



Workshop on
**Food Security and Agricultural Value-Addition in Mozambique:
Challenges and Solutions**



Organizers



February 27th-29th, 2012

Hotel Avenida, Maputo, Mozambique

Sponsor



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

Workshop Registration Fee: \$20 per person. Financial assistance available upon request.

Workshop Hotel: Hotel Avenida, Av Julius Nyerere, 627, Maputo, Moçambique. Tel +258 21 48 44 00; Fax +258 21 49 96 00; Email: bookings@hotelavenida.co.mz

Accommodation: Lodging expenses if applicable will be borne by attendees. Meals will be provided as part of the workshop.

Please complete the following details and return to Prof. Louis Pelembe; Head, Food Technology; Department of Chemical Engineering; Universidade Eduardo Mondlane (UEM) by email: <louispelembe@uem.mz> or <louispelembe@yahoo.com>.

First Name: _____ Last Name: _____ Organization: _____

Address: _____

Telephone: _____ Email: _____

Please check as appropriate. Payment will be made by: Check _____ Cash _____

Prof. Pelembe will contact you with regard to processing of the payment. He can also be reached by phone at: +258-84-4875029

For More Information Contact: Prof. Louis Pelembe (UEM; louispelembe@uem.mz), Prof Sajid Alavi (Kansas State University; salavi@ksu.edu) or Prof. Nina Lilja (Kansas State University; nlilja@ksu.edu)

Who Should Attend: The workshop will be particularly useful for non-profit organizations, academicians, government officials, professionals from the industry (ingredient, products and equipment) and consultants engaged or interested in food aid, agricultural development, value-addition, food processing and market development in Africa. Please contact the above listed organizers for display of logos, brochures and other informational materials at the workshop venue.

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Workshop Background:

Although it has abundant natural resources, Africa remains the world's poorest and most underdeveloped continent. The sub-Saharan region particularly has been the least successful part of the world in reducing poverty. In 2005, half of its population lived below the international poverty line of \$1.25 of per day. Countries in Southern Africa, with the exception of industrially developed Republic of South Africa, are no exception. Mozambique, with a population of 23 million, is one such country although with an important difference. It is a democracy that has emerged successfully from a long civil war, and has a rapidly growing economy and forward looking government policies and institutions. Mozambique is one of the poorest countries in the world, ranked 172nd out of 182 countries on the 2009 UN Human Development Index. Despite significant achievements in poverty reduction, about 50% of the population lives below the poverty level and 46% of children under five are malnourished. Only 12% of Mozambique's 90 million acres of arable land is currently cultivated, less than 10% of farmers use improved seeds, and 80% of small-scale farms are not market-oriented with a lack of value-added processing for their products that could not only raise rural incomes but also address the problem of endemic malnutrition.

Mozambique's major cash crops are cashew nuts, cotton, copra, sugar, tea, and cassava, and its major food crops are corn and sorghum. The country is a net importer of food; in 2006, the trade deficit in agricultural products was \$166 million. It has untapped agricultural potential to be a major food exporter with its extensive fertile land, water resources, favorable climate, inexpensive labor force, proximity to major markets, and excellent seaports. Transformation of the agricultural sector to create more dynamic and productive source of food and income is critical to economic growth and food security in Mozambique. Successful transformation of agriculture must be



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accompanied by growth in non-farm agricultural enterprises in the food and feed processing sectors. These challenges can be addressed by value-added processing of important local commodities such as corn and sorghum, and development of novel nutritious products for food aid programs and commercial applications. To achieve this goal, collaboration with neighboring South Africa, with industrialized agriculture and an advanced food processing sector, is important. U.S. industry, including processing equipment manufacturers and agribusinesses, can also play a pivotal role.

This workshop will focus on identifying challenges related to food security and agricultural value-addition in Mozambique. Opportunities to address these challenges will be discussed with special emphasis on cooperative efforts by universities, industry, governmental agencies and non-profit partners in Mozambique, United States of America and South Africa. Relevant technologies, products, and innovative solutions developed and supported by these stakeholders will be showcased. Issues related to transfer of technology and long-term sustainability will be highlighted. Workplans and roadmaps will be developed for successful implementation of model solutions.

The workshop is part of the ‘Global IQ Project’, which is funded by the International Science and Education Program of the USDA National Institute of Food and Agriculture, grant number # 2011-51160-30531.



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Workshop Agenda Day 1 (February 27, 2012; Monday):

07:30 am: Registration; Coffee and Tea

08:30 am: Introductions and Workshop Background

Prof Sajid Alavi, Ph.D., Kansas State University

Prof Louis Pelembe, Ph.D., Universidade Eduardo Mondlane

09:00 am: Opening Remarks – Role of Science and R&D in Addressing Challenges Faced by Mozambique

Prof Dr. Eng. Venâncio Massingue, Minister of Science and Technology, Mozambique

Opening Remarks – Role of Mozambican Universities in the development agenda

Prof Orlando Quilambo, Ph.D., Vice Chancellor, Universidade Eduardo Mondlane

09:40 am: BREAK

10:00 am: US - Mozambique Partnerships in Agriculture

Mr. Todd Amani (Mission Director, USAID Mozambique) and Mr. Richard Kaminski (Senior Economic Advisor, US Embassy, Mozambique)

11:00 am: Kansas State University – Reaching out to Africa

Prof Nina Lilja, Ph.D., Director, KSU College of Agriculture International Programs, USA

11:30 am: Agricultural Challenges and Innovation: Lessons from the Mozambican Experience

Prof Emílio Tostão, Ph.D., Dean, Faculty of Agronomy and Forest Engineering, Universidade Eduardo Mondlane

12:30 pm: LUNCH

02:00 pm: Agricultural Challenges and Innovation: Lessons from the South African Experience

Prof Irvine Mariga, Ph.D., Associate Professor, Department of Plant Production, Soil Science and Agricultural Engineering, School of Agricultural and Environmental Sciences, University of Limpopo, South Africa

2:30 pm: BREAK

3:00 pm: Breakout Sessions – Challenges in Agriculture and Value Addition

4:30 pm: Panel Discussion & Reporting on Breakout Sessions

7:00 pm: DINNER AND RECEPTION

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Workshop Agenda Day 2 (February 28, 2012; Tuesday):

- 08:30 am: Innovative Food Processing Technologies for Africa
Mr. Doug Baldwin, Wenger Manufacturing, USA
- 09:00 am: Addressing Hunger and Poverty in Africa
Mr. Moussa Sangara, World Vision, Mozambique
- 09:30 am: Research and Development in Agricultural Value-Addition – Transferable Technologies
Prof Sajid Alavi, Ph.D., Kansas State University, USA
- 10:00 am: Food Processing Research in Mozambique – Case Studies
Prof Louis Pelembe, Ph.D., Universidade Eduardo Mondlane
- 10:30 am: BREAK
- 11:00 am: Food Security in Africa through Value-Added Processed Commodities
J.J. Fourie, Joint Aid Management, South Africa
- 11:30 am: Agriculture and Food Security Value Chain in Mozambique
Prof Firmino Mucavele, PhD, Former Executive Director of the New Partnership for Africa's Development (NEPAD); Scientific Director, Universidade Eduardo Mondlane
- 12:00 pm: LUNCH
- 01:30 pm: Food Processing Needs and Opportunities in Mozambique – Role of Small and Medium Scale Enterprises
Eng. Odete Mondlane Tsamba, Director, The Institute for Promotion of Small and Medium Scale Enterprises (IPEME), Mozambique
- 02:00 pm: Global Health through Nutrition Technologies
Matthew Frey, PATH, U.S.A.
- 02:30 pm: BREAK
- 03:00 pm: Break Out Sessions – Solutions to Food Security in Mozambique
- 04:30 pm: Panel Discussion & Reporting on Breakout Sessions; Closing remarks
- 07:00 pm: DINNER

Workshop Agenda Day 3 (February 29, 2012; Wednesday):

- 8:00 am: Field trip within Maputo to food processing company (CIM), IPEME and Universidade Eduardo Mondlane
- 01:00 pm: WORKSHOP CONCLUSION

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About the Workshop Organizers



Prof. Nina Lilja, Ph.D., Director of International Agricultural Programs, College of Agriculture, Kansas State University, USA

Nina Lilja is an agricultural economist and has long experience in international project implementation, management and impact assessment in Africa, Asia and Latin America. She spent 12 years on overseas posts as a principal scientist for the Consultative Group (CGIAR) on International Agricultural Research (CGIAR), She has worked as a policy economist for the West Africa Rice Center (WARDA) in Ivory Coast and was part of the team employing participatory research methods for the development of New Rice for Africa (NERICA). Contact: <nlijl@ksu.edu>



Prof. Sajid Alavi, Ph.D., Associate Professor, Department of Grain Science and Industry, College of Agriculture, Kansas State University, USA

Sajid Alavi is a food process engineer with research focus on extrusion processing, and value added uses of agricultural materials and residues. He received his Ph.D. in Food Science/Food Engineering from Cornell University. Alavi has been a faculty member at KSU since 2002. He is very active in providing training and solutions on food processing to businesses and is involved in food aid related projects in USA, Africa and other countries around the world. Contact: <salavi@ksu.edu>



Prof. Louis Pelembe, Ph.D., Head, Food Technology, Department of Chemical Engineering, Universidade Eduardo Mondlane, Mozambique

Louis Pelembe is a food processing expert. He received his Ph.D. degree in Food Science from University of Pretoria. He was the regional vice chair of Soy Southern Africa, and is Professional Member of the South African Association of Food Science and Technology (SAAFoST) and an active member of Mozambique's National Committee of Codex Alimentarius and of the East, Central and Southern African Association of Food Science and Technology (part of IUFoST). He is also member of two advisory boards for the Council of Ministers of the Government of Mozambique on issues related to Institutions of Higher Learning (CNES) and on Technical and Vocational Education and Training (TVET). Contact: <louispelembe@uem.mz> or <louispelembe@yahoo.com>.

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