Climate change adaptation and sustainable food security – New subjects to integrate into higher education: case study from ValueSeC project curricula development at African Universities.

WINS Seminar Series

Governability in the Anthropocene

Wolfgang Bokelmann, Muluken E. Adamseged
Humboldt-Universität zu Berlin

Definition Food Security

Food security

- ▲ **exists** when "all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life". (FAO, 1996);
- ▲ **is based** on stability of three components:
  - food availability;
  - food access; and
  - food utilisation;
- ▲ **is underpinned** by food systems, not just food production;
- ▲ **is diminished** when any component of the food system is stressed.

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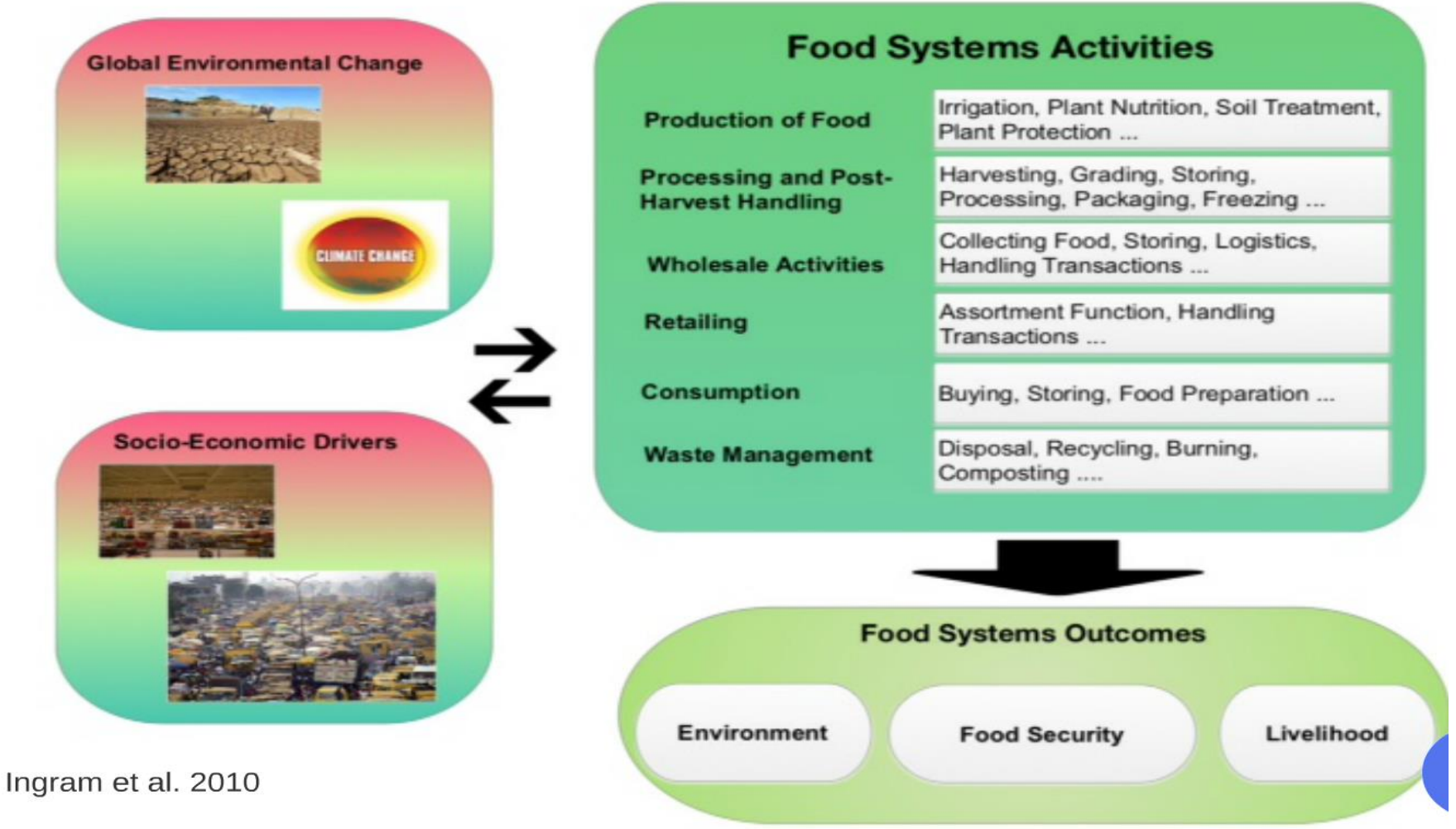
The Food Systems Approach



Ingram et al. 2010

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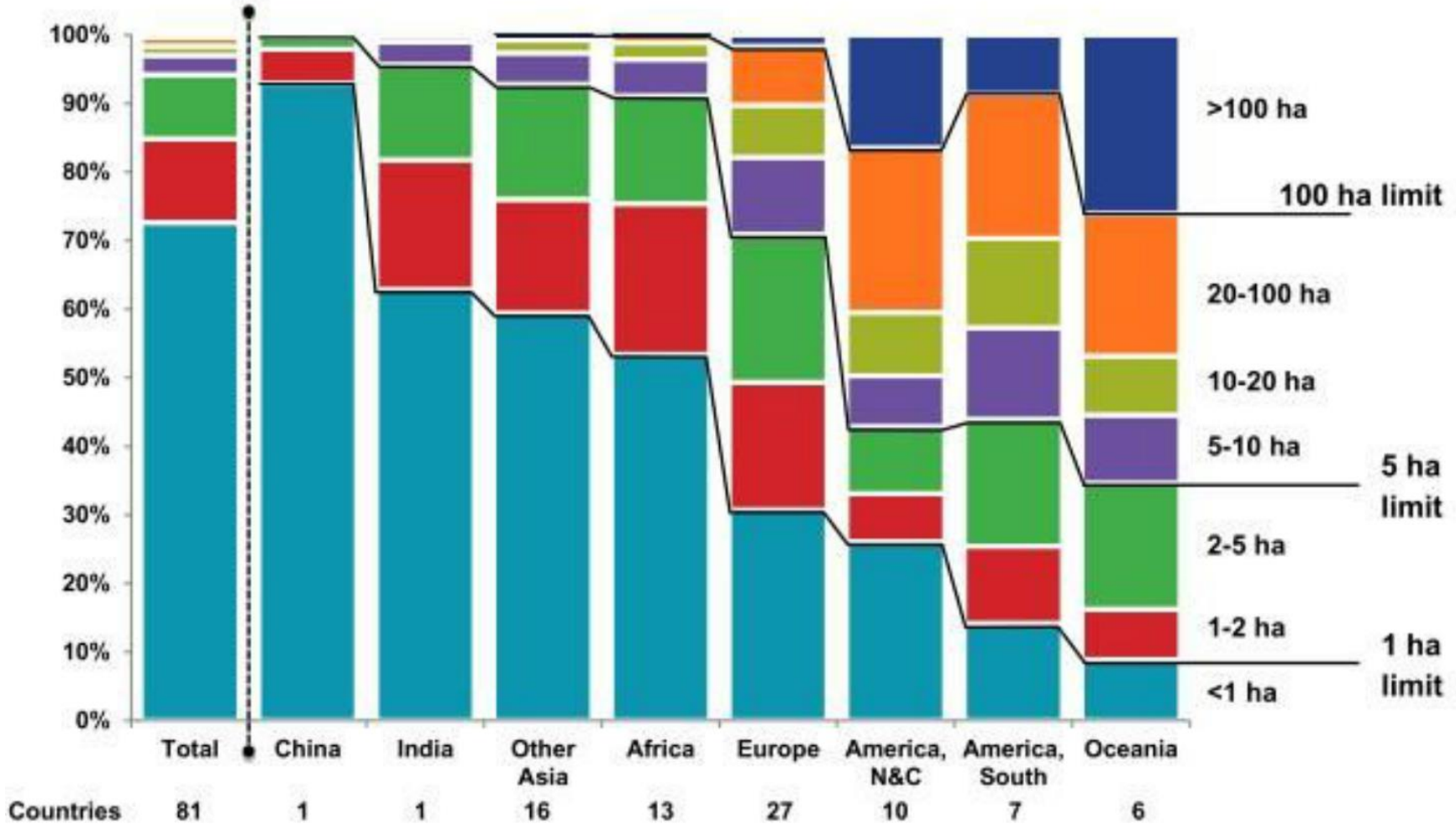
Focussing on Smallholder Farming?

Figure 3 Regional diversity of holding size patterns in the 81-country subset of FAO-WCA



Source: adapted from Beliérès *et al.* (2013); elaboration from FAO, WCA datasets.

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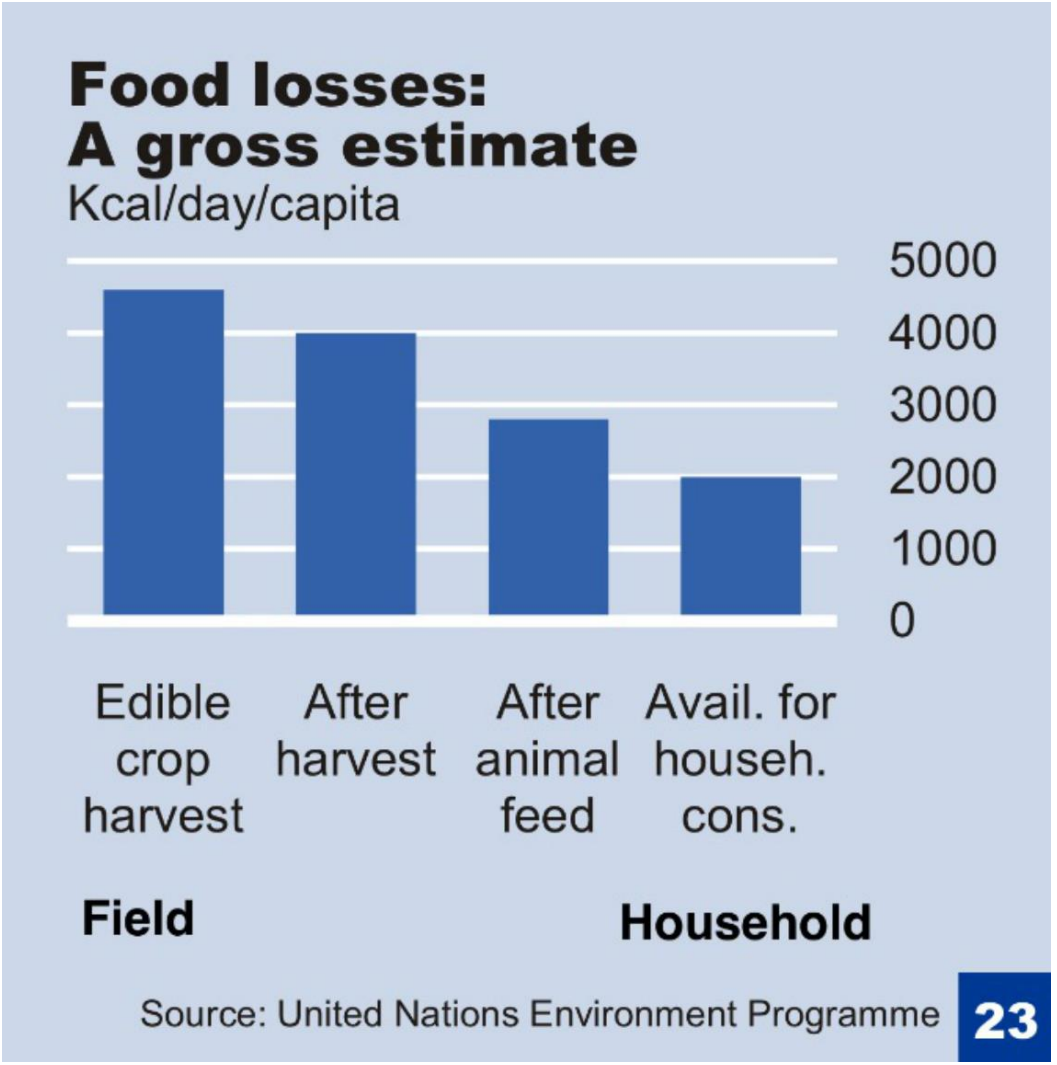
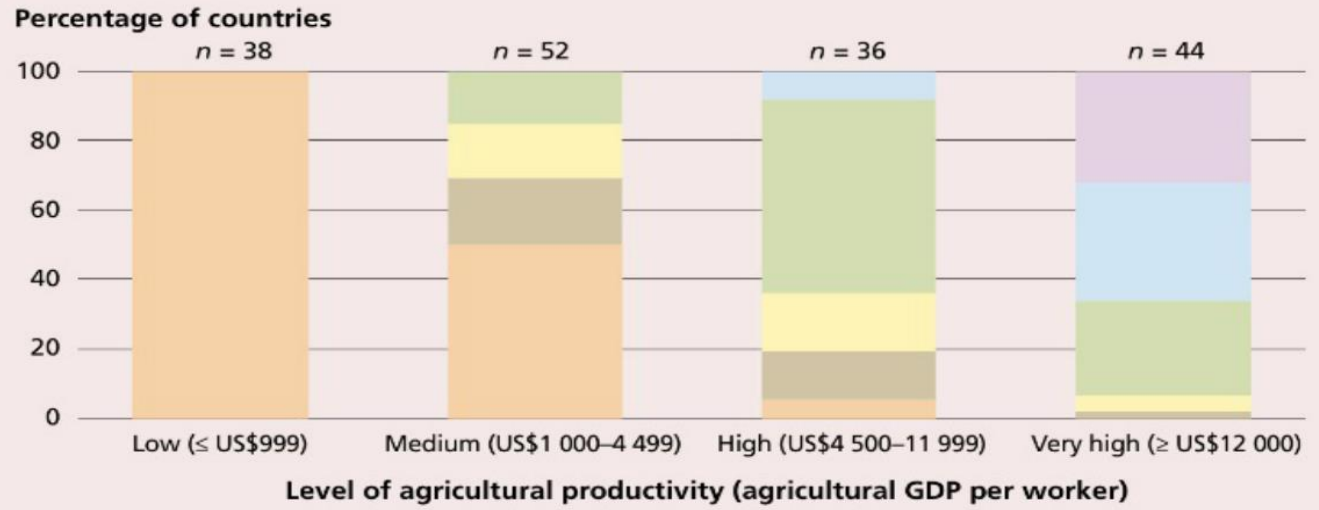
Example: Food Losses



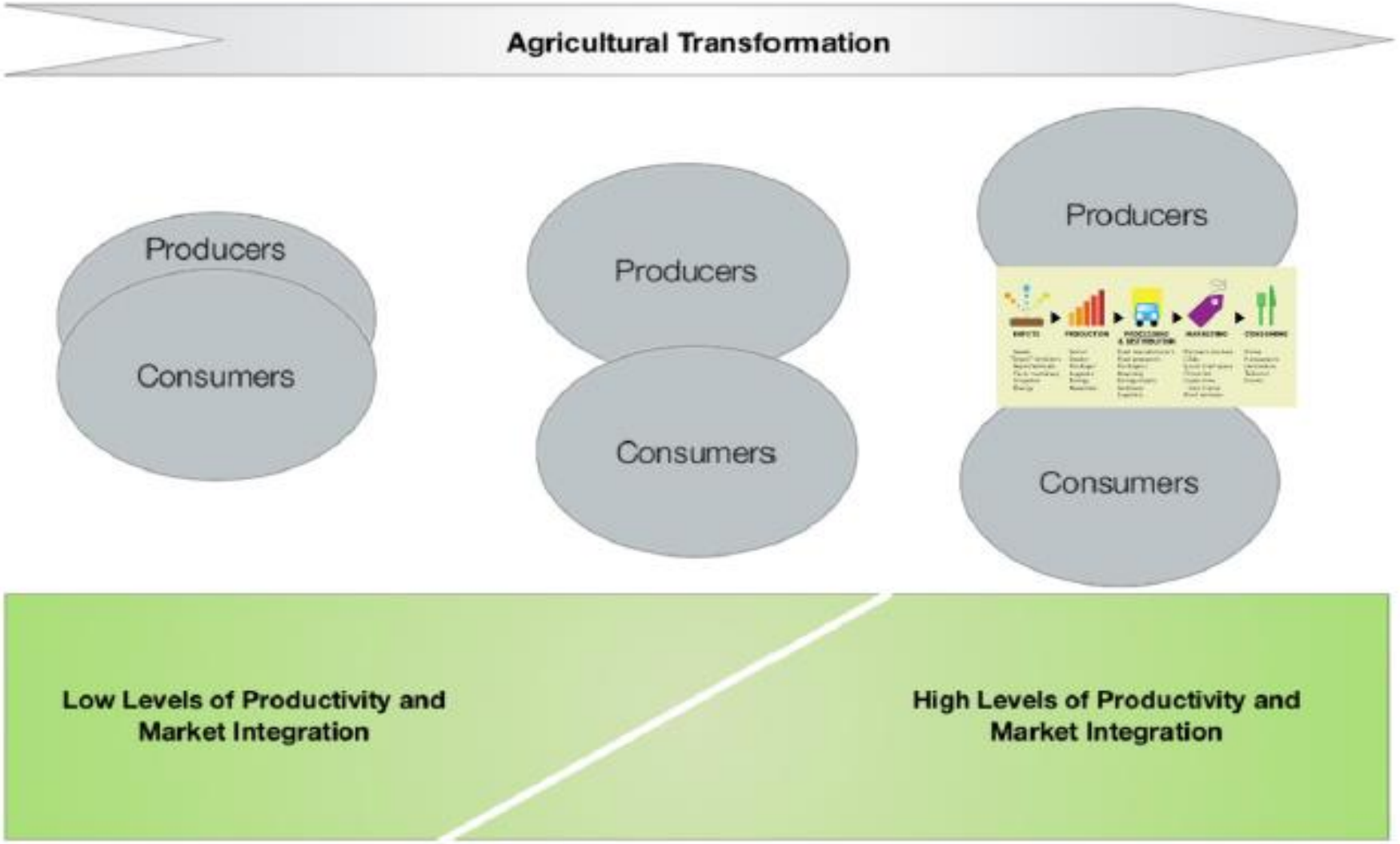
Output: Food Security an Malnutrition

Source: FAO.

FIGURE 6
Share of countries in each malnutrition category, by level of agricultural productivity



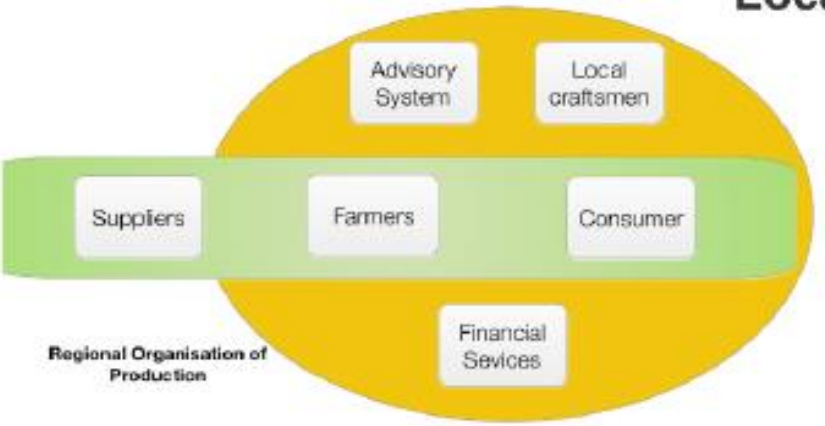
Background: The Agricultural Tansformation



According to FAO 2007

Types of Value Chains

Local Value Chains

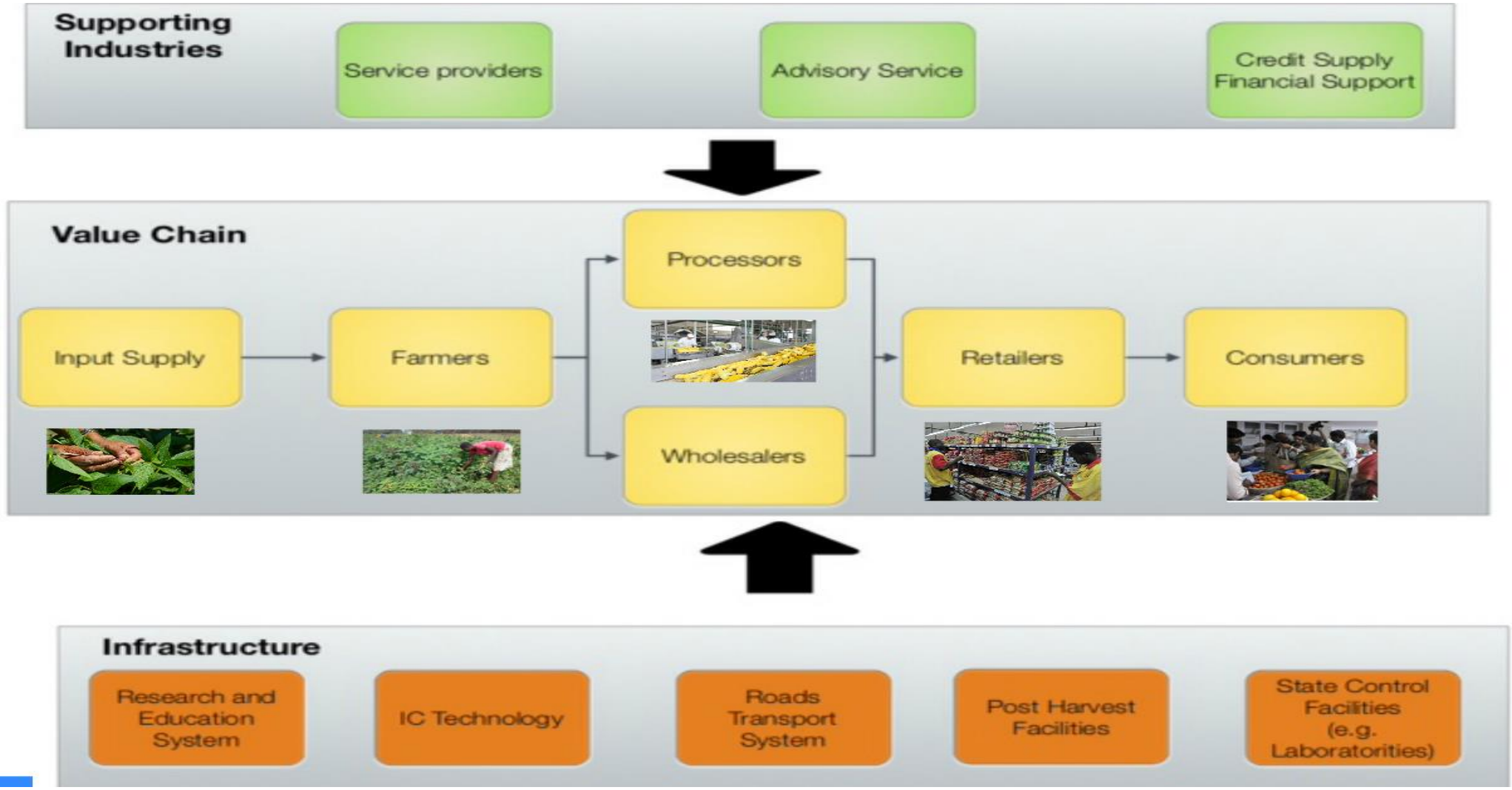


'Coordinated Value Chains'

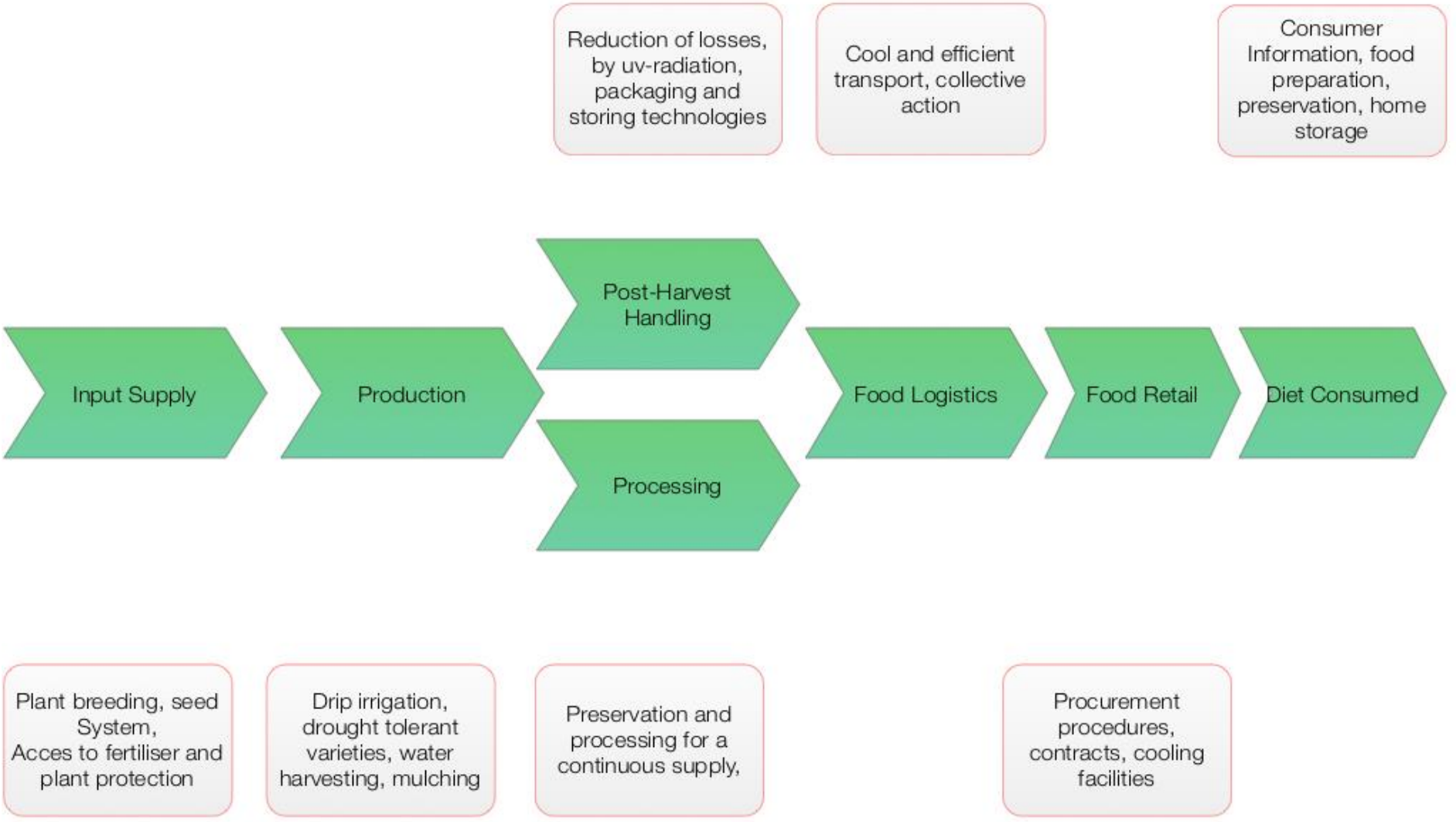
Global Value Chains

2

The Value Chain Perspective



Challenge: Climate Change and Value Chains



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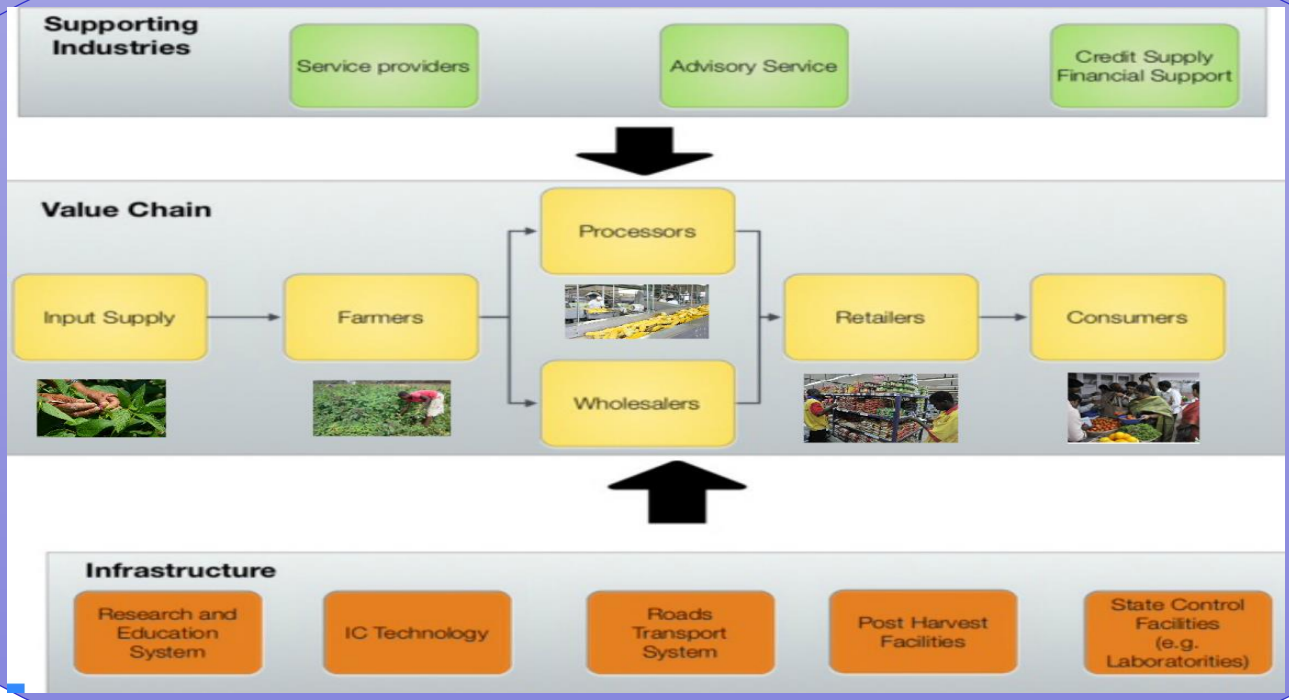
Outlook

Socio-economic & political environment

Innovation/ Transformation



Agroclimatic-ecological environment

Roy Murray-Prior 2009

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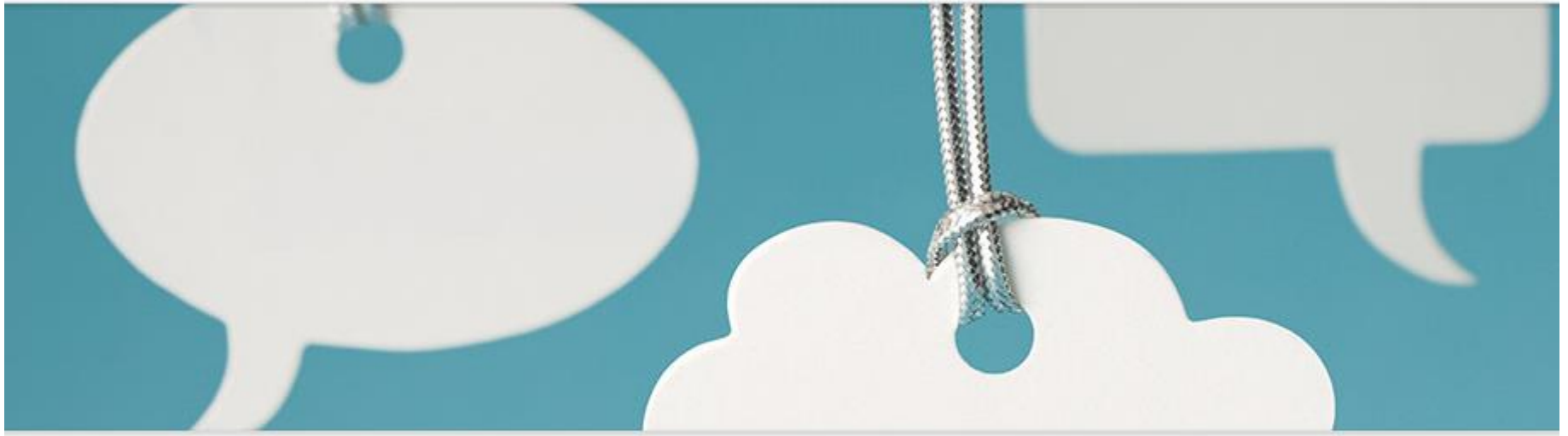
SDGs and Higher Education

EAIE European Association for International Education

Conference Training Resources Blog



28 OCT 2015

From MDGs to SDGs: The role of international higher education

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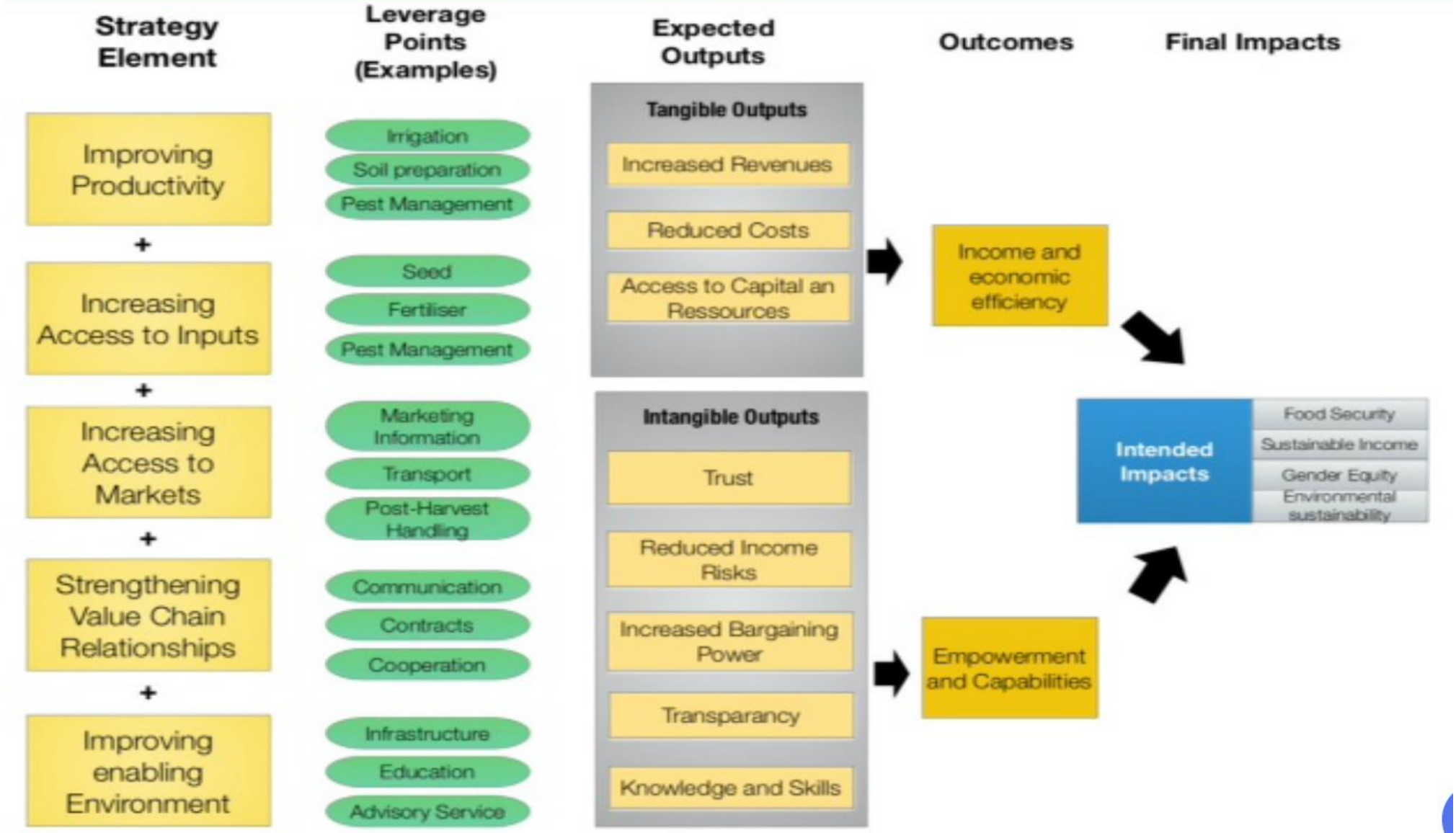
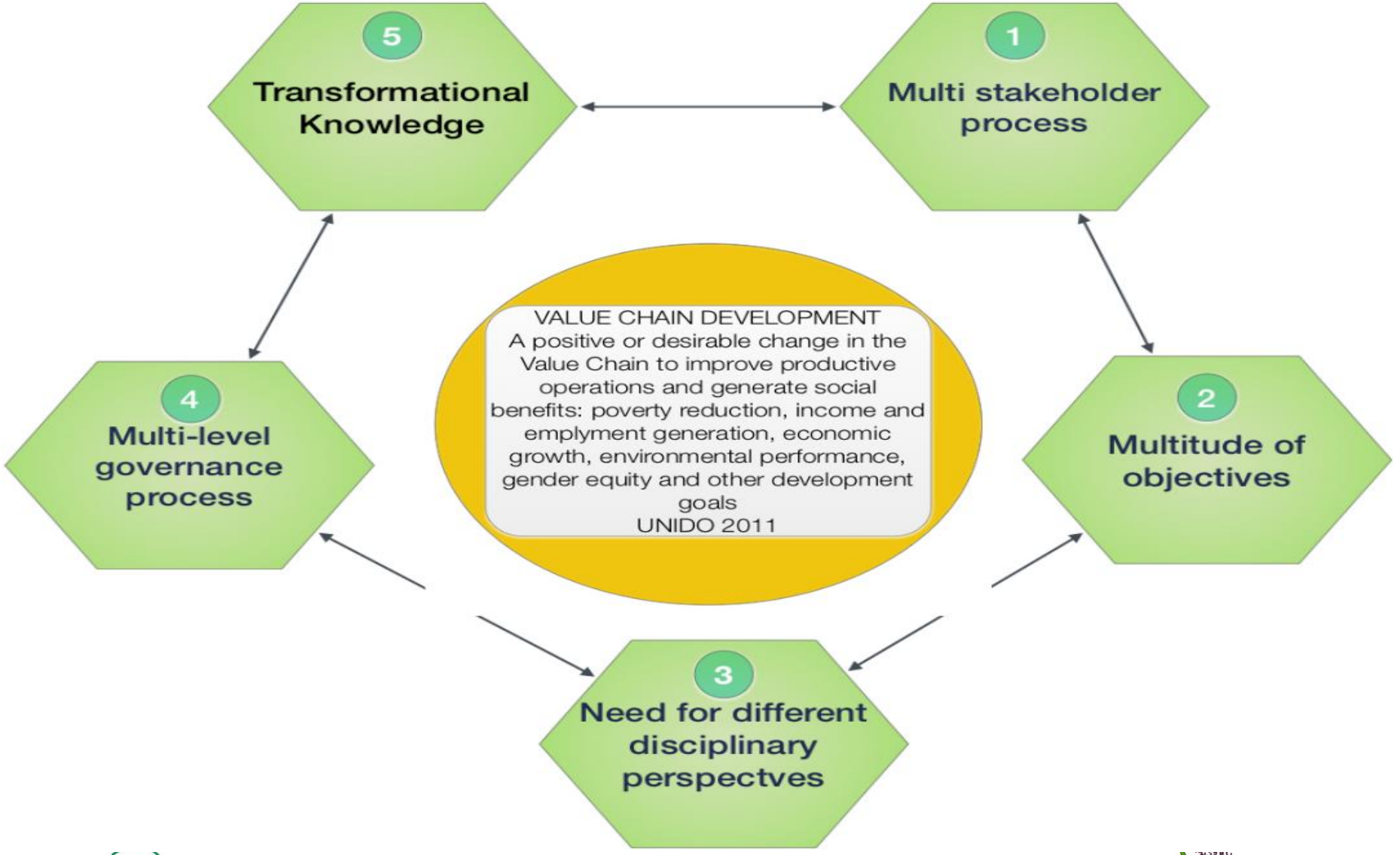
5
Food safetiness
1
Food Security for a growing population
SUSTAINABLE DEVELOPMENT GOALS
4
How to improve the health outcomes of FVC
2
How to adapt to a changing environment
3
How to make food Value Chains more sustainable?

‘Inclusive’ Value Chain Development



ed according to McKague/Siddiquee 2014

Value Chain Development as a Challenge for Higher Education Institutions



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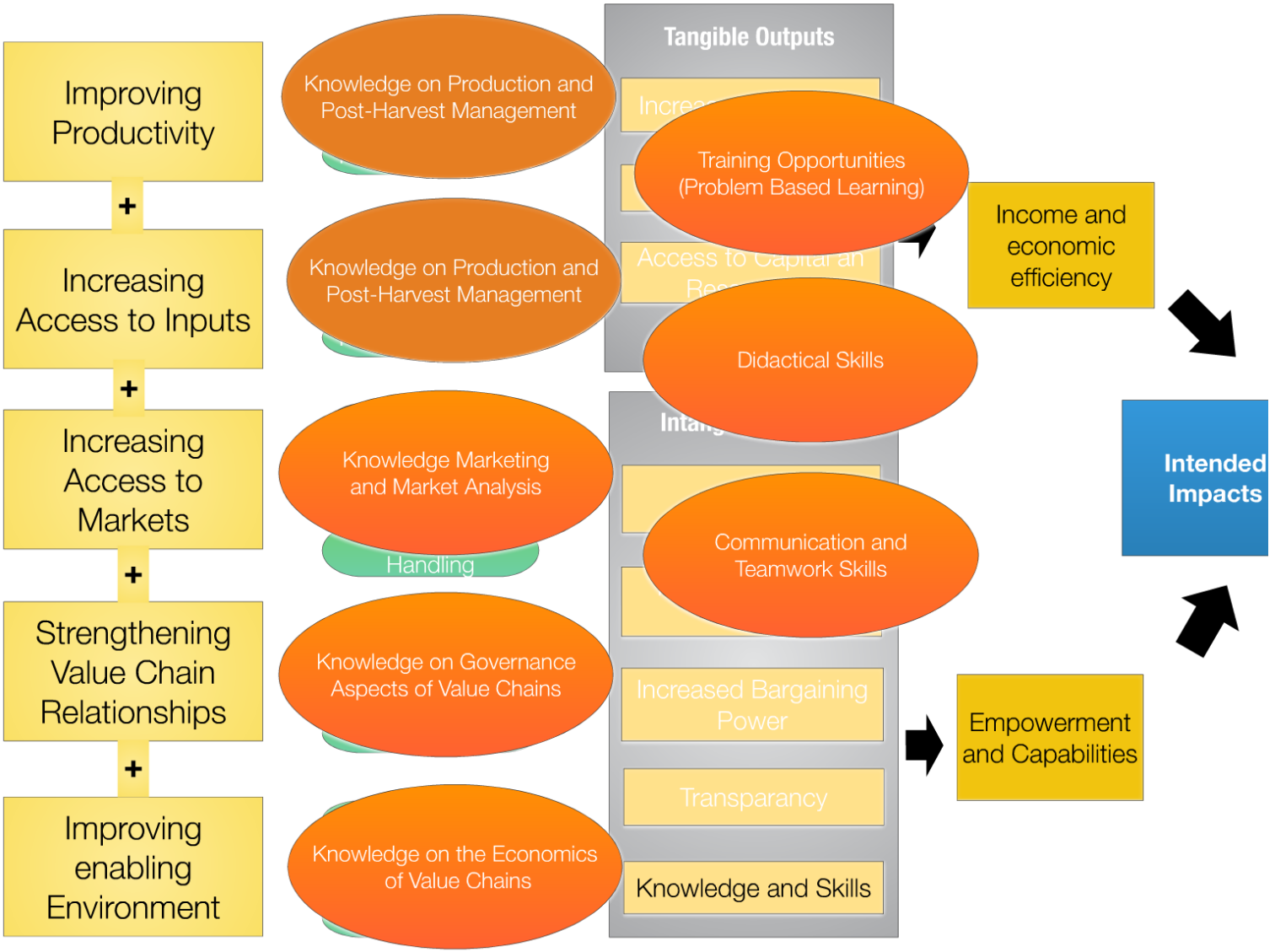
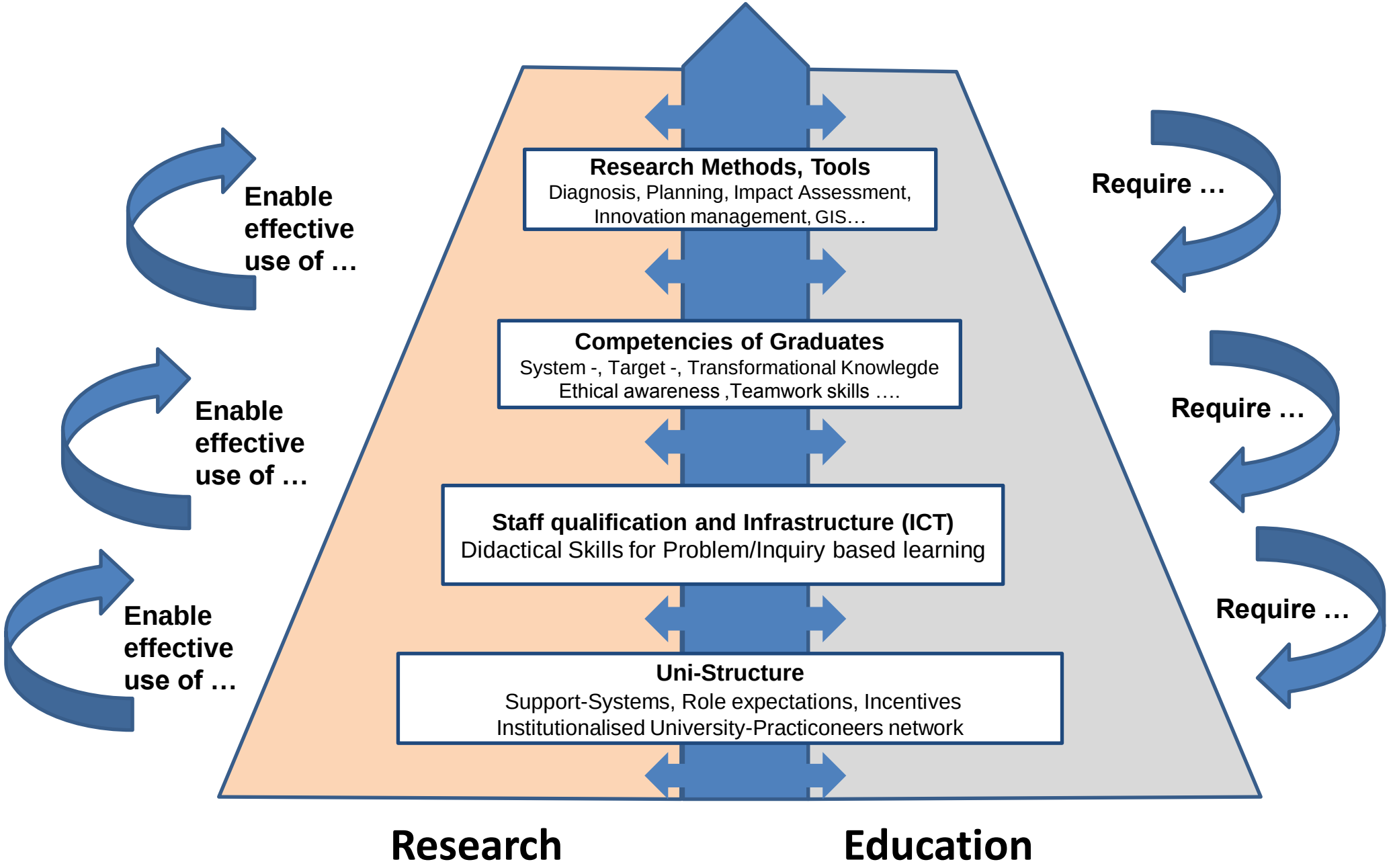

Improving Productivity
+
Increasing Access to Inputs
+
Increasing Access to Markets
+
Strengthening Value Chain Relationships
+
Improving enabling Environment
Knowledge on Production and Post-Harvest Management
Knowledge on Production and Post-Harvest Management
Knowledge Marketing and Market Analysis
Handling
Knowledge on Governance Aspects of Value Chains
Knowledge on the Economics of Value Chains
Tangible Outputs
Training Opportunities (Problem Based Learning)
Didactical Skills
Communication and Teamwork Skills
Increased Bargaining Power
Transparancy
Knowledge and Skills
Income and economic efficiency
Empowerment and Capabilities
Intended Impacts

Partnership to Strengthen the Capacity of HEIs in Kenya, Ethiopia, and Germany



Adapted from POTTER, C. and BROUGH, R. 2004

ValueSeC Project

- ValueSeC project is ACP-EU Co-operation Programme in Higher Education (EDULINK II)
- Four partner universities: Humboldt University of Berlin, University of Nairobi and Karatina university (Kenya) and Haramaya University (Ethiopia)
- Timeline: November 2013 to October, 2016

Overall objectives of the project

- Strengthening the capacity of Higher Educational Institutes (HEIs) in Kenya and Ethiopia to cope with issues of food security, poverty reduction, climate change adaptation in areas of food value chains
- Fostering Inter-institutional linkages, networking and academic partnerships among HEIs within East Africa as well as with European HEIs in a sustainable manner

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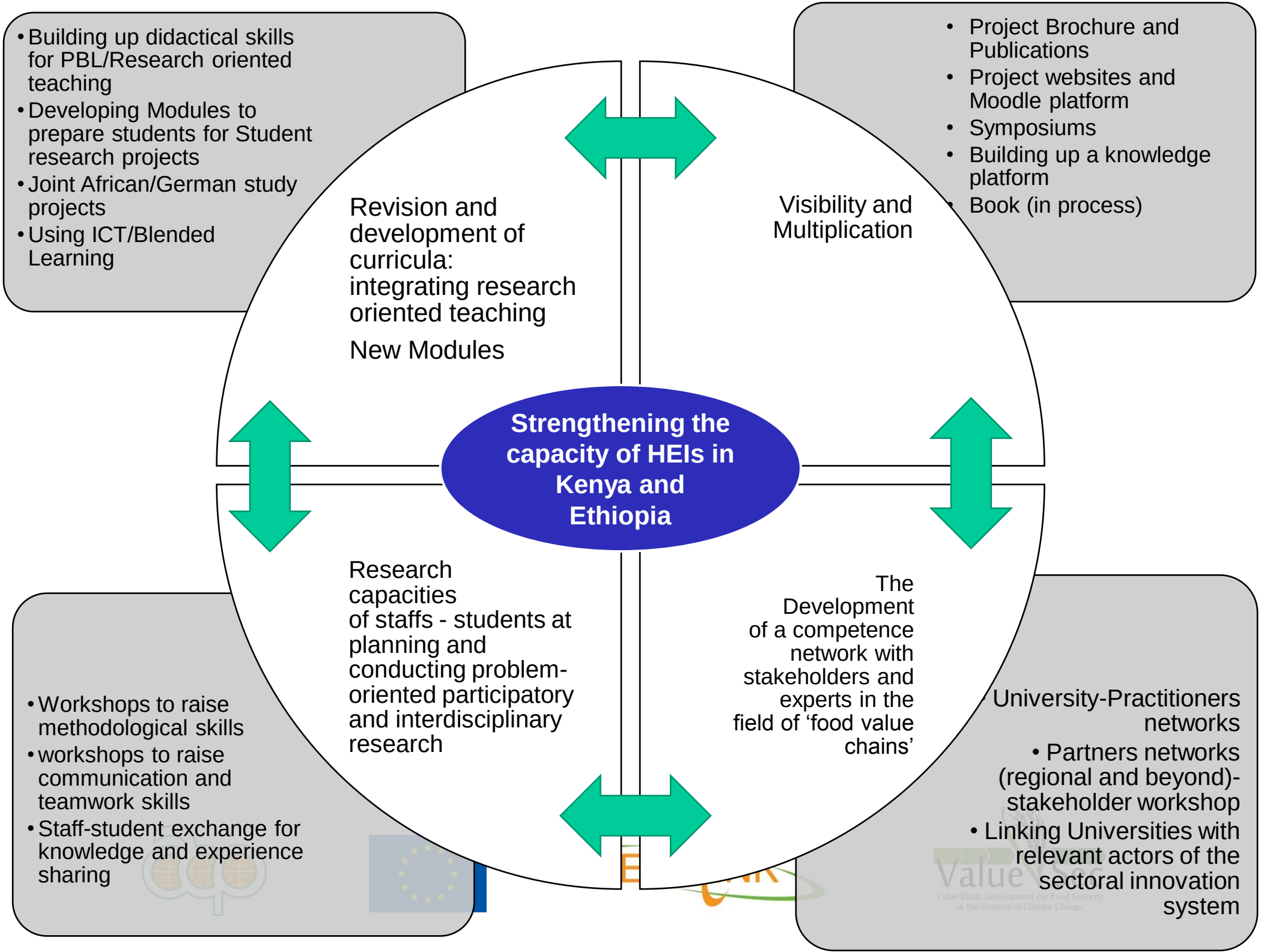
• Building up didactical skills for PBL/Research oriented teaching
• Developing Modules to prepare students for Student research projects
• Joint African/German study projects
• Using ICT/Blended Learning
• Project Brochure and Publications
• Project websites and Moodle platform
• Symposiums
• Building up a knowledge platform
• Book (in process)
Revision and development of curricula: integrating research oriented teaching
New Modules
Visibility and Multiplication
Strengthening the capacity of HEIs in Kenya and Ethiopia
Research capacities of staffs - students at planning and conducting problem-oriented participatory and interdisciplinary research
The Development of a competence network with stakeholders and experts in the field of 'food value chains'
• Workshops to raise methodological skills
• workshops to raise communication and teamwork skills
• Staff-student exchange for knowledge and experience sharing
• University-Practitioners networks
• Partners networks (regional and beyond)-stakeholder workshop
• Linking Universities with relevant actors of the sectoral innovation system




Stakeholder workshop at Haramaya University Ethiopia (September 2014)

Field excursion near Berlin (September 2015)

Study project HUB and Haramaya University (August-September 2015)

Dissemination workshop at University of Nairobi – Kenya (June 2016)

Main Results of the Project so Far (1)

- Academic staff and graduate students have participated in an exchange program and study projects to foster mutual sharing of skills and experience
- Teaching modules have been revised to the needs of market and taught to students at African partner universities
  - One new module developed
- Skills of academic staffs and students have been enhanced through trainings for problem oriented research
- Different case study researches in the field of climate change and value chain are conducted

Main Results of the Project so Far (2)

- A network between partners' universities has been further strengthened not only among themselves but also with respective local stakeholders.
- The Competence Network has been established, institutionalized and is used for joint activities and mutual knowledge transfer
- The project activities, results and outcomes have been communicated to different local stakeholders and international audiences

Challenges/ Open Questions

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Incentives?

Sustainability of such projects and competence network?

Who is responsible for the implementation?

How to integrate disciplinary knowledge?

Involving of relevant disciplines and stakeholders

Changes of curricula?

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Thank you!


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