



A branch of an Uapaca tree laden with the popular masuku fruit.

Masuku: food from the wild

Marcel Chimwala

In Malawi, the long dry period that follows the short rainy season (November - February) is a time when many farmers face severe food shortages. Like many other poor, rural communities in Southern Africa, they depend on a variety of wild products, including fruits from indigenous trees, to help them through the hunger months. Products from wild fruit trees are also an important part of the daily rural and urban diet. Not only are they common and cheap sources of food but they are also - as nutrition studies have shown - rich in the sugars, vitamins, minerals, vegetable oils and proteins necessary for a healthy and balanced diet.

However, in Malawi wild fruit trees, which are part of the region's *miombo* woodlands are disappearing very fast. Population growth and poverty have intensified the demand for land and, as a result, indigenous forest - a common resource under the control of local chiefs - is being cleared at an annual rate of 2.8% with little regard to its resources.

Eighty-five percent of Malawians live in the rural areas and 65% live below the poverty line. The recent crises in the tobacco industry and the loss of a crop that used to provide a cash income in the densely populated South has intensified levels of distress. It is against this background that Malawian communities - just like rural communities in neighbouring Zambia, Zimbabwe, Tanzania and Mozambique - are trying to domesticate and commercialize wild fruit. Working with ICRAF, local farmers are using their indigenous knowledge to complement scientific research in order to domesticate local species that are both popular sources of food and have market value.

Preferred fruits

The first step in this cooperation was for the communities to identify their "fruits of priority". In Malawi this turned out to be *masuku* (*Uapaca kirkiana*). The *masuku* tree is indigenous to this ecological zone and has many uses. The fruit can be eaten raw, made into jam, or used to produce a refreshing non-alcoholic drink as well as local wine, gin (*kachaso*) and beer (*ukana*). Other parts of the *masuku* tree such as the leaves, bark and roots are also widely used. For instance, its roots are used to cure dysentery and indigestion, its leaves to wrap and preserve foods like dried vegetables, and its wood to make domestic utensils, carvings, furniture and boxes.

Apart from *masuku*, other fruit trees identified as being important for homestead planting were *maula* or *mabola* plum

(*Parinari curatellifolia*), *mateme* or corky-bark monkey orange (*Strychnos cocculoides*) and *mfula* (*Sclerocarya birrea*).

Domestication

Over the last two years, local communities have collected 35,000 seedlings of wild trees. Some 3000 farmers have planted these seedlings and the initial results from farm orchards have shown that wild fruit trees can be grown under low-input management. As far as *masuku* is concerned, research carried out by ICRAF, indicates that the communities preferred trees that had a short maturing time and that gave fruit that was improved in size and taste. The communities are now applying their indigenous knowledge to select samples of fruit with these traits from the natural forest.

With technical assistance from the researchers, the communities are also developing vegetative propagation. Based on trials at the research station, the researchers have recommended grafting and air layering as suitable technologies for on-farm propagation and farmers are now experimenting with these technologies. The project is expected to produce clones and improved cultivars of *masuku* capable of giving fruit within three to five years.

Commercialization

It is also important that some of the economic potential of fruit trees can be realized. In areas such as Southern Malawi there is a strong demand for fruit and vegetables and market opportunities are good. Therefore, the project is also focusing on activities that will increase farmers' access to market information, stimulate product development, the identification of new markets, certification and labelling and encourage farmers to cooperate in assembling and marketing products collectively. For this reason farmers, assisted by ICRAF, are working on processing techniques that can increase the efficiency and quality of juice extraction, jam making, and the drying of *masuku* fruit to increase their shelf life and sales value.

Prospects for the whole project look bright and initial results show that improved marketing and processing that adds value to these wild fruits can improve the livelihoods of smallholder farmers in Malawi. Apart from the opportunities these activities offer for supplementing cash incomes, they also provide an important source of food for households whose emotional, financial and labour resources have been undermined by AIDS and the effects of labour migration.

Marcel Chimwala, is an environmental journalist and member of Media for Environment and Agricultural Development (MEAD). E-mail: chimarcel@hotmail.com