

AGRICULTURAL EDUCATION AND TRAINING (AET)

BUILDING SKILLS TO SUPPORT INNOVATION

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MODULE 2 of the AIS Sourcebook*

Agricultural Education And Training To
Support Agricultural Innovation Systems

*www.worldbank.org/ard/ais

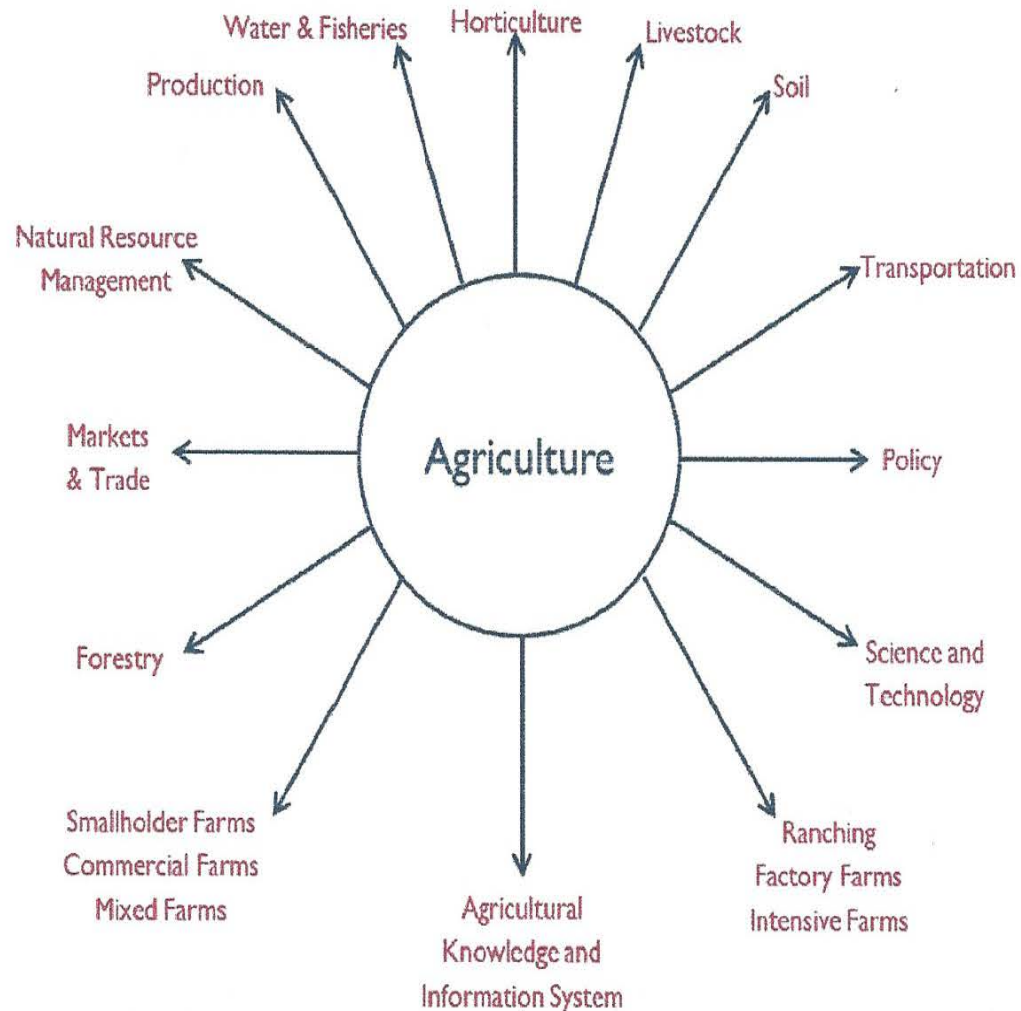
MODULE CONTENTS

- The agricultural education and training system in perspective
- The AET system described
- Thematic notes
 - Reforming AET systems: higher agricultural education; curriculum change; technician education and training; in-service training/learning
- Innovative activity profiles

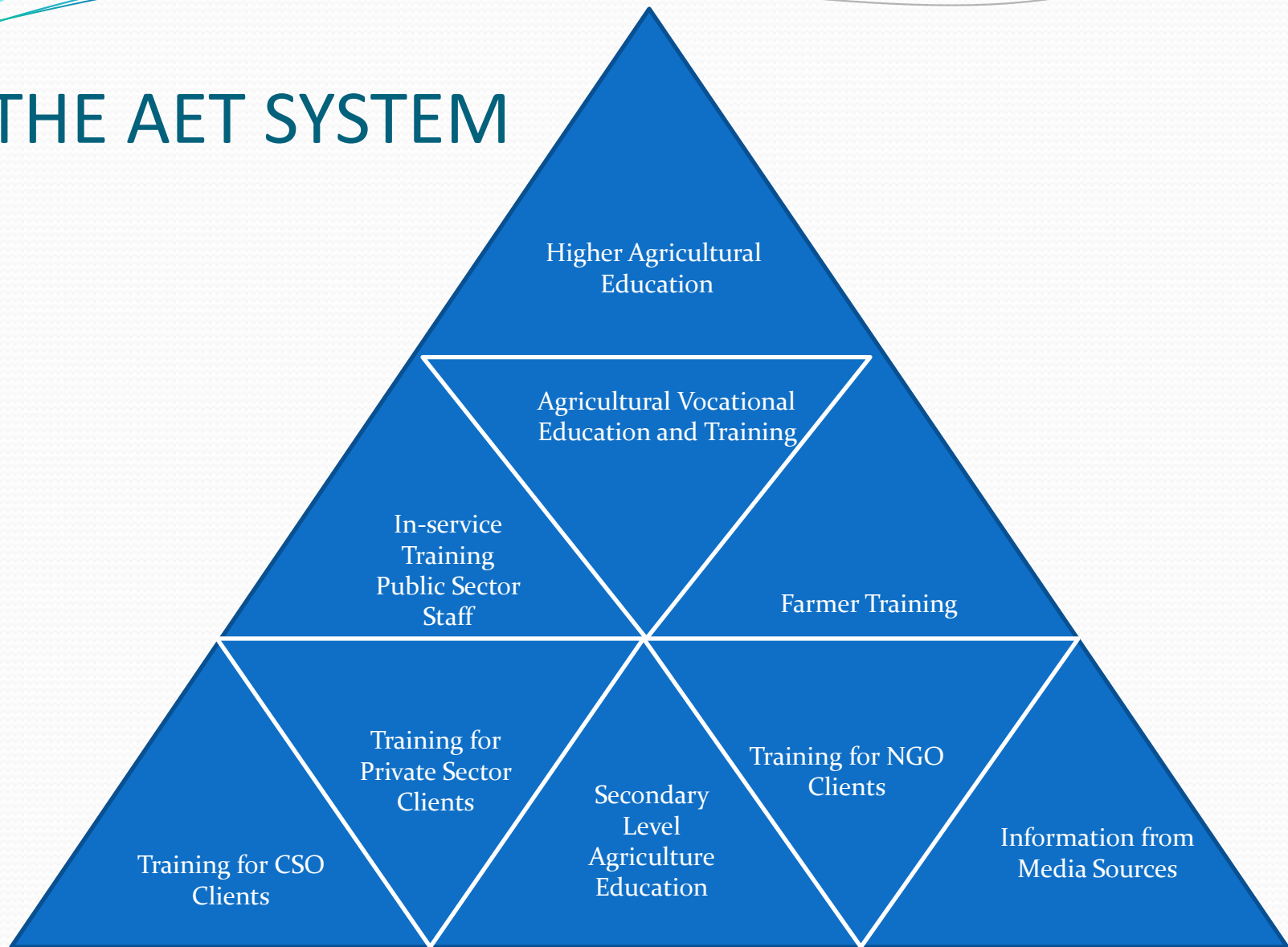
THIS PRESENTATION

- Knowledge and the agricultural sector
- The AET system
- What stakeholders want from AET
- The skills that underpin agricultural innovation systems
- Can AET deliver AIS skills today?
- What changes are critical for AET as an AIS partner?

The Agriculture Sector



THE AET SYSTEM



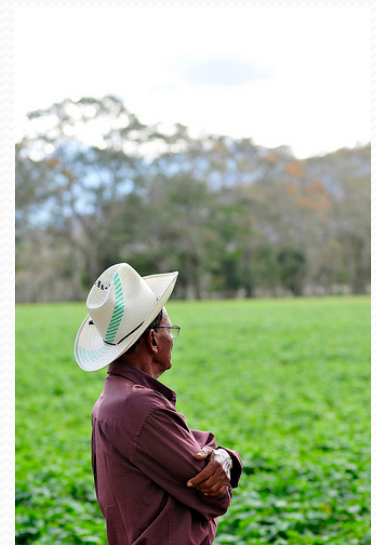
MODERN AGRICULTURE REQUIRES NEW AND UPDATED SKILLS

- Production agriculture has given way to a complex value chain that spans field to table
- Employers require new skills from employees and AET
- Updated technical skills now supplemented by life skills or soft skills



WHAT DOES AGRICULTURE EXPECT FROM ITS HUMAN RESOURCES?

- Critical thinking
- Problem solving skills
- Decision making skills
- Effective communication
- Teamwork skills
- Sound technical knowledge and skills



Egypt agricultural education project

USAID 2007;

Pic by Neil Palmer (CIAT)

SKILLS FOR INNOVATION

- Basic (RRR)
- Digital literacy
- Academic
- Technical
- Generic: problem solving, critical thinking, managing complexity, ability to learn
- Soft: working in teams, motivation, leadership, team-building, coaching, mentoring, negotiating, coordinating

WHAT SKILL CAPACITY DOES THE AIS REQUIRE?

The capacity:

- To assess challenges and identify opportunities for innovation
- To develop innovation policy
- To work in partnerships
- To access the resources –human, social and capital – needed for innovating, learning and sharing information



**ARE AET SYSTEMS PROVIDING
NEEDED SKILLS FOR THE AIS?**

GENERALLY NO

BUT ALL SYSTEMS ARE NOT THE SAME

WHAT MAKES AET SYSTEMS WEAK?

- Governance
- Little autonomy
- Academic isolation
- Low level of investment
- Outdated or inappropriate pedagogy
- Links to stakeholders
- Curricula out-dated
- Lack of practical work



WHAT CAN BE DONE?

- AET policy
- Better governance
- Stakeholder links
- Curriculum change
- Addition of life-long learning, life skills, and soft skills
- Better internal links to other faculties



BE REALISITIC ABOUT CHANGE

PROVISION OF SKILL MIXES FOR THE NEW
AGRICULTURE AND THE AIS IS AN
ORGANIZATONAL CHALLENGE

Choose AET change areas where there is solid
support for reforms

AIS SKILLS: THREE DEMANDS

- Demand the best technological curricula
- Demand life skills/soft skills
- Demand opportunities to obtain life-long learning

How well can AET meet these challenging demands?

HOW CAN AET INCORPORATE THE NEW SKILLS IN ITS PROGRAMS?

- Agriculture programs cover a wide range of subject matter
- How can space be created to insert the new skills for agriculture and the AIS?
- Does AET remove or shorten subjects?
- Lengthen the curricula?

WHO TEACHES THE NEW SKILLS?

- Unlikely to be agriculture faculty
- Team teach with other academics from the institution?
- Import specialists as needed for lectures/ seminars ?
- Use distance learning?
- Transport students to another institution?
- On-the -job experience in attachments?

CRITICAL CHALLENGES TO AET

- Speed up reforms
- Find ways to include soft skills in the curriculum
- Develop capacity to deliver life-long learning

CHANGE CAN TAKE PLACE

- Module 2 of the AIS Sourcebook offers examples of successful AET change
- We will hear about a range of successful change initiatives from those who have been part of the process
- There is renewed interest in AET in Africa and in other parts of the world

AET AND INNOVATION

AET is a catalyst for agricultural innovation

AET must innovate in order to be an important contributor to the AIS