Research Application Summary

Attracting women into agricultural education: Constraints and best practice

Lora Forsythe[1], Najjingo Mangheni, M.[2] & Adrienne Martin[1]
[1]Natural Resources Institute, University of Greenwich at Medway, Central Avenue, Chatham UK ME4 4TB
[2]Department of Agricultural Extension and Education, Makerere University, P. O. Box 7062, Kampala, Uganda
Corresponding author: l.forsythe@greenwich.ac.uk

Abstract

The study focuses on women's participation in higher agricultural education in four African countries. Barriers begin at secondary school where girls are less likely to take natural sciences, and negative perceptions of agriculture prevent girls and boys from perusing the subject. Women who select agriculture for higher studies received strong support from their families. Course selection in agriculture is highly gendered, along with participation in course activities. Challenges for women during studies were harassment, social pressure, lack of amenities and inadequate support of student mothers and pregnant students. There are some programmes addressing these barriers; however, effectiveness has been limited.

Keywords: Africa, agricultural education, gender, higher education, women

Résumé

L'étude met l'accent sur la participation des femmes dans l'enseignement supérieur agricole dans quatre pays africains. Les obstacles commencent à l'école secondaire où les filles sont moins susceptibles d'opter pour les sciences naturelles, et les perceptions négatives de l'agriculture empêchent les filles et les garçons de s'intéresser à ce sujet. Les femmes qui choisissent l'agriculture pour les études supérieures ont reçu un grand soutien de leur famille. La sélection pour les cours en agronomie est très discriminatoire, ainsi que la participation à des activités des cours. Les défis pour les femmes durant les études ont été le harcèlement, la pression sociale, le manque d'équipements et un soutien insuffisant pour les mères étudiantes et les étudiantes enceintes. Il y a des programmes pour éliminer ces obstacles; cependant, l'efficacité a été limitée.

Mots clés: Afrique, l'enseignement agricole, le genre, l'enseignement supérieur, les femmes

Background

A recent report on employer demand for agricultural graduates found that women professionals were inadequately represented in the agricultural sector, which was largely due to the low number of women in higher agricultural education (Blackie *et al*., 2009). The report recommended a study to be undertaken on the reasons behind this trend to identify how learning institutions could address this issue. This led to the commissioning of this study by Strengthening Capacity for Agricultural Research and Development in Africa (SCARDA), a project supported by the UK Department for International Development (DFID).

Literature Summary

There is a considerable amount of research reporting on the low number of women in higher agricultural education, resulting in a lack of female professionals in the sector despite the significant role of women as active farmers in sub-Saharan Africa (FAO 1993; Acker *et al.*, 1998; Blackie *et al.*, 2009). The barriers for women in this sector are situated in a context where education is skewed towards men, and science subjects are less favoured for by women (UNESCO, 2010). Female professionals with agricultural qualifications are also less likely to progress to MSc and PhD levels, preventing career progression and women's leadership in the agricultural sector (Beintema and Di Marcantonio, 2010).

Study Description

The study focuses on higher education institutions and their relationship with schools and employers in the agricultural sector, exploring how they seek to provide equal access and positive outcomes for women. Methods included key informant interviews and group discussions with male and female students in selected institutions in Tanzania, Rwanda, Kenya and Uganda.

Findings

Barriers for women participating in higher education in agriculture begin at secondary school where girls (and parents) are more likely to select arts over natural sciences due to gender stereotypes, preventing women from taking agriculture in higher education. However, negative perceptions of agriculture prevent both men and women who take science from choosing the subject for higher education. Women who selected agriculture for higher studies were found to have received strong support from their families (particularly fathers) and had a strong commitment to improving their countries. Once in agricultural studies, women and men often selected courses that corresponded to gender roles. Women often selected courses in food science and nutrition, which are sometimes negatively perceived. Women also selected natural science courses (e.g. biotechnology, laboratory research),

agribusiness, rural development and tourism. Some female students felt that they were not able, or were not encouraged, to participate equally with men during field experience. Other challenges for women and minority groups were harassment, social pressure, lack of amenities, and inadequate support of student mothers. Overall, aspects of diversity in higher education were not fully recognised. Students were positive about career opportunities in agriculture but often only became aware of opportunities once in the course. Students and teachers wanted more diverse skill sets and practical experience to improve student employability, and employers need to sensitise recruitment procedures to prevent discrimination.

Institutions in the case study countries have instituted a number of programmes to address barriers to women in agricultural education. The most effective strategies have been holistic, had supportive university executives, gender committees and student participation. Examples of efforts to increase female enrolment by learning institutions, were awareness campaigns in secondary schools to challenge negative perceptions of agriculture (Sokoine University) and lower pre-entry requirements and scholarships for women and minority groups (Sokoine and Makerere University). Learning institutions were also supporting student clubs and mentorship programmes (Egerton University), undertaking gender sensitisation activities for staff and students (Makerere University and the Kigali Institute for Science and Technology) and reforming curricula from a gender perspective (Sokoine and Makerere University). A flexible PhD programme was also successful in enabling professional women to achieve higher qualifications (National University of Rwanda), along with the AWARD programme which has been effective in promoting women's leadership in science.

However, the effectiveness of these strategies in making significant increases in the number of women taking agriculture is limited. There are also a number of challenges in implementation, such as funding constraints, lack of staff skills in gender in education, inability to address external barriers and low long-term commitment.

Research Application

Universities will need to prioritise the issues of women's participation in higher agricultural education in order build capacity in the agricultural sector. This is important for three reasons: 1) to be supportive of international and national policy directions on women's employment and development agendas;

2) to improve the gender balance of institutions in agricultural research and extension services; and 3) to promote positive outcomes at the farmer level and enhance human resource capacity in the sector.

Recommendation

It is recommended that higher learning institutions undertake:

1. An awareness-raising campaign on science and agriculture at secondary schools, targeted at girls (visits, seminars with teachers and establishment of Student Ambassadors).
2. Gender-sensitive institutional reforms (gender policy, establishing gender focal point).
3. Pre-entry programme, science and agriculture scholarships and flexible PhD programmes targeted at women and minority groups.
4. Build capacity of staff and students in gender and diversity (e.g. curriculum revision).
5. Build a supportive environment through activities (e.g. creating a one-stop-shop for students to receive gender-sensitive support, student and staff mentorship).
6. Employer-led initiatives to promote employability in agriculture, especially for women (internship programmes).

It is recommended that the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) develops a mechanism for monitoring progress in the RUFORUM network with respect to the recommendations of the report and facilitate a regional network of gender champions in agriculture.

Acknowledgement

SCARDA and ASARECA for commissioning this research; Dr. Joseph Methu and Foroge Olinga (ASARECA) for their support and insight; immense gratitude to students, learning and research institutes, government departments and individuals we visited.

References

Acker, D.G., McBreen, E.L. and Taylor, S.1998. Women in higher education in agriculture with reference to selected countries in East and Southern Africa. *The Journal of Agricultural Education and Extension* 5(1):13-22.

Beintema, N.M. and Di Marcantonio, F. 2010. Female participation in African agricultural research and higher education: New insights. Synthesis of the ASTI-Award benchmarking survey on gender-disaggregated capacity indicators. IFPRI Discussion Paper 00957.

Blackie, M., Mutema, M. and Ward, A. 2009. ASARECA/ RUFORUM thrust 4: A study of agricultural graduates in

eastern, central, and southern Africa: Demand, quality and job performance issues.

FAO (Food and Agriculture Organisation), 1993. Strategy options for higher education in agriculture. FAO, Rome, Italy.

UNESCO Institute for statistics, 2010. Regional overview: sub Saharan Africa. EFA global monitoring report: Gender and education for all 200 3/4.