



Ivete Frederico Maluleque 2015 AWARD Fellow

"We have ideas that can be realized with resources. I believe that even in a year, I will be transformed through maximizing the tools gained through the AWARD Fellowship."

Position	Forest Researcher
Institution	Mozambique Agricultural Research Institute (IIAM)
Country	Mozambique
MSc	Forestry Science, Federal University of Lavras, Brazil, 2013
Mentor	Dr. Americo Uaciquete, Head, National Cashew Program, Cashew Development Institute (INCAJU)
Research Area	Development and dissemination of methods of propagation and tree-establishment techniques to improve and sustain agrosilvopastoral systems to improve community livelihoods.

Ivete Frederico Maluleque loves nature, which is what drew her to work on natural resource management, particularly trees and the environment. "Before attending university, I heard that people could extract non-timber forest products like medicine and edible fruits from natural resources," she recalls. This inspired her to study forestry science with the aim of sharing what she learned with communities. Though she grew up mainly in the urban areas, Maluleque went to the rural areas to spend holidays with her grandparents and later spent time on her parents' farm. This early contact with agriculture contributed to her career choice.

Currently, Maluleque heads the research department at IIAM's Northeast Zonal Center. She is doing research on appropriate Silviculture systems for the establishment and enrichment of forests. Silviculture involves controlling the establishment and growth of forests to meet the diverse needs of the community in a sustainable manner. This includes conducting research on propagation and planting methods of both native and exotic trees. She is also working closely with farmers to study and improve agro-forestry-pastoral systems practiced by rural communities.

Through ethnobotanical interviews, Maluleque is studying how farmers are using trees with a view to helping them maximize the benefits of the fruits and medicinal properties extracted. This research allows the foresters to identify which trees are in danger of extinction because the community is using them to extract various resources. With this knowledge, the foresters are able to encourage planting of certain tree species for sustainability. "If certain tree species bear abundant edible fruits for the community, we can promote them in the market and improve profits for the farmers," she adds.

Profile

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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 and the Alliance for a Green Revolution in Africa. For more information, visit www. awardfellowships.org In agroforestry research, Maluleque is also doing on-station trials on intercropping of high-value trees with annual crops. One of these projects focuses on intercropping of Gliricidia Sepium (mother of cocoa, which was named by Spanish colonists to describe its use as a cocoa shade tree) with maize and cassava over two cropping seasons. "If we find the correct trees to intercrop with annual crops, we can give them to farmers to help them improve their yields with fewer inputs," she notes. They are also testing fruit trees at their research station to see how they can be grown in different soil types using fertilizer. "We know our soils are poor in nutrients," she adds. "If we plant leguminous trees that help with nitrogen-fixing, we can save on fertilizer." People often view native trees as being difficult to grow as their propagation methods are complicated. "But we have good propagation methodologies," counters Maluleque, who is keen to take these to the farmers with a view to promote the planting of indigenous trees.

Maluleque hopes to get additional funding so she can publish her research findings with a view to sharing them with farmers. "We can then translate these publications into real results in farmers' fields," she enthuses. "We have ideas that can be realized with resources. I believe that even in a year, I will be transformed through maximizing the tools gained through the AWARD Fellowship." Maluleque notes that AWARD alumnae at IIAM are role models to both male and female colleagues.

The forester has worked indirectly with women and observes that the use of forest products is somewhat divided along gender lines, with established markets for products such as bamboo and honey dealt with by men and women handling less lucrative products like wild fruits. "I feel that there is potential to promote wild fruits in the market," she says. "This would mainly benefit women." In future, Maluleque would like to work more closely with women. "Without forgetting men, if we target women, we can elevate the level of their knowledge and make a difference in society very quickly."

As a scientist, Maluleque's main challenge is making her research findings visible through publications and sharing technical knowledge with farmers, as she is not trained in providing agricultural extension services. She intends to take short courses in extension and collaborate more with extension workers to disseminate her research findings. She also plans to take some English classes soon to improve her language skills, which will enable her to expand her research networks.