From training to learning - Rethinking agricultural education

For an innovation system to be effective, the capacity of its diverse actors must be built and strengthened. Strong technical skills must be complemented with functional expertise, because the new ways of working within an AIS require a range of skills like scientific, technical, managerial, and entrepreneurial skills as well as skills and routines related to partnering, negotiating, building consensus, and learning. Employers increasingly demand these skills, which foster active participation in the AIS. While such skills can be built in many ways, agricultural education and training (AET) institutions are especially significant in an AIS because AET has a major role as a creator of capacity and supplier of the human resources that populate key segments of the AIS and enable that system to function more effectively. Past neglect and low levels of investment have prevented many national AET systems from equipping graduates to meet the needs of modern agriculture and contribute to the AIS.

This section examines the new skills the graduates need, the role of AET organizations, and the overall short, medium and long-term investments and approaches needed to build a cadre of professionals capable of functioning in AIS. Serious constraints to quality education and training include weaknesses in policies that guide AET, the divided responsibilities for parts of the AET system, poor governance of AET institutions, continuing isolation of AET systems from key stakeholders, and serious underinvestment in AET systems. The priority for reform is to develop a policy framework and (innovation) policy management capacity to guide AET. This reform should underpin all others; it should have wide implications for AET, inter-ministerial cooperation, financing, and stakeholder involvement. Another investment priority—wide-ranging, systemic reform—requires internal and external consultations with stakeholders and an analysis of gaps between stakeholders' expectations and current academic programs. Other priorities for investment include reforming curricula and teaching methods; building capacity and stakeholder partnerships for technical education and training; and developing effective in-service and life-long learning capacity among public workers who interact frequently in the AIS. Such reforms can be supported by investments in capacity building and infrastructure for ICTs to facilitate learning, research, and global and local networking, and communicating. Investments in accreditation or in a regional resource for advanced degrees may also improve the likelihood that AET delivers content that meets stakeholders' needs.

For further information on rethinking agricultural education to support AIS, please see the following links to excerpts of the Agricultural Innovation Systems Sourcebook:

Overview:
Rationale [1]

Thematic Notes:

- Reforming Public Agricultural Education at the Tertiary Level [2]
- Curriculum Change in Higher Agricultural Education [3]
- Education and Training for Technician Development [4]
- Reforming the Management of In-Service Training/Learning [5]

Case Studies:

- Reforming India's State Agricultural Universities [6]

- Curriculum Change in Agricultural Universities Strengthens Links in the Arab Republic of Egypt's Innovation System [7]
- Innovative Training Program for Midcareer Agricultural Extension Staff: The Sasakawa Africa Fund Education Program [8]
- EARTH University, Costa Rica: A New Kind of Agricultural University [9]
- Technical Skills for Export Crop Industries in Uganda and Ethiopia [10]
- Agribusiness Training for Secondary School Graduates in Timor-Leste [11]
- Vocational Training in the Arab Republic of Egypt Combines Technical and Innovation Skills for Agriculture [12]

Related Link: Consulting and extension services by universities and PRIs
Skills for Innovation

Links
[1] https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/FT_Overview_-_Rationale_(The_Why)_and_What.pdf
[2] https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/Agricultural_Tertiary_Education_-_Reforms.pdf
[3] https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/Curriculum_Change_in_Higher_Agricultural_Education.pdf
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