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Underutilised (Tree) Crops: developing products and markets

Cyril Lombard

About PhytoTrade Africa

PhytoTrade Africa is the Southern African Natural Products Trade Association. We have around 58 members drawn from eight countries in southern Africa (Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe). The Association was established in September 2001, and currently has offices in Zimbabwe, South Africa and the UK.

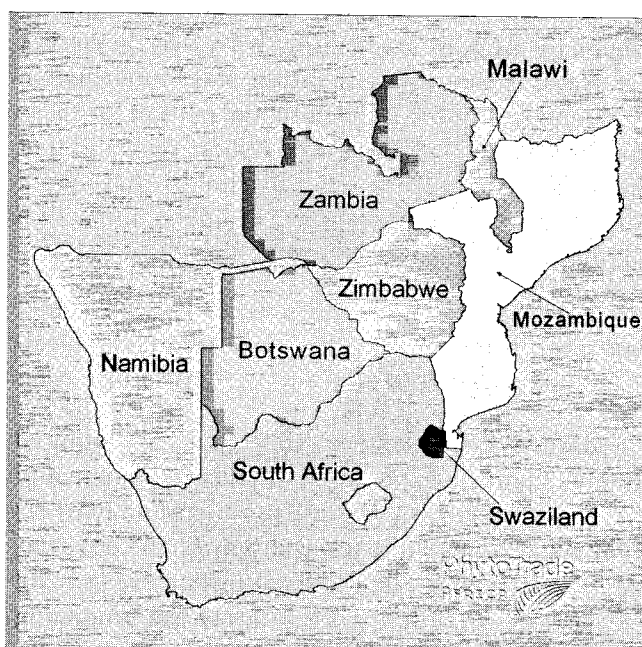
PhytoTrade Africa has a very simple (though incredibly challenging) objective to develop long-term, supplementary cash income for rural producers. This objective is to be achieved by the sustainable utilisation of indigenous plant resources, especially non-timber forest products. We work exclusively with wild harvested material, or material produced under semi-domesticated conditions within traditional farming systems. It is the poorest and most marginalised who have access to these resources, or farm under these conditions. By focussing on local species and using local knowledge we facilitate commercialisation of products that are environmentally and socially adapted to the dry land and marginal farming conditions prevailing in most of southern Africa. We believe this approach has enormous pro-poor impact potential.

PhytoTrade Africa's members include private enterprises, non-government organisations, community-based organisation, research institutions, government departments and individuals. Our budget for the previous two years was US\$1.25M/year. The majority at this stage is from donors such as IFAD, Ford Foundation, Hivos, UNCTAD's Biotrade Facilitation Programme, and IUCN (The World Conservation Union) Natural

Futures, with an increasing amount in the future funded by membership fees and services rendered by the Association, and brokerage levies.

PhytoTrade Africa's products

In southern Africa there are hundreds of species with the potential for commercialisation. However, it is pertinent to prioritise these to enabled focussed efforts and effective use of limited human and financial resources. The prioritisation process incorporates several criteria including sustainability, potential market demand, consumer safety, and the potential to significantly benefit large numbers of producers. Once these have been prioritised we group them in a way to rationalise technical research and development needs, and to assist in identifying commercial partners with appropriate technologies





and market access. PhytoTrade Africa also continually works at a prioritisation process creating a 'pipeline' of new potential products to be developed when funding and commercial conditions are appropriate.

<i>PhytoTrade Africa's product groups and species</i>	
Product group	Species
Fruit pulps and derivatives	Baobab, marula, parinari, mongongo/manketti and pipeline
Botanical extracts	Kigelia, Devil's Claw and pipeline
Lipid oils	Kalahari melon, baobab, mongongo, marula, parinari, trichilia, ximenia and pipeline
New products groups (gums/hydrocolloids, essential oils)	Determined by membership and commercial interest

Market opportunity

The global natural products market is estimated by some to be around

US\$65 billion/year, with the 'organic' and Fair Trade sectors growing particularly strongly. Our research strongly indicates that the potential products from our members have clear interest from food and beverage, personal care, herbal medicine and pharmaceutical industries.

A recent study commissioned by DFID's Southern African Regional Trade Facilitation Programme looked at the market opportunity for eight species from the Southern African Development Community. The report 'Natural Products: The New Engine for African Trade Growth' by Ben Bennett of the Natural Resources Institute was published in 2006, and showed that the potential market for these species was as much as US\$3.5 billion/year, and that the potential number of households that could benefit from the growth in this trade is some 14.5 million.

How do we get from opportunity to reality?

PhytoTrade Africa believes there is clear potential supply, significant potential market demand, and that the development of these products and markets will have pro-poor impact, will benefit the environment by attaching value to local resources, and will deliver trade growth opportunities to the producing countries.

The question is, How do we move from a situation of opportunity, to one of the benefits being a reality? Or, one could ask the question in another way, Why have these opportunities been realised so little in the past?

In our opinion, these benefits can only be realised with a sustained and appropriately resourced and systematic investment into:

- Supply chain development
- Product R&D
- Market development
- Institutional development

Further, there has to be a platform whereby rights and responsibilities of producers, support institutions, processors and buyers can be articulated, discussed and allocated. In doing so, it is necessary to understand the role of the public and private sectors. Essentially, it is at first necessary for the public sector to initiate these investments in order to 'lower the fruit' until such time as the private sector is willing and able to reach up and pick it.

PhytoTrade Africa's support to supply chain development

For these products to be successfully commercialised there needs to be effective supply chains. In most cases there are no supply chains, or they are of an unsuitable scale and quality. Therefore, PhytoTrade Africa does the following:

- Assist with the development of producer groups and supply chains
- Provides and facilitates development support to enterprises
- Assists in the development of organic and fair trade certification standards, and other quality systems and standards
- Provides and facilitates training to producers
- Supports pilot production to demonstrate production capability, 'priming the pump' so that product development and trade can develop

PhytoTrade Africa's support to product development

Our members produce raw materials unsuitable for direct use by industry or consumers. Therefore we:

- Provide support to R&D to convert raw materials into products and ingredients usable by industry, and to meet consumer needs



- ❑ Help develop product characteristics and specifications, and carry out basic performance testing
- ❑ Support research into the commercial properties and usefulness of the products
- ❑ Identify and demonstrate commercial options
- ❑ Consider intellectual property rights issues, and facilitating CBD-compliant (Convention on Biodiversity) solutions

PhytoTrade Africa's support to market development

In order to realise the potential markets, PhytoTrade Africa seeks to open up local, regional and international markets by:

- ❑ Promoting the producers and products at trade fairs, and at one-to-one presentations to selected companies
- ❑ Developing and providing business-to-business and business-to-consumer marketing and PR materials
- ❑ Researching and undertaking applications for regulatory approval, especially around consumer safety issues
- ❑ Creating dynamic and successful partnerships with selected companies with strategic technologies and market access

Institutional development

Most successful industries are institutionally represented, and benefit from the collective and empowered actions of an association. PhytoTrade Africa seeks to represent the nascent southern African natural products industry by:

- ❑ Providing support to producer institutions and relevant government initiatives
- ❑ Facilitating understanding of the opportunities and challenges by the private sector, including potential investors
- ❑ Collectively lobbying policy makers, regulators, donors, and researchers to ensure their actions do not discriminate against marginalised producers and the development of the industry
- ❑ Providing a vehicle to support the understanding of the complex issues around the sustainable commercialisation of southern Africa's indigenous resources from producer through to the consumer, and including CBD Access and Benefit Sharing issues



Sorting Marula

The competition and the scale of the task ahead

The natural products market is targeted by many producers and companies. A quick look at the natural nutrition and health industry will show the products we produce have to compete with many other ingredients. These include:

- ❑ Grape seed extract
- ❑ Linseed extract
- ❑ Olive extract
- ❑ Soy isoflavones
- ❑ Coffee extract
- ❑ Oat extract

These ingredients are all derived from cheap commodities, with long histories of use, known harvesting, storage, processing and trade characteristics, and well established supply chains. Further, regulators, industry and consumer are already familiar with the names and benefits of these products. This is not the case with our species and products.

In many cases these commodity-based products are manufactured from processing waste; for example, grape seed extract is from the wine industry and olive extracts from the fruit after oil extraction. More importantly, these new ingredients have often been developed with the R&D and market development resources of giant multinationals, and have also often benefited from public funding. The USA and EU provide significant amounts of resources to the private and public sector to develop new uses of existing crops. This all means that many of the market opportunities that our producers have are highly competitive, and the competition is incredibly well financed. Notably, these products are also very cheap, have been developed over many years, and are often over-supplied.



***PhytoTrade Africa and new products
and markets for underutilised crops:
lessons from our experience***

PhytoTrade Africa follows the debate and discussion about the development of new products and markets from underutilised crops and indigenous plant and tree resources. It is likely that because of the potential benefit this could hold for farmers and producers in marginal dry lands, especially with climate change to consider, this subject will receive increasing attention from academics, researchers and donors. Based on our experience we would highlight the following lessons:

- ❑ All approaches must have a market focus, and products must meet industry and consumer needs - too many initiatives in the past have ignored fundamental market issues

- ❑ The time to develop new supply chains, new products, and new markets, is extremely long, and any successful investment will need to be sustained and stakeholders should understand that this is a time-consuming process
- ❑ The approach must be systematic and address the entire value chain – any effort that focuses only on production, or markets, is unlikely to succeed
- ❑ The scale of the required funding must be appropriate to the task – as discussed above, the competition is stiff, and the task ahead is enormous – but worth it!