GCRF-AFRICAP is a new programme of work funded by the UK government, and being led by the University of Leeds and the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), in collaboration with the Met Office, University of Aberdeen and Chatham House. The programme aims to establish academic partnerships between UK and African research and policy institutions and develop capacity across these partnerships in the field of climate smart agriculture and food systems. It is driven by an aim to build capacity for, co-develop and demonstrate, nationally owned SDG-compliant agri-food development pathways that can be productive, sustainable and climate-smart

Assessing Key Drivers and Determinants of Food Loss and Aflatoxins and Evaluating Impact on Nutrition and Health in Africa

It is estimated that between 8-26% of staple food produced in developing countries is not eaten, but more alarmingly an even higher amount (56-86%) deteriorates in some way that may be harmful to health. One major health risk associated with post-harvest deterioration in Africa is contamination with *Aspergillus flavus* which produces aflatoxins. Aflatoxins are common fungal toxin contaminants of staple of food crops such as maize and groundnuts. It is a human carcinogen that can cause death due to acute or chronic consumption of contaminated food. It is particularly on concern for pregnant women and children.

One focus of GCRF-AFRICAP is to assess the key drivers and determinants of food loss and of aflatoxin contamination in particular. We would like to understand how policy, climate change and agricultural farming practices influence food loss and aflatoxin contamination of food crops, both at pre- and post-harvest stages. Working with FANRPAN and scientists in Tanzania, Zambia, Malawi and South Africa, the research will generate evidence to inform and help implement sustainable food production practices and policies to prevent contamination along the food chain and improve health outcomes for the population.

Specifically, this work aims to: **1) identify agronomic and socioecological factors determining food loss, food safety, food security, nutrition and health outcomes; and 2) evaluate the ecological, environmental and agronomical determinants of aflatoxins contamination and nutrient content of maize in the target countries.**

As part of this work, we would be very interested in working with scientists, farmer associations, agricultural extension service providers and organisations involved in survey methodology, nutrition, nutrient and aflatoxins analysis, risk assessment, and health assessment. We wish to work with you to develop models assessing impact of agro-ecology and climate on nutrient content and aflatoxins contamination; and help inform decisions regarding adoption of climate and malnutrition mitigation strategies.

If you are interested in finding out more about the research, we would be delighted to hear from you, via the contact details below.

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