

Sudan Catholic University Faculty of Agriculture



Programs and Strategies to Meet Higher
Education Needs in Agricultural
Economics and Related Subjects



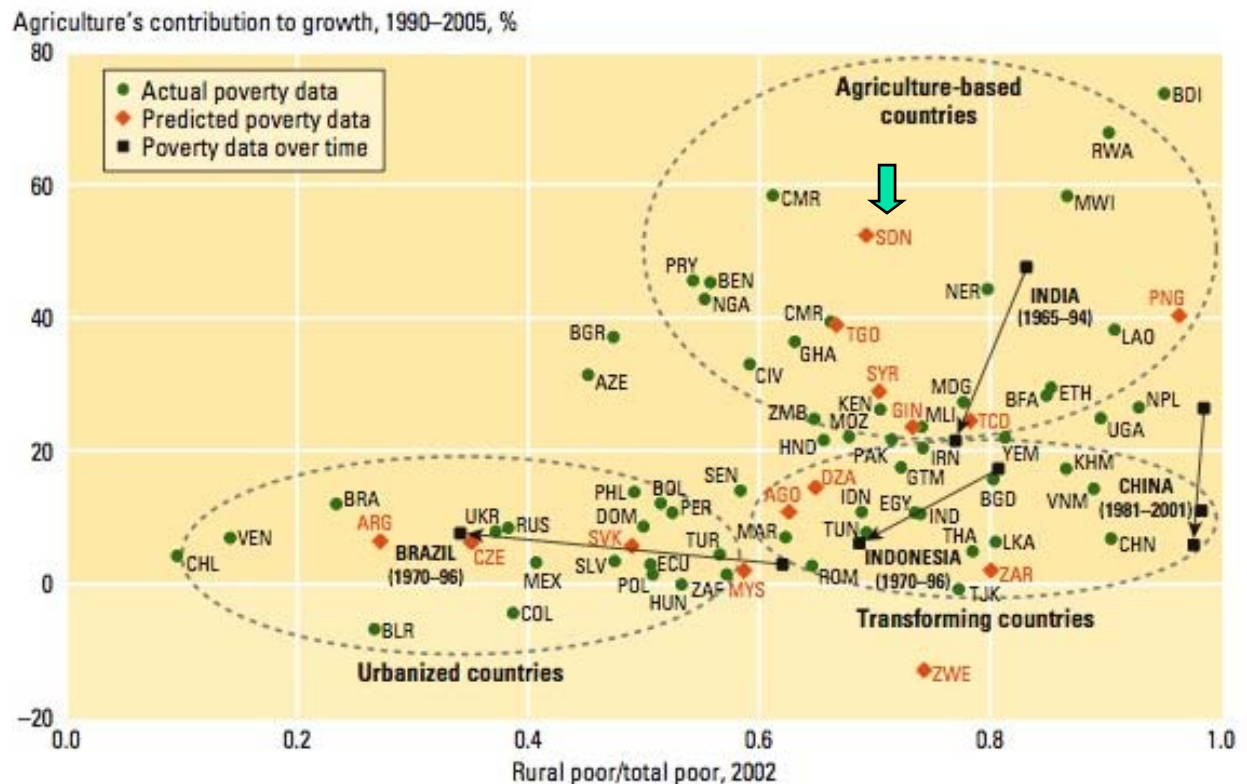
Introduction

- Purpose of this presentation:
 - Facilitate discussion of the part to be played by agricultural economics subjects and how best to plan for it.
- Material drawn on:
 - A review of objectives and courses related to ag econ in other universities, in Africa and also Central America.

Sudan stands out in the importance of its ag sector.

In Sudan (SDN) most of the poor are rural, and growth in agriculture, not some other sector, will do most to reduce overall poverty.

Figure 2 Agriculture's contribution to growth and the rural share in poverty distinguish three types of countries: agriculture based, transforming, and urbanized

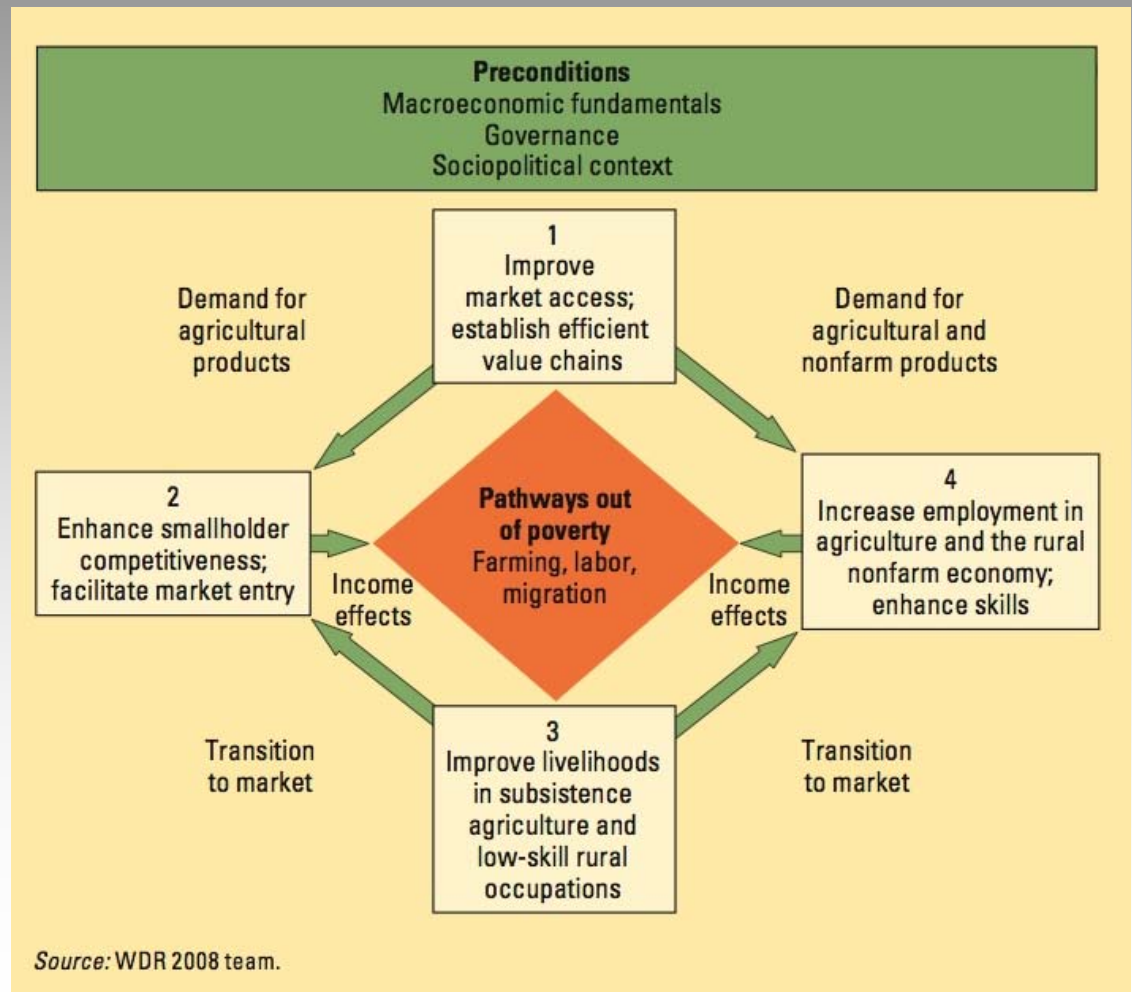


Source: WDR 2008 team.

Note: Arrows show paths for Brazil, China, India, and Indonesia. The list of 3-letter codes and the countries they represent can be found on page xviii.

Economic and business factors play a central role in poverty reduction.

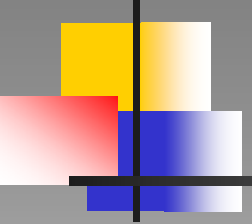
Improving subsistence ag and access to markets contribute to smallholder competitiveness and increased rural employment.





Several questions suggested for consideration

1. What should the Faculty's overall objective or vision be?
2. What level(s) of certification should it offer?
3. What place should agricultural economics subjects have in the Faculty curriculum?
4. What should the curricula be for the specialized ag production and ag econ related degrees?
5. How is relevance best ensured?



What might the overall objective or vision be?

Haramaya University

- The mission of the College of Agriculture is to produce **highly qualified agricultural professionals** through rigorous theoretical and practical **education** and to develop and **disseminate** problem solving agricultural production technologies through conducting demand-driven **research** in Ethiopia.

(An emphasis on quality. Land grant universities in the US have similar a similar 3 part objective.)



There are variations on this theme.

Bunda College, Malawi

- Our Mission is to advance and promote knowledge, skills, **self-reliance and sound character** for:
 - **sustainable food production** and utilization
 - **improving income, food security and nutrition**; and
 - **conservation and management of biodiversity**, the environment and natural resources
 - through the provision of information services, **teaching** and training, **research**, **outreach**, consultancy and sound management in response to national needs.

(The same 3 part objective, with an emphasis on development.)



A further variation at CUofS

Catholic University of Sudan

- The objectives of the Faculty of Agricultural and Environmental Sciences are twofold:
 - To provide students with **an appreciation of rural communities and their relationship to the environment** in meeting their basic needs and improving their livelihoods.
 - To equip students with the **skills** needed to improve agricultural productivity and the development of rural communities.

(Research and outreach not there, but appreciation of the ag sector is emphasized.)



What level of certification should be offered?

- A hierarchy of possibilities: Diploma, B.Sc., postgraduate degrees.
 - Some universities offer all three.
 - Sharing courses at diploma and B.Sc. levels difficult where diploma students arrive with lower level qualifications (e.g. GCSE versus A levels).
(Not an issue at CUofS.)

- Present vision at CUofS: B.Sc.

- However, diplomas can always be issued at completion of each year's work.

(A proposition: the greater the program's practical content, the more valuable an intermediate diploma will be.)



What place should agricultural economics subjects have in the curriculum?

CUofS – current plan

- A general degree.
 - Most courses in the early years agricultural (e.g. soil science, crop science, animal nutrition) plus basic economic theory.
 - Over 4th and 5th year courses related to ag econ or business (farm management, marketing and international trade), also rural sociology and law.



Economic courses for specialists in agricultural sciences

Haramaya University

- One agricultural economics course:
 - Farm Management

University of Development Studies, Ghana

- Three courses:
 - Introduction to Agricultural Economics
 - Farm Management, Records & Accounting
 - Introduction to Agricultural Marketing

(In both cases the economics courses are applied, not theory)

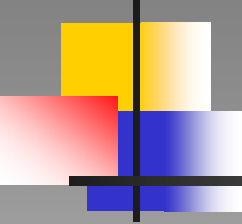


Specialized degrees in ag economics areas

- None so far at CUofS.

Typical offerings at undergraduate level in other African (and US) universities:

- Agricultural economics
- Agribusiness
- Natural resource economics
- Agricultural economics and extension



It may help to lay out what is expected of B.Sc. graduates

- Egerton - B.Sc. Agricultural Economics graduates should be able to:
 1. Analyze and explain ag policy and carry out effective extension work.
 2. Plan/administer in private and public sectors.
 3. Plan projects, formulate policy.
 4. Teach econ, conduct research in ag institutions.
 5. Direct and implement ag development programs.
 6. Run own farms, agribusinesses, consultancies.
 7. Pursue graduate studies in ag economics.



Expectations (continued)

- Egerton - Bachelor of Agribusiness Management (BAM) graduates should be able to:
 1. Analyze farm and market situations to solve day-to-day and long-term problems in the agribusiness sector.
 2. Run their own individual firms and agribusiness enterprises including consulting.
 3. Direct and implement business oriented agricultural programs and projects.



What should the curricula be for the specialized ag econ related degrees?

- Universal approach: provide core courses plus options in areas of specialization.

Core courses

- Mathematics for economists
- Statistics for economists
- Microeconomics
- Economic development



Examples of typical ag econ related options

Ag Econ	Agribusiness
<ul style="list-style-type: none">■ Econometrics■ Operations research■ Ag policy■ International trade	<ul style="list-style-type: none">■ Marketing■ Accounting■ Rural finance■ Business law



Examples of typical ag econ related options

Natural Resource Economics	Ag Econ & Extension
<ul style="list-style-type: none">■ Resource economics■ The environment & sustainable ag■ Economics of tourism	<ul style="list-style-type: none">■ Rural sociology■ Extension communication & methods■ Extension program devel & evaluation

These courses are so commonly offered because they have been found to provide useful training.

However, they are generally class-room bound.



How is relevance best ensured?

- Questions regarding relevance:
 - How are course content and the skills learned by students directed to where needs of the ag sector and employers are greatest?
 - Which among alternative areas are the highest priority?



An approach to relevance: adding involvement in real enterprises

- EARTH University (www.earth.ac.cr), Costa Rica. Makerere University link (<http://agric.mak.ac.ug/information.php?content=EARTH>).
- Zamorano, Honduras.

Both combine:

- Academic training in ag sciences and economic and business courses

with

- Practical work running farm and business projects.

- Single program:
 - Emphasizes ag sciences and sustainability
 - Practical work on the university's farm
 - Student entrepreneurial projects, involving start-up, implementation and evaluation



Zamorano (www.zamorano.edu)

- Four programs:
 - Agribusiness Management
 - Food Agroindustry
 - Agricultural Science and Production
 - Socioeconomic Development and Environment
- All students work in Zamorano's enterprises
 - Ag production (3 enterprises)
 - Livestock production (4 enterprises)
 - Processing (5 enterprises)
 - Marketing unit



Examples of specific enterprises relevant to Southern Sudan

<ul style="list-style-type: none">■ Vegetables■ Rice■ Certified Seed■ Nuts	<ul style="list-style-type: none">■ Cattle■ Small ruminant■ Dairy■ Poultry
<ul style="list-style-type: none">■ Animal feed■ Yoghurt■ Fruit juice	<ul style="list-style-type: none">■ Marketing outputs■ Input supply (seeds, organic pesticides)

These are not simply practical activities financed by the university, like labs, but actual businesses run to make a positive net return.



Possible further steps to ensure relevance

- Needs assessments through interviews of gvt agencies, NGOs and private firms.
- Senior theses on local topics and case studies, including market research.
- Attachments with local farms, gvt., NGOs, and businesses - before student's last semester so he/she can bring experience back to the CuofS.
- A Faculty Advisory Board of government, private and NGO representatives.



These are consistent with three of the lessons Zamorano learned*

- Look at the institution from an outsiders' point of view.
- Interaction with university clients facilitates constructive evolution of university programs.
- Look always to respect and reinforce the university's fundamental objectives.

* 3 of 7 central hypotheses or lessons, paraphrased from Keith L. Andrews. "The deep change process at Zamorano: 1997-2002. A Case Study"



Final thoughts

- In ag econ & agribusiness most universities offer similar courses - they have been found to provide what students need.
- Laying out expectations of graduates may help in curriculum development.
- For-profit enterprises run by academic departments are increasingly important. They:
 - educate students (and faculty!)
 - improve university finances.

Ag econ and agribusiness students and faculty would benefit from sharing responsibility for such enterprises.