



Cashew nurseries help farmers plant seeds for a better future

MozaCajú cashew nursery owners like Mariamo Agy are revitalizing the Mozambican cashew industry by helping farmers plant new seedlings

January 2017

Just as January marks the beginning of a new calendar year, in Mozambique January also marks the beginning of a new year in the life of a cashew tree. Throughout this month all the way to the end of the rainy season in February and March, Mozambican cashew farmers like Mariamo Agy and her husband Carlos Muekela, from Angoche district of Nampula province, are busy planting new cashew trees.

Cashew is an important cash crop for nearly 1 million households, or 40% of rural Mozambican farmers. As such, planting new trees is an investment in the future and an important way to combat future food insecurity.

One of the greatest challenges for Mozambican farmers over the past few years has been the declining productivity of their cashew trees.



MozaCajú teaches farmers how to graft seedlings

During the twenty year long civil war, which ended in 1992, and after a cyclone destroyed 40% of cashew plantation areas in 1994, very few new trees were planted to replace those that were destroyed or had outlived their productive lifespan. Seedling nurseries for cashew trees were few in number and limited in resources, and many farmers lacked the technical knowledge necessary to re-plant on a large enough scale.

Moreover, even productive trees began to be negatively afflicted by disease and pests, due to neglect and lack of resources. As a result, yearly yields in the cashew producing regions were well below their potential, and the whole industry risked losing even more market share in an increasingly competitive global market.

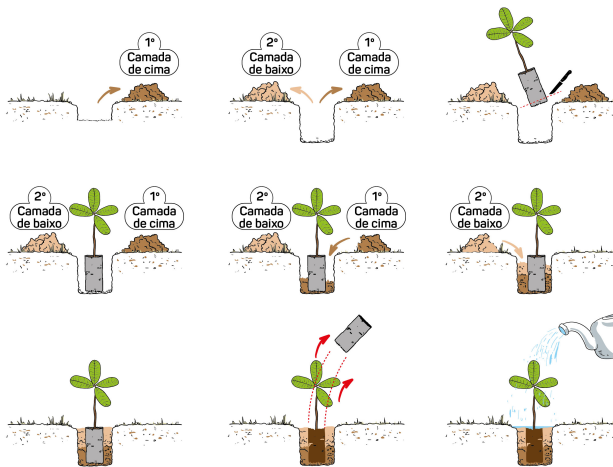
MOZACAJÚ
SHARED VALUE FROM TREE TO TRADE

Supporting farmers to establish nurseries

MozaCajú, a TechnoServe project funded by the U.S. Department of Agriculture that works to connect smallholder Mozambican cashew farmers to factories and markets, has been responding directly to these challenges by focusing activities on intensive training for farmers on cashew production practices and techniques. One important part of cashew production – in fact where it all begins – is planting.

Since 2014, MozaCajú has been working with cashew farmers to promote planting of new cashew trees through two main activities: 1.) farmer trainings on improved planting techniques and 2.) provision of cashew seedlings and necessary tools for planting.

As with other MozaCajú trainings, farmer promotion agents are trained to deliver these trainings on planting to other farmers in their community, with the help of MozaCajú technicians. During the trainings, they cover topics such as how to prepare the land, including cleaning and demarcating space prior to planting, how to dig the openings for the seedlings and plant the bags inside, and how to properly water and care for the seedlings.



A drawing from the MozaCajú field manual demonstrates proper planting techniques

However, trainings addressed only half of the challenges farmers faced; farmers also needed better access to planting inputs. MozaCajú recognized that creating local, independently-owned cashew tree nurseries that could consistently supply the cashew growing community with seedlings was the most sustainable way to ensure that planting occurred every year.

In order to accomplish this, MozaCajú selected exemplary cashew farmers in strategic geographic

locations and trained them in seedling production and nursery management.

Following this, these farmers used the knowledge and inputs from the trainings to establish seedling nurseries in their communities. To assist them, MozaCajú's farmer promotion agents serve as a link between the new nurseries and farmers in the community to facilitate the

distribution of seedlings to farmers who wish to plant more cashew trees.

As a result, today there are 85 MozaCajú-supported cashew nurseries in

Mozambique that have distributed over 400,000 seedlings in local communities.

Mariamo Agy, farmer and nursery owner

Mariamo is one of MozaCajú's nursery owners, or *viveristas*. Because her husband Carlos, who is a MozaCajú promoter, was busy with his other duties, he and Mariamo decided that she would attend the nursery trainings, which MozaCajú conducted in early 2014.

During the training, Mariamo learned all about how to establish and run a nursery, most especially the techniques behind grafting seedlings and producing germinlings from seeds.



As nurseries can provide income for farmers through the sale of the seedlings, MozaCajú also developed a sustainable business plan for the nursery owners like Mariamo so that they may make a good profit in order to keep the nurseries financially viable. Following the training, Mariamo received the necessary materials in order to begin her work as a nursery owner.

As is typical of the MozaCajú supported nurseries, Mariamo produces two types of cashew seedlings: germinlings that use polyclonal or improved seeds, and grafted seedlings that use conventional seeds.

Last year, Mariamo produced around 5,000 seedlings, of which 3,804 seedlings successfully germinated and were

planted (of which 1,600 were polyclonal and 2,246 were grafted). Mariamo sold these seedlings for a total income of MZN 30,460, which is close to \$550 USD, a huge sum in rural Mozambique.

In addition to the cashew seedlings, Mariamo produced and sold 570 other grafted seedlings (340 mango tree seedlings and 230 orange tree seedlings) that she sold at MZN 15 each, resulting in a revenue of MZN 8,550, nearly \$150 USD.

“Not only did I earn money that I did not earn before, I also gained skills and a profession that besides generating income, I hope to teach my children in order to continue to serve communities through provision of cashew tree seedlings and other fruit trees,” she says.

Moreover, to facilitate the process of grafting cashew seedlings, MozaCajú has been identifying mother trees (trees that produce more than 35 kilos of cashew) in local cashew producing communities. Identifying these trees locally saves time and money for nursery owners who will no longer need to purchase these materials and ensures that only the highest quality trees are reproduced.

Mariamo and Carlos have 11 trees that have been identified as mother trees by MozaCajú technicians. Mariamo explains that when she grafts the next batch of cashew seedlings, she will only take the scion (a young shoot or twig from a tree that is used for grafting) from those mother trees.

“I learned in the MozaCaju training that for better production, I should select the plants with the desirable characteristics and later remove scions for grafting,” she said, “Thus, at the time of production, I select and mark the plants with the best characteristics, resistance to pests and diseases and production level of each tree, thus ensuring that the new plants have high productive potential.”

Social and economic home improvements

In rural Mozambique, it is common for men to lead all economic activities, particularly on the farm. However, Carlos and Mariamo are an example of a new trend in which the women also play a leading role in agricultural activities, thus contributing to the economic well-being of the household. In fact, Mariamo says that she has employed her husband through the work of her nursery.

In reality the two act as a team to keep the nursery operating; Mariamo has taught Carlos how to graft and plant seeds so that he is as capable as she is in nursery management. However, Carlos happily confirmed that the nursery and its profits belonged to Mariamo, and that he was merely a worker.

“With the revenue I earned, I proposed to my husband that we make home improvements,” Mariamo said, “since the house we had was thatch-roofed, it was always susceptible to catching fire at any moment especially because of the seasonal and uncontrolled fires in the area.”

With their nursery income, Mariamo and Carlos were able to not only construct a new home with a corrugated tin roof, but also buy and install solar panels to provide electricity during the night. In addition to being less vulnerable to wild fires and having a dry home during the rainy season with the new roof, the new electricity will hopefully help their three children study.



Mariamo stands in front of her new house with a tin roof

Planting the seeds for a better future

MozaCajú has been largely successful at encouraging and supporting farmers to plant new cashew tree seedlings from its supported nurseries. To date, 4,685 farmers have benefitted from the distribution of seedlings and an estimated 469,688 new cashew trees have been planted.

Moreover, in 2015 MozaCajú determined that 60% of MozaCajú farmers planted an average 42 trees each, amounting to almost 8,000 hectares of newly planted farmland. (By contrast, in the control group only 39% of all farmers planted just 33 trees each.)

Today, MozaCajú continues to work with the most successful cashew tree nursery owners such as Mariamo to provide further support and assistance so that the nurseries continue to thrive for years to come, thus helping farmers plant the seeds for a better future.

MozaCajú is a project funded by USDA that connects smallholder cashew farmers to markets and factories in three northern provinces of Cabo Delgado, Zambézia and Nampula. For more information about the project, please see: www.mozacaju.com

Story by C. Denny Newhouse