



2009 AWARD Fellow
Mary Njenga

Position	Researcher
Institution	Department of Land Resource Management and Agricultural Technology, University of Nairobi and World Agroforestry Centre (ICRAF)
Country	Kenya
PhD	Environmental Management University of Nairobi, 2013
Mentor	Dr. Yvonne Pinto, Director Agricultural Learning and Impacts Network (ALINe)

Research area: Natural resource management for enhanced livelihoods and food security in a sustainable environment. Values building on community initiatives for sustainability in technology development.

Mary Njenga, a doctoral candidate in Environmental Science at the University of Nairobi working in affiliation with the World Agroforestry Centre (ICRAF), successfully defended her PhD thesis recently. Her work is focused on improving natural resource management to mitigate the effects of climate change through linking technological developments, such as alternative sources of cooking energy, to local community initiatives for sustainability.

Njenga is exploring how fuel briquettes made from charcoal dust and sawdust and other organic by-products can reduce the strain on tradition fuel sources, such as charcoal. She has developed new varieties of fuel briquettes with higher combustion and emission characteristics while building on local communities innovations. Fuel briquettes as a source of cooking energy is affordable, accessible, easy-to-produce, environmentally friendly and financially beneficial for the poor, especially women, in urban and rural areas. Fuel briquettes technology links agriculture and energy through recycling organic by-products such crop and tree by-products and animal dung. It's a technology that is wide spread as communities use whatever organic by-products are locally available.

As an AWARD Fellow, Njenga won a competition for advanced science training at the Swedish University of Agricultural Science (SLU), where she researched on the quality of fuel briquettes, as well as environmental impacts of this type of fuel from a global warming potential perspective using Life Cycle Assessment (LCA).

"AWARD has helped me become an authority in fuel-briquette technology," said Njenga. "I am not far from my dream of becoming a renowned environmental scientist with a big heart for community innovations."

Njenga's advanced science training not only increased her skills and knowledge, but also helped to create the enabling environment in which she was able to publish, and share her work at international seminars and at conferences. She published widely during her fellowship period, and has since become a frequent author. "I have published 14 journal papers and several project reports, as author and co-author, and wrote six book chapters, as well as many magazine and newspaper articles and now enjoy frequent appearance

and coverage by International,” said Njenga. “AWARD’s scientific writing course gave me the skills and confidence to review journal papers. I am now a reviewer with the Journal of Development in Practice and the Journal of Agriculture Food Systems and Community Development.” Njenga has enjoyed a lot of coaching from her AWARD Mentor Dr. Yvonne Pinto, who helped her in peer reviewing her written material.

Njenga also reports that AWARD training courses and mentoring helped to boost her confidence and sharpen her focus. She presented a paper at the Energy and Society Conference in Portugal on the production of briquettes made from charcoal dust and sawdust and their contribution to livelihoods of the urban poor in Nairobi. At the 2010 Global Conference on Agricultural Research for Development in Montpellier, France, Njenga co-organized a parallel session on addressing gender for inclusive development, and presented outcomes to more than 800 delegates as part of the Montpellier Road Map. This was the first time I spoke on such an international platform.”

A champion of gender mainstreaming, Njenga developed and conducted local and international training courses on resource recovery for urban agriculture. Her interest in linking research to policy led to the development guidelines on gender responsive research process for International Potato Centre (CIP), draft urban agriculture bylaws for the town of Nakuru and the incorporation of urban agriculture in the National Land Policy of Kenya. Her latest contributions are in the Kenyan bioenergy policy.

Gender is now a cross-cutting theme in Njenga’s product development work. “My experiences with AWARD have made me consider gender more,” said Njenga. “I am very concerned about developing a clean fuel-briquette product that will improve women’s income and not impair their health—or that of their children—as they spend a lot of time in the kitchen cooking. The fuel briquette-making presses should also be gender-friendly to ensure that women can use them efficiently.”

As an advocate, Njenga actively promotes women in science—from talking to high-school students in her home village to informally mentoring female scientists and graduate students. “If Africa is to become food secure and alleviate poverty in a sustainable environment, there must be a gender revolution,” said Njenga. “One way to make this happen is to have a critical mass of women in science and technology. I have taken responsibility to be part of this agenda and am encouraging young women to believe that they can take up the challenges in science.”

Njenga acquired her doctorate in less than three years, and learned that dedication, focus, persistence and readiness to learn are critical when one is pursuing an academic dream. She is especially thankful for the support of Dr. Pinto.

Mary is one of a growing number of African women agricultural scientists who have won an AWARD Fellowship. AWARD is a career-development program that equips top women agricultural scientists across sub-Saharan Africa to accelerate agricultural gains by strengthening their research and leadership skills through tailored fellowships. AWARD is a catalyst for innovations with high potential to contribute to the prosperity and well-being of African smallholder farmers, most of whom are women.

AWARD is generously supported by the Bill & Melinda Gates Foundation, the United States Agency for International Development, the Alliance for a Green Revolution in Africa, and Agropolis Fondation. For more information, visit www.awardfellowships.org