



Human Resource Development in Agriculture Extension and Advisory Services in Kenya

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INTRODUCTION

- Agriculture extension and advisory services is a **multidisciplinary discipline based on human interaction** seeking to improve the **livelihoods** of farming communities and individuals by providing information and technologies.
- **Vision 2030** has identified agriculture as one of the key sectors to deliver the 10 per cent annual economic growth rate envisaged under the economic pillar. To achieve this growth, **transforming smallholder agriculture from subsistence to an innovative, commercially oriented and modern agricultural sector** is critical (GOK, 2010).



INTRODUCTION

- Agricultural extension is the means of by which **appropriate technology generated are disseminated** to the farming community
- The function of agricultural extension extends beyond spreading **scientific and technical progress and technology transfer** but aims at the **holistic development of the people.**



INTRODUCTION

- Agriculture extension is a **public service for HRD** of workers in agribusiness sector, including farmers.
- An extension agent is not only a **technical innovation motivator** to a **human resource development leader** to help in **institution building and mobilization of resources in the community**.

TRENDS IN EXTENSION SERVICE

- The move toward:

- **pluralism**

- **Privatization of extension services,**

- **demand-driven extension**

- **grass-root/ bottom-up approaches**

- **decentralization**

that have focused planning, implementation and coordination of extension activities at the **district, divisional level and local level initiatives.**

TRENDS IN EXTENSION SERVICE

- The **county is the government's development planning unit** where funds are disbursed and managed by the District Agricultural Officer while the division is the implementation level
- The **responsibility for extension service** therefore lies with the district and more heavily on divisional teams.
- The decentralization of extension further emphasizes the need for extension staff to have additional skills, in technical areas, **communication skills, written, oral, computer and internet use skills, leadership, management and personal skills at all management levels.**

PREMISE

- The **training of extension staff** is important as it has a bearing on their **effectiveness** in the office and in the field.
- The **competence and qualifications** of staff determine the effectiveness of any agricultural extension service.
- Identifying these trends will help **design relevant courses** and **inform curriculum development** in tertiary institutions to ensure that the curriculum addresses the needs of both the public and private extension service providers.
- These changes must be reflected in the training program for extension staff.



PURPOSE OF THE STUDY

- This study was designed to identify Human Resource Development (HRD) activities in the agricultural extension service public and private extension organizations in Kenya in light of changing trends in agriculture production, extension strategies and cross-cutting issues that have implications on the way extension workers are trained.

OBJECTIVES

1. Identify the type of formal educational programs undertaken by extension agents.
2. Identify the type of in-service programs undertaken by extension agents.

JUSTIFICATION

- **The study contributes toward closing the gap between the actual and needed curriculum and between formal training and the world of work.**
- **Forms a basis for reviewing the curricula to ensure that training is relevant, demand driven and responsive to the dynamic agricultural sector.**
- **This will also reassure stakeholders that the knowledge, skill and attitudes that graduates learn will be meaningful to their future employment goals.**



Research Questions

- What formal educational programs do agricultural extension agents undergo?
- What type of in-service programs do agricultural extension agents attend?

POPULATION AND SAMPLING

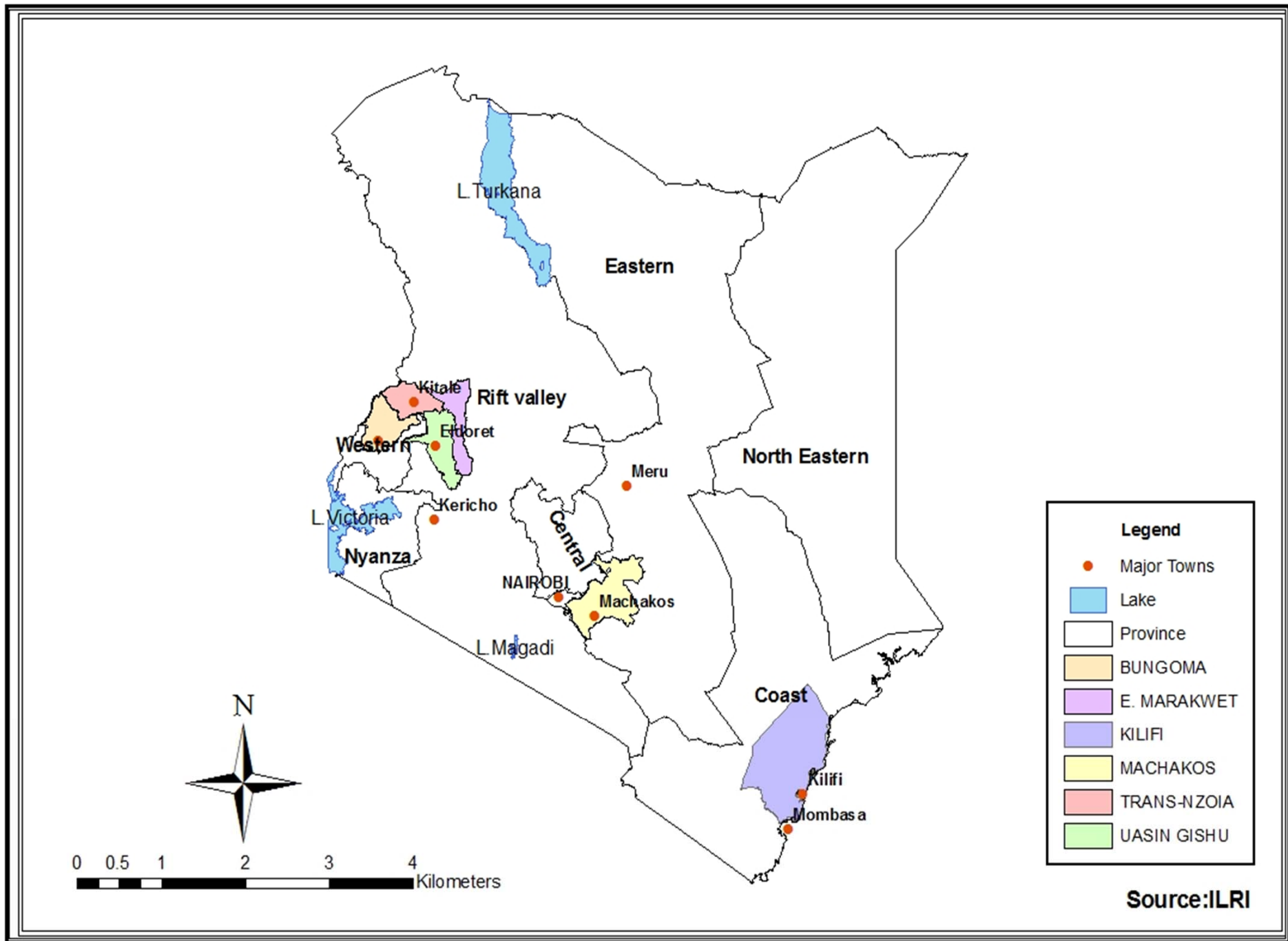
- Extension staff in the target population was 7,318 under the national extension system. Extension agents from the Ministry of Agriculture were 5,100 while those from the Ministry of Livestock were 2,218 (MOA, 2008; MOLD, 2008).
- However, since the total number of extension staff in the accessible districts was 705 a proposed sample size of 255 at a confidence level of 95 per cent and $\alpha = 0.05$.
- The study involved multistage sampling, first through purposive sampling of nine districts and private extension organizations and secondly proportional sampling of extension staff.



POPULATION AND SAMPLING

- Counties used in the study and formed the accessible population were; **Machakos, Bungoma, Trans-Nzoia, Uasin-Gishu, Elgeyo-Maraket, and Kilifi**
- **A total of 440 extension agents were sampled, 325 from the public sector and 115 from the private extension service.**

Distribution of extension agents by county and extension organization	Population	Number of respondents	Percent
Trans Nzoia	119	61	13.9
Uasin Gishu	120	33	7.5
Keiyo/Maraket	67	29	6.5
Kilifi	106	55	12.5
Machakos	119	74	16.9
Bungoma	174	83	16.6
Farming Systems Kenya (FSK)	Accessible	6	1.4
Kericho (TRF)	Accessible	14	3.2
KARI Kitale	Accessible	10	2.3
KARI Katumani	Accessible	12	2.7
Meru (BAT)	Accessible	3	0.7
Mumias (MSC)	Accessible	56	12.7
Total		440	100.0



DATA ANALYSIS

- The data was collected using a questionnaire based on the survey research design.
- Designed to collect demographic data of the respondents and solicit information on formal education and in-service training the extension agents had undergone.
- The data collected was analyzed using descriptive and inferential statistics. The data collected was analyzed using descriptive and inferential statistics to explain the results of the study.
- Descriptive statistics including means, standard deviations, frequencies and percentages were used to summarize data from the objectives.

FINDINGS

- The majority of extension staff were in their mid career stage
- Mean age of 42.21 years ($\sigma = 8.124$).
- The number of years worked ranged from less than one year to 34 years with a mean of 16.13 years ($\sigma = 9.289$).
- The respondents had hardly changed employment
Mean = 0.62; ($\sigma = 1.268$) and could be attributed to depressed employment opportunities in the agricultural sector and loyalty to their respective employers.
- **Male: 70.5%** **Female: 29.5%**

Demographic Characteristics of Respondents

Demographic Characteristic	Frequency	Percent
Extension Organization		
Public service	325	73.9
Private	115	26.1
Research institutions	50	11.3
NGO	6	1.4
Agro-based industry	59	13.4
Total	440	100.0


Category of respondent

FEW	Diploma	271	61.6
SMS		169	38.4
	Degree	128	29.1
	Masters	37	8.4
	PhD	4	0.9
	Total	440	100.0

- **Subject Matter Specialists (SMS)** had a minimum professional qualification of a degree in an agricultural related discipline and constituted 38.4 percent (n = 169).
- It was predetermined that the lowest cadre of extension staff would be diploma holders were categorised as **Front line workers (FEW)**.

Respondents Higher Education and Area of Specialization

Education	Frequency	Percent
Attended formal education to improve qualifications		
Yes	299	68.0
No	141	32.0
Total	440	100.0
Level of formal institutionalized education		
Certificate to diploma	190	63.5
Diploma to degree	63	21.1
Degree to masters	41	13.7
Masters to PhD	5	1.7
Total	299	100.0



Areas of Specialization	No.	%
Agricultural education	102	34.1
General agriculture	84	28.1
Horticulture	35	11.7
Soil science	23	7.7
Agricultural engineering	18	6.0
Agriculture and home economics	17	5.7
Sustainable development	11	3.7
Strategic planning and management	9	3.0
Total	299	100.0



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17

5.7

Sustainable development

11

3.7

Strategic planning and management


9

3.0

Total**299****100.0**

Respondents In-Service Courses Attended

Course area	Frequency	Percent
Crop Management	160	40.9
Management	38	10.0
Agricultural Economics	50	13.0
Agricultural Extension	82	21.0
Animal Science	11	3.6
Others	50	13.0
TOTAL	390	100.0



Agricultural Economics	Livelihood dynamics	14	3.6
	Farm management	12	3.1
	Product development	10	2.6
	Value addition	10	2.6
	Agribusiness training	4	1.3
	Sub total	50	13.0
Others	Statistical data analysis	21	5.4
	Environmental conservation	15	3.8
	Food safety and quality management	6	1.5
	Food security	3	0.8
	Agro-forestry	3	0.8
	Soil and water conservation	2	0.5
	Sub total	50	13.0



Agricultural Extension	Extension research	11	2.8
	Communication skills	10	2.6
	Sustainable development	10	2.6
	Mass communication	9	2.3
	Small-holder horticultural empowerment	9	2.3
	Gender and development	9	2.3
	Experimentation and on-farm analysis	8	2.0
	Participatory Rural Appraisal (PRA)	6	1.5
	Training of trainers - Soil conservation	5	1.3
	Farmer Field Schools (FFS)	3	0.8
	Agricultural infrastructure improvement in upland crop areas	2	0.5
Sub total	82	21.0	



Conclusions and Recommendations

- The findings of the study demonstrate the commitment of agricultural extension organizations toward improving the competencies of extension agents on and off-the-job to deliver effective services to farmers.
- The wide range of formal and in-service courses attended reflects the need to meet the management and technical requirements of a pluralistic and demand driven extension service



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Conclusions and Recommendations

- Extension agent specialization included non-agricultural areas of specialization such as **Sustainable development, value addition, food security, strategic planning, agro-forestry and management** and these cross-cutting areas should be incorporated in the design of curricula.
- Non-technical training focused on **agricultural extension and management** and is therefore recommended that these courses be incorporated in agricultural undergraduate and diploma courses

THANK YOU!

