



Linking Agriculture, Nutrition and Health: Perspectives for Enhanced African and Livestock Researchers Participation

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Abstract

In this paper, we present our perspectives of a global annual Agriculture, Nutrition and Health (ANH) Academy Week held at Accra, Ghana in June 2018, with the objective of determining the regional, disciplinary and affiliations diversity of researchers and papers presented at the event in order to highlight the need for increased livestock and African-led research initiatives in during future events. Overall, 130 papers made-up of 3 keynotes, 60 orals and 67 posters presentations were made at the event. About 65% of the papers were derived from studies carried out in Africa and followed by the 22% papers on studies done in Asia. A very high 62.22% (oral) and 63.83% (poster) of these African studies were however presented by researchers affiliated to either Europe, North America or Australian study centers, while 38 and 36% of the oral and poster papers respectively on African issues were presented by researchers affiliated to African study centers. Only 6.30% of the presentations were based on studies carried out in Nigeria, while another 11.81% addressed livestock related issues. There is the need for African and livestock researchers to innovate and foster new interdisciplinary collaborations that will enhance their relevance in the agriculture nutrition and health linkages research nexus.

Keywords: Agriculture, nutrition, health, livestock, Africa

Introduction

The rapidly changing environment and a renewed commitment from the international community to fighting malnutrition at the global level, has led to a recent re-focusing of research attention on the complex linkages between agriculture, nutrition and health (ANH). Through this, concerted efforts cutting across sectors and disciplines are being made to ensure adequate nutrition and health for everyone, through sustainable and inclusive policies and interventions in agriculture and food systems. For example, the linkages between farming systems and health and nutritional outcomes have been explored through two major channels –the supply of nutritious foods and the spread of diseases and infections (Haile *et al.*, 2018). However, African research efforts may not be fully awake to these new paradigms, although evidence on the ground tend to suggest that the continent stands to benefit from these studies that employ qualitative research methods.

In June 2018, more than 300 research, policy and programming experts working across agriculture and food systems, nutrition health gathered under one roof at Accra, Ghana to participate in the annual global ANH Academy Week, to learn, share, innovate and foster new interdisciplinary collaborations. We present here our perspectives of the event, with the main objective being to determine the regional, disciplinary and affiliations diversity of researchers and papers presented at the event in order to highlight the need for increased livestock and African-led research initiatives in future.

Materials and Methods

The 2018 Agriculture, Nutrition and Health (ANH) Academy Week was held from 25 – 29 June 2018 at Accra, the capital city of Ghana. The event generated a Conference Information and Abstract Booklet containing 130 presentations made-up of keynote, oral and poster papers. We analyzed the information on paper presentations contained in this booklet, in order to determine their disciplinary, inter-



disciplinary, regional and researcher affiliation diversity. Data generated were presented in table and graph formats.

Results and Discussion

Figure I shows the overall distribution of papers presented at the ANH academy 2018. Overall, 130 presentations were made with 127 representing the core oral and poster papers. More poster papers (67) were presented, indicating significant student participation in the event. Percentage distribution of presentations across study locations presented in figure II showed that most of the presentations (65%) were derived from studies carried out in Africa, followed by those carried out in Asia (22%). This is probably because agriculture, nutrition and health challenges have remained major societal and developmental problems in South Asia and sub-Saharan Africa (Begun *et al.*, 2018).

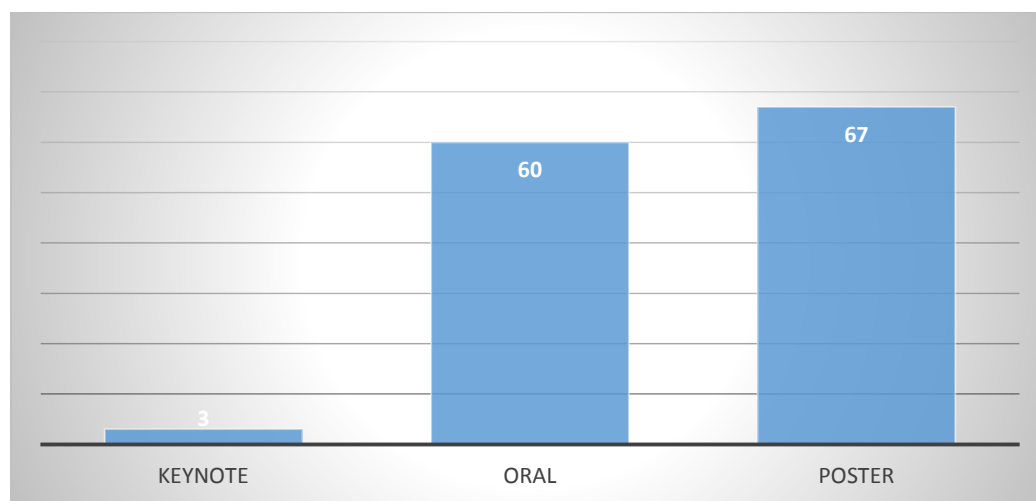


Fig. I: Distribution of papers presented at the ANH academy 2018

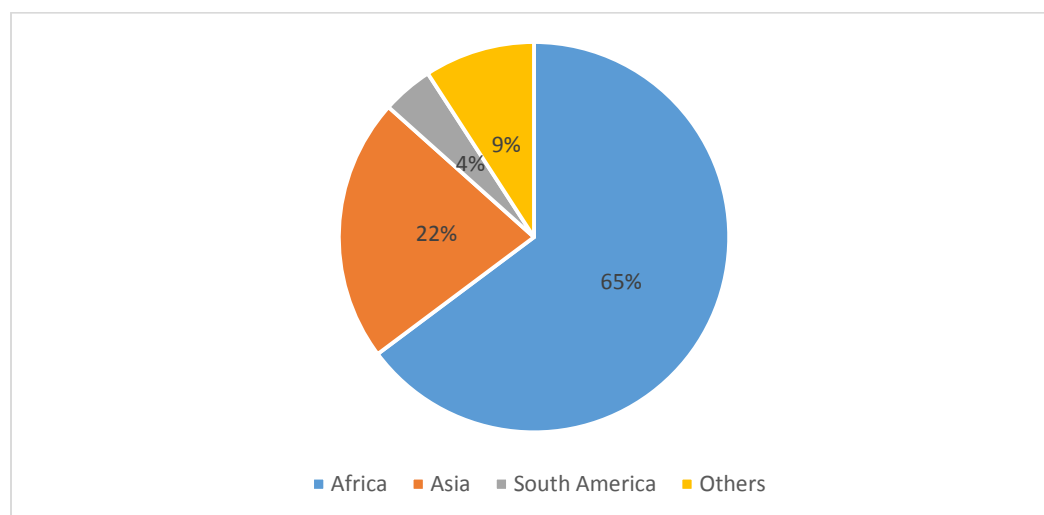


Fig. II: Percentage distribution of presentations across study locations

Table 1 showed the inter-disciplinary links distribution of the papers presented at the ANH Academy. Most of the papers (45.67%) were sole nutrition papers, while agriculture and nutrition linked papers accounted for 34.65% of the presentations, indicating that nutrition studies are central to the current



across cutting, sectoral and inter-disciplinary efforts at ensuring sustainable interventions in agriculture and food systems. However, a very low 4.72% of the papers addressed issues that linked agriculture, nutrition and health, while only 3.15% addressed agriculture and health linkages, while there were no solely health studies. These findings highlight the poor research partnerships between actors in agriculture and health research issues and the need to encourage them.

Table 1: Inter-disciplinary distribution (%) links of the papers presented at the ANH Academy

Disciplinary linkages	Oral Papers (%)	Poster Papers (%)	Total (%)
Sole Agriculture Papers	1(1.67)	7(10.45)	8(6.30)
Sole Health Papers	0(0.00)	0(0.00)	0(0.00)
Sole Nutrition Papers	31(51.67)	27(40.30)	58(45.67)
Agriculture/Nutrition Papers	20(33.33)	24(35.82)	44(34.65)
Nutrition/Health Papers	3(5.00)	4(5.97)	7(5.51)
Agriculture/Health Papers	2(3.33)	2(2.99)	4(3.15)
Agriculture/Nutrition/Health Papers	3(5.00)	3(4.48)	6(4.72)
Total (%)	60(100.00)	67(100.00)	127(100.00)

Table 2 shows the links between researcher's affiliations and study locations of the oral and poster papers presented at the Academy. About 38 and 36% of the studies presented as oral and poster papers respectively that dealt on African issues were carried out by researchers affiliated to African study centers, while a very high 62.22% (oral) and 63.83% (poster) presentations, although African issue-based, were carried out by researchers affiliated to either Europe, North America or Australian study centers. Similarly, 87.50% (oral) and 66.67% (poster) presentations of the Asian studies were also carried out by researchers affiliated to either Europe, North America or Australian study centers. These results are interesting and seem to suggest that there is a conscious effort by researchers affiliated to western research centers to better understand the complex linkages between agriculture, nutrition and health in the developing countries of Africa and Asia (Haile *et al.*, 2018; van Vianen *et al.*, 2018). It is also of interest that there were no research collaborations or linkages between researchers based in Africa and Asia or Africa and South America, all in the global south.

Table 2: Links between researcher's affiliations and study location of the oral and poster papers

A. Oral Papers					
Researchers Affiliation	Study Locations				Total
	Africa	Asia	South America	Europe/N. America/Australia	
Africa	17(37.78)	0(0.00)	0(0.00)	0(0.00)	17
Asia	0(0.00)	2(12.50)	0(0.00)	0(0.00)	2
South America	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0
Europe/N. America/Australia	28(62.22)	14(87.50)	3(100.00)	5(100.00)	50
Total(%)	45(65.22)	16(23.19)	3(4.35)	5(7.25)	69*
B. Poster Papers					
Researchers Affiliation	Study Locations				Total
	Africa	Asia	South America	Europe/N. America/Australia	
Africa	17(36.17)	0(0.00)	0(0.00)	0(0.00)	17
Asia	0(0.00)	5(33.33)	0(0.00)	0(0.00)	5
South America	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0



Europe/N. America/Australia	30(63.83)	10(66.67)	3(100.00)	8(100.00)	51
Total(%)	47(64.38)	15(20.55)	3(4.11)	8(10.96)	73*

*Some studies were carried out at more than one location

Figure III showed that only 6.3% of the overall presentations were based on studies carried out in Nigeria, while 11.81% addressed livestock related issues. There is therefore the need to encourage livestock/nutrition/ health linked studies such as those that investigate the linkages between local livestock trade, gender norms and dietary diversity (Zongo *et al.*, 2018) or those that investigate the role of livestock ownership on nutrition outcomes, both at the family and community levels (Pfeifer *et al.*, 2018) among livestock research, in order to increase the number of livestock based presentations at future events.

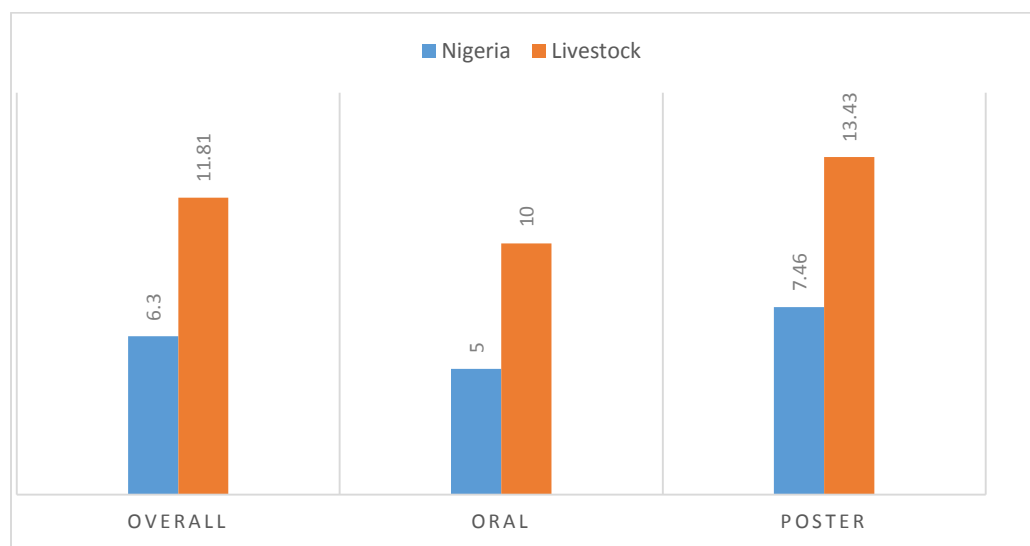


Fig. III: Nigerian and livestock based presentations

Conclusion

The results of this study highlighted the need for African and livestock researchers to innovate and foster new interdisciplinary collaborations that will enhance their relevance in the agriculture nutrition and health linkages research nexus.

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