

UniCARSSA - University-based Community Action Research for increasing viability of cereal-legume value chains towards improved nutrition and livelihoods in sub-Saharan Africa.

ABSTRACT | In Kenya and Uganda, challenges of food & nutrition security (FNS) and rural poverty remain major concerns. Declining soil fertility, mono-cropping, post-harvest handling and erratic rainfall lead to malnutrition and poverty. Over-dependence on rainfed agriculture with vulnerable crops such as maize exacerbates soil degradation and food insecurity. Poorly responsive soils, low organic matter content, and lost top soils are also limiting factors to crop production. Low consumption of traditional high-value crops such as sorghum, millet and grain legumes has led to increased nutrition-related diseases. Yet, research on these crops has been neglected in Africa. Integrated soil management practices and intercropping of nutritious foods can enhance resource utilization, increase production, and improve rural livelihoods. Legumes grown in sequence with cereals also positively affects the system's water- and nutrient-use efficiency .

Intercropping of cereals and legumes provides diversified sources of food and opportunities to reduce malnutrition and increase household incomes through product development at household and community level. The combination of cereal and legume crops can also be used as base ingredients for the production of nutritious ready-to-use supplementary foods (RUSFs) to alleviate malnutrition.

The UniCARSSA project will engage with farmers and processors to address specific constraints in cereal-legume systems and carry out research to improve their productivity, efficiency and profitability in western Kenya and eastern Uganda. This project incorporates two Community Action Research Platforms (CARP) to create sustainable links and capacity among researchers, farmer organizations and other change agents, that will provide the operational framework for transdisciplinary research, engaging local actors along the value chains of cereals and legumes in participatory action and academic research. Project will focus on improved productivity, soil nutrient-use efficiency, enhanced value chain operations, reduced post-harvest losses and improved nutritional contribution of cereals and legumes in smallholder agriculture for improved livelihoods, rural incomes and FNS, whilst strengthening capacities and improving the relevance and contribution of universities to achieving SDGs and CAADP goals.

UniCARSSA adapts an Africa-Europe collaboration model in which the problems are solved in situ, i.e. the research and development of innovations are identified by the African Universities together with the rural communities and scaled through the CARPs. The European partners provide support with a role in capacity building at University, Industry (SMEs) and Community level.

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PI AT ISA | Maria José Brito Monteiro da Silva

