



Borlaug Higher Education for Agricultural Research and Development



2017 BHEARD Scholar
Moi Peter Elia

Profile

Country of Study:	Kenya
University:	University of Nairobi
Department:	Agriculture
Student Position:	Graduate Research Assistant—MSc.
Home Country:	South Sudan
Home Institution:	Oxfam– South Sudan
Home Position:	Emergency Food Security and Vulnerable Livelihoods Technical Manager
Mentored By:	Clayton Mashapa Theodros Ehsete Tefera Dr. Lydia Wamalwa

Research Area: *Drought Tolerant and Resilient Food Security Crops*

BHEARD PROGRAM START DATE: September 2017

UNDERGRADUATE EDUCATION: BSc. Agricultural Mechanization and Irrigation Engineering, Busitema University-Uganda

RESEARCH INTERESTS: A MSc. degree in Agronomy, will enable Moi Peter to learn about plant physiology and ecology, advanced crop production, integrated pest management strategies, weed biology, advanced seed science and technology. This will enhance his technical skills in an extensive open field cultivation of plant species for human food supply, livestock and poultry feed, fibers, oils and certain industrial products. He will gain skills in scientific research that will look at the improvement of crops (cereals, protein and oilseed harvests) in a sustainable manner to ensure sufficient food supply for an ever-increasing population. A Masters of Science in Agronomy will further deepen his scientific knowledge of general crop physiology. Moi Peter will be able to gain more experience to integrate crop, soil and related sciences for innovative approaches of fighting chronic food insecurity.

He will also be involved in many issues including food production, the production of healthier food using innovation from the skills he will gain. This will enable Moi Peter to manage the environmental impact of agriculture especially in the semi-arid livelihood zones of South Sudan by advocating for climate smart agriculture.

His research on cassava will focus on assessing the effect of transgenic cassava on food security. This will specifically look at assessing the effects of transgenic cassava yields on food security, assessing the effect of transgenic cassava pest and diseases on food security and determining the nutrient level of transgenic cassava on food security. In his research work, Moi Peter will also conduct economic analysis of cassava production for the small holder farmers currently producing cassava to understand the incomes levels one could get from cassava production for an average land which income can be used to diversify livelihoods and improve living standards of the small holder farmers.

After the successful completion of the research, he will contextualize the findings and provide recommendations on suitable cassava varieties to be promoted in South Sudan, sustainable production systems, utilization and marketing of cassava to boost cassava production and productivity to diversify livelihoods and improve food security among communities in South Sudan.

PERSONAL STATEMENT: Upon completion of MSc. in Agronomy, Moi Peter would like to start a seed multiplication project. The varieties of the seeds to be multiplied and preserved will be informed by their suitability to the South Sudan climatic and ecological conditions and preference of the communities based on seed preference assessment and interaction with existing agro-dealers. This will include cassava cultivars, maize, sorghum, forage seeds, beans and vegetables seeds. He will link with agro-dealers in each of the states in South Sudan to ensure that these seeds are accessed by the farmers and NGOs at low cost. He will try as much as possible to lobby for support from UNFAO and ministry of Agriculture to ensure that seeds are multiplied/produced locally and minimized importation of seeds from other countries which comprises crop protection policies of the country.

This will as well mitigate the spread of pest and disease from one country to another which South Sudan is currently facing due to high dependence on imported seeds varieties.

Finally, Moi Peter's long term vision will be to collaborate with research fellows and people in Kenya and beyond to start an agricultural college in south Sudan where he will liaise with government and INGOs to build the capacity of extension workers with skills and knowledge in Agriculture and irrigation.

He will use the institution to develop simple (pictorial) training manuals for training farmers on best agricultural practices, seed multiplication, pest and disease control, soil testing and analysis, irrigation scheduling, and how to use draft animal power. In this institution, he would promote fabrication of agricultural tools like ox-ploughs, hoes, planters, cassava chipper, maize hullers, sorghum threshers and others based on the local demand which can be accessed by the communities at low cost.

WHEN I AM NOT WORKING I ENJOY: Moi Peter is an enthusiastic individual, who is committed to social networking and learning new ideas in solving real life challenges in relation to food insecurity. He respects people opinions and culture, communicates well with a wide range of people and forms a quick working relation with people from diverse backgrounds. In his leisure time, he enjoys reading scientific research journals related to Food security and livelihoods, watching football, listening to East and west African Music and meeting and chatting with friends.