Graduation Pathways of Agricultural Students Who Completed in 2014 from Selected Higher Education Institutions in Uganda

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Abstract

The Agricultural sector continues to be a major employer of Ugandan citizens with an estimated 68.1% of the population engaged in agriculture, forestry and fishing (Uganda National Household Survey [UNHS], 2019/2020). The government of Uganda prioritises the agricultural sector and emphasises agro-industrialisation as the first thematic area in the third national development plan (National Planning Authority [NPA], 2020). The third Uganda national development plan particularly seeks to affirm the dominance of as a source of livelihood leading to the long term aspiration of increasing household incomes and improving the quality of life. Similarly, the East African Community vision 2050 seeks to promote value addition through agro-processing and globally; the sustainable development goals envisage ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture by the year 2030 (United Nations - Sustainable Development Goals [UN-SDGs], 2015). Notably, the national, regional and global aspirations require trained human resources in the agricultural sector for the achievement of the desired targets. However, student enrolment in agricultural subjects is too low to create that critical mass of agricultural specialists in the sector. The total student enrolment in agricultural subjects is estimated at a mere 2577 students out of the 275,254 enrolled in higher education institutions (National Council for Higher Education [NCHE] (State of Higher Education), 2018/2019). Irrespective of the specialised area of training at higher education, graduates ordinarily take employment opportunities from different sectors at the earliest open opportunity. The article, therefore, has the objective of establishing the destinations of students who graduated from agricultural subjects. Precisely the article focuses on the following objectives; establishing the employment status of agricultural graduates from higher education institutions; ascertaining the employment sectors of agricultural graduates in relation to their field of training; establishing incomes ranges of agricultural graduates and determine the additional skills' set for agricultural graduates to enhance their service delivery.

Keywords: Agriculturalists, Employment, Graduates, Higher Education Institutions, Uganda.

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1.0 Introduction

Globally, youth employment is a widely discussed thematic area especially in the least developed economies where estimates indicate that over one billion of the global population is aged between 15 and 24 (United Nations, 2019). Uganda is among the countries with the youngest populations around the world with 78% under the age of 30 year (World Bank, 2015).

According to the Uganda Bureau of Statistics [UBOS,2017], the estimated unemployment rate for the Ugandans aged 18–30 hoisted at 4.5% in 2013 and 4.9% in 2015. The rate has more than doubled to 13.3% in 2016/17 yet the national unemployment rate declined to 9.2% in 2016/17 from 11.1% in 2012/13 (UBOS, 2017). UBOS further asserts that approximately 48% youths were undereducated for the available jobs in the market. This observably affirms the need for educated youths to take up available opportunities.

Whereas the agricultural sector is a major employer in Uganda with over 68.1% population engaged in agricultural activities (UNHS, 2019/2020), the higher education student's enrolment into agricultural programmes remains miserable with only 2577 partaking agricultural subjects at all higher education institutions (NCHE,2018/2019).

Often times, graduates tend to be absorbed by employment opportunities that present themselves first thereby disregarding the specialised area of training and skills acquired at higher education institutions. Therefore, the study intends to establish the graduation pathways of agricultural students to completed studies in the year 2014 for higher education institutions and determining whether the jobs are related to the agricultural sector.

1.1 Methodology:

The article synthesizes partial data from a tracer study conducted by the National Council for Higher Education in 2018 particularly following students who graduated in 2014 from 30 selected programmes of study. In this study a total of 19 programmes were bachelor's degree programmes while 11 were diploma programmes. Permission was sought from relevant authorities for the article to investigate data collected from the agricultural students graduated in 2014. Selection of institutions and programmes into the sample was underpinned by a number of factors including the accreditation status of the programme and institution by the year 2011 (National Council for Higher Education [NCHE] Tracer Study ,2018).

The sampling frame comprised of 50 Universities, 212 Other Tertiary Institutions and 2382 academic programmes running across different higher education institutions. Simple random sampling was deployed at the acquisition of graduation lists from institutions followed by systematic sampling where the i^{th} graduate was included in the sample upon having a random start.

Based on the generally recommended 10% sample of the total the population (Wunsch, 1986), a sample of 87 bachelor's degree holders and 106 diploma holders was obtained as summarised in Table 1.

Institution	No. of Students Graduated	No. of Students Sampled
Makerere University	61	18
Gulu University	74	30
Uganda Martyrs University	97	39
Sub-Total	232	87
Bukalasa Agricultural College	353	106
Grand -Total	585	193

Table 1: Sample Sizes from Selected

Source: Primary Source, 2022

1.2 Results and Discussion

Results from the analysed data revealed a wide range of patterns regarding the employment status, work settings, job relatedness to the agricultural field, earnings of agriculturalists and required skills as summarised in *Table 2* and discussed below.

Employment Status: Majority of the agricultural graduates (68.4%) were formally employed. Self employed graduates accounted for a consideration proportions of 25.9% while a mere 5.2% was not employed at the time of the study. This implies that the unemployment challenges are fewer for agricultural graduates.

Work Setting: A consideration proportion of agricultural graduates works in rural areas (76.2%) with only 22.8% working in urban areas and only 1% working abroad. There is therefore, observable interaction of the trained agriculturalist with the rural farmers who may not be well trained in different agricultural practices. The interaction would enhance the farm management skills of rural dwellers who derive their livelihood from the agricultural sectors.

Job being related to Agriculture: Irrespective of the award level (Diploma/Degree), majority (90.2%) of the graduates were engaged into jobs related to their field of training. Impliedly, agricultural graduates end up in the agricultural sector upon graduation. The limited divergence of agriculturalists into other sectors is an assurance that the few trained agriculturalists can adequately be retained in the sector for the achievement of the NDPIII aspirations.

Table 2:	Summary	Statistics	from th	he 2014 A	Agricultural	Graduates l	Employment Status.

Parameter	Coding	Bachelors	Diploma	Valid	Percentage
	0		•	Cases	0
Employment Status	Formally Employed.	67	65	132	68.4
	Not Employed	5	5	10	5.2
	Never Been employed	0	1	1	0.5
	Self Employed	15	35	50	25.9
	Totals	87	106	193	100
Work Setting	Rural	64	83	147	76.2
	Urban	21	23	44	22.8
	Abroad	2	0	2	1.0
	Totals	87	106	193	100
Job being Related to Agriculture	Agricultural Related	80	94	174	90.2
	Not Agricultural Related	7	12	19	9.8
	Totals	87	106	193	100

Source: Primary Source, 2022

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Earning of Agriculturalists and Required Skills

A look at the earnings and required additional skills as displayed in Table 3 revealed that majority of the graduates (33.2%) earned between 500,000Shs and 1,000,000Shs. Notably, over 59% of the bachelor's degree holders earned more than 1,000,000Shs,

Majority of graduates (44.0%) observed that practical skills needed to be emphasized during higher education training. It was also eminent (13.5%) that agribusiness skills and marketing were vital in ensuring that agricultural produce doesn't go to waste.

Furthermore, graduates indicated that skills such as climate change adoption, animal health that covers minor surgeries, computer skills biotechnology and the psychology of dealing with rural populations were vital and required due consideration in the training. Other

Parameter	Coding	Bachelors	Diploma	Valid Cases	Percentage
Earnings	Less than 200,000Shs	0	2	2	1.0
	200,001-500,000Shs	4	55	59	30.6
	500,001Shs-1,000,000Sh	31	33	64	33.2
	1,000,001Shs-1,500,000Shs	23	15	38	19.7
	1,500,001Shs-2,000,000Shs	13	1	14	7.3
	Above 2,000,000Shs	16	0	16	8.3
	Totals	87	106	193	100.0
Required Skills					
	Practical Skills	38	47	85	44.0
	Climate Change Adoptions	9	15	24	12.4
	Animal Health/Minor Surgeries	10	10	20	10.4
	Agribusiness/Marketing Skills	13	13	26	13.5
	Computer Science in Agriculture	8	9	17	8.8
	Biotechnology	5	7	12	6.2
	Psychology of Local Population	4	5	9	4.7
	Totals	87	106	193	100

Table 3: Summary Statistics from the 2014 Agricultura	al Graduates for Earnings and Required Skills
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Source: Primary Source, 2022

1.3 Conclusion:

The higher student enrolment into agricultural subjects is meagre despite the immense potential of the agricultural sector in reducing youth unemployment. Critically, enrolment of students into agricultural subjects remains low in the higher education sub-sector. Commendably, majority of the agricultural graduates engage in formal employment and tend to settle in the agricultural sector after higher education training despite the low wages observed in the analysis.

Furthermore, agriculturalists observably settle for job opportunities in rural areas which provides an opportunity for an interaction between the untrained agricultural practitioners and the trained for the enhancement of farm practices and certainly yields.

Agriculturalists affirm the need for emphasizing practical skills and agribusiness in higher education training as a way of making the 21st century graduates relevant to the national and global agendas.

1.4 Recommendation

It is important that higher education institution in Uganda emphasize practical skills to enable trained agriculturalist interact with the working environment with

1.5 Acknowledgements:

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