

Producing for the family

Roger Sharland

The first concern of most small-scale farmers is not whether they can market their harvest but whether they have produced enough to feed their families and replenish their stores for another season. For them, perhaps the most important post-harvest activity is preparing home-grown produce for household consumption. This aspect of small-scale agriculture is often overshadowed by the tendency to focus only on the market sector. Production for home consumption is dismissed as subsistence production and irrelevant to developing a market economy. Ignoring the significance of the subsistence sector, however, has been the main weakness of much development planning.

One of the characteristics of subsistence is that farmers want to grow the type of crops that are good to eat and easy to prepare. Home-produced food usually has different characteristics from partially or wholly processed bought food. The post-harvest characteristics of a crop provide a basis for planning a harvest to meet household family needs.

In principle, farmers who grow their own food should be able to decide what type of food they eat. Unfortunately their choices are often restricted by external factors. Farmers' choice of seed, for example, has become seriously restricted as a result of the impact of the commercial seed market – an issue that should be of major concern to development practitioners. In traditional agricultural systems seed is normally selected and stored at family level and reflects local cultural as well as family preferences. In many areas farmers are finding it increasingly difficult to find the type of seed they want. Sometimes this is because farmers have been unable to produce local varieties because of war or famine. At other times it is because farmers themselves have switched to more commercial varieties and stocks of traditional seed varieties have run low.

Small-scale farmers tend to regard post-harvest characteristics as being as important as yield, as the case of the southern Sudan shows. Since the early 1990s, NGOs have been shipping hundreds of tons of seed into the region. Although their objective was to encourage self-sufficiency and reduce dependence on food aid, they have had little success. Farmers continued to look for local varieties using the imported seed – after the pesticides has been washed off – as food while building up their reserves of traditional seed varieties. These varieties were preferred because they were bred by local farmers and well adapted to local conditions, unlike recently introduced exotic varieties. *Serena*, for example, is a sorghum variety external agencies are still encouraging in the region. While local farmers acknowledge that it grows well, they do not find it suitable for local consumption. Not only do birds eat most of the harvest because the plant flowers and produces at times when grass seed is scarce, but local people do not like the way it tastes either.

It is questionable how far decision makers can take these types of factors into consideration. A lack of focus on the subsistence sector is often the reason why they fail to realize that, for small-scale farmers, post-harvest characteristics are as important as yield. In the 1970s, for example, seeds were being screened for bulking and distribution at Yei, a local research station. The emphasis was on quick maturation and high yield and one variety of each of the three crops of interest to the researchers – sorghum, groundnut and maize – was identified. Over the last 30 years, and at considerable expense, these varieties have been

encouraged despite conspicuous consumer resistance and the fact that few farmers chose to plant them.

Culture and language can often be a barrier when farmers are asked for their opinion about new varieties. Evaluators are sometimes unable to appreciate the reasons why farmers prefer local varieties, even though they recognize that new varieties have some good qualities. While *Serena* is popular with farmers producing for the market, for example, subsistence producers and discerning housewives find the high tannin content of local varieties tastier and more digestible. Also women say *Serena* does not grind so well on the grinding stones they use for producing flour.

In the same way *Makulu Red*, identified as the main variety of groundnut during the trials, is currently being grown in south Sudan mainly because it is difficult to get other types of seed. However, it is not popular. In Zambia, where it originated, it is grown as a vegetable oil variety and cash crop. In southern Sudan although groundnuts are also an important cash crop, they are grown for their flavour. Because they are an important part of southern Sudanese cooking, households consider qualities such as grindability and the quality of the paste to be important. Groundnuts are seen as far too valuable a crop to be used for oil when cheaper oil is available at the market.

The third seed variety that was identified and encouraged is *Katumani* maize, even though maize is not a main crop for most communities. *Katumani* maize was developed as a variety for the drier parts of Kenya where maize is a staple food and used as flour. In southern Sudan maize is mainly eaten green on the cob and local farmers complain that *Katumani* does not have a good taste when eaten this way.

These three examples are just a sample of many similar incidences in Africa where research has focused on yield and market rather than the values of subsistence. They help us understand how farm families think about post-harvest value. Across the region farmers complain about the lost landraces of former generations. Southern Sudan is fortunate in still having these landraces and farmers are still able to reject imported varieties and plant their local preferred seeds. In many other places, however, such favoured varieties are no longer available. In some places including Tanzania and Ethiopia, governments are actively discouraging them.

Not for cash

The added value appreciated by the southern Sudanese farmers and consumers cannot be measured in purely monetary terms. They are social and aesthetic values that are much harder to quantify. The difficulty in quantifying palatability and food preparation factors when assessing crop varieties is probably why these aspects have been neglected in agronomic research. Assessing consumer preference is especially difficult when a product does not enter the market but is consumed by a large number of very small units.

As a result of experiences such as those outlined above, REAP (*Rural Extension with Africa's Poor*) has always tried to work with the values subsistence farmers consider important. Subsistence is not seen as an inadequate system to be replaced by commercial production but as a value to strive towards and improve from within. A family that is able to grow an adequate amount of its own food has a firm and healthy basis for other

aspects of life. There are very serious pressures on traditional production systems and like any other sector the subsistence sector needs to move forward and be improved. In doing so, however, those involved in development should work towards improvements within the values that local farmers consider to be a good crop and good food. It should be understood that the value of a crop includes its value in the kitchen.

For the farmer producing for the family, the value of the harvest lies in its contribution to the family's nutrition and food satisfaction. Good levels of family nutrition depend as much on the way crops are used in the post-harvest period as on the quantity of production. The quality of nutrition is more within a family's control when food is produced at home than when it is purchased from outside.

Working with these principles in mind, REAP is involved in a number of post-harvest activities that aim to help families make the most effective and beneficial use of the food they produce. These include a nutritious porridge using a combination of locally grown crops. A mixture of ground grains, pulses and oil seeds form the basis of the porridge, and dried green leafy vegetables are added to make a low-cost and high nutrient-value

meal. The porridge enables dried green leafy vegetables – in this case either dried leaves of cowpea or *moringa* (*Moringa oleifera*) – to be incorporated in a tasty way for a dish that can be prepared the whole year round. The porridge has proved to be a good way to get young under-nourished children to eat vegetables and provides an excellent example of where value lies in the way a product is used rather than in its market value.

Working within the values of subsistence production, REAP has found that practical and noticeable differences can be made at the local level once it is recognized that more post-harvest value lies in the way products are used than in the price they can fetch. Through REAP's efforts, Sudanese women have taught women in western Kenya how to grind their groundnuts to paste and they now use their groundnuts in more varied ways. By recognizing the value in what is cooked and used in the home, REAP has been able to help those with small plots to increase their quality of life by showing them what they can do for themselves with little or no cash. ■

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Post-harvest fisheries

Ansen Ward and Alabi Bortey

Fish is the main source of animal protein for over a billion people and contributes significantly to the economies of many countries. Currently, small-scale fisheries support about 200 million people worldwide and at least 100 million depend on the post-harvest sector. Post-harvest fisheries include everything that happens from the time fish are caught to when they are finally consumed or processed into products like animal feed.

Although figures show that the poor probably depend more on the post-harvest side of fisheries than on the capture side, post-harvest activities are poorly represented in development policies and plans. This is because post-harvest activities are generally poorly differentiated from harvesting and aquaculture, the practice of aggregating information on post-harvest practices with other non-fisheries data (trade, transport etc), and the fact that the limited amount of knowledge that is available is rarely brought together and presented in a way development workers and policy makers can use.

The *Post-Harvest Fisheries Research Programme* (PHFRP)¹ is working to establish a strong position for post-harvest fisheries issues on development policy agendas. Its projects aim to improve the livelihoods of those dependent on post-harvest fisheries by reducing losses, improving quality and utilization, and working towards more favourable legal, marketing and credit infrastructures.

The PHFRP has developed tools to assist planning and development in the post-harvest fisheries sector. In Ghana, for example, representatives from civil society and the public and private sectors have worked together to develop two tools: the *Fisheries Post-Harvest Overview Manual* (FishPHOM) and the

Post-Harvest Livelihoods Analysis Tool (PHLAT). FishPHOM helps planners systematize, understand and respond to problems in the sector in terms of employment, food security, foreign exchange generation and poverty reduction. It also enables them to develop a sound understanding of livelihood issues and the impact of the changes taking place. The aim is to develop a knowledge resource that provides a sound basis for policy formulation, planning, research and institutional collaboration and cooperation. In Ghana, FishPHOM has been used successfully to develop the *Ghana Post-Harvest Fisheries Overview*. PHLAT is a tool that uses the sustainable livelihoods approach to understand the livelihoods of people involved in the post-harvest sector and is designed to work at the local government, community and stakeholder level.

Together, these tools enable a well informed planning framework to be developed and enable national administrations to mainstream post-harvest fisheries in national fisheries policies, decentralization planning, and Poverty Reduction Strategies. They will also help to inform and influence the evolution of the FAO Code of Conduct for Responsible Fisheries in the future. ■

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¹ A full version of this article is available from *LEISA Magazine*. For more details on post-harvest fisheries issues, the work of the DFID Post-Harvest Fisheries Research Programme and copies of tools and other outputs, please contact the following: DFID Post-Harvest Fisheries Research Programme, NR International Ltd, Park House Bradbourne Lane, Aylesford, Kent, ME20 6SN, UK Tel: +44 (0) 1732 878663, Email: j.sanchez@nrnt.co.uk; www.nrnternational.co.uk and the author.