

# AAUN Panel 2:-Post harvest Group Presentation

Joint AAUN Australia Awards Agricultural  
Research Symposium

College of Agriculture and Veterinary Sciences,  
University of Nairobi-Kenya

25<sup>th</sup> November 2015

## Panel PI/Representatives

Three projects in the group led by

- **Dr. Casper Madakadze**, University of Pretoria
- **Dr. George Abong**, University of Nairobi
- **Prof. Robyn McConchie**, University of Sydney

# **Project 1**

**“Increased Bambara/Cowpea Production  
in Eastern, Western and Southern Africa”**

# Partner Institutions

- Dr. Casper MADAKADZE – University of Pretoria
- Dr. Amin MUGERA – University of Western Australia
- Prof. Sashi SHAMA – Murdoch University
- Prof. Victor OKORUWA – University of Ibadan
- Prof. Kwaku G. DUODU – University of Pretoria
- Prof. John MUYONGA – Makerere University
- Dr. P JOHNSTON – Cape Town University
- International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria
- Dr D Nthakheni – Limpopo department of Agriculture
- Dr K Mashinagaidze – ARC-Grain Crops, South Africa

# Broad Objective

- To substantively increase sustainable, safe, biosecure, widespread cultivation and consumption of cowpeas and bambara nuts as relatively inexpensive sources of protein in the diet of people.



## **Main Activities**

- Review available data and literature on cowpeas and Bambara value chains**
- Identification of research gaps and developing an appropriate conceptual framework**
- Develop sub-theme main activities for proposal development**
- Develop a full proposal for funding**

# **This broad objective will be addressed through three sub-themes:**

## **☐ Addressing constraints to low productivity and post-harvest handling**

- to increase productivity by increasing yields per unit area and quality through improved crop varieties, optimized agronomic practices, and post-harvest handling and processing.

## **☐ Modernising Bambara/Cowpea Systems and Value Chains (as part of legume systems)**

- To investigate the factors that could drive the demand for bambara and cowpea.

## **☐ Enhancing Food Nutrition & Health and Food Safety**

- investigate factors responsible for the hard-to-cook phenomenon
- develop nutritious food products or ingredients with health-promoting properties.

## **☐ Integrate gender, poverty and environmental concerns in the framework**

## **Anticipated outputs from this initiative are:**

- A full proposal on cowpeas and bambara groundnuts value chains
- Joint external funding applications to international donors
- Fostered collaboration and partnerships between AAUN member universities and partners
- Mapped out opportunities for graduate students training, and participation of post-docs and early career scholars.
- A review article on value chain analysis in sub-Saharan Africa from the literature review



## **Time lines:**

*1st workshop April 2014 in Pretoria (UP) – framework developed*

*2<sup>nd</sup> meeting May in Johannesburg (AAUN workshop)- framework further refined*

*Focused development of the three thematic areas devolved as follows:*

*a. Production issues – UP (IC Madakadze)*

*b. Value chain issues – UWA (A Mugeru)*

*c. Processing and value addition – Makerere (J Muyonga)*

# **Project 2**

**Sweet potato Post-harvest Value  
Addition for Improved Food and  
Nutrition Security in Kenya**

# Team members

Abong', GO<sup>1\*</sup>, Makhungu, V<sup>1</sup>, Kaaya, A<sup>2</sup>,  
Wanjekeche, E<sup>3</sup>, Shibairo, SI<sup>4</sup>, Lamuka, PO<sup>1</sup>, Okoth,  
MW<sup>1</sup>, Odongo, NO<sup>1</sup>, Sopade, PA<sup>5</sup>

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*<sup>2</sup>Department of Food and Nutrition School of Food Technology, Nutrition and Bio-engineering, Makerere University, Uganda*

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*<sup>5</sup>Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation, University of Queensland, Australia*

# Specific objectives

1. Assessment of current post-harvest practices, constraints and opportunities-growing areas
2. Characterization of physico-chemical and nutritional quality traits of SP varieties for processing suitability-Kenya/Uganda
3. Developing, evaluating and validating post-harvest value addition/technologies for food and industrial applications *of-attempts and proposal.*
4. Enhancing SP utilization through increased uptake and commercialization of newly developed technologies and OFSP products through capacity building and technology transfer-*Proposal.*

# Progress

- Note: delay in grant release–delay in activities.
- Face to face meetings held:
- May 2015: Johannesburg AAUN meeting
- June 2015: Nairobi- progress discussion.
- Desk top review of situation analysis-completed and draft generated-Review on-going.

# Progress

- Baseline survey of gaps: current post-harvest handling practices in Uganda complete and partially in Kenya- by mid December 2015.
- Sampling roots and leaves for analysis: planning almost complete and an MSc. Student is attached- by end of December 2015.
- Exchange visit and conference attendance to Australia-accomplished on 16-20 November 2015

# Future plans

- Validation and up scaling of post-harvest handling technologies
- development of value added products
- Development and submission of proposals to obtain funds towards this realization is our endeavor.

Thank you