

Cashew offers untapped potential for African livelihoods and landscapes, scientists say

Shelled nuts need investment and policy incentives



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A cashew tree (*Anacardium occidentale*). CIFOR/Ollivier Girard

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African countries should implement urgent measures to boost their share of the global cashew market, to raise farmers' incomes and to help restore degraded ecosystems threatened by climate change, according to scientists.

Low farmer productivity and insufficient capacity to process raw cashew into shelled nuts are hampering the sector's full economic and environmental potential. These shortcomings could be overcome through greater government incentives, investments in technical equipment and marketing, as well as the diversified use of cashew byproducts, such as oil and [bioenergy fuel](#).

These were among the scientists' recommendations in a [recent publication](#) supported by the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF).

Cashew is a nutritious evergreen species that grows well in dry ecosystems and helps prevent soil erosion. The tree's [popularity in Africa](#) has increased in recent decades, yet only 17 countries in the region – especially Ivory Coast, Burundi, Tanzania and Benin – produce cashew nuts. At the same time, yields have barely improved due to poor planting materials, ageing trees, lack of training for farmers, and post-harvest handling problems, the authors wrote.

“The main bottlenecks in African countries to date include the lack of infrastructure to deshell the cashew in a safe way, and the significant level of investment required to create such infrastructure,” according to Lalisa Duguma, a scientist specializing in sustainable landscapes and integrated climate actions at CIFOR-ICRAF in Nairobi.

[Read also Cashew: An emerging tree commodity in African drylands for livelihoods improvement and ecosystem restoration](#)

Ready for consumption

Global demand for cashew is rising, leading to increased production and exports. However, while about 98 percent of Africa's cashew exports are raw unshelled nuts, the global trade in shelled nuts ready for human consumption is much more lucrative, with the main import markets being the United States, the Netherlands and Germany.

When the cashew is shelled, only the edible kernel is left. This [value-adding](#) process requires technology, training and labor that smallholder farmers in Africa lack to ensure quality for international sale. As a result, the small proportion of shelled nuts exported from Africa fetches a lower price (\$3,148 per ton) compared with the global average (\$5,886 per ton), probably due to higher-quality nuts in exporting nations such as Brazil, India and Vietnam, the authors wrote.

While Africa produces about 57 percent of the world's raw cashew nuts, the continent has a share of only 6.6 percent of the shelled cashew export market, according to the study.

“The governments of Ghana, Ivory Coast and Tanzania are doing a lot to make cashew become one of their key commodity crops through value addition,” Duguma says. “At the same time, it is important to ensure that the popularity of cashew does not lead to increased deforestation to make way for these crops.”

In 2021, CIFOR-ICRAF scientists warned that cashew's ease of production was [edging out forests](#), wild fruits and other food crops in Ivory Coast, raising questions about the tree's role in land restoration. Duguma suggests that “such ease of production could be a threat to forests as farmers may tend to expand it there. Hence proper regulation and land-use plans are needed to avoid such tradeoffs.”

Case study: The Gambia

The Gambia – the smallest nation in mainland Africa – is a major producer of cashew, which was re-introduced to West Africa from India in the 1960s to prevent desertification through agroforestry programs. The country of 2.5 million inhabitants is [highly vulnerable](#) to the effects of climate change due to unpredictable rainfall and temperature patterns.

In 2020, World Agroforestry (ICRAF) surveyed 198 farmers in the Gambia and found that cashew was the preferred tree crop for agroforestry due to its ability to boost ecosystem services and deliver socio-economic benefits. The case study concluded that an average family of eight could earn \$4.20 per person per day from a nominal 560 cashew trees, compared with the current international poverty line of \$1.25 per person per day.

Based on the Gambian case study, the authors calculated that the African cashew sector could create employment for more than a quarter million people if the continent were to process two-thirds of its cashew production.

Gambian farmers sometimes adopt cashew trees to use as a windbreak to combat [soil erosion](#). Their thick canopies trap large amounts of soil and attract domestic animals and birds, whose droppings provide nutrients, such as phosphorus, for the whole ecosystem. The trees, which suppress vegetation beneath them, also serve as a firebreak.

The authors recommended that farmers be trained to avoid [post-harvest loss](#), which occurs when nuts are left out in the field, transported long distances, consumed by animals or stolen. Cashew must be picked daily, dried immediately and stored properly to avoid mold and insects.

Offsetting emissions

[Carbon markets](#), which allow companies and governments to offset their emissions through credits generated by practitioners of sustainable agriculture, could be another incentive that can be built into the cashew system by helping farmers maintain more trees, according to Duguma.

“The cashew trees, due to their long-lasting nature, could be a significant mechanism of carbon sequestration, especially in the dry ecosystems where the trees grow,” he says.

The processing of cashew in Africa would also allow nut shells to be used in “energy bricks” for heating, [cooking](#) and lighting, which would reduce pressure on forests for firewood and create employment opportunities for young people. The shells can also provide oil for resins and adhesives, the authors wrote.

Government agencies urgently need to regulate minimum prices so that cashew farmers are protected against exploitation from intermediaries, such as nut collectors. Local processing incentives could also be introduced through tax breaks, credit facilities and subsidies, according to the authors.