

The Role of Agricultural Technical and Vocational Education and Training in Developing Countries



**CROSS-CUTTING STUDY:
A REVIEW OF LITERATURE, ISSUES AND
RECOMMENDATIONS FOR ACTION**

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What is ATVET?



Credit: CAADP – Ghana



Credit: TaiwanICDF – St. Kitts and Nevis



Credit: USAID/STAY+ – Afghanistan

What is TVET?



UNESCO (2004):

*Technical and vocational education and training is a comprehensive term referring to those aspects of the educational process involving, **in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life***

What is ATVET?



The study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to agricultural occupations

What is ATVET?



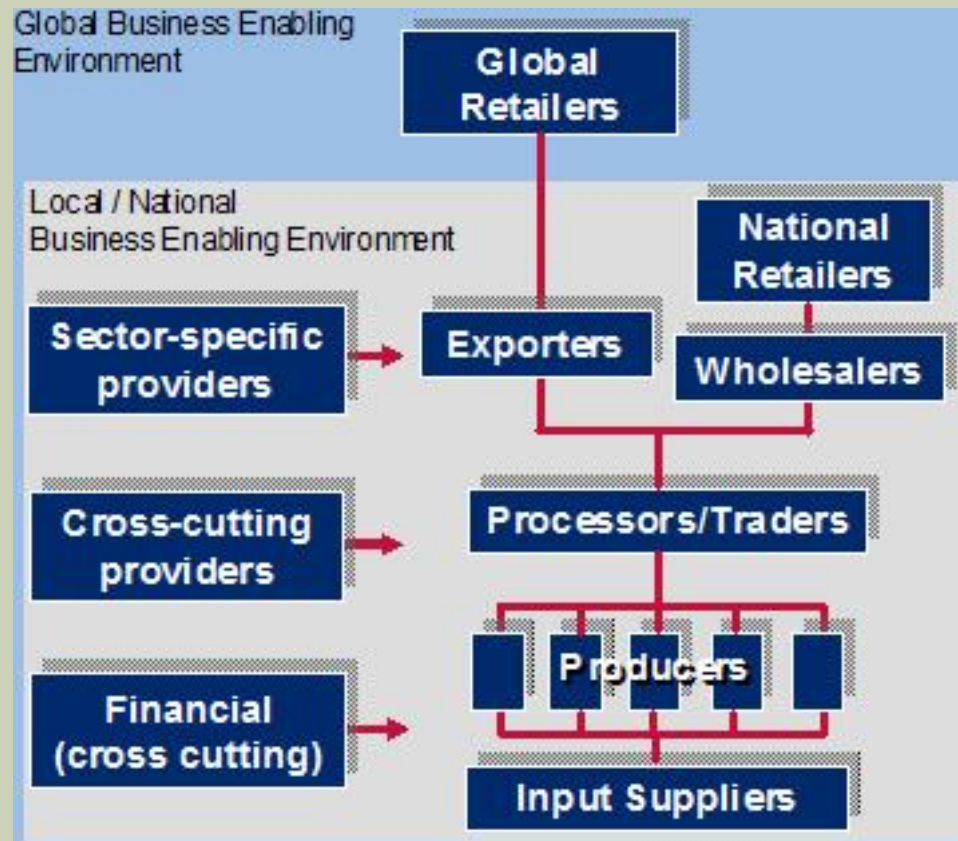
The study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to agricultural occupations

What are agricultural occupations, and what kind of skills and education are related to them?

Value chains define agricultural occupations



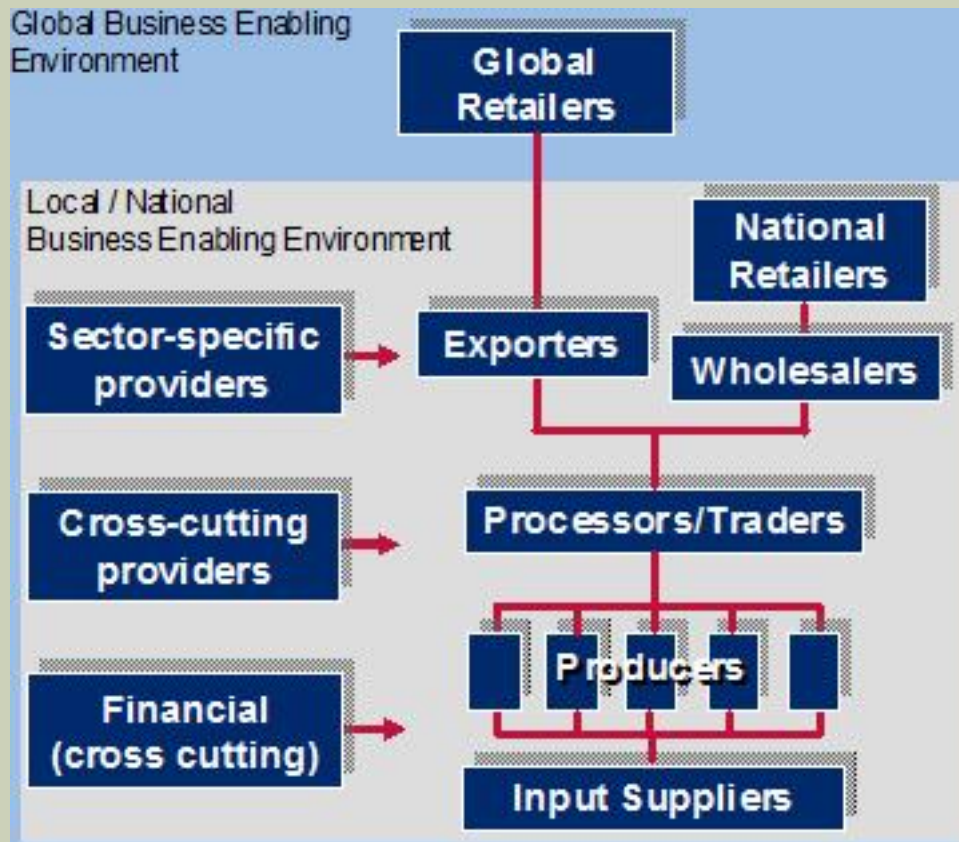
Agricultural value chain



Graphic: USAID

Value chains define agricultural occupations

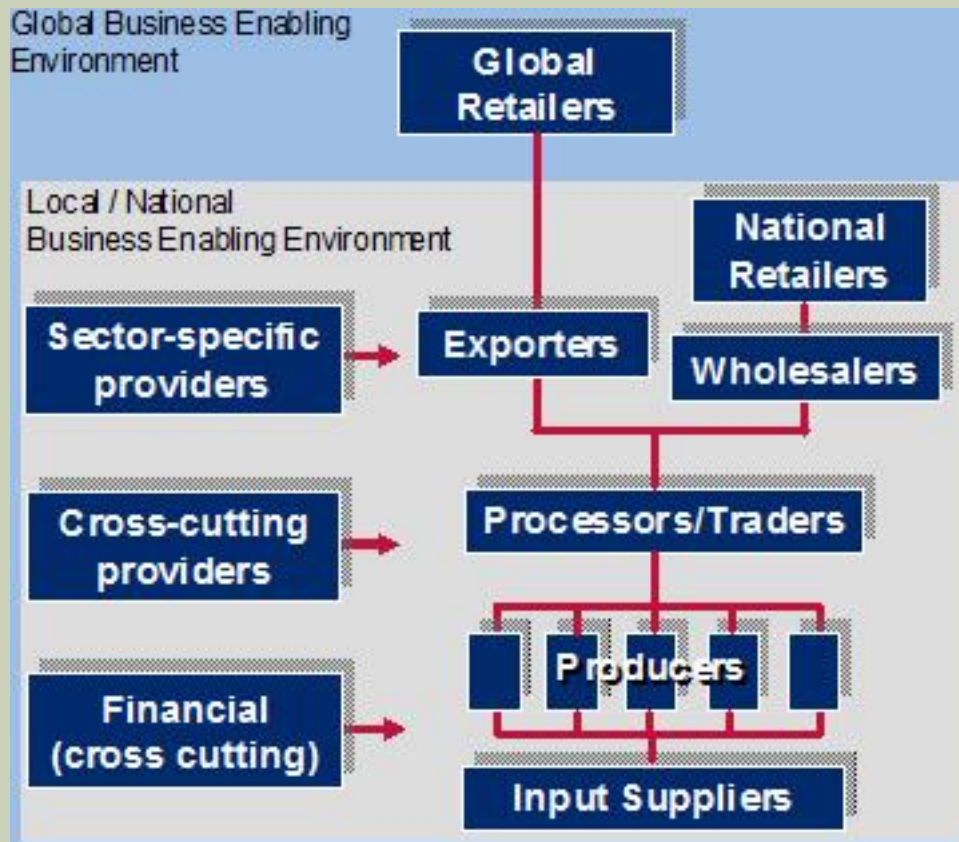
Agricultural value chain



Farmers, fishers,
herders, foresters

Value chains define agricultural occupations

Agricultural value chain

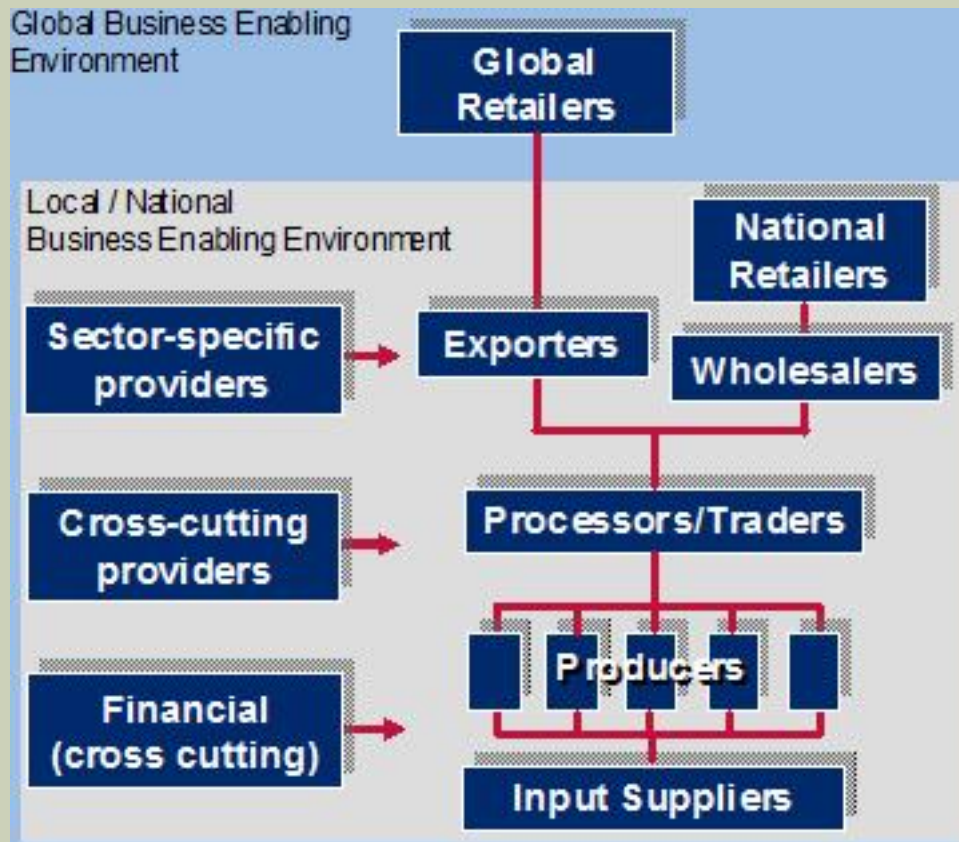


Farmers, fishers,
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Agrodealers, seed
producers,
extension agents

Value chains define agricultural occupations

Agricultural value chain



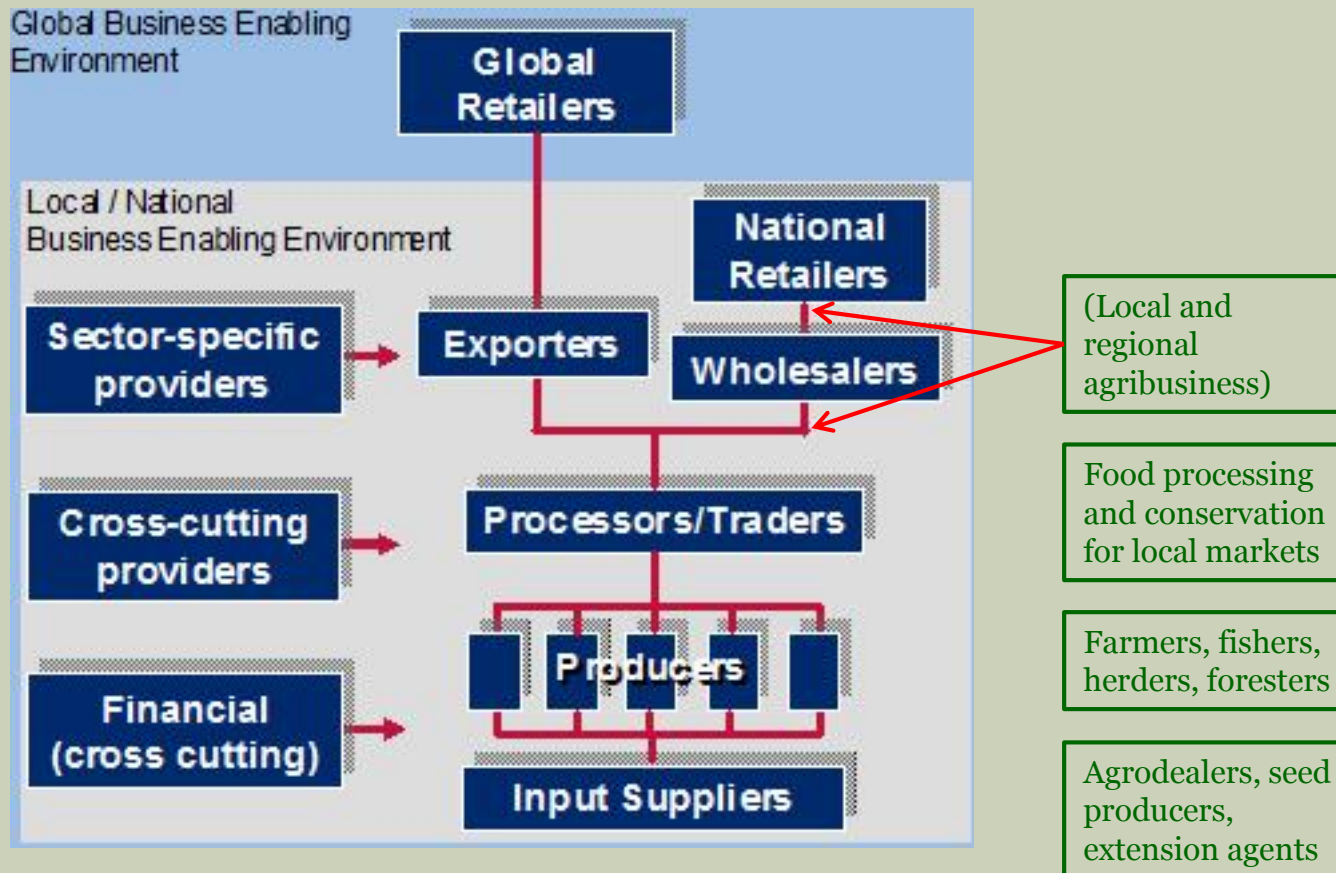
Food processing
and conservation
for local markets

Farmers, fishers,
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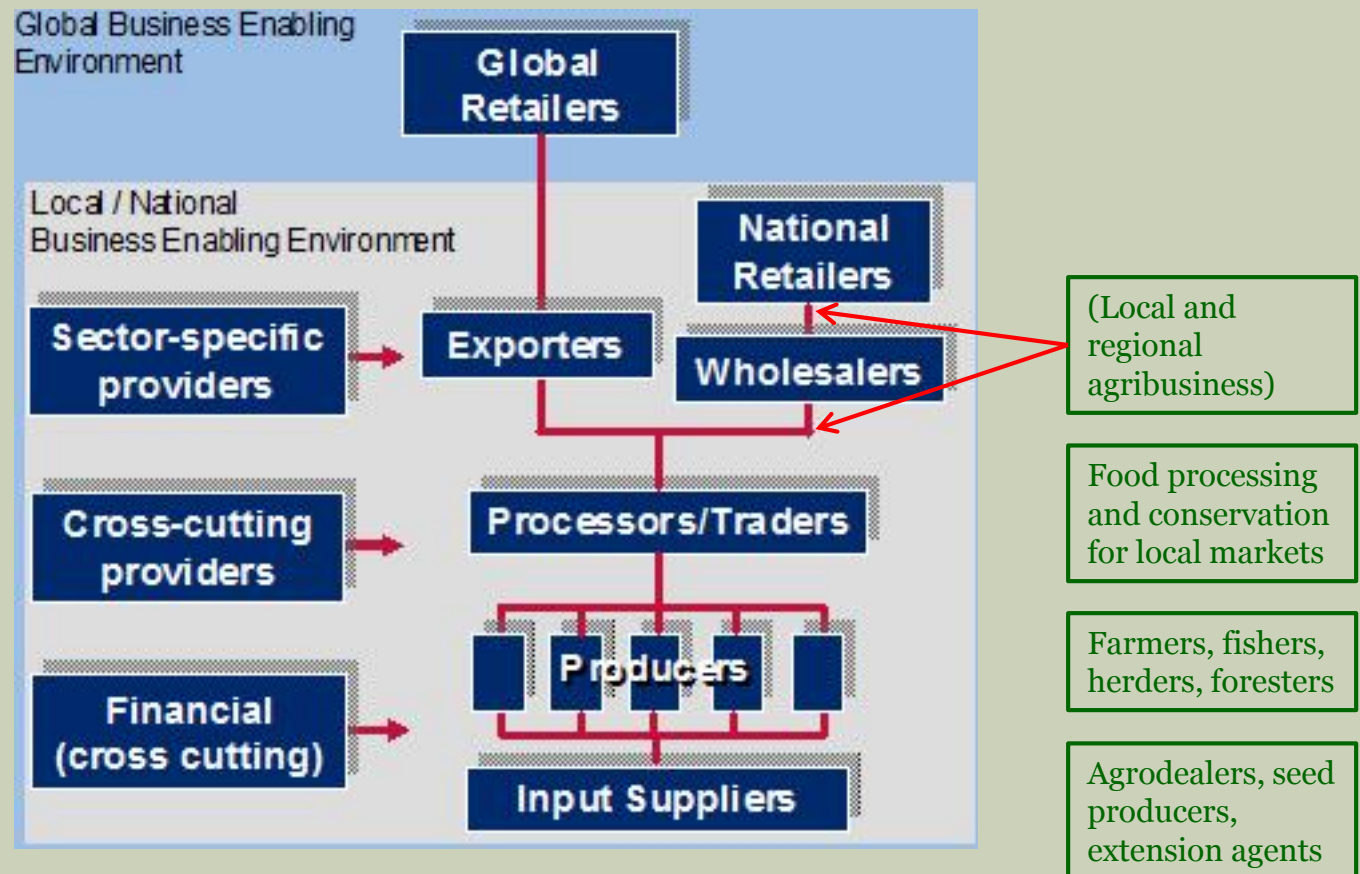
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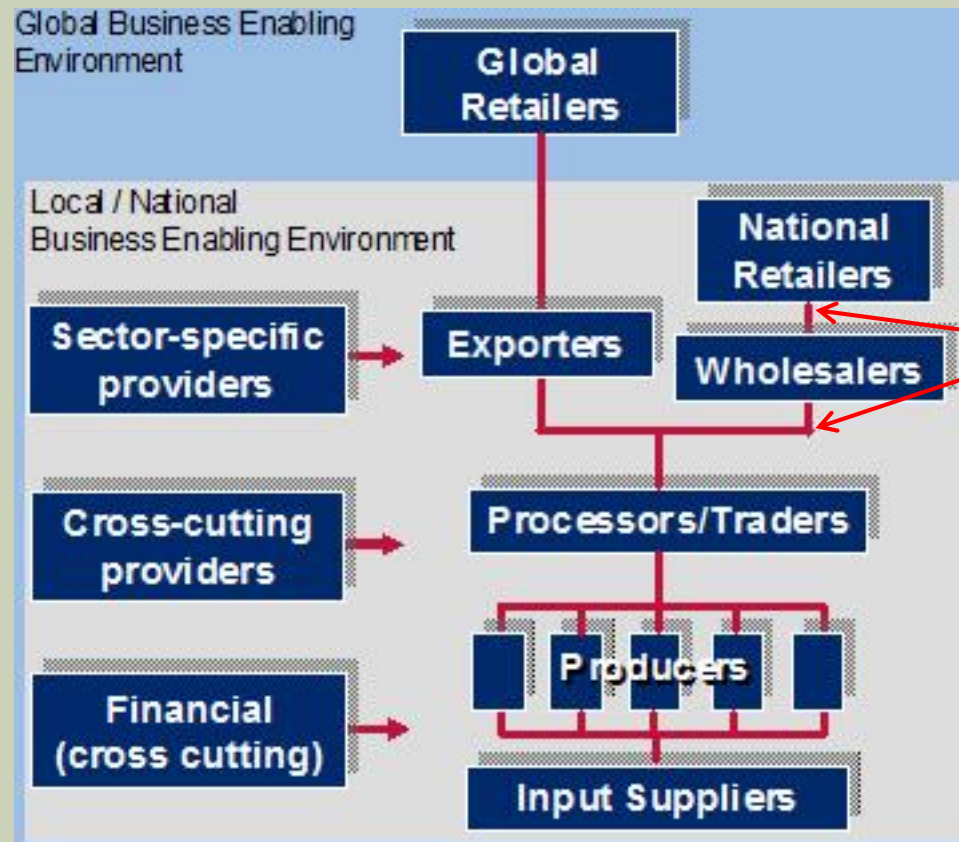
Agricultural value chain



Value chains define agricultural occupations



Agricultural value chain



Farmer unions, producer organizations, mechanics

Agricultural banks, credit unions, private credit and microfinance

(Local and regional agribusiness)

Food processing and conservation for local markets

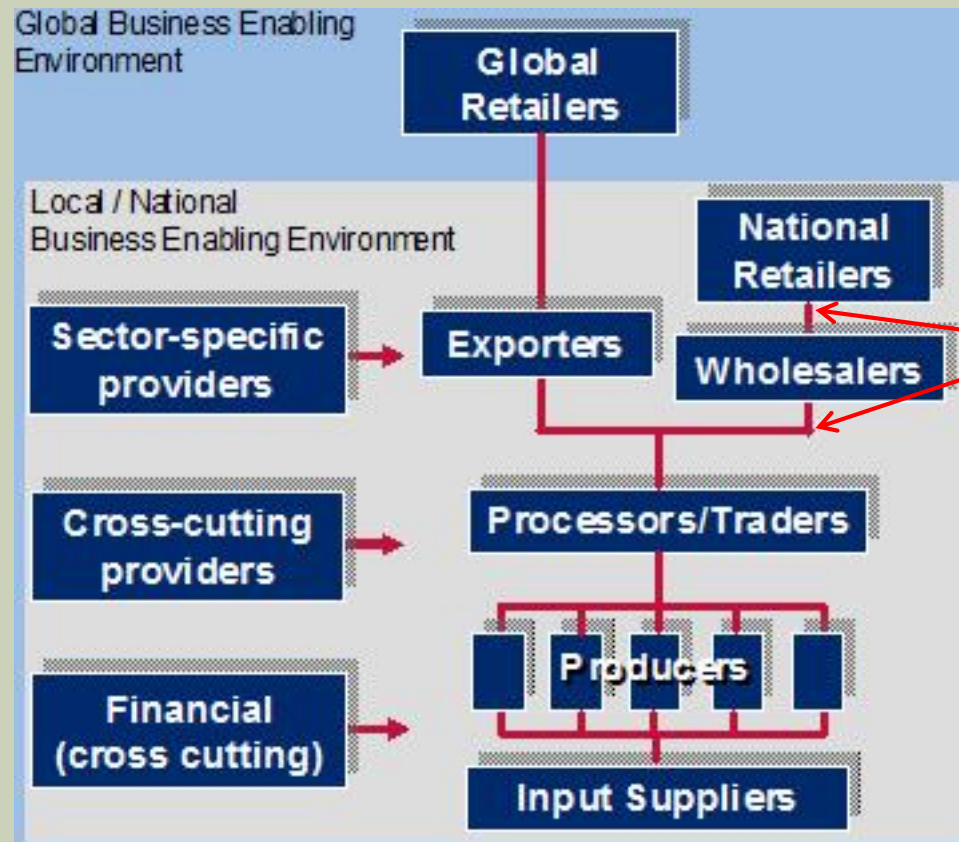
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Agricultural value chain



Third-party certifiers

Farmer unions, producer organizations, mechanics

Agricultural banks, credit unions, private credit and microfinance

(Local and regional agribusiness)

Food processing and conservation for local markets

Farmers, fishers, herders, foresters

Agrodealers, seed producers, extension agents

Occupations define the skills needed



Hard skills

Production techniques

Land, soil, water management

Accurate information about inputs

Certification compliance and assessment

Business planning and management

Occupations define the skills needed



Hard skills

Production techniques

Land, soil, water management

Accurate information about inputs

Certification compliance and assessment

Business planning and management

Soft skills

Leadership

Personal financial planning

Communication

Applications of information technology

Skills define the appropriate level of education



Historically, post-primary vocational education aimed at “the sons of traditional farmers,” whereas post-secondary education was designed to “lead the sons of the middle class into public employment.” (Johanson and Saint 2007: 13)

In the future, “farmers, fishers, foresters and miners will require at least fourteen years of education” in order to run computer-operated machinery and perform technical tasks. (UNESCO, 2006a: 11)

ATVET & agricultural workforce development



SWOT analysis of the contributions of ATVET to agricultural workforce development

Strengths	Weaknesses
<ul style="list-style-type: none">• Relative cost• Responsiveness to demand• Provision of relevant skills• Accessibility to diverse populations• Experiential learning• Incorporation of sustainability	<ul style="list-style-type: none">• Lack of continuity with TVET systems• Overly narrow and technical focus• Marginalization of diverse groups• Irrelevant or inaccessible training
Opportunities	Threats
<ul style="list-style-type: none">• Value chains create new types of jobs• Increased integration of educational levels• Emphasis on rural livelihoods• Emphasis on agricultural entrepreneurship	<ul style="list-style-type: none">• Lack of institutional support• Changing education priorities• Outdated pedagogy• Out-migration from agriculture• Stigma of vocational education

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Examples of recent ATVET projects



Organization	Country	Occupation	Skills	Educational level
USAID	Mozambique	Production	Junior Farmer Field Life Schools	Non-formal
IPA	Uganda		Cash transfers to youth to pay vocational training fees	
AfDB World Bank	Ethiopia	Education	Extension/Development Agent in: Animal Science Animal Health Agricultural Cooperatives Natural Resources Plant Science	Secondary
USAID	Egypt	Education	Curriculum development that fits within a value chain approach	Post-secondary
IFAD	Bangladesh Madagascar Rwanda	Production Business	Livestock rearing Fish hatcheries Microenterprise	Secondary
Land O'Lakes	East Timor	Business Management	Agribusiness Farm management	Post-secondary
IFAD	Mongolia	Transport Machinery	Driving Welding	

ATVET in Kyrgyzstan: An example



Agricultural and Rural Vocational Education Project (Helvetas and partners)

Table 3: List of modules developed in 2011:

Modules developed in 2011	Number of elements	Number of pages
Goose keeping	7	137
Turkey keeping	6	88
Chicken keeping	7	134
Horse keeping	8	150
Haricot growing	7	114
Bee keeping	8	168
Duck keeping	7	115
Stove/furnace construction	9	148
Setting up a hot house	7	96
Agricultural produces storage	6	99
Organization of plumbing works in rural house	8	120
Carpenter's work	9	95
Welding works in domestic conditions	10	105
Storehouse to store fruits and vegetables	6	101
Total:	105	1670

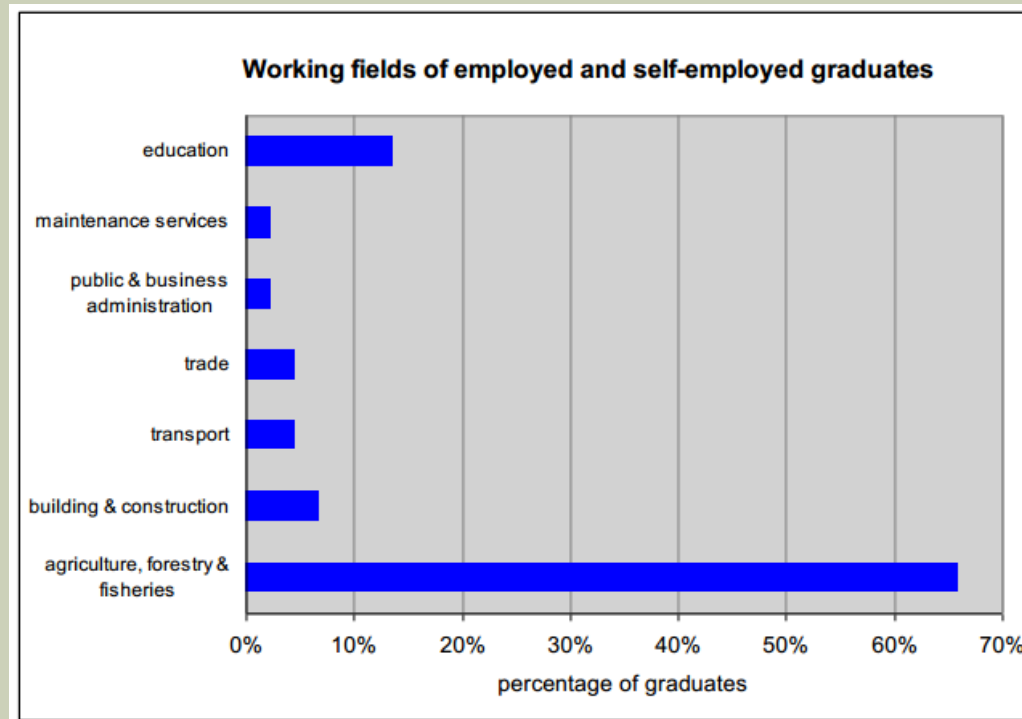
Source: Helvetas 2011 Annual Report

ATVET in Kyrgyzstan: An example



Agricultural and Rural Vocational Education Project

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ATVET in Kyrgyzstan: An example



Training and Extension System rural advisory services

(GIZ, Osh University, USAID, UNDP)



Source: tes-centre.org

InnovATE and ATVET



Place-based labor market analysis

What are agricultural occupations?

What skills are necessary for these occupations?

What level of education is appropriate for these skills?

InnovATE and ATVET



Place-based labor market analysis

What are agricultural occupations?

What skills are necessary for these occupations?

What level of education is appropriate for these skills?

Capacity building

Institutional

Pedagogical

Creating linkages – extension, universities,
private sector

Questions?



Credit: CAADP – Ghana



Credit: TaiwanICDF – St. Kitts and Nevis



Credit: USAID/STAY+ – Afghanistan