



Collective action and reaction: Market-based groundnut development in Malawi

Now worth stealing

Malawian folklore says that if you steal another farmer's crop, your feet will freeze in his fields. You would have to wait there for all to know of your misdeed until your kinsmen came to free you by paying some form of compensation. It may have been as a result of stories such as these, or maybe it is because Malawians are by nature honest and friendly, but it used to be rare for crops to be stolen in this country – until this year when newspapers have started reporting stories of thieves reaping harvests that they did not sow.

“The groundnut season is just beginning. But already the prices are higher than they were at this time last year,” Moses Siambi, ICRISAT Country Representative, says. In the month of June last year, groundnuts were selling for around 80 Kwacha (K), roughly USD 0.50, for a kg. This year they are selling for almost double that, close to USD 1 (K260) per kg. After more than a year of

economic and political uncertainty and close to 50% devaluation of the Kwacha, this season, more than any other, groundnuts represent much-needed, hard-earned cash, making it a commodity worth stealing.

Working together for more

James Chilombo of Chawamba village is one of the 19 members of the Msangu Club, named after a huge Acacia tree that grows nearby. “Groundnuts brings me the most cash. It is the biggest earner of income for me,” Chilombo says. This is why he has devoted one third of his farm to growing groundnut seed, reducing the area that he used to devote to tobacco.

ICRISAT's revolving seed fund works with farmer groups like the Msangu Club in the central region of Malawi to increase the availability of legume seed in Malawi. Farmers were trained in

all the different aspects of seed production. Each member of the club then received 20–30 kg of basic seed that they were then to multiply into certified seed. Once tested to ensure that it was of high enough quality the seed would be made available to the general public through a variety of channels, such as through the government's groundnut subsidy program or else through a newly created Malawi Seed Alliance (MASA) brand, promoted through a project funded by Irish Aid.

"We started out with ten members and now we have 19," says Chilombo. "Farmers at the beginning were not sure how it would benefit them. But after the first season more decided to join."

Chilombo knows he benefits from being part of the club. Soon after harvest, the group sets a minimum price for their groundnuts so that no one accepts a lower price or undercuts the other. He says that "membership to the group is a major benefit because we can sell at a price that is higher than other prevailing prices. We have plans to turn this club into a fully-fledged association. That way we can negotiate even better prices." Chilombo also says that being part of the group has meant the possibility of learning new techniques and better methods of groundnut farming.

The future belongs to the organized

If belonging to a group of 20 can make a difference to a farmer like Chilombo, how much more can membership to a group as large as 100,000 bring? The slogan of Malawi's largest farmer organization, the National Smallholder Farmers' Association of Malawi (NASFAM) says it all – the future belongs to the organized. For the extremely low fee of K200, less than a dollar, for a year's membership, NASFAM offers its members a lot of benefits, the biggest being the link that NASFAM forges between rural Malawi and groundnut markets in the UK.

This link is what drew Nemezio Joseph Kadamanja to become a NASFAM member. "It used to be a



Nemezio Joseph Kadamanja, a farmer and a member of NASFAM.

problem to sell groundnuts. And so I became a NASFAM member because it was a well established market and because they provided us with training. I would never stop being a NASFAM member," Kadamanja says.

Kadamanja farms five acres in the Chiwoko Market Action Center (or MAC) in Mchinji District of which two acres are sown to groundnuts. NASFAM to Kadamanja represents a trustworthy, guaranteed market. NASFAM's scales are known to be accurate unlike the scales of other groundnut traders. "Groundnuts makes me the most money," Kadamanja says. "It is very important to me and I appreciate the training and information I receive from NASFAM."

As an organization NASFAM is highly structured. NASFAM has six chapters in Mchinji District, each with around 600 farmers, most of whom grow groundnuts. Each chapter has a Field Officer; Wezzi Chisi is the Associate Field Officer



Wezzi Chisi, NASFAM Field Officer, (right), inspects the Grade One Chalimbana groundnuts produced by farmers from the Mchinji area.

for Kadamanja's chapter, and she is based at NASFAM's Mchinji Office. Chisi works with the farmers in her chapter throughout the season, visiting their fields, answering their questions, providing advice and solutions on a one-on-one basis as needed as well as at village level. When farmers sell their groundnuts through NASFAM, Chisi also coordinates the logistics of taking the nuts to NASFAM's warehouse and the transfer of money from NASFAM to the farmer.

In NASFAM's warehouse, the groundnuts of each farmer are graded into three classifications based on size. The nuts are then fumigated against pests and tested to ensure conformity to market requirements. The best nuts will make their way to the UK through the fair trade market. NASFAM's other big buyer of groundnuts is Afri-Nut Ltd., a locally incorporated company that processes peanut butter and snacks, and also exports peanuts.

An open market and a "black market"

Before 2004, NASFAM was synonymous with the groundnut market. "However, since 2004, there are a lot of buyers and groundnut traders operating in Malawi. Farmers these days have



Oswin Madzonga, ICRISAT-Lilongwe Scientific Officer (left), discusses groundnut marketing with Quesho, a trader. Behind them the sign bears the price of groundnuts: Mtedza 240.

other options to sell their groundnuts besides NASFAM," says Oswin Madzonga, Senior Scientific Officer at ICRISAT-Lilongwe.

Quesho, a groundnut trader working alongside one of the major highways in Mchinji, represents one of these other options. Quesho buys different varieties of groundnut, maize and soya from farmers nearby. "We buy groundnuts and then hope others will buy from us," Quesho says, referring to buyers from a number of Malawi's neighboring countries. Burundians, Congolese, and Tanzanians who visit Malawi during the groundnut season often hire Chichewa-speaking Malawians to buy on their behalf. Once they have enough they smuggle the groundnuts across the border in the beds of empty transport trucks, making their return journeys back to their points of origin profitable.

"We know this is happening, but it is difficult to prove because official export statistics at border points can be inaccurate. For example, we have estimates of how much a country like Tanzania is supposed to produce based on statistics of the area under groundnuts. But some sources of data show that they are exporting more than they are producing. How is this possible?" Madzonga says.



Not just traded illegally

Some groundnuts cross Malawi's borders legally. "We have bought 500 tons of groundnuts in three weeks," says Ezekiel Diamond, Operations Manager at Chitsosa Malawi. The company buys shelled groundnuts from traders in five districts – Mchinji, Dowa, Kasungu, Nkotakhota, and Lilongwe. After performing basic quality checks, the company then transports groundnuts to Kenya, Tanzania and even Zimbabwe. "We have a huge demand for groundnuts in these countries," Diamond says. "It's good business."

When looking at it from one angle, this black market trade does not really affect Malawi's smallholder farmers adversely. (It only denies the government the necessary revenue from the exports since these are not declared.) For all practical purposes, the groundnut market is booming. Traders post and revise their prices for groundnuts on a daily basis. This open market gives farmers options outside of NASFAM should they need it. Even Kadamanja, who is a faithful NASFAM member, recently sold groundnuts to a local trader as he needed cash and NASFAM was yet to determine and announce a buying price for groundnuts.

However, from another angle, this open market for groundnuts has serious health implication caused by a microscopic soil-borne fungus called *Aspergillus flavus*. *A. flavus* produces a toxin called aflatoxin in a variety of crops such as maize, sorghum and groundnuts. It is found

in soils throughout Africa and around the world. "The worst case of aflatoxin exposure in recent times was in 2003 when 120 people died in Kenya from eating maize with very high aflatoxin levels. However, that sort of acute situation is relatively rare," Sam Njoroge, Pathologist at ICRISAT-Lilongwe explains.

Most people instead are exposed to low levels of aflatoxin over the course of their lifetimes. Known as chronic exposure, the aflatoxin levels build in the body over time, eventually causing cirrhosis of the liver or liver cancer. Children are particularly affected by aflatoxin, which can lead to stunted growth and delayed development. "The diets of the rural poor are not that diverse or nutritive and so the effects of lower levels of aflatoxin can be more significant," Njoroge says.

The export market through NASFAM has rigid regulations on aflatoxin levels. "The fair trade



*Children play in a field next to “Mandela Corks”. This special way of storing groundnuts allows a column of air to filter through the center, slowly drying out the groundnuts, and preventing the spread of the *Aspergillus flavus* fungus. As more farmers adopt better post-harvest measures, aflatoxin contamination can be reduced, making Malawi’s groundnuts healthier and more profitable.*

market in the EU buys a very specific quality of nut. The aflatoxin content must be in the 0–2 parts per billion range,” Chisi says. A lot of the NASFAM nuts pass this strict regulation. But what this means is that the lower quality, unsafe nuts are left for consumers within Malawi. The new black market trade of groundnuts from Malawi to neighboring countries also increases the probability that aflatoxin-carrying nuts will be circulated within the region.

Aflatoxin levels can be controlled by using appropriate post-harvest methods. Proper harvesting and storage of groundnuts can reduce aflatoxin levels. ICRISAT has been working with local partners to spread the word about aflatoxin and share best practices for control and

mitigation. The Institute has also helped in the development of cheaper, rapid tests to remove some of the current barriers to routine aflatoxin screening within the country. Njoroge has been working on understanding the distribution and toxigenic/atoxigenic characteristic of *A. flavus* in Malawi’s soils in order to identify potential aflatoxin hotspots. But Njoroge believes that the answer to the aflatoxin issue may lie in markets.

“We have been at this game for a while. And why are we not making any headway?” Njoroge asks. “We don’t have good regulations. We don’t have the standards. But more importantly we don’t have the incentives within the country. There is no price premium on aflatoxin-free nuts. Once we get that, we will have an incentive for change.”

Groundnut Shelling Made Easier

Shelling groundnuts by hand is not just time-intensive. The repeated motion results in skin being scraped and farmers and laborers regularly wet the groundnuts to make the task easier. This habit, though easier on the fingers, results in increasing the likelihood of aflatoxin contamination. As farmers begin to increase production of groundnut in response to markets that pay well, it becomes increasingly important to address other challenges related to the further processing or post-harvest issues as they arise.

A team from ICRISAT-Lilongwe and the Eastern Province Farmers' Cooperative Ltd. (EPFC) visited farmers in Kabunda village in Zambia to solicit their opinion on a groundnut shelling machine. The farmers provided some of their harvest to be shelled and then each took a turn at the machine to try it out.

In a ten-minute time trial between man and machine, the machine won. Farmers managed to shell around 1 kg of groundnuts in 10 minutes as compared to 8.5 kg by machine. The problem with the machine is the higher rate of breakage of the nuts. However, most farmers claimed that they were very willing to use the machine and the rate of loss in broken nuts was more than compensated for by the increase in speed of shelling. The discussions after the demonstrations revolved around finding ways for farmers to buy the shelling machine, the issue of maintenance and repair, as well as innovative ways to share it with each other.

This activity was conducted under the new Feed the Future project in Zambia. ICRISAT-Lilongwe was the source of MGV-4 (CG-7) basic seed, which was then converted into certified seed in villages such as Kabunda through a partnership with EPFC. EPFC provides farmers with training on seed production, increases the number of farmers producing seed through a seed loan system, and also buys back the groundnut certified seed produced by the smallholder farmers.

