



Benefit-Sharing & Biotrade

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katavi

SUSTAINABLE AGE DEFENCE

Overview

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Introduction





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Natural skincare range

Manufactured in Africa

For Export

Using ethically-sourced natural ingredients



An innovation hub promoting new investment into the commercial development of underutilised indigenous plant species for the benefit of small-scale producers in Zimbabwe

B'Ayoba (Pvt) Ltd



Processing baobab from rural producers in Zimbabwe





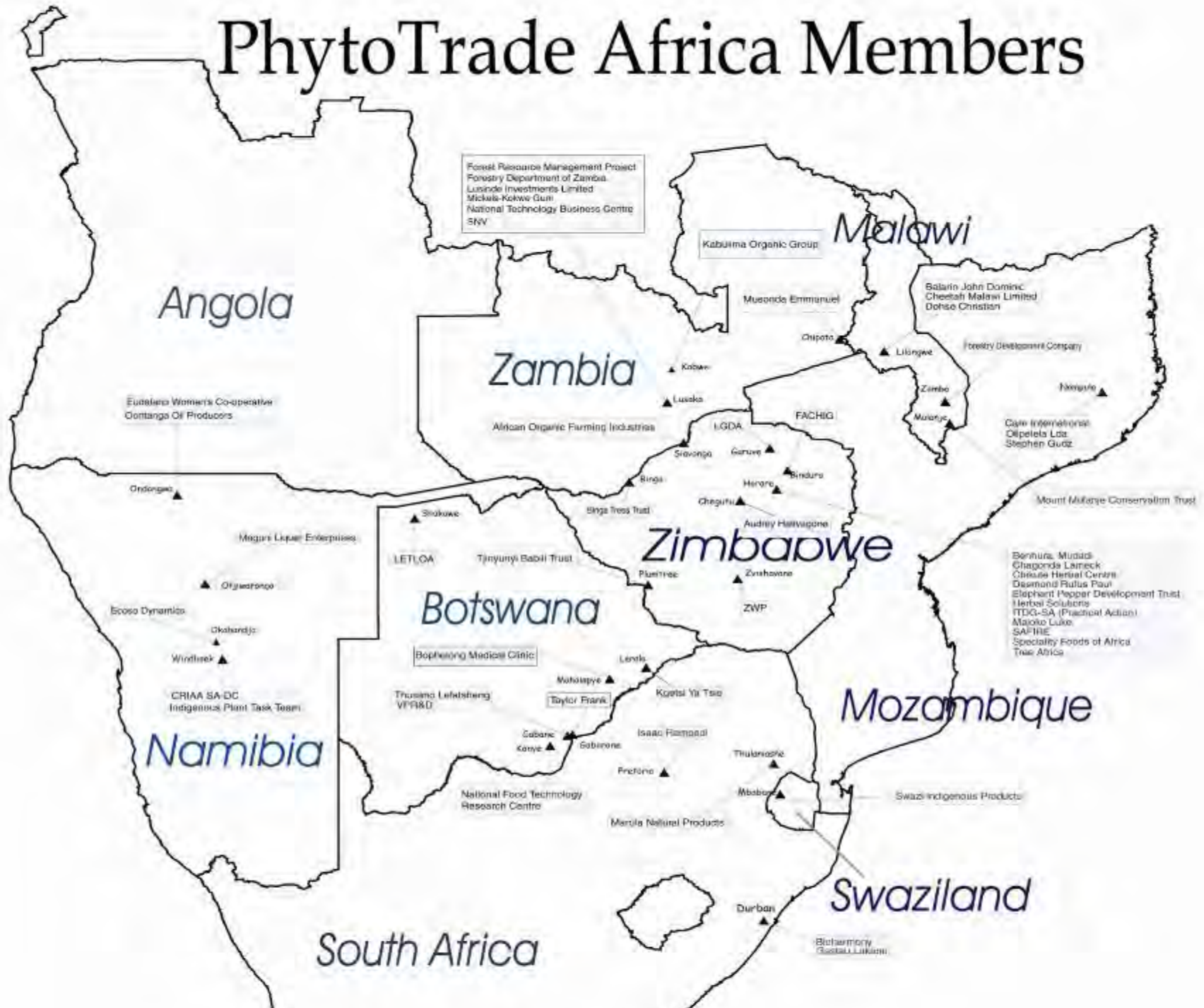
- A membership-based private sector association promoting the ethical and biodiversity-friendly sourcing of natural ingredients, in line with the principles of the CBD. Members from the cosmetics, food and pharmaceutical industries.



PhytoTrade Africa

- Southern African Natural Products Trade Association
- Non-profit association, representing producers in the natural products sector across the region
- Goal is to create a viable Biotrade industry in Southern Africa with poverty reduction and biodiversity benefits

PhytoTrade Africa Members





2008 impacts

- US\$1.7 million worth of sales
- 18,000 rural producers
- 560 tonnes of plant material
- 100% of this supplied from ethical and sustainable sources, but only 10% of it certified as such

Definition of Biotrade





Biotrade is:

Any activity relating to the commercial collection, processing and sale of products derived from biodiversity.

Often linked to criteria of environmental, social and economic sustainability.

When written as “BioTrade”, always linked to these criteria.

Most usually relates to plants.



Biotrade is huge potential commercial opportunity for Africa:

1. Taps into robust global market for naturals;
2. Gives our producers an inherent competitive advantage over outsiders which doesn't exist for exotic cash crops;
3. Promotes in situ management and conservation of natural vegetation cover, with strong climate change benefits (inc. REDD);



4. Indigenous plants are more resilient to impacts of climate change than exotic cash crops;
5. Biotrade genuinely and selectively favours the poorest of the poor;
6. Biotrade in Africa is an opportunity that particularly favours women.

However, despite these benefits, Africa has done very little to systematically develop biotrade.

Examples of Biotrade in Africa





Devil's Claw(*Harpagophytum procumbens*):

- *Widely distributed in the Kalahari region*
- *Commercially used in pharmaceutical industry for over 50 years*
- *Found in very poor and dry areas of the sub-region*
- *Important source of income to a group of extremely poor people*
- *Annual production of 600 - 800 t/yr, involving several thousand harvesters*



Argan oil (*Argania spinosa*):

- *Native to Morocco*
- *Traditionally used by the Berber people as a cosmetic and food oil*
- *2 million people involved in Argan production at a subsistence level*
- *Systematic attempts to commercialise since early 1990s*
- *Now considered one of most valuable natural oils in world*



Shea Butter (*Vitellaria paradoxa*):

- *Across north-central Africa from Sudan to Senegal*
- *Annual shea nut harvest of over 650,000 t per year, of which some 20% is exported*
- *Shea butter export value is US\$3,000 /t*
- *Shea butter used as substitute for cocoa butter*
- *Also used as a high value cosmetic ingredient*
- *Over 3 million women are involved in the export trade of shea butter and/or shea nuts.*



Gum Arabic(*Acacia senegal*):

- *Found throughout the Sahelian region*
- *A product with a long history of commercial use*
- *Export market of over \$200 m /yr, dominated by Sudan*
- *Involves about 6 million people in Sudan alone, most of whom are subsistence farmers*
- *For most households involved in the harvest, annual income from gum Arabic is >20% of total income*



Benefit-Sharing Models within Biotrade



Benefit-Sharing and Biotrade

- Perception that benefit-sharing requires complex legal agreements, bioprospecting activities, natural product drug discovery programmes, trusts to receive money on behalf of communities etc etc.
- This isn't what was encapsulated in the spirit of the CBD (even though the actual wording was vague)



- The spirit of the CBD is that there must a fair and equitable distribution of benefits between all those who have contributed to the resource management, the scientific process and the commercial process
- In a conventional business partnership, benefits are distributed according to how much money each party has put in
- The principle is the same in a benefit-sharing agreement, but recognises that one party's contribution may not have been financial
- Note that *equitable* does not mean *equal*!



Models of Benefit-Sharing in Biotrade

1. Creating an enduring demand for the raw or value-added material, creating a viable long term business opportunity for rural producers.



Baobab

- E.g. Baobab
- *Adansonia digitata*
 - Powdery fruit pulp traditionally used as a food and a medicine
 - Widespread and abundant in many parts of Africa
 - Very marketable product with huge commercial potential
 - Capacity to produce 715,000 MT/yr in Southern Africa, worth US\$960 million, involving 1.3 million households in production (NRI 2005)
 - But no history of commercial use





Baobab

- Options might include:
 - Trying to develop a new super-ingredient with one company, sharing proprietary IP and having a robust benefit-sharing arrangement; or
 - No IP, developing baobab as an ingredient which anyone can supply, and hoping to grow demand for primary producers.
 - We chose the latter, because baobab a) lacks any really unique properties; b) is very widely documented; and c) is found in so many different countries, we felt it would be impossible to hold together a shared programme with a single company.



- Characterised fruit from region, identified commercially relevant properties and developed basic, commercially useable products.



Baobab

- Cleared the regulatory hurdles to baobab commercialisation in first the EU (Novel Foods) and then the USA (GRAS).
- Identified a handful of potential first customers with whom to work and began developing commercial relations with them.
- Created market awareness of baobab and its properties

THE INDEPENDENT



THE TREE OF LIFE

(AND ITS SUPER FRUIT)

BBC NEWS

First taste of a magical fruit

It's being billed as king of the superfruits - the baobab
EU approval to be used in smoothies and cereal bars

Dal baobab alle nostre ecco il frutto che non

Le Monde.fr

Le fruit du baobab, riche et longtemps ignoré
LE MONDE | 28.07.08 | 15h59 • Mis à jour le 28.07.08 | 16h01

wordofmouth



The many wonders of the baobab

Lucy Mangan
Wednesday July 16, 2008

Guardian

12
NIEUWS IN BEELD
HET BELANG VAN IMBUNT - DONDERDAG 26 JULI 2008

Baobab supervrucht

De Europese Commissie heeft de Europese poort opengezet voor de vruchten van de baobab. Dit is het de 'levensboom' zoveel weldadig levert de baobab de bewoners van het zwarte continent binnenkort kan ook de Europese consument kennis maken met de voordelen van de boom. Die zitten namelijk vol vitamines, ijzer, calcium, antioxidanten en ook ideaal voor verwerking in fruitsappen, smoothies en...

Boom

Een baobab bij de plaats Rufisque in Senegal. De vruchten van de boom zitten vol voedingswaarde. | © FOTO EPA

Baobab-vrucht moet Afrika gouden toekomst brengen

Europese Commissie laat import pulp 'nieuwe' fruitsoort toe Joost van Egmond, Dakar

De baobab, het symbool van het Afrikaanse platteland, kan rijkdom brengen. De vruchten van de boom zitten vol voedingswaarde. | © FOTO EPA

Uso farmaceutico

- prodotti ad alto valore nutrizionale
- trattamento di gastrite
- colon irritabile
- trattamento di osteoporosi
- varici ed emorroidi
- aiuta anemici, anorexia



- Now, several large companies around the world are working on novel products based on baobab, and we are experiencing a wave of product launches.



Models of Benefit-Sharing in Biotrade

2. Support for the producers to progress further up the value chain through technology transfer, capacity-building and other measures.



E.g. Ubuntu Oils

Range of plant-oils from indigenous African species
Developed by PhytoTrade Africa, but with technical assistance from specialist lipids company, Aldivia
Aimed at niche cosmetics market





PhytoTrade lacked skills to develop these oils on its own
Also lacked market contacts and credibility to sell them
into the cosmetics sector

Partnership with Aldivia aims to:

- Leverage Aldivia's knowledge and skills in lipids sector to develop oils to their full commercial potential
- Leverage Aldivia's financial muscle to invest in new product R&D around the oils
- Leverage Aldivia's market contacts to help sell the oils
- Enable the eventual transfer of technology from Aldivia to PhytoTrade Africa and its members



The Ubuntu Natural™ Charter

Ubuntu Natural™ is a range of African natural lipids brought to you through a partnership between Aldivia and PhytoTrade Africa, the Southern African Natural Products Trade Association.

Aldivia's lipid know-how and unique green technologies ensure consistently high quality required for effective cosmetic formulations. PhytoTrade Africa guarantees indigenous African plants raw materials that have been sustainably wild-harvested by, and for the benefit of, poor rural people.

Ubuntu Natural™ lipids are produced in accordance with clear social and environmental guidelines, enshrined in the Ubuntu Natural™ Charter.

The Charter guarantees:

- 1 **Fair and reliable supply chain**
 - Priority to disadvantaged producers
 - Trust, mutual respect and transparency
 - Pre-Qualified Suppliers (PQS)
 - Clear lead times
 - Fair and sustainable pricing
 - Prompt payments
 - Full traceability



PhytoTrade
AFRICA 

- Today, there are six Ubuntu oils on the market
- Primary producers benefit from the existence of a market for their seed/oil
- One day, they will benefit from the opportunity to progress further up the chain through owning the Ubuntu technology





Models of Benefit-Sharing in Biotrade

3. Shared ownership of intellectual property between resource owners and technical partners.



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PRESS RELEASE

Maruline®, the first African active botanical ingredient from fair trade and sustainable sources

Maruline®, a new active botanical ingredient from Africa, is 100% natural marula oil with enhanced antioxidant properties obtained through a patented process. But Maruline® is much more than super marula oil: it is the first botanical active ingredient that explicitly provides both social and economic benefits to the poor rural women who are the traditional custodians of the marula resource. Marula oil is produced from the seed kernels of the marula tree (*Sclerocarya birrea* subsp. *caffra*). It has a long history of traditional use encompassing food and cosmetic uses. Now years of innovative research by producers and institutions in Namibia has been combined with the "green chemistry" lipid science of Aldivia S.A. to bring world markets Maruline®, the first in a new range of African actives developed under a groundbreaking partnership between PhytoTrade Africa, the Southern African Natural Products Trade Association and Aldivia S.A. of France.



What makes Maruline® so special? It is the world's first

the marula trees will be conserved for generations to

E.g. Maruline:

- Trade name for a derivative of marula oil that is 100% pure marula oil, buth with dramatically enhanced oxidative stability
- Processing technology to produce Maruline is patented, and patent is co-owned by PhytoTrade Africa (on behalf of producers) and Aldivia
- Name is also trademarked, and co-owned by both parties



- During Aldivia's early research on Ubuntu oils, opportunity arose for some proprietary IP
- Both parties agreed to share ownership
- Agreement included a requirement that Aldivia would transfer Maruline technology to the region when commercially feasible
- Technical challenges have slowed this process, but it still looks promising





Models of Benefit-Sharing in Biotrade

4. Sole ownership of intellectual property by resource owners, with on-licensing to others for commercial exploitation.



E.g.

?!!

Even though this is possible, and will one day become relatively common, at this stage there are serious commercial challenges to this actually happening



Update on Nagoya Protocol

- Intended to make it easier for everyone
- Clarifies previous ambiguities on the scope of ABS requirements. Specifically, makes it clear that any company working with biodiversity-based ingredients is subject to ABS regulations.
- Generally, the Nagoya Protocol is seen as a positive thing by industry, especially with its emphasis on internationally recognised certificates of compliance
- Still a long way to go before it translates into a workable system



Update on Nagoya Protocol

- Meanwhile, companies are recognising the need to adopt ABS best practices
- A key player in this is the Union for Ethical BioTrade, which has emerged as a leader in the sector
- The Ethical BioTrade standard and verification framework provides clear guidance to companies
- Also provides buyers with some degree of assurance relating to the provenance of biodiversity-based ingredients
- See www.ethicalbiotrade.org for more detail

The Final Word

1. The broad adoption of effective ABS practices by business ultimately depends on the continued application of pressure to do so from consumers
2. This requires consumer awareness about firstly biodiversity and then ABS
3. Although this is still far from being achieved, progress has been made

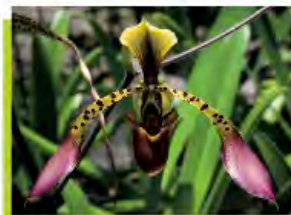


Key findings of the Biodiversity Barometer

Biodiversity is a global issue

For the first time in UEBT's Biodiversity Barometer, research on biodiversity awareness was conducted in seven countries. Seven thousand respondents across France, Germany, UK, USA, Brazil, South Korea and Japan, shared what they knew about biodiversity and related notions. And the results are impressive - the Barometer shows that people are aware of biodiversity across the globe.

70% of people surveyed have heard of biodiversity.



Aware

56%
growth in

in France
year of the
awareness
concept
sourcing
are increa

What does biodiversity mean?

Nearly **1 in 3** can correctly define biodiversity.

Although more and more people have heard of biodiversity, raising awareness is still a priority and not everyone who has heard of the word knows what it means. Both the number of people who can correctly define biodiversity and the definitions given differ between countries.



South Koreans are the champions for giving the correct definition of biodiversity.

"It refers to the diversity we can find in an ecosystem."



Brazilians are aware of how biodiverse their own country is. "Brazil is known to be the most biodiverse country on the planet, especially in the Amazon rainforest."



Many of the incorrect definitions given in Germany were focused on organic products, illustrating the importance of the sector. "Biodiversity is using many organic ingredients."



In the US biodiversity is often confused with the social diversity in the country. "Diversity among people of different races and religions."



In the UK some people confuse biodiversity with biotechnology. "Biodiversity is using biotechnology in different ways for fuel and food production."

What are companies saying about biodiversity?

	2009	2010	2011	2012	Variation 2012 vs 2009
Companies reporting on sustainability development	44%	52%	52%	54%	⬆️ +10
Companies reporting biodiversity	13%	21%	27%	31%	⬆️ +18
Companies reporting on biodiversity sourcing practices	9%	12%	19%	21%	⬆️ +12
Companies mentioning biodiversity related issues like traditional knowledge and intellectual property rights	2%	3%	5%	4%	⬆️ + 2

Basis : UEBT analysis of top 100 beauty companies (WWD)

Thank you

www.phytotradeafrica.com

www.ethicalbiotrade.org

www.bio-innovation.org

