Developing the Next Generation of Extension Workers in Sub-Saharan Africa

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Introduction

- The agricultural sector plays a dominant role in Africa.
- About two-thirds of African workforce is engaged in agriculture.
- Performance of agricultural sector is inhibited by problems in:
  - ✓ governance, poor soil fertility, low use of fertilizer, poor access to inputs, markets, etc.
- Human resources in extension is weak – many field level workers lack essential skills and competencies required for effective extension work.
- Meaningful efforts should be made to incorporate job skills and competencies in the undergraduate extension curricula.

Research Objectives

- To identify the challenges of agricultural extension service delivery in five sub-Saharan countries.
- To assess the critical skills and competencies of agricultural extension professionals.
- To suggest strategies for improving the undergraduate curricula to prepare the next generation of development professionals to competently handle extension service delivery.

Methodology

Study Area

- South Africa, Uganda, Kenya, Nigeria, and Malawi.

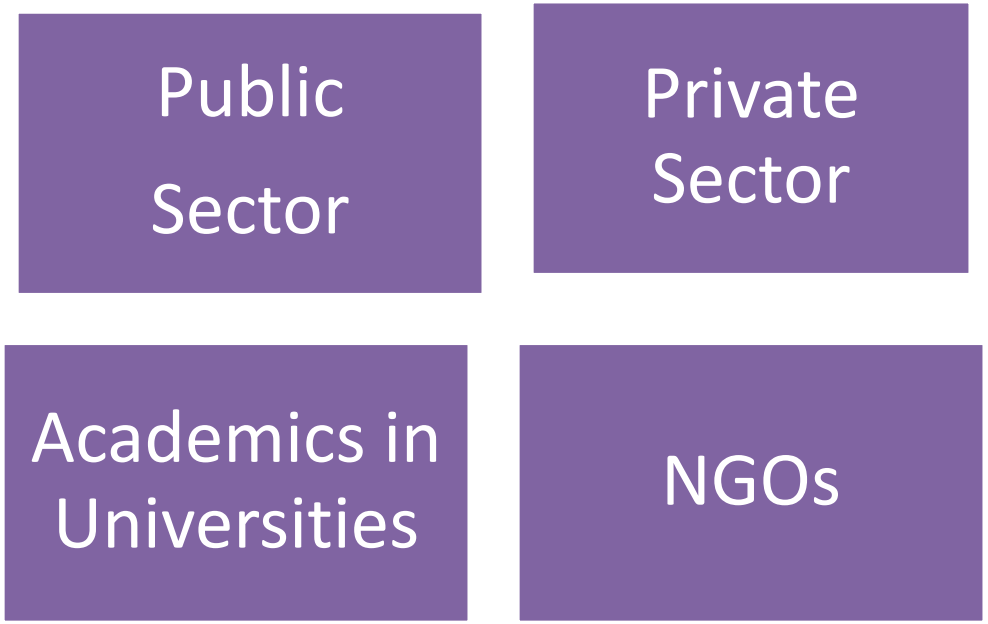
Research Strategy

- Focus group discussions
- The research team members of each country moderated interaction with a group of agricultural extension professionals
- Discussions focused on extension challenges, training curriculum, required job skills, perceived competencies, and barriers to improving extension worker training

Methodology

Population

- The population for the study was agricultural extension professionals within Kenya, Malawi, Nigeria, South Africa, and Uganda.



Methodology

Sample

Country	Mode of FGDs	No. of female participants	No. of male participants	Total number of participants
Kenya	In-person and online	15	11	26
Malawi	In-person	6	8	14
Nigeria	In-person and online	9	13	22
South Africa	Online	6	15	21
Uganda	Online	4	10	14
Total		**40**	**57**	**97**

Methodology

Sampling

- A purposive sampling procedure was applied to select the participants for the focus group discussions.
- The research team members in each country identified suitable participants using existing databases of extension professionals, their networks, key informants, and available public information.

Methodology

Method of Analysis

Step1
- Carefully reading and reviewing all the transcripts of all 12 FGDs conducted in the five countries to familiarize researchers with the content.

Step 2
- Identifying the categories.

Step 3
- Highlighting the context within the transcripts for each country based on the categories.

Step4
- Highlighting the statements that resonated with each of the categories and thereby developing themes.

Step 5
- Counting the frequency of respondents who supported a particular theme. Modifiers such as “no one”, “few”, “many”, “most” or “all” were used to describe how many people supported a particular theme.

Findings

Category	Themes
Challenges of extension service delivery systems of each country.	• Capacity gaps of the extension officers (EOs) • Issues related to public extension systems • lack of support to EOs • Issues related to information delivery by the EOs • Issues related to the farmers • Lack of trust in extension officers
Recommendations to improve the agricultural extension systems.	• Human resource development and support • Ways to improve extension programs and delivery • Recommendations for the public extension systems • Recommendations for the universities
Critical job skills/core competencies required for "agricultural extension workers", "training students".	• Practical know-how • Technical knowledge • Communication skills • Managerial skills • Personal qualities

Findings

Category	Themes
Skills competency gaps in the undergraduate extension curriculum.	• Practical and technical skills • Knowledge of ICTs • Soft skills: communication, facilitation, social skills • Marketing • Entrepreneurship skills • Knowledge of resource mobilization • Project management skills • Monitoring and evaluation • Problem-solving skills • Self-confidence
Barriers to training undergraduate extension students with the required skills.	• Human resource development • Institutional barriers • Issues related to the curriculum
Suggestions for the improvement of the undergraduate extension curriculum	• Courses to be included • Curriculum revision process • Practical or hands on experience • Recruitment of students

Findings

Capacity gaps of Agricultural Extension Officers (EOs)

Issues	Kenya	Malawi	Nigeria	South Africa	Uganda
Poor ICT literacy	Many	Many	Few	Few	Few
Lack of practical experience and hands-on experience	Many	Many	Many	Many	Many
Possess outdated information	Few	Many	Many	Few	Many
Lack of knowledge on marketing and business planning	Many	Many	Many	Few	Many
Poor knowledge of the economy	Few	Many	Few	Few	Few

"The reality is the extension workers that come from the university come with the technical knowledge, but they have been missing out some critical elements like the realistic elements we have just talked about in the markets." **- Expert from Malawi**

"Extension workers should have business skills. Who told them that they are not supposed to do business? That they should be linking farmers to businesspeople. They can access fund from the bank and start doing business themselves. They are supposed to be business-oriented." **- Expert from Uganda**

Findings

Issues related to Public Extension Systems

Issues	Kenya	Malawi	Nigeria	South Africa	Uganda
Weak government extension system	Many	Many	Many	Many	Many
Less focus on extension in development projects	Few	None	None	None	Few
Agricultural projects do not address the local needs	Few	None	None	None	None
Not effective in dealing with emerging challenges of marketing and other risks like climate change	None	Many	None	None	Few
Mismatch of policies implemented and what they do	Few	None	None	None	None
Inadequate funding for agricultural extension services	Many	Many	Few	Few	Many
Recruitment of unqualified staff to provide extension	Many	Many	Many	Many	Many

"Most developments did not put agricultural extension as a very important concept in food security."- **Expert from Kenya**

"At the national policy level, there is a bit of mismatch between the policies which are done at the national level and the ones which are being customized, so adopted at the county level."-**Expert from Kenya**

Findings

Lack of Support to Agricultural Extension Officers

Issues	Kenya	Malawi	Nigeria	South Africa	Uganda
Mobility support to the extension officers	Many	Many	Many	Many	Many
Lack of resources to EOs	Many	Many	Many	Many	Many
Demotivated EOs	Many	Many	Many	Many	Many

"The frontline extension workers are not well motivated as they are demotivated with issues like poor housing, poor mobility mostly using push bikes, lack of promotions -- because I remember the first time, we joined the extension services we used to have the records, and then you choose a farmer or a farmer has come to the office, and you're supposed to go and visit them. You come prepared in the office only to realize the farmer is like 7 kilometers one way, and there is no vehicle, no phone in the office, so you start wondering how do you go? That means if you must visit this farmer, you have to do 14 kilometers." **- Expert from Kenya**

Findings

Issues related to Information Delivery by Extension Officers

Issues	Kenya	Malawi	Nigeria	South Africa	Uganda
Inadequate number of field extension officers	Many	Many	Few	Few	Many
Inadequate number of extension programs	None	Few	Few	None	Few
Poor message harmonization feedback	Many	Many	Many	Many	Many
Uncoordinated efforts	Many	Many	None	None	None
Poor promotion of local technology	Few	Few	Few	Few	Few
Lack of local verification of technologies promoted	None	Many	None	None	None
Poor targeting (weak handling of diverse farmers)	Many	Many	Many	None	None

"The issue of conflicting messages from extension workers due to lack of message harmonization. For example, others will say when you harvest maize, burn the stalk to control fall armyworms, yet others say mulch the stalk to conserve moisture."-**Expert from Malawi**

Findings

Importance and Curriculum Coverage Gaps in Critical Skills and Competencies

Gaps	Kenya	Malawi	Nigeria	South Africa	Uganda
Practical / hands-on learning experience	*	*	*	*	*
Knowledge of various ICTs	*	*	*	*	*
Soft skills: communication, facilitation, social skills	*	*	*	*	*
Marketing		*		*	
Entrepreneurship skills	*	*			*
Knowledge of resource mobilization		*			
Project management skills	*		*		*
Monitoring and evaluation	*		*		
Problem-solving skills					*
Analytical skills			*	*	
Self-confidence	*				

Findings

Human Resources Issues

Barriers	Kenya	Malawi	Nigeria	South Africa	Uganda
Teachers/trainers are not competent in the practical aspects	Few	No one	Many	No one	Few
Inadequate manpower at universities	Few	No one	Many	No one	Many
Lack of motivation of students due to no passion for agriculture	No one	No one	Few	Many	Many
Lack of practical training for teachers	No one	No one	Few	No one	Few
Few student-teacher interactions	No one	No one	No one	No one	Many

Findings

Institutional Barriers

Barriers	Kenya	Malawi	Nigeria	South Africa	Uganda
Shortage of funding	Few	No one	Few	No one	Many
Poor facilities	Many	No one	Many	No one	Many
Lack of networking with the industry/stakeholders/research institutes	Many	Few	Many	Many	Many
National and university policies	No one	No one	No one	Few	Few
Bureaucracy in decision making	No one	No one	No one	No one	Few

Findings

Issues Related to the Curriculum

	Kenya	Malawi	Nigeria	South Africa	Uganda
Reviewing the curriculum takes a long time	Few	No one	No one	No one	No one
Poor practical component	Few	Few	Many	Many	Many
Lack of comprehensive outreach programs	Few	No one	Many	Many	Many
Little time for practical	Few	No one	Few	Few	Many
Lack of depth of the courses	Few	Few	Few	Few	Many

Conclusions

- This study identified challenges to effective agricultural extension service delivery as well as skills and competency gaps in the undergraduate extension curriculum in five African countries.
- Generally, challenges to the effective delivery of agricultural extension services across the five countries were:
  - weak public extension systems,
  - unqualified/incompetent extension officers,
  - lack of resources,
  - demotivated extension officers,
  - lack of support for the extension officers,
  - inadequate numbers of field extension officers and extension programs,
  - poor message harmonization,
  - lack of local verification of the technologies promoted, and
  - poor targeting of diverse farmers.

Conclusions

- The skills/competencies gaps identified in the undergraduate curricula across the five countries studied were:
  - ICTs
  - Marketing
  - Entrepreneurial knowledge of resource mobilization
  - Practical and technical skills
  - Facilitation and management skills
  - Monitoring and evaluation
  - Project management
  - Personal qualities such as self-confidence and problem-solving
  - Social skills – building relations with community

Recommendations

Include New Courses in UG Extension Curriculum

Recommendations	Kenya	Malawi	Nigeria	South Africa	Uganda
Information and communication technologies (ICTs)	*	*	*		
Plant nutrients and soil fertility		*			
Agribusiness management	*				
Entrepreneurship	*		*		
Proposal management	*				
Community mobilization and local organizations and development				*	
Climate-smart agriculture	*		*		
Management of change				*	

Recommendations

Curriculum Revisions

Recommendations	Kenya	Malawi	Nigeria	South Africa	Uganda
Review the curriculum	*	*	*	*	*
Carry out job analyses, identify occupational standards for extension workers, and develop courses accordingly	*				
Conduct a comparative study to identify the need for changes in the industry	*				
Avoid repetition of subject matter	*				
Involve stakeholders who are directly linked into extension/private sector in curriculum revision process	*	*			*
Make the courses more practical oriented	*		*		
Standardize the extension curriculum	*				*
Develop a competency-based curriculum	*				
Incorporate indigenous knowledge into the curriculum		*			
Reduce the specialization courses and include more basics		*	*	*	
Increase the ratio of practical hours to lecture hours in calculating credit units			*		*

Recommendations

Provide for Hands-on Learning

Recommendations	Kenya	Malawi	Nigeria	South Africa	Uganda
Work collaboratively with farmers and rural community, commodity associations	*	*	*	*	*
Monitor the current outreach programs	*				*
Arrange longer internships	*	*			*
Invite guest speakers from the field to enhance the knowledge of the students		*			*
Devise mentorship programs		*		*	*
Use mini farms for practical experience		*			
Involve students in more research/outreach projects					*
Make social skills and communication-related courses crosscutting in all undergraduate programs	*	*	*	*	*

Recommendations

Recruitment of Students

Recruitment of students	Kenya	Malawi	Nigeria	South Africa	Uganda
Recruit students who have some background in extension and/or farming		*			*

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