Transfer of knowledge between West and East Africa: advancing in fruit and vegetable processing to minimize food loss along the value chain and improve human nutrition

International DAAD Alumniseminar
22 – 26 June 2020, Nelson Mandela African Institution of Science and Technology, Arusha (Tanzania)

Seminar goals and concept
Fruits and vegetables are lacking in the diet in adequate amounts of most people in Sub-Sahara Africa (SSA). At the same time, SSA is home to about 3,000 species of fruits and vegetables, which could supply the required vitamins, their precursors and minerals. However, the challenges of fruits and vegetables for human consumption in SSA are the seasonality of supply within only few months of the year, that often surplus production is wasted due to a lack of appropriate storing capacities and preservation techniques, and long distances between production areas and potential consumption centres. In addition, only parts of some commodities are used while the rest of the plant is not utilized. Because of a lack of processing facilities, most of these products are sold very cheap, and a surplus amount goes to waste. As the planned alumni seminar will be connected to a currently ongoing BLE-funded project in Kenya, Tanzania and Uganda focusing on fruit and vegetable processing (FruVaSe, for more details and all University partners involved see http://wwwuser.gwdg.de/~uaac/fruvase01.htm) the target fruits and vegetables of this project will be used as examples. Further fruits and vegetables of interest and especially appropriate processing methods will be also included as colleagues from the agricultural engineering department of the University of Kassel will contribute their experience from an ongoing BLE project in West Africa (UPGRADE Plus).

The seminar will be an opportunity for alumni from different East and West African countries who are professionally active in fruit and vegetable processing, engineering with focus on energy production and water management, nutrition and marketing. This seminar will further promote the capacity building of alumni who would also enrich the future research and collaboration amongst the alumni from different African regions.

In the seminar, participants will exchange their knowledge on fruit and vegetable processing topics as well as actively debating options and challenges focusing on a) different processing and preservation technologies; b) quality, nutritional value and shelf-life stability of processed/preserved products; c) energy needs for processing/preservation; and d) packaging and marketing.
The alumni seminar will facilitate networking between the participants and with scientists and international students. By means of poster presentations and discussion fora, visits of regional facilities and horticultural farms, you will get in touch with institutions and organizations involved in the horticultural and food processing sectors.

The alumni seminar is hosted by the School of Life Sciences and Bio-Engineering (LiSBE), the Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha, Tanzania and organized in cooperation with the Division Quality of Plant Products, Faculty of Agricultural Sciences, University of Göttingen and the Section Agricultural and Biosystems Engineering, Faculty of Organic Agriculture, University of Kassel. It is offered by the German Academic Exchange Service (DAAD) and the costs will be mainly covered by funds from the DAAD provided by the German Federal Ministry for Economic Cooperation and Development (BMZ).

**Program**

The seminar program will include:

- Sessions on the different fruit and vegetable processing topics for which experts from appropriate scientific institutions, NGOs and/or the private sector will be invited
- Poster or oral presentations from the participating alumni to ensure the active participation of the selected alumni
- Group work activities and professional networking opportunities with scientists and private sector/industry
- Excursions

The final program will be published once all applications have been reviewed.

**Eligibility criteria for participation**

This seminar targets alumni of German universities

- from East and West African countries,
- who carried out research or studied in Germany for at least 3 months and
- who are currently living and working in their home countries or in general in East or West Africa.

You should have

1. a proven background in academic fields relevant to the topics of food science and technology, horticulture, agricultural engineering, nutrition, marketing, and professional experience and personal interest in one of the following areas: research, education, NGOs, government agencies, policy making, project development, local communities, and related stakeholders.
2. the requirements to act as a potential multiplier who will present the seminar results in your home country and thus disseminate the acquired knowledge as well as develop ideas and projects for regional implementation.
3. adequate language proficiency which is essential to actively participate in the workshops and discussions as the seminar will be held in English.

**Cost coverage**

- Travel costs to and from Arusha, max. 480 Euro for alumni from East Africa, max. 1,100 Euro for alumni from West Africa and max. 80 Euro for alumni living within Tanzania (lowest possible economy class airfare, train/bus fare)
- Accommodation and meals during the stay in Arusha and during excursion
- Transport to and from the excursion venue, entrance fees
Please note: All other costs, visa related or travel health insurance etc., have to be borne by the participants.

Travel dates:

21 June 2020: Arrival at Arusha

27 June 2020: Departure from Arusha

Application procedure

Your application should emphasize your motivation and personal/professional benefit for your participation. You should illustrate how you are planning to imply the gained knowledge and what possible stakeholders for collaboration you may identify for your professional career.

Please conduct your online application only via our application portal on

https://lotus2.gwdg.de/uni/uanp/daad_alum_sem_2020.nsf/application

latest by 9 March 2020.

In addition to the online application form, your application in English should include the following documents as a single PDF which can be uploaded:

1) Short CV with photograph (max. 2 pages)

2) Motivation letter (max. 1 page) addressing and answering the following three questions:

   - What do you expect to learn during the Alumni seminar and how will you personally and professionally benefit from the participation?
   - What are your present work and duties, and what topics related to the seminar are especially important to you?
   - How are you planning to imply the results of our discussions into your present and upcoming projects and what stakeholders are you planning to work with in the future?

3) Abstract (max. 1 page) of a poster or kick-off speech for a session consisting of short presentations and interactive group discussions related to their respective country perspective, concerning the following topics. Please, name the topic below, title and author(s) name(s):

   1. Fruit or vegetable processing – focusing on new and innovative processing and preservation methods with lowest nutrient loss and feasibility under the respective local conditions
   2. Bio-energy production based on processing and household waste, Life Cycle Assessment
   3. Management of water supply
   4. Packaging of fruit and vegetable products – considering newest regulations regarding environmental issues (e.g. regulations on plastic)
   5. Marketing of fruit and vegetable products and consumer behaviour
   6. Food consumption and nutrition security with a focus on fruit and vegetable consumption

The PDF-document with a total of max. 4 pages has to be named ‘Last name_First name_country’ (e.g. Meier_Ana_Germany).

Please note: Completeness of personal data mentioned in the online application form will affect your eligibility as a participant.
After the review by the organizing committee and DAAD, the invited participants will be notified by end of March 2020.

For further questions, please contact

Dr. Gudrun Keding, Division Quality of Plant Products, University of Goettingen, email: gkeding@gwdg.de

Goettingen, 6 February 2020