the social and economic dimensions.**
- **Case studies** (value chains of Indian products with a Swiss target market): **High-volume traded food products** like coffee, rice and nuts **with a high upgrading potential.**  
-> Display transparency in the selected case studies.
- Based on the results of our case studies, we will evaluate potentials and develop **suggestions for economic and social upgrading.**





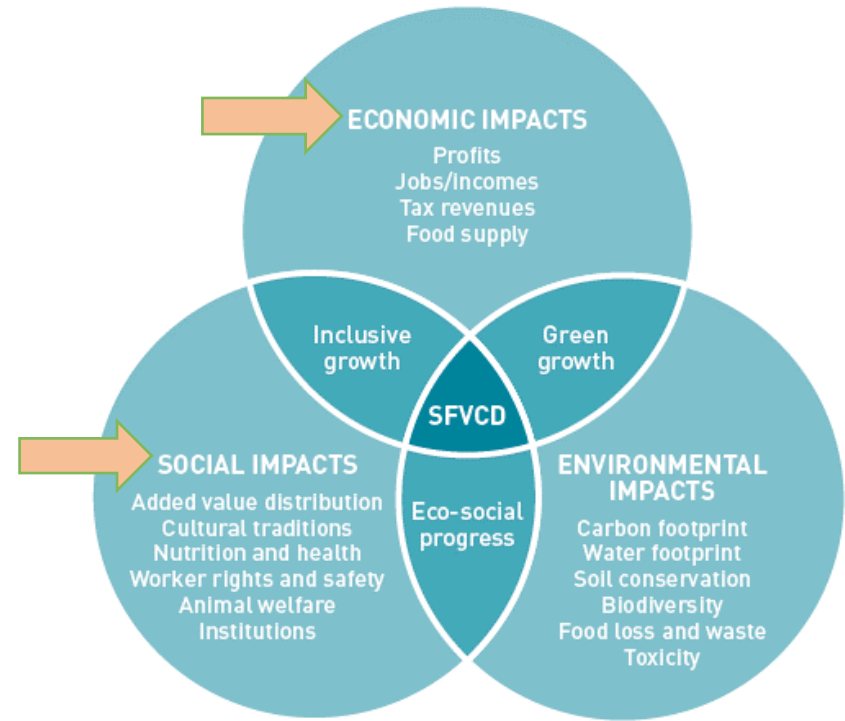
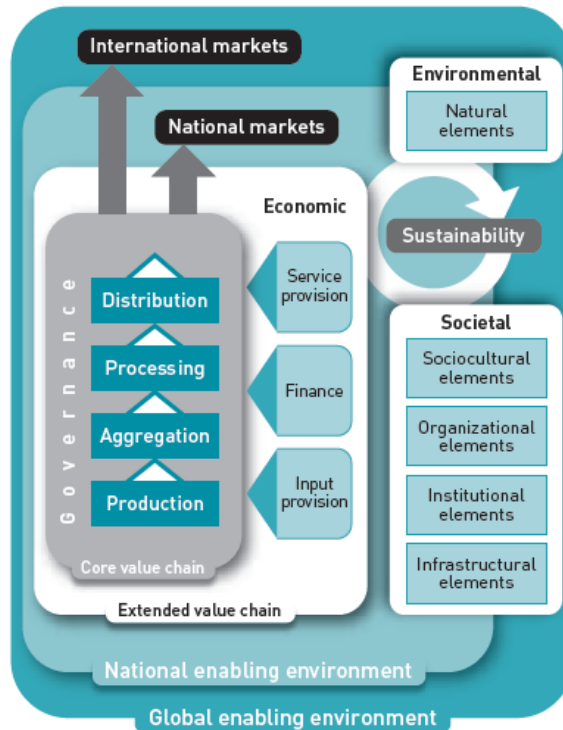
## Methodology: SFVC Definition according to FAO (2014)

- *“A sustainable food value chain (SFVC) is defined as the full range of farms and firms and their successive coordinated value-adding activities that produce particular raw agricultural materials and transform them into particular food products that are sold to final consumers and disposed of after use, in a manner that is profitable throughout, has broad-based benefits for society, and does not permanently deplete natural resources”* (FAO, 2014 p.6).

# Sustainable Food Value Chain Methodology (Source: FAO, 2014)

## The sustainable food value chain framework

## Sustainability in food value chain development





# Methodology, Work Package 1

## 1. Value Chain Analysis (top-down approach)

1.1. Selecting agricultural value chains of Indian products consumed in Switzerland

1.2. Undertaking market research analysis for the selected products

1.3. Value chain mapping

1.4. Quantifying and describing the value chains in detail

- Case studies could be value chains of rice, coffee, nuts ...
- Comparison of label (organic, fair-trade certified) and non-label products.
- Close and constant exchange with stakeholders along the value chain (business partners: agro-food companies and retailers; NGOs and consumers).



# Methodology, Work Package 1

## 1.5. Sustainability Assessment of the value chain within the defined boundaries

### 1.5.1. Economic Analysis of the value chain:

Analyzing the Governance structure (dynamic distribution of power, linkages, unfair trading practices), Market concentration, Degree of integration, Price determination, Overall value added generated by the chain and shares of the different stages, Margins etc.

### 1.5.2. Social Analysis of the value chain:

Fair Pricing, Equitable distribution of the value added relative to the investments made and risks taken, Transparent contract systems, Living wages etc.





## Methodology, Work Package 2

### 2. Value Chain Development

Based on the results of our case studies, we will evaluate potentials and develop suggestions for economic, social and (optional environmental) upgrading:

- There are four categories of **upgrading of GVCs**: product upgrading (price strategy), process upgrading (direct sourcing), functional upgrading and chain upgrading.
- E.g. certification, good agricultural practices, contracts, standards, cold chains, information and communication technology, diversification strategies, organization of producers



## Methods

- **Desk study:**

- We will examine research studies concerning the setup of the methodology and conduct a **stakeholder analysis, a market analysis and data research on existing databases.**
- We need multiple data sources for our study.

- **Field research:**

- Survey with **interviews on all stages of the value chain in India and Switzerland (quantitative and qualitative analysis).**
- Preparing surveys and conducting interviews along the different stages of the selected value chains will be a very important part of our project.



## Objectives of our visits

### 1. Visit 1, Winter 2017/18, Zurich: Finalization of concept and preparation for data collection

- 1.1. Finalization of the methodical framework of the 2-year project
- 1.2. Setup of the methodology including surveys and indicators
- 1.3. Exchange and discussion with project partners and stakeholders (meetings, workshops)

### 2. Visit 2, Winter 2018/19, Bengaluru: Compatibility assessment and evaluation

- 2.1. Ensuring data quality and compatibility
- 2.2. Evaluation of data and interpretation concerning sustainability
- 2.3. Exchange and discussion of results and options for sustainable upgrading with project partners and stakeholders (meetings, workshops)



## Expected Project Outcomes

- The outcomes of our project are **specific tools and indicators for sustainability assessment of global value chains** based on the SFVC framework (FAO 2014), which can then be more generally applied.
- Furthermore, we will show in our case studies the **current situation of Indian-Swiss value chains concerning sustainability**, including their governance situation and upgrading potential.
- We will discuss the results and **suggestions for implementations with the stakeholders along the value chain** in workshops.





## Case study of the Indian-Swiss Coffee Value Chain

- Value chains for coffee in India are largely diffused with limited coordination in terms of quality and specifications in the conventional chain.
  - Chengappa et al (2014) highlighted **the problems of lengthy supply chains and disproportionate market power, resulting in lower prices and lack of transparency** between buyers and coffee growers as major factors leading to lower prices received by producers.
- ➡ An important area of inquiry is to assess how the value chain inefficiencies in the Indian coffee export arena can be addressed, leveraging in particular areas in which sustainable production can be encouraged.





## Literature

- Chengappa, P. G., Rich, K. M., Rich, M., Muniyappa, A., Yadava, C. G., & Pradeepa, B. B. (2014). Promoting conservation in India by greening coffee: A value chain approach.
- FAO. (2014). Developing Sustainable Food Value Chains. Guiding Principles. *Food and Agriculture Organization of the United Nations*. Retrieved from <http://www.fao.org/publications/card/en/c/aa9b41cf-ea96-4927-a730-ab51dcfcbb91>

