



MERCY LUNG'AHU, PhD

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Nationality: Kenyan

KEY QUALIFICATIONS:

- ❖ **Accomplished program and project manager** with expertise in the identification, design, setup, and planning of projects continuing through project implementation, monitoring, evaluation, and publication.
- ❖ **Insightful food and nutrition scientist and hands-on researcher** linking agriculture and nutrition who has been instrumental in driving food value chain improvements in challenging environments. Successful in identifying nutrition interventions, co-designing solutions with communities, leading product formulation and development teams, and improving food safety in different settings.
- ❖ **Adept at moving research into implementation** by identifying critical action points for enhancing nutrition outcomes within vulnerable communities, agricultural value chains, and food systems. Guiding national agricultural research systems on how to connect agriculture to nutrition, and helping stakeholders see how agricultural programs can help them achieve national nutrition and health objectives. Providing technical expertise and advice that enables governments to develop policies, programs, and funding opportunities that foster agriculture's role in improved nutrition and health outcomes. Forward-thinking top performer and thought leader able to formulate explicit nutrition enhancement strategies and optimize food system performance through innovative, scientifically rigorous and business-savvy interventions.
- ❖ **Leading advocate for nutrition training and collaboration**, which has motivated countries to strengthen their commitment to nutrition. Proven record of strengthening the capacity of stakeholders in multiple sectors including the food industry, farming community, development agencies, and governments, and in building partnerships among those stakeholders. Liaising with governmental bodies, industry associations, and scientific institutes in Africa and at the global level.
- ❖ **Topics of expertise** include nutrition efficacy, randomized control trials, case-control trials, food security, food safety, product development, nutrition education and promotion, gender empowerment, research design, capacity-building, linking agriculture with food systems and nutrition, community nutrition advocacy, and nutrition surveillance. Breakthroughs in intervention design include the Nutrition Early Warning System which uses Big Data and artificial intelligence algorithms to predictively reduce childhood stunting; and multi-sectoral approaches to addressing malnutrition among vulnerable populations. Responsible for landmark research including the Nutrition, Markets, and Gender Survey, which highlighted the need to promote adolescent nutrition on par with infant nutrition; and Rwandan beans study, which provided the first proof of concept that biofortified beans can improve nutrition status in humans.

PROFESSIONAL EXPERIENCE:

International Center for Tropical Agriculture (CIAT), Nairobi, Kenya

November 2013 – Present

Scientist: Nutrition Lead, Africa

January 2017 – Present

- Developed the “Agriculture for Improved Nutrition and Health” roadmap and nutrition plan for CIAT in Africa.
- Provided thought leadership on the Nutrition Early Warning System (NEWS), a new approach to address childhood stunting that shifts the paradigm from reactive to proactive nutrition actions:
 - Developed a white paper for NEWS that was launched at the CIAT@50 celebrations in Nairobi, *May 29, 2017*.
 - Hosted a high-level breakfast on NEWS at the African Green Revolution Forum in Abidjan, Ivory Coast, *September 7, 2017*.
 - Developed a proposal and implementation plan for NEWS targeting nine African countries (Botswana, Kenya, Malawi, Mali, Nigeria, Rwanda, Senegal, South Sudan, Zimbabwe), *December 2017*.

International Center for Tropical Agriculture (continued)

Scientist: Nutritionist, Bean Program

November 2013 – December 2016

- Scientist researching nutrition-sensitive agricultural programming within beans value chains in Africa. Conducted research on the underlying causes of malnutrition among vulnerable communities. Identify approaches to connect agricultural production and value chains with healthy population outcomes. Approaches included diversifying agriculture, using agricultural income to buy diverse foods and healthcare, and empowering women to use their time and energy efficiently for self- and child care. Strengthened agriculture and nutrition linkages in bean value chains:
 - Mainstreamed biofortified beans into the value chain and promoted emerging delivery channels such as school feeding programs.
 - Facilitated development and use of appropriate nutrition information that increases utilization of biofortified beans and nutrient-dense, bean-based products across age groups and between men and women.
 - Employed the food basket approach in recipe development and as a tool for nutrition education and promotion in the bean value chain.
 - Developed a toolkit to improve food safety along the bean value chain.
- Increased professional capacity and institutional commitment to nutrition:
 - Conducted advocacy aimed at increasing country capacity and commitment to nutrition.
 - Mentored young nutritionists working in National Agricultural Research Systems (NARS) to improve systems within NARS to plan, manage, and evaluate nutrition research activities in agricultural programs.
- Promoted knowledge transfer and adoption of transformative nutrition interventions that catalyze improved nutrition among vulnerable populations.
 - Examples include applying a nutrition education approach in Tanzania that had succeeded in Malawi, and influencing teams in Burundi and Madagascar to adopt a product development method that had succeeded in Uganda.
- Strengthened engagement with the private sector to improve nutrition:
 - Strengthened multiple stakeholder engagements around country nutrition goals by linking food industry, farming community, developmental and governmental entities for improved nutrition.
 - Organized meetings that gathered these stakeholders around a common agenda of nutrition.
- Conducted case-control, cross-sectional survey (Nutrition, Markets and Gender Survey) investigating causes of stunting among children under 24 months across nine Rwandan districts. Results included:
 - Established risk factors for stunting among Rwandan children.
 - Confirmed the scientific consensus that preventing malnutrition in women and children depends on the crucial “1000-Day Window” period from the start of pregnancy through the child’s second birthday.
 - Identified nutrition status of pre-conception adolescent girls as a crucial area of focus in breaking malnutrition cycle in Rwanda.
 - The survey methodology has been adapted for other countries including Malawi.

**International Center for Tropical Agriculture
Postdoctoral Fellow & Nutrition Specialist**

May 2011 – August 2013

- Coordinated landmark study providing critical evidence supporting the efficacy of biofortified beans. Co-wrote study proposal, oversaw the preparation, and supervised the study implementation and data collection in the field. Led randomized, double-blind, longitudinal intervention study “Efficacy of Iron Biofortified Beans in Improving the Iron Status of Rwandan Women of Reproductive Age: A Randomized Control Trial.” The research conclusions revealed that:
 - Daily consumption of beans bred for increased iron content resulted in the prevention and reversal of iron deficiency in young Rwandan women in only 4½ months.
 - Iron-biofortified beans enhance cognitive performance (memory and attention) of iron-deficient women, key factors for optimal performance at school and in the workplace.
 - The study has major implications for women and children in countries where malnutrition is a concern.

EDUCATION:

Ph.D. in Food Science and Technology

September 2007 – August 2010

Dissertation: Studies on Iron-Biofortified Maize
Cornell University, Ithaca, New York

Master of Science in Food Science and Technology

September 2005 – May 2007

Thesis: Iron Bioavailability – Kenyan & Tanzanian Complementary Foods
Cornell University, Ithaca, New York

Bachelor of Science (Honors) in Food Science and Technology

April 1999 – December 2003

Jomo Kenyatta University, Nairobi, Kenya

CERTIFICATIONS and LICENSES:

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- Registered Nutritionist, Kenya Nutrition & Dietetics Institute, *July 2016 – Present*
 - Program management for Development Professionals, *April 2018*
 - Training on Monitoring & Evaluation in Food Security and Nutrition, *April 2018*

PUBLICATIONS:

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- “Consumption of Iron-Biofortified Beans Positively Affects Cognitive Performance in 18- to 27-Year-Old Rwandan Female College Students in an 18-Week Randomized Controlled Efficacy Trial”, JOURNAL OF NUTRITION, Volume 147, Issue 11, co-author, 2017
 - “Iron Bioavailability Studies of the First Generation of Iron-Biofortified Beans Released in Rwanda”, NUTRIENTS, Volume 9, Issue 7, co-author, 2017
 - “Physico-chemical Properties and Extrusion Behaviour of Selected Common Bean Varieties”, JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, Volume 98, Issue 4, co-author, 2017
 - *Enhancing Africa’s Nutrition Resilience through Artificial Intelligence*, report by CIAT, co-author. Available at: <https://cgspace.cgiar.org/handle/10568/88092>, 2017
 - “Consuming Iron Biofortified Beans Increases Iron Status in Rwandan Women after 128 Days in a Randomized Controlled Feeding Trial”, JOURNAL OF NUTRITION, Volume 146, Issue 8, co-author, 2016
 - *Rwanda Nutrition, Markets, and Gender Analysis 2015: An Integrated Approach towards Alleviating Malnutrition Among Vulnerable Populations in Rwanda*, report for Government of Rwanda and International Center for Tropical Agriculture (CIAT), co-author. Available at: http://ciat-library.ciat.cgiar.org/Articulos_Ciat/biblioteca/Rwanda_Nutrition_Analysis_V1104.pdf, 2015
 - *A Synthesis of the Rwanda Nutrition, Markets and Gender Analysis*, report for Government of Rwanda and CIAT, co-author, 2015

PRESENTATIONS:

- Speaker. “Mega Trends and the Food System.” Chicago Council Global Food Security Symposium 2018, Youth for Growth. Washington, DC. USA. *March 22, 2018*
- Contributor. IITA 50th Anniversary R4D Conference. “Towards Food and Nutrition Security for the next Half Century: Challenges, Opportunities, and Strategies.” Ibadan, Nigeria. *November 24-25, 2017*
- Speaker. “Securing Africa's Farming Future - Where Are the Youth?” at the World Food Prize Borlaug Dialogue, Des Moines, Iowa. USA. *October 19, 2017*
- Speaker. “Undaunted - Defining Moments,” Aspen Ideas Festival Spotlight Health Conference, Aspen, Colorado. USA. *June 23, 2017*

PROFESSIONAL MEMBERSHIPS:

- Member, Agriculture, Nutrition & Health (ANH) Academy, *2017 – Present*
- Member, Kenya Coalition for Action in Nutrition, *2016– Present*
- Member, African Nutrition Society, *2015 – Present*
- The New York Academy of Science, *2015 – Present*
- Member, American Society for Nutrition, *2010 – Present*
- Member, Institute of Food Technologists, *2009 – Present*

HONORS/ACHIEVEMENTS:

- Aspen New Voices Fellowship. The Aspen Institute, Washington, D.C., *January 2017 – December 2017*
- African Nutrition Leadership Programme (ANLP) South Africa. *March 16-26, 2010*

ADDITIONAL INFORMATION:

Computer Skills: Microsoft Word Suite. Statistical software: SPSS, Stata

Languages: English (*fluent*); Kiswahili (*fluent*); French (*basic*)

Countries of Work Experience: Burundi, Democratic Republic of Congo, Ethiopia, Kenya, Madagascar, Malawi, Nigeria, Rwanda, Senegal, Tanzania, Uganda