

ADVANCED UNEDITED DRAFT

United Nations Conference on Trade and Development

**The Business of BioTrade:
Using biological resources sustainably and responsibly**

A contribution to the implementation of Decisions 6 and 26
on incentive measures and promoting business engagement of CBD COP9
and to further discussion at CBD COP10 in October 2010 in Nagoya, Japan¹

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UNITED NATIONS

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1. Introduction to BioTrade

BioTrade refers to the collection, production, transformation, and commercialisation of goods and services derived from native biodiversity (species and ecosystems) under criteria of environmental, social and economic sustainability.

1.1 BioTrade Principles

To give a more complete meaning to this concept, UNCTAD (United Nations Conference on Trade and Development) – together with international partners and practitioners at the country level – have defined seven BioTrade Principles. Together, these principles provide an integrated framework for addressing the three objectives of the CBD (Convention on Biological Diversity) in the broader context of sustainable development and responsible business. The BioTrade Principles are as follows:

- Conservation of biodiversity
- Sustainable use of biodiversity
- Fair and equitable sharing of benefits derived from the use of biodiversity
- Socio-economic sustainability (productive, financial and market management)
- Compliance with national and international regulations
- Respect for the rights of actors involved in BioTrade activities
- Clarity about land tenure, use and access to natural resources and knowledge

These Principles are further elaborated through an associated set of BioTrade Criteria⁵ which have been developed to facilitate private sector engagement in BioTrade.

1.2 The BioTrade Initiative

The BioTrade Initiative was launched by UNCTAD in 1996 to support of the implementation of CBD through the promotion of sustainable and responsible trade in biological resources. Since then, the UNCTAD BioTrade Initiative has established partnerships with a number of national and regional organisations to develop BioTrade programmes in Africa, Asia, and Latin America⁶. It has also worked in the European context on facilitating imports of BioTrade products from developing countries.

The BioTrade Initiative and its partners have focused their efforts on trade in specific biodiversity-based goods and services. These include for example the following:

- **Crocodile products** – meat and skin from caiman
- **Fish products** – paiche (*Arapaima gigas*)
- **Flowers and foliage** – heliconias and other tropical flowers
- **Handicrafts** – furniture, decoration objects, jewelry, garments
- **Natural ingredients and products for cosmetics** – essential oils, natural dyes, soaps, creams and butters, moisturisers, etc

⁵ UNCTAD (2007) BioTrade Principles and Criteria (UNCTAD/DITC/TED/2007/4)

⁶ BioTrade beneficiary countries are Bolivia, Brazil, Colombia, Ecuador, Peru and Uganda. Furthermore, it works in Southern Africa through PhytoTrade Africa (Botswana, Malawi, Namibia, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe). National programmes are under development in Vietnam and Indonesia.

- **Natural ingredients and products for food** – fruits, cereals, grains, tuberous, nuts, cocoa, fish products, jams, sweets and snacks, jellies, pulps and juices, spices and sauces, teas and infusions, food supplements, etc
- **Natural ingredients and products for pharmaceuticals** – extracts and infusions from medicinal plants, natural medicine capsules, etc
- **Sustainable tourism** – ecotourism, nature-based tourism, bird watching, etc
- **Wildlife for trade** – chameleons, snakes, tortoise, etc.

1.3 The mandate for BioTrade

The BioTrade Initiative derives its mandate primarily from the UNCTAD's Programmes/Substantive Agenda⁷ and from the trade-related aspects of the CBD, specifically Article 10 on the sustainable use of components of biodiversity and Article 11 on social and economic incentive measures for conserving biodiversity.

The Initiative equally responds to the call by the UN CSD (Commission on Sustainable Development) for the formulation of "incentive measures at national, regional and international levels to stimulate the conservation and sustainable use of biological diversity and improve the functioning of their markets by enhancing developing countries' capabilities to compete in emerging markets for biological resources."

Moreover, the Initiative addresses needs stressed by the UN MDGs (Millennium Development Goals) and the plan of action of the 2002 WSSD (World Summit on Sustainable Development). These include the need to reconcile the goals of environmental sustainability, including biodiversity loss, with developmental needs and the dependencies of millions of the poor on biological resources. The Initiative also works towards the objectives of other biodiversity-related conventions such as CITES (Convention in International Trade in Endangered Species of Wild Fauna and Flora), Ramsar (Convention of on Wetlands), and the UNCCD (UN Convention to Combat Desertification). With the inclusion of REDD (Reduced Emissions through Degradation and Deforestation) in the Bali roadmap under the climate negotiations and the possible support to REDD programmes in developing countries, ways should be found to relate BioTrade activities to climate-friendly policies for example, by strengthening local economic activities in forest buffer zones.

Together these multilateral processes conventions provide the multilateral framework for developing and promoting BioTrade. Specifically, with respect to the CBD, two decisions of COP 9 (9th Conference of the Parties) – Decision 6 on incentive measures and Decision 26 on promoting business engagement – provide a direct mandate for further work by the UNCTAD BioTrade Initiative including this information paper. This reinforces former decisions VIII/26 on incentive measures and VIII/17 on private sector engagement.

Regarding Decision IX/6 on incentive measures, the Conference of the Parties:

“Invites the BioTrade Initiative... to continue its work on trade promotion for biodiversity-based products which are produced in a sustainable manner and compatible with the three objectives of the Convention... through capacity-building, enhancing market access, promoting enabling environments and engaging relevant public and private actors.”

⁷ Key UNCTAD conferences: Bangkok, 2000; Sao Paulo, 2004; and Accra, 2008

Regarding decision IX/26 on promoting business engagement, the COP 9 concluded that a “priority area” is to “build and promote the business case for biodiversity.” This includes a request to the biodiversity community to:

“Continue the compilation and dissemination of information on the business case for biodiversity, including experiences generated in the framework of the UNCTAD BioTrade Initiative, through the clearing-house mechanism, the CBD newsletter on business, and mainstream business forums.”

This information paper is a contribution to these decisions. It reports on the efforts of the Initiative and its partners to work on issues related to incentive measures and business engagement. By way of example, in May 2006 a roundtable was organised with representatives of private companies from developing and developed countries interested in bringing products to the market with social and environmental responsibility.⁸ In November 2009, a second roundtable was organized with participants from the private sector, CBD focal points and Secretariat, as well as other biodiversity-related MEAs. This workshop created a platform to share experiences, challenges and opportunities for the engagement of the private sector in the conservation and sustainable use of biodiversity.

The paper explores how efforts of the BioTrade Initiative provide incentives for business to conserve biodiversity through using biological resources sustainably and responsibly. Through a review and assessment of case studies, the paper identifies the actual practical, bottom-up incentives generated by the BioTrade partners and practitioners.

⁸ UNCTAD (2006) BTFP Newsletter, Issue 4

2. Engaging business in conserving biodiversity

2.1 Underlying causes of biodiversity loss

Biodiversity loss continues today despite the efforts of policy makers, conservation NGOs and responsible businesses to safeguard biodiversity. A main reason for this is the lack of information and knowledge about the economic value of biodiversity and the divergence between private and social interests. Benefits from activities which destroy biodiversity are often short-term, direct and easily-captured by individuals. On the other hand, benefits from activities which conserve biodiversity are often long-term, indirect and diffuse. Thus the drivers to destroy biodiversity overpower the drivers to conserve it. This fact is magnified as a result of the lack of reliable and straightforward indicators to estimate gains from biodiversity conservation and sustainable use.

Several factors or 'failures' explain this divergence between short-term private gain and long-term social gain. To motivate businesses to engage into biodiversity-conserving practices, failures as those that follow need to be addressed:

- **Market failure** – It refers to a wide range of failures from the lack of markets to imperfections in the structure or the process surrounding markets, which cause distortions and inefficiencies.⁹
- **Information failure** – Decision makers often have "insufficient facts, tools, arguments or support" to make sound decisions avoiding biodiversity loss.¹⁰
- **Policy failure (or intervention failure)** – It is often linked to the concept of perverse incentives that encourages biodiversity-harming practices, as well as to the insufficient reward for the adoption of sustainable practices.
- **Lack of secured property rights** – When individuals have no legal rights over the lands on which they live and work, they do not have sufficient incentives to manage these resources in a sustainable manner.
- **Awareness failure** – This type of failure is observed when the physical condition for biodiversity deterioration is already present, but the impacts have not yet been acknowledged.¹¹
- **Social and behavioural factors** – It refers to the lack of political and economic power of some stakeholders such as small-scale producers, women and indigenous people, who are particularly dependent on biodiversity services or affected by biodiversity degradation.¹²
- **Population growth** – Rapid population growth, migration and increased urbanisation can generate additional stresses on ecosystems and species.

⁹ Pearce, D. and Moran, D. (1994) *The Economic Value of Biodiversity*

¹⁰ European Communities (2008) *The Economics of Ecosystems and Biodiversity*, p.27

¹¹ OECD (1999) *Handbook of Incentive Measures for Biodiversity. Design and Implementation*

¹² UNEP/CBD/SBSTTA/12/INF/4 (2007) *In-Depth Review of the Application of the Ecosystem Approach*, p.3

For such failures or underlying causes of biodiversity loss there are a range of possible policy responses, some of which are of particular relevance to a BioTrade approach. These possible policy responses¹³ include the following:

- ***For market failures:*** Address externalities through appropriate economic incentives and regulations; remove market barriers for biodiversity products.
- ***For information failures:*** Invest in the generation of bio-physical, economic and social information on biodiversity, its value and the causes of its loss; engage and inform stakeholders involved directly and indirectly in the conservation and sustainable use of biodiversity.
- ***For awareness failures:*** Invest in the dissemination of information about the impacts of biodiversity depletion.
- ***For policy failures:*** Remove or reform adverse subsidies, including below-cost pricing of resource concessions and free infrastructure provision.
- ***For the lack of secured property rights:*** Establish and clearly define property and use rights which allow more stable incomes and long-term planning.
- ***For the lack of political and economic power of some stakeholders:*** Empower and build capacities for groups dependent on biodiversity goods and ecosystem services.
- ***For population growth:*** Strengthen of human capital and reduce of migration through the creation of economic opportunities and ecological-economic zoning, among others.

With such an array of possible policy responses, there are clear opportunities for engaging business in activities to conserve biodiversity. The challenge is to design the right mix of policy responses to engage and encourage private actors including suppliers, producers, traders, and consumers. As discussed in this information paper, the BioTrade Initiative focuses on a subset of these possible responses which are practical, direct and bottom-up incentives to conserve biodiversity.

2.2 The case for private sector engagement

For the purpose of this paper, the private sector is defined as the part of the economy which is not run directly by government. Private actors can therefore include companies, business and sector associations, private funds, private foundations, community-based organisations, indigenous people's organisations, not-for-profit organisations, and NGOS (non-governmental organisations). For short, this array of private actors will be referred to in the paper as the private sector or business.

Importantly, many of the underlying causes of biodiversity loss can be linked directly or indirectly to the lack of effective private sector engagement. As noted above, it often does not pay for private actors to engage into sustainable practices because of the various market, policy, and institutional failures. In this respect, business suffers from missing markets and the lack of adequate rewards for their efforts to adopt sustainable practices.

¹³ Adapted from OECD (1999) Handbook of Incentive Measures for Biodiversity; and UNEP/CBD/SBSTTA/12/INF/4 (2007) In-Depth Review of the Application of the Ecosystem Approach

Biodiversity loss has also a direct impact on businesses closely connected to and indeed dependent on a sustainable supply of biological resources. Furthermore, a great number of private actors who are directly affected by biodiversity loss – e.g. poor people, women and indigenous communities – lack the political and economic power to contribute to biodiversity conservation decision-making.

International and national biodiversity decision-makers are not often aware of the challenges faced by private actors. Therefore, incentives for the sustainable use of biodiversity must address the needs, challenges and motivations of private sector actors across a value chain to promote their engagement.¹⁴ The BioTrade Initiative engages directly with the private sectors to develop and to promote an appropriate set of practical incentive measures to encourage businesses to conserve biodiversity.

¹⁴ For example, a side event was organised at the CITES Standing Committee meeting in July 2009 aimed at "making the private sector a full partner in CITES implementation". Private actors expressed some of their concerns, especially related to the complexity and length of CITES procedures. Nevertheless, the private sector was favourable to the creation of an "informal network" for business with the CITES Secretariat.

3. Incentive measures for biodiversity

The CBD's Proposal for Design and Implementation of Incentive Measures¹⁵ states that an incentive measure should "change institutional and individual behaviour in order to achieve in whole or in part the... objectives of the Convention...". In doing so, incentives address the underlying causes of biodiversity degradation and loss, and motivate stakeholders to engage into more responsible and sustainable practices.

3.1 Incentives and the biodiversity-related conventions

Most biodiversity-related conventions – either directly or indirectly – recognise the important role of incentives to meet their objectives. This sub-section summarises the incentives work of some key biodiversity-related conventions, and mentions the cross-cutting work of BioTrade in providing incentives for private sector engagement in biodiversity conservation.

3.1.1 CBD and incentive measures

Article 11 of the CBD stresses the importance for each Party to "adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity."

In this respect, CBD COP policy guidance and international programme of work has been developed to support the implementation of Article 11. The current work on incentive measures focuses on best practices dissemination, as highlighted in the COP Decision IX/6. This decision states the need to enhance the "sharing (of) information on good practices, lessons learned, difficulties encountered and other practical experience on its (CBD's) implementation, as well as assessments, studies, analyses and capacity-building."

The UNCTAD BioTrade Initiative is recognized as a partner for the implementation of CBD COP decisions regarding incentive measures (Decision VIII/26 and IX/6). At the same time, BioTrade has also contributed to related work implemented by other biodiversity-related conventions.

3.1.2 CITES and incentives for non-detrimental trade

In relation to the CITES convention and economic incentives, a technical workshop was held in December 2003, which outcomes were presented at COP 13 in 2004. This led to the adoption of the following decisions:

- **Decision 13.76:** "The Secretariat shall invite all Parties and relevant organisations to provide information, experiences and, where possible, outcomes on their use of economic incentives" in order to define "further action on capacity building and possible regional cooperation."
- **Decisions 13.77:** "...the Secretariat shall continue its cooperation on incentive measures with the CBD Secretariat and other biodiversity-related conventions (e.g. Ramsar and CMS), as well as with the private sector and relevant governmental, intergovernmental and nongovernmental organisations." This would permit an "exchange of experiences in the design and use of economic incentives for sustainable management of wild fauna"

¹⁵ CBD Secretariat (2004) Proposals for the Design and Implementation of Incentive Measures

and flora, compilation of case-studies, best practices and lessons learnt, as well as the development of targeted recommendations, operational guidelines and associated instruments for the sustainable use of wild flora and fauna."

During COP 14, the importance of the work on incentive measures was reaffirmed and these measures have become a regular discussion topic at CITES COPs.¹⁶ Within this context, the UNCTAD BioTrade Initiative is recognised as a partner "to ensure the conservation of wild species subject to international trade and promote private sector compliance with CITES requirements and national legislation" (Decision 14.46).

3.1.3 Ramsar and incentive measures

Within the Ramsar Convention on Wetlands, the following resolutions and strategic plans address incentives:

- **Resolution VIII:23 (2002) on ‘Incentive measures as tools for achieving the wise use of wetlands’:** Urges Parties to develop supportive legal and policy frameworks for the design and the implementation of incentive measures, used as a tool to achieve the conservation and wise use of wetlands¹⁷
- **Strategy 1.11 of Ramsar’s strategic plan for 2009-2015:** "incentive measures that encourage the application of the wise use provisions of the Convention" should be promoted. By 2015, incentive measures should be better designed and implemented by all Parties and both positive and perverse incentives affective wetlands should be better monitored and assessed.¹⁸

3.1.4 UNCCD and incentive measures

There is no explicit mention of incentive measures in the text of the UNCCD (UN Convention to Combat Desertification), and limited work has been done to date. For instance, COP 8 Decision 1 in 2007 "invites developing countries to develop an enabling environment for sustainable land management and integrated water management, which includes economic measures, in accordance with international law, and coordination of sectoral policies, consistent with national policies".

Furthermore, the concept of “sustainable land management” which is central to the work programme of the UNCCD is closely aligned to the ‘ecosystem approach’ of the CBD. In this regard, incentive measures may have an important role to play under the UNCCD as they do under the CBD. BioTrade incentive measures, in particular, can address private sector engagement to manage ecosystems or landscapes sustainably, including, for example, the sustainable wild harvesting of medicinal and aromatic dryland plants.

3.2 Types of incentive measures and BioTrade

Incentive measures can be classified in a number of ways. The CBD has classified them into three basic categories:¹⁹

¹⁶ CITES CoP14 Doc. 32 (2007) Interpretation and implementation of the Convention: Compliance issues, Incentives for the Implementation of the Convention

¹⁷ Ramsar Resolution VIII.23 (2002): Incentive measures as tools for achieving the wise use of wetlands

¹⁸ Ramsar (2008) The Ramsar Strategic Plan 2009-2015 (adopted by Resolution X.1)

¹⁹ For more information on incentive measures, please see: www.cbd.int/incentives/positive.shtml

- **Direct positive incentive measures** are "economic, legal or institutional measures designed to encourage beneficial activities" for the conservation and sustainable use of biodiversity.
- **Indirect positive incentive measures** "change the relative costs and benefits of specific activities in an indirect way. Trading mechanisms and other institutional arrangements create or improve markets for biological resources, thus encouraging the conservation and sustainable use of biological diversity".
- **Negative incentive measures or disincentives** are "designed to discourage activities that are harmful for biodiversity" such as pollution taxes, logging penalties and trade ban schemes.

The focus of the BioTrade Initiative is on positive incentive measures – direct or indirect – relevant to private actors. Such measures are often linked to government policies and measures – some of which can be ‘negative’ such as green taxes and others ‘positive’ such as the allocation of public funds and clearly defined property rights.

Furthermore, from a BioTrade perspective, it is useful to approach incentive measures in two different but inter-related ways:

- The value chain approach
- The sustainable livelihoods approach

3.2.1 Value chain approach

The term ‘value chain’ refers to coordinated relationships between actors who are involved directly or indirectly in a productive activity with the aim of taking a product or service from its supply source and getting it to the customer. It involves alliances among producers, processors, distributors, traders, regulators and support institutions based on a market demand for their products and services. Actors along a value chain work jointly in the achievement of goals through sharing associated benefits and risks, as well as investing time, energy, and resources in realising these goals.²⁰

3.2.2 Sustainable livelihood approach

"A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term."²¹

Thus, the ‘sustainable livelihood approach’ puts people and communities at the centre and focuses on enhancing:^{22/23}

²⁰ UNCTAD (2007) BioTrade Principles and Criteria (UNCTAD/DITC/TED/2007/4). For more information, please see UNCTAD publication UNCTAD/DITC/BCC/2008/1.

²¹ Chambers, R. and Conway, G. (1992) Sustainable Rural Livelihoods: Practical Concepts for the 21st Century, IDS Discussion Paper 296

²² IUCN (1999) Community-based Incentives for Nature Conservation

²³ DFID (1999) Sustainable Livelihoods Guidance Sheets

- **Human capital** –individual skills, knowledge, ability to labour and good health.
- **Social capital** – "social resources upon which people draw in pursuit of their livelihood objectives", including "networks" and "relationships of trust, reciprocity and exchanges".
- **Financial capital** – "financial resources that people use to achieve their livelihoods" such as savings and credit access.
- **Physical capital** – "basic infrastructure and producer goods needed to support livelihoods".
- **Natural capital** – access to natural resources (e.g. biodiversity, lands, fresh water, clean air).

3.2.3 An incentive measures framework for BioTrade

By putting both people and value chain actors at the centre, these two approaches provide a strategic framework for classifying incentives engaging private actors in the conservation and sustainable use of biodiversity. In this context, incentive measures from a BioTrade perspective can be classified as follows:

- **Market incentives:** access to markets and differentiation of products on markets. These incentives will often be linked to social capital for example through business partnerships which improve access to markets.
- **Social incentives:** enhancement of human (i.e. skills, knowledge and abilities) and social (i.e. a supportive and cohesive environment that fosters the adoption of sustainable practices throughout a value chain) capitals.
- **Financial incentives:** facilitation of access to finance or financial compensation for sustainable practices, for instance through cash rewards or compensation for conservation activities, grants and micro-credits for private entities adopting sustainable and conservation practices.
- **Physical incentives:** enhancement of production facilities, access to equipment and transport.
- **Property rights:** access and rights to own, use or manage biodiversity resources and are defined by public measures. The study will only address property rights indirectly because of their importance in guaranteeing private sector practices possible in the medium and long term.
- **Fiscal incentives:** budgetary measures such as taxes and subsidies will not be addressed in this paper as they are governmental measures.

This framework can be used to classify the specific tools developed by the BioTrade Initiative and its partners, as well as by private actors themselves, that generate incentives for biodiversity conservation and sustainable use.

The primary categories of incentives²⁴ are summarised in the following table:

BioTrade incentives		
Incentive types	BioTrade tools	Incentive targets
Market incentives	<ul style="list-style-type: none"> • Negotiations with policy makers • Trade fairs and commercial missions • B2B (business to business) programmes 	Facilitate access of products on markets
	<ul style="list-style-type: none"> • Certification and verification schemes • Appellation of origin • Collective trademarks 	Differentiate products on the market resulting in a premium price
Social incentives	<ul style="list-style-type: none"> • Training and training materials • Technical assistance • Sector associations and partnerships • Sector strategies and assessments • Management plans • Exchanges of experience 	Enhance human and social capital, with a special focus on the enhancement of skills, knowledge and abilities as well as organisational strengthening and networking
Financial incentives	<ul style="list-style-type: none"> • BioTrade funds – grants and loans • Micro credit 	Facilitate access to finance
Physical incentives	<ul style="list-style-type: none"> • Improvement of physical equipment and facilities 	Enhance production capacities, facilitation of access to equipment and transport

The next section of this paper reviews a series of BioTrade case studies in line with the incentive measures classification mentioned above: market, social, financial and physical. This review is then followed by a more thorough overview of the incentives measures being generated by the UNCTAD BioTrade Initiative and its partners.

²⁴ Note that this table excludes the two categories of property rights and fiscal incentives both of which are the direct responsibility of governments and thus are not main features of the BioTrade Initiative.

4. BioTrade business best practice cases

This section of the information paper includes a selection of BioTrade case studies which meet the following criteria:

- Linked with the BioTrade Initiative
- Fulfilling BioTrade principles and criteria
- Excluding GMOs or introduced species
- Demonstrating best practice from the private sector
- Designed and/or lead by the private sector
- Responding to an interest of the private actor to share the experience
- Providing insights on a BioTrade incentive measures

The eight case studies presented here differ greatly, but all make clear that BioTrade activities are generating a variety of practical, focused incentives to encourage the conservation of biodiversity and the sustainable use of biological resources.

4.1 Nativa and Cosmetic Valley ²⁵

This case study focuses on a unique and innovative partnership between a developing country BioTrade association and a developed country trade association.

4.1.1 Nativa – a BioTrade sector association

Nativa was created in 2006 in Colombia with the support of the UNCTAD BioTrade Initiative and partners, the Centre for the Promotion of Imports from developing countries (CBI) and the Colombian BioTrade National Programme/Humboldt Institute. Nativa is the sector association in Colombia of BioTrade companies involved in native natural ingredients.

Nativa recognises the important role the private sector has to play for the implementation of the CBD and the Millennium Development Goals (MDGs). To fulfil this role, enterprises acknowledged the importance of working together, first at a national level with the creation of Nativa and also at a regional level with the creation of BioNativa – the Andean and Amazon Association for BioTrade of natural ingredients and products.²⁶

Nativa focuses on the sustainable use of native plants and promotes the development and trade of products with added value. This is carried out through the framework of the value chain approach and the implementation of BioTrade Principles and Criteria. Nativa has developed a supportive environment and a network for companies working in the natural ingredients sectors and respecting BioTrade principles and criteria.

Thanks to the strengthening of social capital, Nativa aims to create social incentives and market incentives for the engagement of private actors in the conservation and sustainable use of biodiversity. For instance, the sector association aims to harmonise relations between its members, strengthen value chains, promote knowledge sharing, develop studies and recommendations on problems faced by its members, facilitate their participation to trade fairs and participate in policy processes affecting its members. Facilitation of access to finance for its members as well as for research projects is also an important objective of Nativa.

Highlights of Nativa include the following ^{27/ 28}:

- 9 companies
- 1 university
- 1 public research laboratory
- More than 100 products and 50 active ingredients of native species, including vegetal extracts, essential oils, natural colorants, resins and sweeteners.

²⁵ References used for this case study: Nativa (2006). Estatutos de la Asociación Colombiana de Ingredientes Naturales "Nativa"; Service de l'ONUDI à Paris, Rapport d'activité 2007; UNCTAD (August 2006). BTFP Newsletter Issue 5, Article: Colombian entrepreneurs launch first trade association for natural ingredients; Website of the Cosmetic Valley: <http://www.cosmetic-valley.com>; Interview with Jean Luc Ansel, Chief executive of the Cosmetic Valley; Interview with Gustavo Urrea, Bio-trade Manager Labfarve and President of the Board BioNativa; Interview with Yves Darricau, Deputy Head of UNIDO service in France and Caroline Feltesse, project officer of UNIDO service in France.

²⁶ The association BioNativa was created in 2006 and brings together actors from the natural ingredients sector from Bolivia, Colombia, Ecuador and Peru. Nativa is a member of BioNativa.

²⁷ Source: Yves Darricau, Deputy Head of UNIDO service in France

²⁸ Source: Brochure Colombia - Native Biodiversity for a World of Beauty, Bogotá and Cundinamarca Region

4.1.2 Cosmetic Valley – a BioTrade value chain partner

The French business association, Cosmetic Valley, is the world leading resource centre for perfumes and cosmetics.²⁹ It was created in 1995 and is hailed by the French Inter-ministerial Committee for Regional Development and Competitiveness as a "competitiveness cluster."³⁰ The development of the cluster creates a supportive and cohesive structure for the cosmetic sector and its approach promotes innovation and the expansion on international markets. The Cosmetic Valley coordinates a network of around 300 enterprises, both big perfume and cosmetic companies and SMEs (Small and Medium Enterprises), research laboratories, training institutes and universities. It covers six French départements in three regions: Centre (Eure-et-Loir, Indre-et-Loire, Loiret, Loir-et-Cher), Ile-de-France (Yvelines), and Haute-Normandie (Eure).

Cosmetic Valley is willing to adopt practices respecting biodiversity conservation. However, one of the main challenges for the cluster is on how to include conservation and sustainable use practices within its business activities, as well as how to convert it into a source of innovation. Cosmetic Valley is willing to act in a sustainable manner, based on:

- "ethical values for respect by stakeholders for companies' operations: employees, clients, suppliers, shareholders, the community at large"; and
- "social and environmental harmony for the planet as a whole."

In particular, the Cosmetic Valley disseminates best practices in sustainable development with the objective to bring its member companies into a virtuous circle, especially with the adoption of Best Manufacturing Practices (BMPs), responsible production and consumption modes as well as clean modes of transport. The cluster integrates sustainable development factors in the design of its products to stimulate innovation. It has also initiated the development of an eco-responsibility charter which is based on defined commitments such as resources preservation, fair relations with southern countries, carbon wells and scientific cooperation programs.³¹ Finally, the cluster is willing to create a sustainable partnership with biodiversity-rich countries.

Highlights of the Cosmetic Valley include the following:

- 300 companies, including
 - the biggest perfume and cosmetics companies – e.g. Guerlain and Dior (LVMH), Shiseido, Hermès, Nina Ricci and Paco Rabanne, Lolita Lempicka, Gemey-Maybelline and Yves Saint Laurent Beauté (l'Oréal), Clarins, Caudalie and Chanel
 - SMEs
- 24,500 jobs
- €7 billion turnover
- 4 universities
- 178 public research laboratories
- 5,500 scientists
- 136 training institutes

²⁹ See: <http://www.cosmetic-valley.com>

³⁰ Competitiveness clusters are part of the French new industrial policy. "A competitiveness cluster is defined as: an association of companies, research centres and educational institutions, working in partnership (under a common development strategy), to generate synergies in the execution of innovative projects in the interest of one or more given markets." For more information, please visit the following website: <http://www.competitivite.gouv.fr/spip.php?rubrique39&lang=en>

³¹ Source: <http://www.cosmetic-valley.com/en/developpement1.php>

4.1.3 Nativa and Cosmetic Valley – a BioTrade partnership

The Chamber of Commerce of Bogota, through the promotion of Colombian products and exchange of technology and know-how between Colombia and Europe, approached the United Nations Industrial Development Organisation Service in France (UNIDO - France). Within their activities, they organised a French-Colombian exchange of experiences on Competitiveness Clusters, where Cosmetic Valley and Nativa Colombia participated in June 2007.

As a result of this mission, Cosmetic Valley and Nativa started their discussions to strengthen collaboration due to their shared commitment to the sustainable use of biodiversity as well as the export-readiness of Nativa and their interesting and innovative products. Subsequently, in February 2008, a memorandum of understanding was signed between Nativa and Cosmetic Valley. Other national actors that contributed to achieve this partnership are the Colombian National BioTrade Programme/Alexander von Humboldt Institute and the Fondo Biocomercio.

The partnership between Nativa and Cosmetic Valley is a business alliance for the promotion of native Colombian products. It has resulted in the following benefits/activities for both associations:

Cosmetic Valley	Nativa
<ul style="list-style-type: none"> • Learnt about interesting products derived from native biodiversity • A complementary product offer for the Cosmetic Valley cluster • Facilitated access to Colombian companies and research organisations 	<ul style="list-style-type: none"> • Facilitated access to potential buyers and pool of experts (market access, product quality, sustainable supply chains, etc) • Learn how to develop a competitive cluster for the cosmetic sector • Created possibilities for the training of Nativa members by Cosmetic Valley members
<p style="text-align: center;">Common activities</p> <ul style="list-style-type: none"> • Joint stands at the trade fair Beyond Beauty (Paris, October 2008 and Paris, October 2009) • Mutual promotion on national and international markets • Continuous development of joint practices for the conservation and sustainable use of biodiversity, with special focus on resource management and technology transfer • Developing a virtual logistic platform for the exchange of products aiming at increasing links between the members of the two clusters and establishing potential commercial agreements between companies' members from Nativa and Cosmetic Valley • Mutual Research and Development (R&D) projects related to bio pesticides and natural colorants, with the financial support of Cosmetic Valley and Colombian Administrative Department for Science, Technology and Innovation (Colciencias) • Access to a broad number of Colombian and French companies, laboratories and research organisations 	

4.1.4 Incentive measures generated through the partnership

The partnership develops a supportive and cohesive social environment around actors pursuing the same goals, hence the commercialisation of natural cosmetic products. Thanks to the partnership, market, financial and social incentives are created for Cosmetic Valley and Nativa to engage themselves into sustainable practices:

Market incentives for BioTrade products

The partnership generates market incentives for Nativa as it enhances market access for its products. It also generates market incentives for Cosmetic Valley as it enhances the supply of native Colombian products for the cluster and hence diversifies its product offer. Furthermore, because of the respect for BioTrade Principles, Nativa's products can be differentiated on markets.

Nativa's presence on the Cosmetic Valley stand at fairs such as Beyond Beauty are key for the marketing of Nativa's products and the creation of links between Nativa's and Cosmetic Valley's companies.

Social incentives

The partnership also generates social incentives as it increases skills, knowledge and abilities of Nativa as well as Cosmetic Valley's members. Nativa's members learnt from the experience of Cosmetic Valley that started as a small cluster and became a strong worldwide competitiveness cluster for the cosmetic sector. Thanks to the partnership, members from Cosmetic Valley have also enhanced their knowledge on specific Colombian plants and this has widened their possibilities in R&D, for creating colourings and bio-pesticides for instance. The partnership also created opportunities for technological transfer that would enhance Nativa's members' local capacities.

Financial incentives for BioTrade business

The access to finance is facilitated by the competitiveness clusters and further enhanced by the partnership. For example, access to funds for R&D projects was facilitated by the partnership which brought the funds of the clusters together. Cosmetic Valley itself provides funds for mutual R&D projects. Concerning Nativa, they obtained funds from the Colombian Administrative Department for Science, Technology and Innovation (Colciencias).

4.1.5 Lessons learned from the partnership

The existence of a market for environmentally and socially responsible biodiversity-based products, especially in developed countries, is a key driver for the adoption of practices respecting the conservation and sustainable use of biodiversity. It is also a prerequisite for the success of the partnership between Nativa and Cosmetic Valley.

The following concrete benefits were obtained by the partnership between Nativa and Cosmetic Valley:

- increased competitiveness of the members' enterprises and allows the expansion of markets (i.e. for Nativa) and product offers (i.e. for Cosmetic Valley)
- facilitated the marketing of the members' products and positioned native natural products on national and international markets
- positioned the associated companies on international markets
- allowed companies to benefit from exchange of experiences and knowledge and generated joint R&D projects

4.2 PhytoTrade Africa ^{32/33}

This case study reviews the Southern Africa Natural Products Trade Association's – trading as PhytoTrade Africa – approach to establish and facilitate the commercial trade in plant-derived Natural Products (NPs). It shows how this approach has facilitated the development of incentive measures that contribute towards sustainable use and conservation of forest resources by local communities. It is further supported by a case-within-a-case of baobab harvesting and trade in Malawi under TreeCrops (Pvt) Ltd, a business member of PhytoTrade. This is further detailed in the next section which explores the support provided by PhytoTrade and Tree Crops (Pvt) Ltd that has generated incentives for communities to harvest baobab products in a sustainable way.

4.2.1 Development of incentive measures

PhytoTrade's goal is to support commercialisation of NPs through the development of the supply chain and global markets for NPs. In so doing, its aim is to enhance economic growth for poor rural communities through sustainable harvesting and ethical trade in a range of native plant species. PhytoTrade was established in 2001 and currently has membership of more than 50 organisations that work with approximately 20,000 harvesters. Approximately 85% of these harvesters are women.

PhytoTrade deals with botanical extracts and oils from its focal species including:

- Baobab (*Adansonia digitata*)
- Kalahari melon (*Citrullus lanatus*)
- Mongongo (*Schinziophyton rautanenii*)
- Marula (*Sclerocarya birrea*)
- Sour plum (*Ximenia sp*)
- Mafura (*Trichilia Emetica*)
- the African sausage tree (*Kigelia Africana*).

PhytoTrade has facilitated the development of the supply chain as well as identified global markets for NPs from Southern Africa, including baobab from Malawi. As illustrated by this case study, support provided by PhytoTrade has developed incentive measures for its members to engage into practices respecting biodiversity conservation and sustainable use.

³² This case study is prepared by Itai Chibaya and Nontokozi Nemarundwe from PhytoTrade Africa.

³³ Recommended references include: Bond, I. (2001), CAMPFIRE & the Incentives for Institutional change; Cavendish, W. (2000), Empirical regularities in the poverty-environment relationship of rural households: Evidence from Zimbabwe; CDCS (1995), Successful natural resource management in Southern Africa; Chibaya, I.G. (2009), Trees and livelihoods: socio-economic and environmental impacts of baobab (*Adansonia digitata*) commercialisation in semi-arid Lake Malawi Region-Malawi; Fisher, M. (2004) Household welfare and forest dependence in southern Malawi; Gelb, S. (2003), Inequality in South Africa: Nature, cases and responses; Government of Malawi (2005), Country report on economic performance of Malawi; Hulme, D. and M. Murphree (2001) Community conservation in Africa: An Introduction, in eds. David Hulme and Marshall Murphree, African Wildlife and Livelihoods; Murombedzi, J.C. (2001) Committees, rights, costs and benefits; Neumann, R.P., and Hirsch, E. (2000) Commercialisation of non-timber forest products; Scoones, I., Melnyk, M. and Pretty, J. (1992), The Hidden Harvest: Wild Foods and Agricultural Systems; and Shackleton, C.M., Shackleton, S.E., Buiten, E., Bird, N. (2007), The importance of dry woodlands and forests in rural livelihoods and poverty alleviation in South Africa.

4.2.2 Approach to market and social incentives

PhytoTrade's objective is to generate supplementary incomes for rural communities in the Southern Africa's marginal areas from the sustainable exploitation of wild-harvested natural products – primarily plant species – through the creation of global markets for these products. Primary producers often are faced with many constraints to access export markets, most of which are 'niche and high level' markets. Factors such as social insecurity, lack of education and business experience, limited space in markets, lack of capital among others often reduces the ability of these primary producers to access the global markets.

PhytoTrade therefore seeks to achieve a broad development objective by pursuing a largely commercial approach whereby the value chain is developed from the primary producers' level to the global markets. To achieve its goal, PhytoTrade along with its members, focus on four main areas:

- Research on product development
- Development of the supply chain
- Market opportunities
- Institutional frameworks

Of particular relevance to this working paper are two of these focal areas: the development of the supply chain and market development to create incentives for sustainable use of the NPs. The following section describes the intervention undertaken by PhytoTrade to enhance trade in NPs from southern Africa through the development of the supply chain and identification of market opportunities.

4.2.3 Market incentives through support in market development

Any new product requires appropriate marketing and more so, if the product is selling based on an entirely new ingredient that is unknown to the market.³⁴ While the need to raise awareness among consumers may be recognised, the process is often expensive and not many companies can afford the costs.

To contribute towards the development of a reliable market for NPs traded, PhytoTrade developed several initiatives that include support for certification standards, development of commercial partnerships with companies in Europe and South Africa, attendance at international trade shows to raise consumer awareness on natural products. In addition, brochures, articles and regular newsletters have been published as part of the market development strategies.

Effort has been made to adhere to existing regulatory frameworks that govern trade in natural products in the different markets and/or geographical regions. The support provided by PhytoTrade enhances market access and hence generates incentive measures for PhytoTrade's members to adopt sustainable practices.

Certification standards and compliance

As the development of NP markets has progressed, it has become more and more apparent that certification represents a key opportunity for primary producers. Certification can increase the

³⁴ Le Breton, G. (2009) Fads or Fixtures? The Challenge of Establishing Novel Plant Products as Enduring Fixtures in a Crowded Market

benefit flows to small scale producers and provide market incentives for producers to invest in more sustainable harvesting practices. Consumers are becoming increasingly aware of the social and environmental impacts of their consumption patterns and correspondingly eager to see tangible evidence that these impacts are not negative.³⁵

However, small-scale producers of Non-Timber Forest Products (NTFPs) that feed into this market have found themselves drawn centre stage into often complex, shifting and expensive certification scenarios that may form a barrier to trade. If the gap between the industry's certification expectations and the small-scale producer's certification capacity is wide, there is likelihood that small producers will be excluded.

PhytoTrade has tried to narrow this gap through practical ways that allow entry of small-scale NTFP producers into the global natural products market. These include availing certification grants to members. Certification has been done through Ecocert-Afrisco. Efforts have also been made to pursue alternatives for developing a harmonised standard with the Union of Ethical BioTrade (UEBT) for NTFPs certification at the global level.

Initial analyses suggest that organic certification has had positive outcomes. Producers have earned up to 50% more per kilogram of material as a result of the premium paid on organically-certified products, and several hundred producers have benefited from these improved prices and associated dividends. The price paid to individual harvesters has increased by 35% and 50% respectively for primary producers that work with members of PhytoTrade such as TreeCrops.

Addressing regulatory requirements

The review done by PhytoTrade prior to efforts made to develop the NPs industry in southern Africa revealed that there was need to pay adequate attention to regulatory issues.³⁶ PhytoTrade adopted a strategy that would generate information on all regulatory requirements for each product and in each market. Regulations that determine accessibility to external markets will often vary from country to country. For instance, in the European Union (EU) – which is currently the biggest market for NPs products from PhytoTrade members – application for Novel Foods approval had to be done prior to the launch of a new product in the EU markets. The application process may take anything between six months and three years and is often expensive. For example, PhytoTrade applied for the EU Novel Foods approval for the use of baobab pulp as a food ingredient within the EU in August 2006. Approval was granted July 2008.

For long-term sustainability, there is need to apply and get approval under these regulations so that a product is not pulled off the shelf, after having been launched into the market. Thanks to the generation of information on regulatory requirements as well as the support for applications to enter markets, PhytoTrade facilitates the access to markets for its members. Hence, PhytoTrade generates market incentives for its members to adopt practices respecting the conservation and sustainable use of biodiversity.

³⁵ Welford, L. & G. Le Breton (2008) Bridging the gap: PhytoTrade Africa's experience of certification of Natural Products

³⁶ Le Breton, G. (2009) Fads or Fixtures? The Challenge of Establishing Novel Plant Products as Enduring Fixtures in a Crowded Market

Commercial partnerships

At the establishment of PhytoTrade, there was recognition that for sustainability, there was need to adopt a strategy that would ensure existence of a reliable market for natural products. Thus the commercial partnership approach was adopted. Through this approach, commercial partners that have interest in natural products are approached for collaborative work with the trade association. If agreeable, a memorandum of understanding regarding the partnership is drawn up and signed by both parties.

By end of 2008, PhytoTrade had two main commercial partners – Aldivia based in France and Afriplex based in South Africa. Aldivia purchases mainly bulk oils from the focal species for cosmetics, while Afriplex concentrates on flavour extracts from fruit pulps for the food and beverage industry. These commercial partnerships are also a mechanism for developing joint marketing efforts for natural products. For instance, by end of 2008, Aldivia had cumulatively developed over 370 customers for the African oils and identified about 2,300 prospective clients.

4.2.4 Social incentives through supply chain development

An important element identified by PhytoTrade at the start of the programme was the need to ensure the existence of an adequate supply base to meet demand once the product is launched into the market.³⁷ To ensure consistent supply, several mechanisms have been put in place. These include providing relevant technical support and business development advisory services to its members, co-ordinating production to meet the bulk volume requirements of the market, and assisting members to attain the required quality standards for export. Those services enhance the social and human capital of members and hence act as social incentives for the adoption of sustainable practices.

Technical support in production

PhytoTrade is committed to providing capacity-building and technical support to its members in order to enhance their skills, abilities and knowledge and to enable them to be reliable NPs suppliers. Since 2006 PhytoTrade implemented a training and capacity-building approach that focuses on small, targeted sub-groups within the membership in response to specific requests.

Training has not been generic and static but rather has changed overtime to meet changing needs of members. Initially emphasis was on sourcing of NPs and as this level of the supply-chain became better managed and more efficient, emphasis shifted to packaging, quality control, export and documentation. The impact of such technical support better equips primary producers to meet quality standards and is a tool to enable them to overcome stringent quality requirements by global markets.

Pre-qualified supplier system

To contribute towards accomplishing commercial linkages between producers, processors and traders in the market chain, PhytoTrade works closely with the competent and well-capitalised members through their Pre-Qualified Supplier (PQS) system. The PQS system gives priority on commercial orders to members with demonstrable capacity to produce process and export

³⁷ Le Breton, G. (2009) Fads or Fixtures? The Challenge of Establishing Novel Plant Products as Enduring Fixtures in a Crowded Market

natural products reliably to agreed quality and pricing specifications. The PQS system was introduced in 2007 to streamline the export process. By the end of 2008, out of 52 PhytoTrade members, there were six PQS members in five different member countries. TreeCrops is one of the prequalified suppliers, with a focus on baobab pulp supplies.

The PQS system has contributed towards improving supplies of bulk oils and fruit pulp that meet the quality standards for the European market. Relevant training workshops are facilitated by PhytoTrade to the PQS members on a regular basis. For instance, in September 2008, a course was held on quality management systems. Where feasible, such training workshops are held at one of the members' premises to enhance learning and sharing of experiences. PQS members also meet on a quarterly basis to discuss progress in production and other related market issues.

4.3 TreeCrops and PhytoTrade Africa³⁸

4.3.1 Overview

This case focuses on one of PhytoTrade's member companies. Tree Crops is a private company based in Lilongwe, Malawi, and specialised in the commercialisation of natural products. The company promotes sustainable wild harvesting of baobab fruit and seed from the area around the arid Southern region of Lake Malawi. The company processes baobab pulp into various consumable products that are sold in the local (national) markets as well as exported to regional and international markets. The baobab pulp, which is whitish, powdery, and rich in vitamin C is traded in European markets and used as a food ingredient. Baobab seeds are pressed to produce high value oil that is sold on the international market especially in the cosmetic sector. The Company forms a bridge between the suppliers of baobab products and sales markets where finished products are sold to highly specialised players in the food and cosmetics sectors.

The current production level of baobab pulp is on average 600kg per day. The factory has a capacity to produce more than 300kg of oil per month and at present doing an 8 hour shift. The factory employs 5 people and the company also employs 3 other people for field work. TreeCrops (Pvt) Ltd works with both female and male harvesters and processors of baobab seed and pulp. Rural primary processors involved in the baobab trade with TreeCrops (Pvt) Ltd during 2008 consisted of 122 women and 264 men in Dedza District near the southern shores of Lake Malawi.

Preliminary processing of pulp is done at the village levels at central collection depots where seed and pulp are separated by local primary producers employed by the Company. Further processing of the pulp through grading, grinding and packaging is done at the main factory of TreeCrops in Lilongwe. The pulp is then sold to local and international markets as an ingredient for the food industries. Examples of products made from the pulp include manufacture of fruit smoothies and fruit juices. These are relatively new and developing markets. Only those suppliers who abide by the standards that are set for trade and who are willing to update their knowledge about market and products aspects are involved in trading relations with TreeCrops. Packaging is done at the factory and baobab pulp finished products are sold on the regional market through a commercial partnership arrangement within PhytoTrade.

4.3.2 Expansion of formal employment in sustainable baobab trade

Before the inception of formal trade of baobab by TreeCrops, livelihood options were mainly skewed towards crops and livestock. Despite average incomes from baobab being modest, baobab trade is proving a consistent source of income, unlike the unpredictable crop and livestock production probably because of the adaptation to harsh arid environment of the baobab species. As TreeCrops is growing, more and more of its primary producers are getting formal employment, which helps add on to their role, confidence and capacity to sustainably harvest the resource and also train fellow primary producers. Local primary producers are employed as in-takers at the storage facility of baobab raw material within the source Districts. These trained in-takers are responsible for ensuring compliance with sustainable harvesting, quality, hygiene standards are met during sourcing, processing and storage at the local stage of baobab supply chain. It is impossible for the company to go around every supplier's doorstep as this would seriously raise the cost of collection and reduce the quality of the product as it is exposed to an uncontrollable environment. Thus it becomes mandatory for collectors to deliver to a central

³⁸ This case study was prepared by Itai Chibaya and Nontokozo Nemarundwe from PhytoTrade Africa.

point so as to ensure control of the storage and processing conditions. Storage conditions would be difficult to monitor if the product is stored in the individual households. Trade in baobab by TreeCrops has also reduced sales to middleman or ‘vendors’ who often undercut prices.

The increase of formal employment for baobab primary producers and the reduction of sales to middleman, both linked to the creation of Tree Crops, is a key driver for the engagement of primary producers in the sustainable use of baobab. Furthermore, PhytoTrade and TreeCrops also provide assistance that facilitate access to markets and strengthen human and social capital of primary producers.

4.3.3 Incentive measures for sustainable use

Incentive measures generated by PhytoTrade and TreeCrops that have contributed towards sustainable use and conservation of biodiversity include social incentives (enhancement of skills, knowledge and abilities) and market incentives. Property rights as well as other political incentives (clearly defined property rights and existence of institutions that monitor the use of NPs) are also analysed. These incentive measures are discussed in more detail above and are summarised from annual impact monitoring in Dedza and Ntcheu Districts done by PhytoTrade and TreeCrops annually from 2005 to 2008.

Market incentive – Creating market opportunities

To create market opportunities for the trade association members, PhytoTrade handles regulatory requirements in the global markets. For instance, PhytoTrade went through the process of applying for the EU Novel Foods approval to have baobab pulp be used as a food ingredient in EU markets. The process took three years and approval was finally received in July 2008. Application was also made for the USA-GRAS for approval to have baobab used as a food ingredient in the USA. Approval for the USA-GRAS was received in July 2009. Being able to meet these regulatory requirements has created market opportunities for the trade association, especially TreeCrops and other members involved in baobab production. Some products that use baobab as an ingredient have been launched in the UK markets. These include baobab jam and some drinks that contain baobab. In the long term, an increase in the same of baobab products in the EU markets would create demand for baobab pulp and therefore increase purchases from primary producers.

Markets were developed for these novel products that were not known in the global markets. Market identification and creation is done through PhytoTrade's marketing office in London and also South Africa. The marketing team attends relevant trade shows in Europe, a way of advertising the natural products from southern Africa. Trade association members are also given the opportunity to attend these trade fairs to showcase their products. For instance, TreeCrops has participated in Biofach (Europe) and the Natural and Organic trade fairs in South Africa. This has created market awareness of their products.

Baobab pulp and oil are sold on the regional market through a commercial partnership arrangement within PhytoTrade. In addition, TreeCrops produces its own finished products for the national market in Malawi. Since baobab is traditionally consumed in Malawi, availing baobab products in the shops makes the products accessible to urban dwellers that may not have easy access to baobab. This local market for finished products contributes towards increased purchases of baobab pulp from the primary producers.

Local organisation of harvesters: Marketing committees that were formed in the baobab producing communities contribute to the management of resources and NPs production processes. The marketing committees work closely with Tree Crops in the supply of the baobab

raw materials and the system directly involves primary producers in decision-making processes regarding NPs use at local level. Primary producers also have space to negotiate pricing with TreeCrops, which has created mutual trust between the harvesters and the company.

Social incentive - Enhancement of skills, abilities and knowledge

TreeCrops provides primary producers with training and assessments in order to develop their skills for sustainable production, harvesting and compliance to quality standards. The training covers, sustainable harvesting techniques, hygiene and quality management to ensure high quality baobab seed and pulp are produced. At the end of the training, primary producers (the harvesters) are given certificates that they produce when delivering their product to the depots. TreeCrops give trainees guidelines for harvesting that include no use of child labour and prevention of gender related exploitation; harvesting techniques and environmental conservation, pulp extraction, packaging, storage and transportation. Harvesters are paid for their products at delivery to depot, an incentive for them to continue trading with TreeCrops.

In addition to the training, TreeCrops set up an Internal Control System (ICS) to ensure quality management in the production process. A committee was formed to enforce the ICS. This ICS committee comprises of two people from the company and two representatives from each of the suppliers groups. Local Marketing Committees were formed in the baobab producing communities to monitor harvesting practices and ensure sustainable use and management of baobab products. The Market Committee includes representatives from the supplier groups and its functions include negotiating prices and quality assurance. These committees work closely with TreeCrops in the supply of the baobab raw materials (pulp, seed and fruit pod fibre). The system directly involves primary producers in decision-making processes on harvesting baobab in the area and these are often facilitated by local coordinators employed by the Company. The empowerment of primary producers provides incentives for primary producers to engage into the sustainable use of biodiversity. In fact, the involvement of producers in the decision-making process generates awareness and a sense of responsibility with positive impacts on the use of baobab.

Social incentives – Strengthening of social capital

Engagement in the trade is also important in providing an opportunity for participants to build social capital through new and extended social networks, often beyond the immediate family and neighbourhood bonds upon which most households rely. Almost all primary producers trained by TreeCrops are engaged in groups related to conservation of natural resources or other development initiatives unlike only 12% obtained in a random sample selected within the community among primary producers who supply the informal markets. As was observed during Focus Group Discussions with trained and affiliated primary producers, such groups are important in building self esteem and bringing forth other income generating networks such as gardening and sewing, especially amongst the women producers.

Property rights and institutions

The Malawi government devolved proprietorship of communal forests and woodlands to local communities, enabling access to these resources via traditional leadership. Other woodlands are registered as government and other as individual plots. With the emerging need for baobab organic sources, primary producers are encouraged to have traditional access rights/permits granted by the local traditional leadership to baobab trees in communal woodlands. These are not exclusive collection rights; the resource remains available to the entire community but that permit holders have the confirmed right to collect from there, whereas others still have the right to use it but are not considered as registered collectors under TreeCrops. This is in line with the

access rights that are established under the organic regulations whereby evidence is required to show that the collectors have the right to collect. As communities realise that they can have permits to collect baobab from their woodlands it somehow increases their confidence to contribute to biodiversity conservation.

During the organic inspection in September 2008 the villagers from Store village noted to TreeCrop's field inspector that the establishment and mapping of woodlands in the respective villages improved ownership. The villagers stated that, since the boundary of the woodland was now clearly known, collectors from other communities would be excluded from the collection of fruit from this woodland. This is not the case with all collection areas but woodland mapping and registration efforts seem to be working towards improved ownership in the registered communities. It is hoped that such sense of ownership will also transform into better conservation of the same woodlands by the registered community of primary producers residing in these areas.

4.3.4 Lessons learned

This case has highlighted some of the incentive measures provided by PhytoTrade and TreeCrops to engage into baobab trade in Malawi that foster sustainable use and conservation of biodiversity by traders.

The creation of TreeCrops expanded formal jobs and incomes generated through baobab trade. Furthermore, technical assistance provided by PhytoTrade and TreeCrops enhanced the skills, abilities and knowledge as well as the social capital of the value chain actors.

With the incomes obtained from baobab production activities, primary producers are better empowered through the following:

- Producers are now able to purchase basic food stuff and property, send children to school, as well as invest the returns into other income generating activities with comparable ease than before engaging in sustainable baobab trade
- Investment into education may contribute to future intergenerational poverty reduction
- Where income was invested in other income generating activities such as sewing, contributions to livelihood diversification and risk reduction are most likely. The significant possession of more livestock among primary producers engaged in the formal baobab trade in comparison to ordinary primary producers is helping TreeCrop's primary suppliers to spread their investments contributing to traditional livelihood options
- This independence and diversification of livelihoods is particularly important in the context of declining transfers between rich and poor, or among the poor themselves, due to deepening poverty
- Levies paid to the community coffers through the Access and Benefit Sharing mechanism established by TreeCrops has so far been used for social services such as fixing boreholes for the benefit of the community at large and not only for baobab traders

An important aspect illustrated by the case study of TreeCrops is the need to correlate incentive measures enhanced by private actors with public incentive measures such as property rights. Assured access to Natural Products through mapping and registration of resources areas, taking into account property rights and resource access issues as well as the role of traditional

institutions has been one of the incentives encouraging traders to use their resources in sustainable way.

Last but not least, market incentives arise from services provided by PhytoTrade (i.e. supply chain development including certification and market development addressing regulatory requirements and commercial partnerships). In fact, the existence of reliable markets for Natural Products that have been developed by the trade association, creating opportunities for baobab products sales by harvesters, is another incentive for biodiversity conservation at the local level.

4.4 Fondo Biocomercio ³⁹

4.4.1 Overview

Fondo Biocomercio Colombia (BioTrade Colombia Fund) addresses the need for BioTrade companies to access finance. This is a challenge that BioTrade initiatives need to overcome, in particular as traditional financial entities rarely differentiate between conventional and biodiversity-friendly companies. Nor are they familiar with biodiversity-based sectors such as those promoted by BioTrade. In general, BioTrade companies are characterised by:

- Low value of real guarantees;
- New established companies with limited administrative and management capacities;
- Culture of non-reimbursable financial support; and
- Limited experience on when to use and how to manage credits.

Those characteristics are normal for young sectors and thus the advantages of BioTrade companies are unknown to the traditional banking system which qualifies them as high financial risk companies. The Fondo Biocomercio was established believing that sustainable use of biodiversity could be achieved through trade and that companies pursuing this idea should be encouraged. It was created by the Instituto Alexander von Humboldt in December 2005 with the financial support of the Global Environmental Facility (GEF). Its operations started in October 2006 and since the end of 2007 resources have been provided by the Royal Netherlands Embassy. Fondo BioComercio is a non-profit organisation which aims to support access to finance to companies fulfilling BioTrade principles and criteria. The Fund impact on biodiversity conservation is indirect through the generation of financial incentives for the adoption of sustainable practices by its client companies.

The table below overviews key figures for the Fondo Biocomercio, as of 2009:

Number of companies benefiting from <i>Fondo Biocomercio</i>	59
Total turnover of beneficiaries (2008)	\$58,000
Hectares under BioTrade practices	19
Number of species under BioTrade practices	300
Employment generated for local communities and minorities	700
Number of beneficiary families	3,200
Number of companies that add-value to their biodiversity-based products and services	55%
Compliance to BioTrade Principles and Criteria, of beneficiary companies:	
1. Conservation of biodiversity	57%
2. Sustainable use of biodiversity	60%
3. Fair and equitable sharing of benefits derived from the use of biodiversity	70%
4. Socio-economic sustainability (productive, financial and market management)	87%
5. Compliance with national and international regulations	94%
6. Respect for the right of actors involved in BioTrade activities	56%
7. Clarity about land tenure, use and access to natural resources and knowledge	81%

Source: Fondo Biocomercio Colombia, September 2009

³⁹ References used for this case study:

Interview with John Bejarano, executive director of the Fondo Biocomercio; Interview with María Helena Cendales, Evaluation and Monitoring Senior Executive at the Fondo Biocomercio; Fondo Biocomercio website: <http://www.fondobiocomercio.com>

4.4.2 Applying to the financial services

The requirements for a company requesting financial support from the Fondo Biocomercio are as follows:

- Fulfil the BioTrade principles
- Be legally constituted
- Registered in the Chamber of Commerce
- Have a minimum experience of one year commercialising its goods and services
- Prepared a business plan
- Completed a request form

Companies need to demonstrate in their business plans that their activities respect the conservation and sustainable use of biodiversity. After the loan allocation, respect of those criteria is assessed through progress reports and field visits. Monitoring and evaluation also observes the progress realised and the aspects to improve.

When providing finance to a company, the Fund pays special attention to the fact that the company:

- does not use endangered species, such as the ones listed in the Appendix I of CITES;
- respects the free decisions and the previously informed consent of ethnic minorities communities and farmers that participate in any of its initiatives;
- does not use chemicals, and if it does so, the company should use the less toxic ones;
- respects protected areas; and
- does not promote monoculture.

Finally, Fondo Biocomercio gives a priority to communitarian enterprises, SMEs, associations and cooperatives.

4.4.3 Generating financial incentives

Through the services provided to its clients, the Fondo Biocomercio facilitates access to finance and hence generates financial incentives for enterprises conserving and using native biodiversity in a sustainable manner. Services provided by the Fund are especially attractive as they are flexible and take into account risks associated with biodiversity-based products and services. In this respect, the Fund provides three types of financial services:

- Loans
- Factoring
- Capital

Loans

The Fund proposes three kinds of loans to its clients:

- **Basic loans which can only be used for working capital, not to reimburse debts, cover administrative costs or buy lands.** They can be of a minimum of around \$1,400

(3m Colombian pesos), with an interest rate of 8% indexed to the DTF interest rate⁴⁰. Loans are payable in fixed monthly payments, in Colombian pesos over a 24-month term.

- **The loan "Expolínea" which can be used to facilitate the participation of enterprises to fairs and commercial events.** It can be of an amount of around 1,400 to \$2,900 (3-6m Colombian pesos) with an interest rate between 12% and 14% indexed to the DTF rate. The term of this loan is between 3 and 6 months, and it is reimbursable in a maximum of six fixed monthly payments in Colombian pesos.
- **The loan "Ecoturismo" which can be used for ecotourism.** This loan offers an interesting service as its reimbursement is not fixed on a monthly basis but rather defined according to seasons and planned visits. This mitigates risks associated to the instability of tourism and can therefore motivate companies to engage in ecotourism. Another interesting flexibility of this loan is the existence of a special system of guarantees that recognises contracts with travel agencies and promoting companies as guarantees, as they create potential income increase.

By way of example, Exportur is an ecotourism company which has benefited from a Fondo Biocomercio loan. Based in Santa Marta, Colombia, the company brings tourists to the National Park Tayrona and to a protected area which is a national park and an indigenous reserve. In the past, the region was marked by insecurity and drug cultivation. However, the situation has improved. Despite this, the process to involve communities in alternative businesses (i.e. ecotourism) has been quite difficult. Thanks to a loan from the Fondo Biocomercio, training has been organised for the community. Women have also been empowered and have received assistance to create an association providing food and lodging services. Finally, the credit also permitted the purchase of a car for the transport of tourists.

Factoring

The Fund also offers a 'factoring' service. The service facilitates cash flow by releasing cash from invoices as soon as they are issued, allowing companies to liquidate their invoices, and by that way allowing companies to use the money when they need it most. The term for the acceptance of invoices is a maximum of 180 days, for an amount greater than \$490 (1m Colombian pesos). This amount can be distributed in one or many invoices. The companies also need to pay a commission of 12% indexed to the DTF rate.

Capital

The Fund can also invest in the company and can take up to 49% of the equity.

4.4.4 Lessons learned

Access to financial resource for working capital or other requirements is difficult for SMEs and communitarian initiatives, and even more so in new sectors such as BioTrade. In this sense, the financial services offered by the Fund support the companies that are engaged in implementing conservation and sustainable use practices within their value chains.

⁴⁰ The DTF (Fixed Term Deposit) rate is the main benchmark short term interest rate in Colombia. It is calculated and published weekly by the Colombian Central Bank. By indexing its services to the behaviour of the DTF and hence having a variable interest rate, the Fund can propose costs linked to the Colombian market situation.

The creation of a Fund dedicated to biodiversity-based sector and aware of issues faced by BioTrade companies allows for the provision of services adapted to the needs of these companies. For example, the reimbursement of the loan "ecoturismo" is defined according to seasons and planned visits taking into account risks associated to the instability of ecotourism.

Finally, the low guarantee required by the Fund – i.e. a business plan as the only initial guarantee from companies – is a key driver for the attraction of new private actors in sustainable practices.

The Fund, however, faces challenges including the following:

- **The generation of real, precise and comparable monitoring information by the companies.** It took two years for the Fund to train companies on how to measure, count and register areas, species, actions and investments in part because the Fund has only limited resources available for this purpose. This type of data, however, is needed to monitor conservation and sustainable use aspects. Today, information provided by companies is still quantitatively and qualitatively poor and the Fund is developing tools aimed at improving the quality of information.
- **The continuation of an active involvement in conservation and sustainable use in a context of economic recession.** In a context where companies are expanding, competing on exigent markets and affected by the consequences of the economic recession; there is a risk that BioTrade companies will sacrifice their engagement in biodiversity conservation when they will need to expand production, reduce costs and generate additional incomes.
- **The knowledge and recognition by the consumers of native species as well as of the efforts done by companies for implementing conservation and sustainable use practices.** There is limited knowledge, demand and incentives to enhance the consumption for native species at the national market, which is the main target for companies being supported by Fondo Biocomercio. Companies therefore combined their product range to include naturalised species with an established market, but always fulfil BioTrade practices.
- **The recognition by the government and support organisations of what BioTrade is.** The term "BioTrade" has evolved in a cliché word within the speeches of public and private actors and is often used as a synonym to green agriculture. Furthermore, the environmental sector is quite unstable. Therefore, the Fondo Biocomercio needs to provide leadership and guidance on BioTrade concepts. This is a large challenge for the Fund taking into account that it is a financial NGO. Therefore, it is important for the Fondo Biocomercio to work collaboratively with other BioTrade actors in the country and the region.

4.5 Bolivian BioTrade and *Caiman yacare*⁴¹

4.5.1 The CITES-listed *Caiman yacare* in Bolivia

Caiman yacare is found in southern Brazil, Bolivia, Paraguay and northern Argentina.⁴² During the early 1990s, populations of the species were considered somewhat depleted in the four countries, the principal cause being widespread illegal hunting during the 1970s and 1980s. However, due to their ability to adapt to a great variety of habitats, their learned wariness and their small size at maturity, *Caiman yacare* are particularly resilient to hunting pressures.

The species has been included in the Appendix II of the CITES convention since 1975 and its trade is allowed only if done in a sustainable way and through the issuance of an export permit from the exporting country's CITES authority. Products commercialised from the species are leather skin and more recently meat.

The commercial use of *Caiman yacare* in Bolivia started in the 1950s and continued until 1990 with limited control. A ban⁴³ was instituted in 1990 with the support of the CITES Secretariat. In 1995, a pilot programme of sustainable use of caiman was developed, creating the basis for the *Programa Nacional de Conservación y Aprovechamiento Sostenible de Lagarto* (National Programme of Conservation and Sustainable use of Caiman) which started in 1997. It was based on experiences from other countries such as Venezuela. In 2009, Bolivia also defined a quota of 50 000 for the export of *Caiman yacare*.

During the following years, between 30,000 (1999) and 59,000 (2003) individuals were harvested through a management model based on eco-regional population sizes. After five years of implementation of the National Caiman Programme, several problems were encountered, in particular those related to quotas allocation, the entry of more people in the programme, leather prices and tanneries dissatisfaction on the leather quality, among others.

4.5.2 Bolivian BioTrade and the *Caiman yacare* value chain

From 2004 a broad group of institutions and specialists participated to the re-design of the Bolivian caiman programme to adapt it to the national reality, and strengthen the regulatory and administrative framework by means of a monitoring plan. In addition, standardised sampling protocols were designed; monitoring of harvests commenced, and a new classification of water bodies was made. Additionally, a new basis of technical data (counts, harvests, habitats) and administrative data (users, farms, quotas history, contraventions) was developed, and was geographically assessed together through a GIS. This database is continuously updated with new information.

Parallel to this activity, management plans were suggested for development in *Tierras Comunitarias de Origen* (TCO⁴⁴) (Original Community Lands) and Protected Areas to increase

⁴¹ References used for this case study: Interview with Alfonso Llobet, responsible for the Management of Natural Resources, at FAN; PNBS - FAN - CAF (2009), Biocomercio Sostenible en Bolivia; President of the Republic of Bolivia (1999), Decreto Supremo 25458.

⁴² See: http://iucnscg.org/ph1/modules/Publications/action_plan1998/cyaca.htm

⁴³ Decreto de Veda General e Indefinida, D.S. 22641 de 1990; Decreto Supremo 25458 (1999)

⁴⁴ Original Community Lands of Indigenous Peoples are defined by the law No. 1715 of the National Service of Agrarian Reform. This title provides indigenous and original peoples the possibility of owing collective property and recognises their right to use and exploit in a sustainable manner the renewable resources on their lands. Non-renewable natural resources will be regulated by the National Political

the local communities' participation in *Caiman yacare* use, carrying out a group of activities directed to strengthen local communal structures.

In 2005, the BioTrade National Programme of Bolivia prioritised its work to support value chains that are implementing BioTrade principles and criteria and the value chain of the CITES-listed species *Caiman yacare* was selected.

A Sector Assessment and a Strategic Sector Plan for the Caiman Value Chain (*Plan Estratégico Sectorial de la Cadena de Valor del Lagarto*) was developed by the Bolivian BioTrade Programme, through workshops with the different value chain actors and field visits. The Strategic Sector Plan was developed according to the *Guidelines for a Methodology to Support Value Chains for BioTrade Products*. Challenges identified in the process are summarised below:

- **Conflicts between value chain actors** on the use of *Caiman yacare*. Conflicts principally arose from inappropriate quota distribution which did not satisfy the actor's requirements, from actions undertaken by middlemen and from low prices paid to primary chain actors (i.e. indigenous hunters) for their crude leather
- **Limited measures to ensure sustainable harvests**, where no respect for size, harvest season and location is observed
- **Limited control mechanisms**
- **Limitation of the legal framework to adequately promote the sustainable use of *Caiman yacare***

Initially, the National BioTrade Programme consulted the *Central de Pueblos Indígenas del Beni* (CPIB) (Representative Organisation of the Indigenous Peoples of the Beni)⁴⁵ on the possibility to support the value chain of *Caiman yacare*. Focus was on technical assistance to ensure the sustainable use of the species through the elaboration of management plans.

As a result of the consultations, the Bolivian BioTrade Programme worked with ten Original Community Lands from the department of Beni, a north-eastern department of Bolivia located in the lowland region of the country. Ten management plans were prepared for the selected TCOs which have 106 communities and approximately 13,700 inhabitants.

The process to develop the management plan was done in a participatory manner that was not only used to gather and disseminate information, but also to strengthen local capacities and to promote dialogue between all value chain actors. In total, 158 workshops were organised with communities, 23 at a regional level and 3 at the level of the department.

Constitution and special laws approved on the issue. The lands cannot be taken away, transferred, taxed, seized, reverted or prescribed. Community rules regulate the distribution and redistribution of those lands for individual and family use. In accordance with norms and traditions, within the TCO, each individual has the same right to access natural resource.

Source : <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/BOLIVIAEXTN/0,,contentMDK:21310704~pagePK:1497618~piPK:217854~theSitePK:322279,00.html>

⁴⁵ The CPIB represents an important group of TCOs from the Beni Department.

The actors leading this process were:

- **CPIB:** liaising the project with the beneficiaries, which included the coordination of activities and assuring that their traditional knowledge was included in the plans;
- **Asociación Boliviana de Conservación (ABC)** (Bolivian Conservation Association): NGO providing technical advice on environmental issues for the development of the management plans; and
- **Bolivian National BioTrade Programme:** acting as the facilitator to strengthen the value chain and provided specific technical support related to BioTrade.

Indigenous people are the main actors in implementing the management plans, as they are the ones responsible of their harvesting and they have the legal obligation (with the Bolivian State) to assure the sustainable use of natural resources inside their territories. However, in the process, all value chain actors should also be involved, such as government entities, tanneries, middle-men, NGOs, academia, among others.

4.5.3 Incentive measures

As a result of the analysis, the management plan can be considered as the main tool generating incentives for the Bolivian BioTrade experience with the sustainable use of *Caiman yacare*.

Market incentives – generating higher returns

The management plan generated market incentives as it helped hunters to sell their skins at higher prices. During the first years of the *Programa Nacional de Conservación y Aprovechamiento Sostenible de Lagarto*, indigenous and peasants received approximately \$5 per skin. From 2002 to 2007, the price increased to \$10 per skin. Since 2008 and thanks to the development of the management plan, negotiation capacity of the indigenous people was enhanced and their appropriation of benefits derived from caiman use increased. Furthermore, *Caiman yacare* was valorised as a resource from the indigenous territories. As a result, the price per skins paid to indigenous and peasant increased to approximately 20 US\$ - with a range from \$14 to \$28 depending on the size and the quality of the cut.

Before the introduction of management plans, quotas would vary from one year to another, creating uncertainty for the producers and the buyers. The tanneries benefit from the implementation of the management plans, as they can plan their production based on the annual quantities and also establish quality standards for their raw material. This allows them to stabilise their supplies and as a result they acquire a greater negotiation power with foreign clients. With the increase of skins' quality, it is also possible that tanneries will obtain better prices on international markets. However, data to prove this is not yet available. Furthermore, prices on international markets for *Caiman yacare* skins also depends on other factors such as the price of classic skins (e.g. crocodile skins), offer and demand, fashion tendencies and the competition between producers of similar skins.

Social incentives – Engaging the local population

The management plan developed and implemented generated social incentives as it enhances the skills, abilities and knowledge of value chain actors. Firstly, the bottom-up process gives a voice to local population and enhances their participation in the design of the harvesting

programme. Secondly, the management plan guides community members to implement management practices and helps them to enhance their skills.

Relationships between the value chain actors were strengthened thanks to the organisation of common activities, such as workshops, during the process surrounding the development of management plans. The participative character of the process permitted to develop a cohesive and supportive environment for the sustainable use of *Caiman yacare* and hence to strengthen social capital.

Property rights – Valuation of local lands

The management plan also increases the value of local lands. Caiman can be generally recognised as non-migratory species and they can therefore be managed more effectively through the recognition of ownership on lands containing caiman. As the management plan expands benefits that local stakeholders can obtain from the sustainable use of *Caiman yacare*, the value of the lands and aquatic ecosystems to local stakeholders increases. Management plans also increased local control. Recently, communities' members have prevented various times the access of their territories to external hunters and skin dealers.

4.5.4 Lessons learned and key drivers

The following elements were key drivers of the success of the process:

- **Generation of confidence relationships between the value chain actors.** Facilitators of the process need to act in an independent and impartial way in order to gain the confidence of the different value chain actors. Facilitators also need to respect organisational structures, social usages and traditional knowledge of communities. Furthermore, relationships between the different value chain actors were strengthened thanks to common activities (e.g. workshops).
- **Development of a consultative process with the different value chain actors.** When local stakeholders are involved in decision making processes and are the one benefiting economically from harvesting, they are motivated to protect or manage their resources in a more effective way. Furthermore, the involvement and empowerment in natural resource management generates awareness and a sense of responsibility with positive impacts on natural resource use patterns. Transparency, participation, inclusion and ownership are key factors for effective communities' empowerment.⁴⁶
- **Implementation of a method coherent with local realities.** In order to facilitate the transfer of knowledge and information to beneficiaries, the method developed combined local traditional and technical knowledge.
- **Simultaneous development of several management plans.** The cost-benefit relation of the development and implementation of management plans was positive, as many plans were established at the same time. In fact, ten plans were developed simultaneously and therefore a large territory was covered and costs were optimised.

⁴⁶ UNEP/CBD/SBSTTA/11/INF/11 (2005) Incentive Measures: An Analysis of Existing and New Instruments that Provide Positive Incentives, p.15

4.5.5 BioTrade as a sustainable use measure for CITES species

BioTrade can be implemented as a strategy to ensure sustainable use of CITES species included in the Appendix II and III. The BioTrade value chain and adaptive management approaches are especially interesting for the establishment of sustainable practices for CITES-listed species.

When choosing value chains to support, the BioTrade Initiative identifies whether a species is CITES-listed. It will only support species included in Appendix II or III – not Appendix I. The BioTrade principles and criteria are then promoted to ensure that the species is used in a sustainable manner. National BioTrade Programmes are therefore key actors to support the effective implementation of the CITES convention.

Furthermore, BioTrade provides interesting tools and approaches to trace products all along the value chain, and hence can help for the recollection of information requested by CITES. Hence, it is important to maintain close relations between UNCTAD BioTrade and the CITES secretariat and CITES national authorities.

4.6 Jambi Kiwa⁴⁷

4.6.1 A medicinal plants producers association in Ecuador

In the Ecuadorian province of Chimborazo in the Andean region, one of the poorest in the country, a pilot project of 20 women started in 1998 with the aim to improve their quality of life while fostering gender equality, guarantying the sustainable use of their surrounding natural resources and capturing the market potential of medicinal plants. This was achieved through the transformation and commercialisation of medicinal and aromatic plants sold at the local and national market.

Most of the producers involved in the new association were used to a welfare and 'clientelist'⁴⁸ system and hence were used to asking or receiving any good or service offered by a public or private association as charitable gifts. Hence, it was a challenge to change their habits as the women who were developing Jambi Kiwa introduced new concepts related to self-management: the fight against poverty, peasant organisation with autonomy from institutions, and the necessity of individual contributions to develop the association and a vision for the future.

In 2001, the project evolved into a communitarian SME business named Jambi Kiwa that now includes 600 families. Over 80% are women with high levels of illiteracy and 75% are from the indigenous Puruhá community.

Jambi Kiwa has been involved with the BioTrade concept since 2003. With the support of the Sustainable BioTrade Programme in Ecuador, PNBSE (Ministry of Environment/CORPEI⁴⁹/Ecociencia) – a three year project (2004-2008) – was implemented with support from the Organisation of American States. It aimed to promote the economic development of minority groups by strengthening the institutional, business and productive capacities of Jambi Kiwa and by consolidating its participation in national and international markets.

⁴⁷ References used for this case study: CORPEI (2008), Sistematización del proyecto - Fortalecimiento y consolidación de la gestión empresarial de la PYME comunitaria Jambi Kiwa (Informe de gestión - Jambi Kiwa - 2008); OAS (2008), Informe de Evaluación - Proyecto: Fortalecimiento y consolidación de la gestión empresarial de la PYME comunitaria Jambi Kiwa.

⁴⁸ "**Clientelism** (also seen as *clientalism* or *clientilism*) refers to a form of social organisation common in many developing regions characterized by "patron-client" relationships. In such places, relatively powerful and rich "patrons" promise to provide relatively powerless and poor "clients" with jobs, protection, infrastructure, and other benefits in exchange for votes and other forms of loyalty including labour..."

See: http://www.uwsp.edu/cnr/gem/ambassador/what_is_clientelism.htm.

⁴⁹ CORPEI is the Exports and Investment Promotion Corporation of Ecuador.

Fact and figures of Jambi Kiwa ⁵⁰	
Created:	1998
Members:	632 (480 active), 80% women, 75% indigenous Puruhá
Products:	Ingredients for food industries and personal care products
Markets:	- Local and national markets: 7% of the total medicinal herbs market; products sold through the biggest national supermarket chains - International: France, Canada, Latin America
Additional information:	- Quality certification ISO/TEC 17025, - Organic and fair trade certification - Brand recognised at the national market and registered within the National Intellectual Property Institute (Ecuador)

Currently, this community-based initiative transforms more than 64 plants in order to obtain ingredients (dried, cut or powder) used for national agro-industries and finished products. These include formulas (infusions) and personal care products (shampoo, essential oils, creams, among others). Jambi Kiwa is now selling its products at national and international markets (Latin and North America, and Europe).

The business case of Jambi Kiwa is particularly interesting for this study on private sector experiences, as it was initiated and implemented by a minority group engaged in implementing the BioTrade concepts, approaches and principles.

4.6.2 Incentive measures

BioTrade concepts and approaches have been an incentive for Jambi Kiwa to systematically implement sustainable practices in line with the objectives of the CBD. In particular, through institutional strengthening and development of capacities at the local level, BioTrade has contributed in providing the SME with planning and structural support that has made it more competitive while promoting the sustainable use of native species.

Incentive measures such as market differentiation, social and financial measures generated through BioTrade were also key to the engagement of Jambi Kiwa members into the conservation and sustainable use of medicinal plants and to the success of the initiative.

Market incentives

BioTrade as a market incentive measure in this case study is related to the fact that through the implementation of a value chain approach that includes environmental practices, the supply capacity of Jambi Kiwa is enhanced. This is particularly important as more high-quality raw material is obtained to be inputted into the processing process, as well as value added final products are being obtained. For instance, organically-certified medicinal herb ‘tea-bags’ are sold instead of loose dried herbs. In so doing, an increase in price both for producers and for Jambi Kiwa is obtained.

The SME has also been able to register the trademark Jambi Kiwa at the Ecuadorian Institute of Intellectual Property. This trademark allows for the differentiation of Jambi Kiwa's products and enhances its competitiveness on the markets. Finally, access to markets that value sustainable

⁵⁰ CORPEI (2008) Sistematización del proyecto - Fortalecimiento y consolidación de la gestión empresarial de la PYME comunitaria Jambi Kiwa; and OAS (2008) Informe de Evaluación - Proyecto: Fortalecimiento y consolidación de la gestión empresarial de la PYME comunitaria Jambi Kiwa

produced medicinal and aromatic herbs was a further motivation to Jambi Kiwa to be engaged in BioTrade.

A summary of activities that contributed to the market differentiation of Jambi Kiwa products follows:

- Enhanced the processing capacity of the SME to generate quality and value added products that compete in the national and international markets
- Improved the quality and packaging of products, while increasing the product range offer of Jambi Kiwa
- Established a communication and marketing strategy that is empowered by Jambi Kiwa and its members
- Accessed to EU and North American Markets, as well as established a strategic alliance with a major Ecuadorian tea/infusions company

Social incentive measures

Jambi Kiwa is small and faced challenges related to the need to strengthen its structure – both the producers' association and the company> they also needed to improve their production process, develop quality and value added products, and access markets so that they could become more competitive at the local and national market.

In this sense, BioTrade has been considered as a social measure as it has improved the capacities of Jambi Kiwa member's to manage their SME and even negotiate with potential buyers – both national and international. The work carried out by the PNBSE has generated an improvement in the organisational and management (business and production/processing) skills of Jambi Kiwa's leaders and members and in so doing, guarantee the establishment of an environmental, social and economically feasible initiative that is managed by indigenous communities.

For example, the strengthening of human and social capital was achieved through three capacity-building activities implemented:

- targeted training sessions;
- technical assistance; and
- coaching for Jambi Kiwa's employees, leaders and members.

In addition, an internship programme was also established so that the BioTrade concept implemented by Jambi Kiwa was also transferred to community-based projects in Ecuador.

Particularly relevant to the first two CBD's objectives, Jambi Kiwa has the capacity to develop, implement and monitor management plans for selected wild collected species. These identified sustainable harvest rates adequate to the species, good recollection and agricultural practices, and execution of documentation and monitoring systems. The importance and usefulness of these management plans for Jambi Kiwa to plan their activities and guarantee the sustainable use of their resources, has become a real incentive to be engaged in BioTrade.

A summary of the results that contributed to the human and social capital enhancement of Jambi Kiwa through capacity-building follows:

- Training was organised on the following topics: organisational strengthening and association, sustainable use and management of medicinal plants; good recollection, agricultural and manufacturing practices; among others
- Technical assistance on the implementation of good agricultural practices and management plans for wild-collected species was provided to over 1000 producers, This assistance also supported the development of Jambi Kiwa's internal control system in line with ISO/TEC 17025
- Coaching to Jambi Kiwa's manager in business administration and the agronomist on harvesting practices
- Internships for over 93 producers from other Ecuadorian projects located in Sierra (mountain range), Costa (coast) and Amazon regions

Financial incentives

BioTrade in itself could be considered as a financial incentive as its adherence generates access to financial resources needed to develop sustainable businesses. In particular for this case study, the Jambi Kiwa's micro-credit fund provides an incentive for producer's to get involved into BioTrade practices.

The need for small producers to access to funds in order to improve their yields, as well as their harvesting and post-harvesting practices was addressed through the establishment of a micro-credit fund. This also goes in line with the need of Jambi Kiwa to enhance the production of quality raw materials from its members.

The structure and operation of this fund is unique to Jambi Kiwa, as its members (through Committees) decide on its operation and the granting of micro-credits and guarantees. Importantly, Jambi Kiwa manages the fund. Furthermore, training has been provided to the members and staff in Jambi Kiwa, so that they are able to manage it adequately.

In particular, the micro-credit fund was structured as a revolving fund.⁵¹ Members apply for a credit in-kind (seeds, plants, equipment) to enhance their yields, and pay back in order to enable other community members to also access it. Administrative costs and other expenditures related to the operation of the fund are covered through an increase in the interest rate or through an additional fee. Credit is allocated after a thorough analysis of the required technically, economically and financially viable project that should accompany each application and is made by members of the Committee. Currently, 56% of the resources of the fund have been placed, and 38% have already been recovered.

Through this micro-credit fund, members are motivated to adopt sustainable practices as required by Jambi Kiwa and their clients – such as organic certification – and therefore it constitutes a financial incentive measure.

Physical incentives

The BioTrade project developed in Jami Kiwa had an important focus on the strengthening of the physical capital of the SME. Jambi Kiwa received new equipment that permitted to increase

⁵¹ A revolving fund is an account that is repeatedly expended, replenished and then expended again. Loan principal repayments and interest revenues are subsequently used to make new loans (US EPA, 2000).

its productivity and reduce costs. For instance, it received a tea-bagging machine which allowed them to package their tea themselves and hence reduce production costs. The quality of the products has also increased through the establishment of a quality control laboratory as well as ventilators used to control the air flow. Thanks to this new equipment, the products competitiveness is enhanced.

4.6.3 Lessons learned

The following aspects played a key role for the success of the engagement of Jambi Kiwa in sustainable practices:

- **Definition of clear collective objective and strong personal and communitarian engagement.**
- **Traditional knowledge has been recovered and used to reinforce their collective identity.**
- **Mobilisation of its own capital:** Before seeking external sources of capitals, the SME was able to mobilise an important amount of cash and in-kind resources originating from the community and the organisation itself. Those capitals and the involvement of local actors were key to the development and strengthening of the SME.
- **Facilitation of access to finance** thanks to the creation of a revolving micro credit fund.
- **Organisational consolidation of the SME:** Evolution from a traditional organisation to a modern SME oriented to market demand, training, shared responsibility and consensus.
- **Development of planning and monitoring tools:** Those tools were developed with the support of the PNBSE since 2004 and they allowed Jambi Kiwa to obtain GACP, GMP and organic certification as well as to implement sustainable use plans for the species.
- **Commercialisation of products from better quality:** Thanks to the increase in quality and organic certification, products are able to compete on international fairs and obtain the sanitary register requested in Ecuador.
- **Gradualism expansion on markets:** Firstly, women observed an important demand at the local and international level. Once the SME was more mature and obtained organic certification and therefore had a greater negotiation power and was able to compete on international markets, the company started to export medicinal plants.
- **Women empowerment:** Women have received technical training which allowed them to develop their leading skills as well as their agricultural knowledge, permitting them to take care of the plants. Furthermore, the participation of the community was led by women fighting against poverty and exclusion.

In conclusion, "the most significant social impact of the experience is the achievement of an economic development model for indigenous and farmers' communities that allows them to compete on international markets while strengthening their local culture and consolidating production methods that sustainably use biodiversity and the ecosystems in the region".⁵²

⁵² Translated from the Spanish from OAS (2008)

4.7 The Union for Ethical BioTrade ^{53/54}

Growing consumer awareness of the importance of biodiversity can be a strong motivation for the private sector to engage in the ethical sourcing of natural ingredients. The rising demand for biodiversity-friendly products generates opportunities for companies committed to ethical principles, as well as the challenge of gaining recognition for their efforts and differentiating themselves in the market.

The Union for Ethical BioTrade (UEBT) is a pioneering model that gives companies the chance to demonstrate ethical and responsible sourcing of native biological resources. Membership in UEBT represents a way for companies to differentiate themselves in the market, taking the lead in meeting the demand for ethical products and seeing tangible business benefits over time. The UEBT also provides support and services that equally promote and facilitate the private sector's contribution to biodiversity conservation.

4.7.1 Differentiating the ethical sourcing of biodiversity

Increasingly today advertising refers to the environment and to 'green' products. Nature is widely highlighted by consumer product brands – food and cosmetics are no exception. In the context of products that come from nature, the trend towards sustainability and social responsibility means a growing interest in the source of the natural ingredients used, and in the preservation of related species and ecosystems. In other words, there is a growing consumer interest in biodiversity.

Indeed, consumers are developing an understanding of biodiversity, and increasingly looking for companies to adopt biodiversity-friendly practices. According to the 2009 Ethical BioTrade Barometer⁵⁵ – a survey carried out by the UEBT – over 50% of consumers have heard of biodiversity and even more are familiar with some of the issues linked to biodiversity loss, such as deforestation and species decline. Expectations are that 'biodiversity' itself will become a common household term by 2015.

The claims of companies of their biodiversity-friendly practices, however, do not suffice for companies to tap into the growing consumer demand for biodiversity-friendly products. There is little public trust in unsubstantiated social and environmental assertions made by private businesses. Hence, companies are increasingly required to adhere to standards that are verified independently and developed through participatory processes. In fact, independent certification schemes, notably those promoted voluntarily by civil society, have encountered such favour with consumers that they have gone from being indirect incentives bringing a price premium, to becoming important conditions to access certain markets.

⁵³ This case study was prepared by Maria Julia Oliva, Senior Adviser on Access and Benefit Sharing at the UEBT.

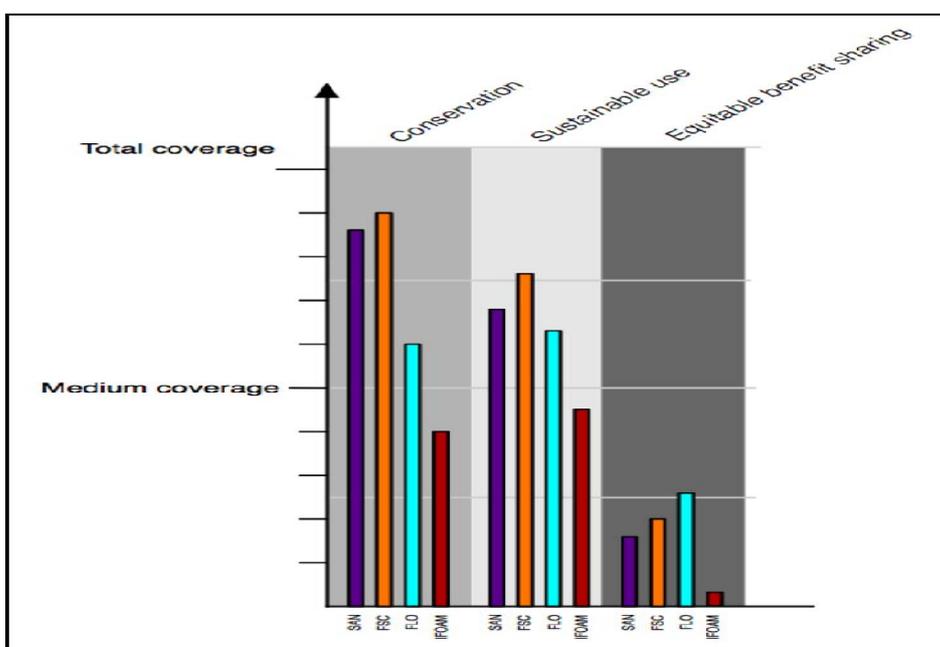
⁵⁴ References used for this case study: UEBT (2007), Ethical BioTrade Verification Framework for Natural Ingredients; UEBT, Governance of the Union for Ethical BioTrade: www.ethicalbiotrade.org; UEBT (2008), Guidance for the Application of the Ethical BioTrade Verification Framework for Natural Ingredients; UEBT (2009), Ethical BioTrade Barometer; UEBT (April 2009), The Beauty of "Sourcing with Respect," Press release; UEBT, The History of the Union for Ethical BioTrade: www.ethicalbiotrade.org; UEBT, The United Nations and Ethical BioTrade, www.ethicalbiotrade.org; UEBT (2009 a), Towards "Sourcing with Respect" – Profile of the Union for Ethical BioTrade; UEBT (2009 b), Benchmarking the Compatibility of the Union for Ethical BioTrade's Verification Framework with others standards, Internal document.

⁵⁵ UEBT (2009) Ethical BioTrade Barometer

In the cosmetics and personal care sector, for instance, the Ethical BioTrade Barometer found that over 85% of consumers would favour the purchase of products from a company that takes action to protect biodiversity. A large majority of consumers would in fact be willing to stop buying products from those companies not materially committed to ethical sourcing of the biodiversity. Yet companies' own claims in these regards are plainly insufficient. Only 40% of consumers trust companies in the cosmetic and personal care sector, while roughly only 30% of them believe these companies pay serious attention to the ethical sourcing of biodiversity. Independent verification is critical – 80% of the consumers surveyed indicated that they would have more confidence in a company whose biodiversity practices were verified independently.

According to UEBT's research⁵⁶, however, none of the existing standards and certification schemes fully addresses the objectives of the CBD. For example, the figure below indicates how the following certification schemes address these objectives:

- Sustainable Agriculture Network (SAN)
- Forest Stewardship Council (FSC)
- Fairtrade Labelling Organisations International (FLO)
- International Federation of Organic Agriculture Movements (IFOAM)



Issues such as maintaining genetic variety within species, recognising traditional knowledge and implementing benefit sharing are also often not adequately covered. The Ethical BioTrade Verification Framework was created to fill this gap, helping companies to adhere to the Ethical BioTrade Principles and Criteria, which as previously indicated reflect the goals of the CBD. By engaging in Ethical BioTrade, companies can actually contribute to conservation and the sustainable use of biodiversity. By fostering long-term relationships with their source countries, they create employment, contribute to local development and help preserve local ecologies.

⁵⁶ UEBT (2009) Benchmarking the Compatibility of the Union for Ethical BioTrade's Verification Framework with others standards (Internal document)

4.7.2 A new private sector association for ethical BioTrade

The Union for Ethical BioTrade (UEBT) is a non-profit association that promotes the ‘sourcing with respect’ of ingredients that come from native biodiversity. Members commit to gradually ensuring that their sourcing practices promote the conservation of biodiversity, respect traditional knowledge, and assure the equitable sharing of benefits all along the supply chain.

UEBT was born out of the need expressed by companies – SMEs – or ways to differentiate Ethical BioTrade products in the market. This need was made evident in various business roundtables held by the UNCTAD BioTrade Initiative which highlighted the importance of recognising efforts towards the ethical sourcing of biodiversity.

In May 2006, in the context of a roundtable discussion organised in Geneva, the idea to form an organisation that could provide guidance for the sustainable use of biological diversity and market recognition for Ethical BioTrade products was born. A year later, a small but diverse group of organisations, with actors from the private sector taking the lead, created UEBT.

Currently, most members are businesses in the personal care and cosmetics industry. Some are active in the natural pharmaceutical and food sectors as well. Other sectors will be incorporated over time. Members of the Union come from Bolivia, Brazil, Colombia, Ecuador, France, Peru, South Africa, Switzerland, Uganda, the UK and the USA.

There are three types of membership: trading members, affiliate members and individual members. The trading and affiliate members elect the Board of Directors of the Union and approve the management of the organisation.

Trading members can come from any part of the supply chain. Affiliate members include organisations or individuals that are supportive of the Principles of Ethical BioTrade but are not themselves directly involved in trading. Individual members can be journalists, academics or other individuals who are working in a BioTrade-related field and are impacting public opinion.

UEBT helps its member companies to adhere to the Principles and Criteria of Ethical BioTrade which are based on the BioTrade Principles and Criteria previously described. The Verification Framework for Natural Ingredients establishes the basis to identify gaps, develop work plans and support company claims regarding ethical sourcing of biodiversity. UEBT also supports companies by sharing knowledge and expertise and by creating links between organisations with similar goals. By promoting business linkages between members, UEBT can help increase awareness within industry and enlarge the market for ethically sourced products. In this way, it helps to encourage ethical sourcing practices worldwide, at all levels of the supply chain.

4.7.3 Ethical BioTrade verification system

UEBT members are committed to adopting Ethical BioTrade practices for all of their biodiversity-related products. They establish company-wide management systems to gradually implement the Ethical BioTrade Principles and Criteria for all products that use native species, at all levels of the supply chain. Members thus foster long-term relationships with their source countries, contribute to local development, ensure that benefits reach all of those involved, and help preserve local ecosystems.

Company commitment is backed up by a third-party verification system that assesses companies’ management systems and supply chain practices, all the way to the source. Because UEBT acknowledges incremental progress rather than strict compliance, companies gain

recognition for their efforts towards compliance with the Ethical BioTrade Principles and Criteria early on.

The Verification Framework is the tool used to analyse the conduct of a UEBT member. Members' activities are thus evaluated in comparison to the Principles and Criteria of Ethical BioTrade, in order to determine those parts in a member's operation that need to be addressed. As such, it is also the main tool to develop individual work plans that guide members towards compliance with the Principles and Criteria.

UEBT's Verification Framework stems from the seven Principles and Criteria developed by UNCTAD BioTrade. The framework is an international standard designed in accordance to the requirements for developing standards as stipulated by the World Trade Organisation (WTO) and the International Social and Environmental Accreditation and Labelling Alliance (ISEAL). These requirements include the need to carry out consultations open to all stakeholders and decision-making mechanisms that respect the balance between different interest groups. They also require the need to periodically review the standards.

As the Ethical BioTrade Verification Framework was specifically developed to advance the objectives of the CBD, it incorporates the three pillars of conservation of biodiversity, sustainable use, and the equitable sharing of benefits derived from the use of genetic resources. The Ethical BioTrade Verification Framework has built upon these and other international environmental and sustainable development objectives, elaborating on indicators that are clearly defined and easy to appraise, yet remain reliable measures of the different criteria.

The Ethical BioTrade Verification Framework is thus applicable to any company that wishes to:

- Assess its conformity with the Ethical BioTrade Principles and Criteria
- Develop work plans to advance and evaluate gradual compliance with the Ethical BioTrade Principles and Criteria
- Improve the transparency and traceability of its supply chains
- Assure itself that it is addressing any risks of working with native biodiversity
- Communicate its conformance with the Ethical BioTrade Principles and Criteria

How does the verification system work?

When applying to join UEBT, a prospective member commits to putting the Ethical BioTrade commitments into practice. Once approved by the membership committee, the applicant must undergo an independent third-party audit by a UEBT-approved organisation within six months. This audit will check whether or not the minimum requirements have been met, and what gaps exist between current practices and Ethical BioTrade Principles and Criteria. Minimum requirements include for instance not destroying natural habitats, conducting ethical business relations, economic sustainability or ensuring respect for human rights.

After the audit is passed, the applicant submits to the Union a work plan that outlines its intended steps towards compliance with the verification framework. It is granted membership status once the audit report and work plan have been approved. Members must make a strong commitment to achieving compliance with the verification framework within five years. The Ethical BioTrade verification system is a business-to-business market differentiation tool, promoting shared responsibility of companies along the supply chain. It is not a certification system and no on-product use of label is allowed.

In a certification system, like the FSC, the control of sustainable management practices is done at the producer level, while a chain of custody certification assures that certified input – in the case of FSC, timber – moves from one stage of the supply chain to another without being mixed with non-certified inputs. The final product which is manufactured with the certified input can then carry an on-product declaration of compliance – e.g. an FSC label.

In the UEBT verification system, it is the member companies that are the subject of the verification. They are required to make sure that over time all native biodiversity species they use comply with the Verification Framework. This means that not only the company's own practices should be in line with the Verification Framework, but also that the native ingredients it uses are sourced in compliance with the Ethical BioTrade Verification Framework at all stages of the supply chain all the way to the producers. It is therefore companies (i.e. members) rather than products that can claim adhering to the Ethical BioTrade principles.

The system speaks about the companies, not the products. Through the use of the membership logo in their corporate communications, however, companies can gain acknowledgement for their efforts towards compliance with ethical sourcing practices:



Reducing costs of external verification

In order to reduce costs that any third party verification system entails, UEBT seeks to reduce the burden of external verification in different ways. Its verification system relies on a combination of self-assessments and third party audits, making the system less costly than a traditional labelling system. Moreover, member companies have five years to reach compliance with the Ethical BioTrade Verification Framework, so they can fit their Ethical BioTrade goals in with other business priorities and investment cycles. It is also important that not every supply chain needs to be audited, as a sample will suffice to make sure that the management system effectively translates the Ethical BioTrade Principles and Criteria in the field.

UEBT doesn't allow on-product claims of compliance. However, if member companies feel consumers require labels for certain of their products, UEBT's cooperation arrangements with labelling schemes ensure that this can be done cost-effectively. For example, UEBT permits the use of auditors recognised by other verification systems, such as FSC and Rainforest Alliance, to allow multiple verifications in one single audit. Finally, to further support the smaller players in the supply chain and encourage its members to pursue their initial commitment, UEBT launched the Ethical BioTrade Community Grant Programme in May 2009. These community grants may cover costs related to the design and full implementation of Ethical BioTrade practices, therewith supporting the deeper engagement of companies with local and indigenous communities in the ethical sourcing of biodiversity.

4.7.4 UEBT as an incentive measure – private sector views

Applications for membership often highlight the Ethical BioTrade Verification Framework and its acknowledgement and distinction of ethical sourcing practices as a key driver for engagement in UEBT. As a recent applicant noted:

“the Union for Ethical BioTrade highlights the practices we are implementing in line with the CBD. Our motivation for joining the organisation is based on the fact that our work towards ethical sourcing of natural ingredients is not captured within other certification mechanisms... In addition, our clients are asking for stronger assurances regarding these efforts. Of the plethora of existing approaches, we consider that the Union for Ethical BioTrade best responds to our needs... it will bring credibility to our efforts thus far and provides a solid basis for continuous improvement.”

Other aspects of the market differentiation provided by the Union for Ethical BioTrade that have been emphasised by applicants include:

- Demonstrating commitment and work on sustainable sourcing practices
- Strengthening links with existing clients
- Offering unique products and approaches to prospective clients
- Consolidating existing markets and accessing new ones
- Enabling higher prices and premiums
- Gaining reputation as companies working sustainably
- Accessing partners, distributors, and retailers with equal values
- Increasing credibility of sustainable development strategies, particularly in regards to clients
- Differentiation from competitors
- Communication to clients on business practices that help to conserve biodiversity
- Evaluating suppliers’ practices and identifying any gaps in sustainable sourcing
- Accessing credibility of an internationally recognised organisation
- Complying and moreover anticipating local and international rules

The importance of market recognition of ethical sourcing of biodiversity is also clear in the rising use of the UEBT membership as a signature in members’ corporate communications. Members are encouraged to use the membership logo in their communication materials such as: websites, annual reports, stationery, product inserts and advertising. The membership logo, by showing that companies are actively working to bring their practices in line with the Ethical BioTrade Principles and Criteria, is an important tool for market differentiation.

4.7.5 Conclusion

The growing consumer awareness of biodiversity means increasing expectations in regards to companies working with natural ingredients. The Union for Ethical BioTrade constitutes a pioneering approach of using market differentiation as an incentive for ethical sourcing practices. UEBT members obtain acknowledgement of their efforts towards Ethical BioTrade, and become part of a network that offers guidance and promotion in relation to these efforts. As attested by the experiences of UEBT and its members, market differentiation thus proves to be a strong incentive for the engagement of the private sector in the conservation of biodiversity.

4.8 Funbio ^{57/58}

4.8.1 Overview

Funbio – the Brazilian Biodiversity Fund – is a not-for-profit, non-governmental organisation created in 1996. It functions as an innovative funding mechanism to provide resources for conserving biodiversity and to develop strategies to facilitate the implementation of the CBD in Brazil.

While Funbio receives funds from a variety of sources – including an initial \$20 million grant from the GEF – one of Funbio's early goals was to forge partnerships with the private sector as a means of promoting the sustainable use of biodiversity. The GEF grant was conditioned on the establishment of an efficient and transparent promotion mechanism capable of attracting the private sector as a partner in the Fund's objectives. In order to ensure long-term activities, the grant has to be complemented by fundraising. Hence, Funbio can receive donations from companies and other institutions interested in associating themselves to activities respecting the conservation and sustainable use of the Brazilian biodiversity.

Funbio has established itself as a means of support for conservation and sustainable use of biodiversity projects. It has become skilled at managing financial assets and in the creation and support of funding programs. The Fund also oversees and provides assistance to projects in the private sector and hence generates financial incentives for the engagement of the private sector in activities respecting the conservation and sustainable use of biodiversity. For instance in 2004, Funbio started to be involved in supporting the implementation of BioTrade activities in Brazil, in particular in the natural ingredients value chain. Furthermore, it promoted the engagement of Brazilian private companies in BioTrade Principles and Criteria and jointly with UNCTAD, Andean BioTrade partners and other organizations, organized the workshop session on "Verifying Biodiversity Trade" at CBD COP 8 / 37th Global Biodiversity Forum in 2006.

The Fund also works with the public sector, which was not its first intent. However, thanks to this, Funbio also functions as a platform between private and public actors. In addition, the Fund was invited by international donors to provide logistical, financial and management support for the largest and most ambitious program of protection of tropical forests in the world, the Amazon Region Protected Areas Program (ARPA). ARPA brought to Funbio a huge opportunity to learn new skills and improve its internal management.

After a decade of experience, Funbio decided to redirect and broaden its focus to a regional scale with the aim of coordinating environmental partners in priority landscapes for biodiversity conservation working closely with the private sector. In 2009 this new strategy is already generating positive results and indicates a clear path to strengthen the work with the private sector. Firstly, the learning process that led to the current situation and point new challenges for the future will be explored; a particular focus will be given to challenges faced by private actors and Funbio which have permitted to shape Funbio's approaches as well as key drivers for the success of Funbio's actions. Secondly, the paper will analyse how services provided by Funbio generate not only financial incentives but also social incentives, especially through capacity building and through the strengthening of networks.

⁵⁷ This case study was prepared by Fábio Leite from Funbio.

⁵⁸ References used for this case study: Funbio (2008), 2007 Annual report: <http://www.funbio.org.br/publique/web/media/rel2007.pdf>; Website of Funbio: <http://www.funbio.org.br>

4.8.2 Funbio's learning process

The first major task for Funbio after its creation was the fundraising of \$5 million within the Brazilian private sector. At that point no one had a clear idea of what was the level of demand, if any, within the private sector for environmental projects in Brazil, if there was any. To this date, Brazilian legislation lacks any kind of fiscal incentive for the private sector to engage in environmental activities, which creates difficulties for engagement.

In order to start, Funbio made a first call for proposal to finance projects in the following five themes:

- Sustainable use of natural forests
- Natural ecosystems conservation in private areas
- Sustainable use of fisheries
- Agriculture and biodiversity
- Protected areas management

By the end of 1996 Funbio had received 1083 proposals, a number much greater than expected, and still an astonishing number today. After a massive selection effort, Funbio chose 10 proposals to fund, using all the financial resources allocated for this first call.

Important lessons learned included the following:

- There was an enormous demand for financial resources
- There were many organisations ready and eager to implement projects
- Calls for proposals could be very theme-specific
- The private for-profit sector was nearly absent

In the second call for proposals in 1998, Funbio tried a different approach. Using the lessons learned from its previous experience, Funbio narrowed the criteria for this second call. A specific innovation inserted into biodiversity finance in Brazil was a mandatory match of funds – in other words, Funbio would finance only up to 50% of each project. This strategy was adopted to raise Funbio's \$5 million goal. Again the response was greater than anticipated, resulting in the raising of 6.5 million.

The main objective of this new Partnership Fund Programme was to raise funds for financing projects of common interest in the following areas:

- direct and/or indirect use of genetic and biological resources
- creation or implementation of conservation units

The Partnership Fund Programme attracted NGOs that already had funding from other sources. Together with Funbio, they up-scaled their projects to new levels. In addition, this call for proposals attracted new companies in Brazil such as:

- CSN (steel) which managed a private protected area inside their plant area
- CEMIG (energy) which developed an innovative management for fisheries that reproduce upstream that otherwise would be trapped by a hydroelectric dam
- KPPF (pulp and paper) which associated production of phytotherapics with their plantations

Funbio's third call for proposals in 2000 – the Sustainable Production Support Program (PAPS) – kept the same themes, but focused on small scale productive sector. The innovation here was not to have a wider impact by leveraging financial resources, but rather to support for-profit projects that could, some years later payback what they had received. Those resources would then be used to re-invest in similar projects creating a revolving fund and outstretching the impact of sustainable production.

By this time it was also clear that projects without a clear plan to achieve financial sustainability had a tendency to perish after the financial support ceased. This was particularly true for projects implemented by grassroots NGOs. So, in order to have lasting projects and lasting results for biodiversity, financial sustainability was the key factor that PAPS tried to address.

To increase the chances of being successful PAPS also innovated in the selection process which it divided in two steps. The first step was a standard project selection based mainly on the biodiversity impacts projects could achieve. Projects selected in this step were eligible to receive a small grant to develop a business plan for their sustainable production business. The second selection step was to choose among them the best, most feasible business plans/projects to finance – i.e. the ones that could payback the resources invested and keep functioning. These were the first business plans focusing in environmental issues in Brazil, and were a real breakthrough. Today, the idea of having this kind of instrument working for biodiversity conservation is well established, even now for protected areas.

PAPS was only partially successful because it wasn't possible to receive the investment back. None of the projects actually succeeded in fully implementing the business plan. Or in some cases the business plans were not detailed enough and left aside important aspects for business goals. However, PAPS projects were much more resilient to economic stresses and the rate of projects that kept functioning after Funbio's initial support were much greater than the other calls for proposals.

4.8.3 Scaling up

After financing many projects all over the country, Funbio realised that most of the small-scale sustainable use projects tended to fail over a long period of time. The reasons are still unclear, but it seems that macroeconomic disturbances, lack of managerial skills, a very intricate bureaucracy/legislation and high taxes are key elements haunting any business in Brazil. This meant that Funbio's impact on biodiversity were only ephemeral and in a very restricted scale, although in all cases institutional strengthening and improved sustainability were observed, they were out of the logic of the projects. If Funbio wanted to have an important impact on biodiversity it would have to find new ways to implement projects.

The answer to that was in scaling up the size and complexity of projects – Integrated Conservation and Sustainable Use Projects – (PICUS). Instead of projects that have very restricted impacts Funbio started to work with larger areas, territories where sustainability would not be of one isolated project but form a portfolio of projects, with different but interrelated agendas – climate change, fauna conservation, sustainable use, forestry, protected areas, and so on. The idea was that those agendas integrated in the same geographical space would create a virtuous cycle where sustainability and the maintenance of the environmental services provided were kept in the long run. Each project would support the other and vice-versa.

In 2004, Funbio made a call for proposals called PICUS. It selected proposals that would be later detailed – again a two step selection process – in order to receive the grants. However, in the second step of the selection it became clear that the financial sustainability of the projects

were not guaranteed. Proponents did not give any assurance that they would raise sufficient resources to match Funbio's contribution. As a result, Funbio made a very difficult decision to cancel the call for proposals, understanding that if the projects were implemented they would not achieve sustainability in the long run. This decision was hard and very much criticised by project proponents.

When addressing the questions raised by the cancellation of PICUS, Funbio made two important self-assessments: scaling up projects was much more difficult than initially envisioned and financial sustainability would not be feasible from other NGO or multilateral agencies.

In 2006-2007 Funbio made a comprehensive strategic plan and decided that it would keep pursuing the scaling up of projects and also that it would re-orient itself towards the private sector. Funbio's approach was anchored in the fact that the private sector was willing to include environment and biodiversity projects and indicators in their businesses, due to an increasing pressure from public opinion. So far, Funbio has engaged in three experiences:

- **Sustainable Juruti Fund.** With Alcoa's new mining plant in the Amazon region, Funbio designed a private fund. The fund is financed by Alcoa but with independent governance based on local stakeholders who decide how resources are used. This new fund is intended to mitigate social and environmental impacts not only from the mine itself but also from the externalities that it creates in the region. Funbio is presently selecting the first projects to receive financing and it appears to be working well.
- **Mphanda Knwa, Mozambique.** The second experience is just beginning, and inaugurates Funbio's first "off-shore" operation. It is a territory approach with stakeholder identification in Mozambique, for a Brazilian company that is building a hydroelectric dam called Mphanda Knwa. The interest is close to Alcoa's case – mitigate impacts through working closely with local stakeholders.
- **Environmental compensation.** Thirdly, Funbio developed a model of using and implementing resources from environmental compensation, a Brazilian legal mechanism designed to mitigate impacts from the private sector by investing in support to protected areas. This mechanism has already a first proposal of \$33m from one large energy generation project in the Amazon. The potential is very impressive and the private sector seems eager for a mechanism like this. Although it is not voluntary, it indicates that the private sector is willing to take part of the conservation process more than just being as a 'tax payer.

After the lessons learned from PICUS, in 2006-2007 Funbio and the Brazilian Environmental Ministry (MMA) negotiated a new GEF project called Probio II, which has the objective to mainstream biodiversity in productive landscapes. Funbio's role is to engage the private sector, but working closely with the public sector, using some hard lessons learned from ARPA (which involves several government agencies).

Probio II uses the same logic as PICUS – i.e., large-scale projects focused in multiple environmental agendas in the same territory aiming at a long run sustainable impact. The difference from PICUS is that Probio II has a clear focus on private sector leverage (3:1) of Funbio's resources and creation of an Opportunity Fund to finance different projects in the same territory. This is perhaps the answer to the lack of assurance Funbio observed in PICUS, regarding financial resources.

This new project started at the end of 2007 and Funbio is already negotiating with companies that are showing much interest in this kind of approach. In the next years this will be Funbio's focus on addressing the private sector. Right now, specifically, Funbio is negotiating the possibility of strengthening the work in Juruti with Alcoa, mixing it with lake management and forestry.

Using the same logic, Funbio also works with the International Finance Corporation (IFC) Biodiversity Agriculture Commodities Programme (BACP). Its focus is on biodiversity mainstreaming in commodities and in the Brazilian case on soy and sugar cane. Funbio is currently participating in selecting projects to implement in soy crops. Because these sectors have a large impact on the territory and in biodiversity it will be important if projects addressing the issues can show a different path of development, more sustainable and also interesting for the private sector to engage.

4.8.4 Organising the small

Although, working with big companies make sense when large-scale projects are in place, small scale sustainable production is important to provide different options for people living in economic stress and close to important biodiversity areas, because they are more likely to pressure natural resources (for subsistence or in illegal activities like logging).

Funbio has learned from Arpa's experience that in some places such as small municipalities in the Amazon region, project expenses made close to the protected areas create a set of services providers that start to see these protected areas as a revenue source. Therefore they do not need to pressure natural resources and are much less likely to engage in illegal activities. Currently Funbio is studying this linkage and it may be possible to start a new line of work to prepare small business in these municipalities to provide services to projects financed by Funbio. The idea behind this is that project revenues made locally create a positive externality since local economy will grow and benefit more on biodiversity conservation projects.

The problem is that local economies usually are populated by very informal businesses, not to mention the already known lack of managerial skills in these rural areas. Hence, this approach would also have to work on business formalisation and management strengthening. If this works, it will be possible to create a 'green-driven economy' even for services that have nothing to do with sustainability itself. In the long run the objective is to change the way the local economy sees environmental projects from development obstacles to development opportunities.

4.8.5 Incentive measures

The first aim of Funbio is to provide innovative financial mechanisms for biodiversity conservation, especially to generate incentives for the engagement of the private sector in activities respecting the conservation and sustainable use of biodiversity. However, to fulfil its mission, Funbio also integrates the following tasks aiming at creating innovative solutions and strengthening networks:

- Identifies priority investment opportunities and needs
- Seeks and invests strategic resources through programs
- Develops economic and financial methods
- Fosters local capacity building

Hence, Funbio generates not only financial incentives but also social incentives.

Social incentives

Services provided by Funbio are not limited to financial support, but also enhance human and social capital of clients, especially through local capacity building and networking. For instance, Probio II encourages companies to adopt principles and practices respecting the sustainable use of biodiversity. Within the project, Funbio supports the adoption of management best practices and models aimed at reducing the environmental impact along the productive chain. Thanks to this support, skills, knowledge and abilities of private actors on sustainable practices are enhanced.

Furthermore, thanks to its experience both with the private and the public sector, Funbio acts as a liaison, enhances exchanges between both sectors and hence creates a supportive and cohesive environment for actors willing to adopt sustainable practices. In 2006, Funbio launched the 'Sustainable Dialogue' initiative sponsored by Alcoa which aimed at discussing tendencies related to the engagement of private actors in sustainable development and biodiversity conservation. This initiative created a platform where various actors – government, the civil society and academia – can participate and exchanges experience and opinions.

The first Sustainable Dialogue was held in June 2007 and focused on biodiversity and stakeholders engagement. It looked at such issues as "how the search for sustainability can contribute towards stakeholder relationships and companies' governance and branding processes." The third event focused on global warming and biodiversity". Besides the topics defined for each event, issues such as international sustainability standards, corporate image and economic consequences of adopting sustainable practices were also addressed.⁵⁹

Funbio considers the coordination between institutions working with natural resources conservation as fundamental. The Fund has therefore increased networking efforts since 2007 in order to participate to discussions on innovating financial mechanisms for biodiversity conservation and sharing of experiences and lessons learned. For example, Funbio took over the presidency of the Latin American and Caribbean Network of Environmental Funds (RedLAC).⁶⁰ Funbio also hosts two other networks: Brazilian Environmental Funds Network and Conservation Finance Alliance.

Financial incentives

In almost 13 years of operation, Funbio has provided financial support to over 60 projects across Brazil. In total, close to US\$ 110 million were invested in conservation projects:⁶¹

- \$16.2m for cooperatives, community based associations, universities, companies and non-governmental organisations, which have developed biodiversity conservation projects including enhancing production facilities, access to markets, value aggregation by product differentiation, business plans and more recently microcredit
- \$36m for assets and services for protected areas in the Amazon
- \$17.8m for maintaining protected areas supported by the public project Arpa

⁵⁹ Funbio (2008) 2007 Annual report, p.40

⁶⁰ Funbio (2008) 2007 Annual report, p.41

⁶¹ Funbio (2008) 2007 Annual report, p.10

Funbio identifies needs and opportunities for conservation investment, create mechanisms to supply financial resources necessary to meet the conservation investments priorities and direct funds to strengthen conservation programs. It acts as a "financial middle agent, transforming investments into strategic capital directed towards conservation."⁶²

4.8.6 Lessons learned

Throughout its learning process, Funbio has observed challenges faced by private actors and developed a financially viable approach for the allocation of loans – an approach aimed at generating the greatest impact possible in terms of impact and lastingness on biodiversity conservation.

Small-scale projects face various and continuing challenges and Funbio observed that they tended to fail in the long run. These challenges include macroeconomic disturbances, lack of managerial skills, a very intricate bureaucracy/legislation and high taxes. It also appeared that projects lacking a clear plan to achieve financial sustainability had a tendency to perish once the financial support of Funbio ceased. Considering that by helping that kind of projects, Funbio's impact on biodiversity would only be ephemeral and restricted to a small scale, Funbio decided to focus on larger projects.

However, Funbio's approach is evolving over time, creating opportunities for small businesses. Funbio still considers that small scale sustainable production is important to provide different options for people living in economic stress and close to important biodiversity areas, because they are more likely to pressure natural resources. The fund is currently analysing opportunities it could create for small businesses.

Funbio's experience with the private sector began many years ago and since then, the importance of environmental issues within the sector changed for most of the larger companies. Working with the private sector today involves many aspects – from developing better ways of compliance to additional voluntary biodiversity offsetting. Since its creation Funbio has tried different and innovative approaches to the sector including resources leveraging, business planning, and building up enough knowledge to be able to change its initial course to support more complex projects, impacting larger areas.

So far, the strategy is working and the new approaches that will be developed includes the association of local economies in new development paths for services and products that can be done in more sustainable ways, and also to services and products that are needed for on-site project implementation. These approaches together may link big business with small-scale local economies all working to create conditions for the implementation of multiple environmental agendas in the same territories. Funbio believes that this is the way to achieve bigger and sustainable biodiversity impacts.

Funbio also believes that collaboration between the various actors is primordial to optimise impacts on biodiversity. Funbio has therefore developed various initiatives such as the Sustainable Dialogue programme and it also maintains the presidency of RedLAC. Thanks to the strengthening of social capital, Funbio generates social incentives for the engagement of private actors in activities respecting the conservation and sustainable use of biodiversity.

⁶² Funbio (2008) 2007 Annual report, p.14

5. BioTrade incentive measures

As made clear by the case studies in this information paper, in support of trade as a positive incentive measure for biodiversity conservation, the UNCTAD BioTrade Initiative and its partners have been addressing the policy environment, supply capacity and market access through an intervention strategy that targets different problems at different levels.⁶³

The first step in any such process has always been to ensure that prospective BioTrade businesses are viable. In this respect, there is a need to analyse the market potential for particular BioTrade products and services. As defined in the BioTrade Criterion 4.1, BioTrade focuses on products for which "potential markets should exist".

In today's markets, there is an increasing demand for natural sustainable foods and medicinal and cosmetic products, particularly derived from environmentally responsible and socially conscious practices. This market is especially strong in developed countries, such as Germany and the Netherlands and actually has been growing over the last decade. In the European Union, for example, the CBI (Centre for the Promotion of Imports from Developing Countries) reports an annual growth of approximately 20% for the natural cosmetics markets in the last two years. In 2008, it is expected to have exceeded € 2.1 billion.⁶⁴

Once it is clear that there is indeed a market potential for a BioTrade good or service, then the BioTrade Initiative and partners engage through a variety of approaches to promote sustainable and responsible trade in biological resources and in so doing to strengthen capacities to conserve biodiversity. Together these approaches can be considered as a 'tool kit' of BioTrade incentive measures.

5.1 Market incentives

The strong market demand for organic products is now widely known. Regarding organic foods, consumers are interested in health aspects, ethics, ecological integrity, food safety and better taste. Moreover, buying organic or sustainable products evokes the feeling of doing something good.⁶⁵ A study on the Swiss market, for example, reveals that the environmental awareness and animal welfare are further reasons for buying sustainable products.⁶⁶ As consumers are increasing their demand for natural, healthy, "green" and socially responsible products, opportunities are emerging for companies that fulfil BioTrade principles and criteria.⁶⁷ In short, consumer demand today is a tangible market incentive for BioTrade.

Nevertheless, even if there is an increasing market potential for BioTrade products and services, there remain challenges that private actors must face in order to capture this potential. Hence, market information, strategic partnerships, market access strategies and other tools are being developed in order to support private actors in accessing niche BioTrade markets that value

⁶³ UNCTAD (2005) UNCTAD BioTrade Initiative Implementation Strategy, p.5 (UNCTAD/DITC/TED/2005/5)

⁶⁴ Profound (2009) CBI Market Survey: The Market for Natural Cosmetics in the EU

⁶⁵ Wright et al (2006) Fair Trade marketing: an exploration through qualitative research, *Journal of Strategic Marketing*, Vol. 14, No. 4, p.416; and Belz, F. (2001) *Integratives Ökomarketing Erfolgreiche Vermarktung ökologischer Produkte und Leistungen*, Wiesbaden, 299, p.141

⁶⁶ Kilcher, L. et al. (SIPPO/FiBL) (2004), *The Organic Market in Switzerland and the European Union Overview and market access information for producers and international trading companies*, p.13

⁶⁷ This sub-section is based on the master's thesis research Maria Klewer undertaken in collaboration with the UNCTAD-BioTrade Initiative.

sustainable practices. These are the practical, on-the-ground market incentives that are being promoted within the BioTrade network as highlighted especially in the case studies of the PhytoTrade Africa, the Union for Ethical BioTrade and the partnership between Nativa and Cosmetic Valley.

5.1.1 Market access support

The UNCTAD BioTrade Initiative and its partners, through their knowledge of niche markets for selected BioTrade value chains, are able to provide guidance, information, contacts and services to companies wanting to gain access, maintain or expand their market share in local, regional and international markets. For example, Nativa has developed an information-based partnership with Cosmetic Valley enhancing the access of BioTrade products from South America to Europe.

Enabling policy environment for BioTrade businesses

Companies working in BioTrade face challenges such as NTBs (Non-Tariff Barriers) which hinder access to markets. In this respect, the BioTrade Initiative provides a platform for liaising private and public actors at the local, national and international levels to address NTB challenges. Through this platform, challenges to accessing markets are brought to the attention of policy-makers and discussions are undertaken to support the formulation of policies enabling the sustainable trade of BioTrade products and services.

For example, work has been carried out on contributing to a fairer treatment from traditional/BioTrade foods under the EU Novel Foods Regulation (EC No 258/97). This work has brought together, governments, universities, specialised consulting firms, SMEs, MNCs (multinational corporations), scientific communities, multilateral organisations, regional organisations, finance institutions, donor agencies, civil society organisations, law firms, and business associations. It has undertaken a research agenda which has helped to guide policy-related discussions. At the same time – through bilateral discussions and regional and multilateral forums – the BioTrade Initiative has engaged government representatives' and negotiators' in various consultative processes. The work of PhytoTrade Africa on the baobab is also particularly noteworthy in this respect.

In so doing, this BioTrade policy platform generates market incentives by addressing challenges in policy making and access to markets. Furthermore, it also generates a social incentive through creating networks across value chains among various BioTrade stakeholders.

Available and reliable market information

The lack of access to available and reliable information in a timely manner can be a major constraint for business. Efforts of BioTrade partners in compiling and analysing information for selected markets support businesses in their decision making processes. This information has been a useful tool for BioTrade companies to establish objectives, strategies and plans, as well as identify key partners and potential buyers and prioritise products with the higher market potential.

Some of the information generated within BioTrade networks follows:

- **General market surveys:** These surveys provide general market trends information relevant to BioTrade, including information on production, demand, imports, exports,

prices and opportunities for exporters from developing countries.⁶⁸ This information can help exporters to understand the overall characteristics of niche markets in a certain country or region.

- **Market briefs:** They provide a concise overview of the market for specific products. They contain information on market developments and trade statistics.
- **Newsletters, concepts of experts and specialised press:** These informal documents are distributed to BioTrade partners providing market trends and discussing issues affecting the BioTrade selected value chains.
- **Specific trade information platforms:** Electronic platforms for selected sectors or BioTrade businesses have been established as a ‘one-stop-shopping’ centre for its members to access to available market information, technical specifications or other type of information that support businesses in accessing new markets or expanding current ones. For instance, the Colombian National BioTrade Programme created Obio (the National BioTrade Observatory)⁶⁹ which publishes analytical information on promising markets, BioTrade companies and products from Colombia's biodiversity.

Contacts in niche markets

SMEs, in general have difficulties in learning about and contacting potential buyers from other countries or regions. The situation is even worse for BioTrade SMEs attempting to connect to foreign niche markets interested in environmentally-friendly and socially-responsible practices. The support given by BioTrade – through trade fair participation, organisation of buyer-sellers missions and B2B programmes – have been a major tool for companies to overcome this barrier and establish contacts with potential buyers interested in their BioTrade products.

Regarding participation in trade fairs, BioTrade companies have also been exposed to how the markets function and their requirements, the current competition as well as the market trends, product innovation and available technology. Examples of trade fair participation have even promoted the development of better packaging, certifications such as organic or fair trade, quality improvements through acquisition or adaptation of equipments, among others.

Furthermore, as relationships between potential buyers and sellers are reinforced such as business partnerships, trade fair participation also generates social incentives.

As highlighted in the case studies above, an example of a BioTrade business partnership is the one that has been established between the Colombian association Nativa and the French association Cosmetic Valley. This partnership has expanded access to markets for BioTrade products from Nativa and also provided a complementary product offer for the Cosmetic Valley, while developing the capacity of their members through joint research and development projects.

The facilitation of access to niche markets for BioTrade products and services, through enhancing dialogue between various stakeholders on issues such as NTBs, market information, participation in trade fairs and B2B partnerships, generates practical market incentives for biodiversity conservation and sustainable use of biological resources.

⁶⁸ UNCTAD (2006) *Primeras experiencias en el apoyo a cadenas de valor de productos de Biocomercio*, Documento informativo, p.24

⁶⁹ For more information, please see: <http://www.humboldt.org.co/obio>

5.1.2 Market differentiation

Distinguishing BioTrade products and services within the market is critical to adequately positioning these products as opportunities for sustainable development and incentives for conservation. Companies aim to be recognised in the market for their efforts in adopting sustainable practices, and therefore UNCTAD and its partners have considered concrete ways to differentiate BioTrade products and services.

They have organised workshops, creating a dialogue platform between various stakeholders, including businesses and public actors specialised in intellectual property rights. Various possibilities have been considered. On the one hand, a verification framework for BioTrade products has been developed and now also possible bridges are being explored with existing certification schemes. On the other hand, distinctive signs, such as the ‘Appellation of Origin’ and collective trademarks have also been assessed.

Verification and certification

To differentiate products and services on markets, the BioTrade verification framework provides a tool for companies to develop work plans and validate progress towards their compliance with BioTrade Principles and Criteria. This framework also enhances market recognition of the ethical, environmental, and quality standards of BioTrade products and services. The verification framework can also be used in B2B relations, rather than a labelling scheme for product claims of compliance.

Given the BioTrade experience in supporting the supply chain of natural ingredients, this sector was selected as one of the priorities for the development of a verification framework derived from the BioTrade Principles and Criteria. The BioTrade Verification Framework for Native Natural Ingredients was developed in 2007. As discussed further in the case studies, it is currently being implemented by UEBT at a B2B level, as well as by BioTrade country programmes to develop and implement their activities.

Though still very new, the UEBT has already succeeded in bringing together private sector companies across the value chain who are seeking ways to verify their commitment to sustainable and responsible BioTrade. In so doing, the pioneering work of the UEBT is demonstrating how a multilateral initiative in support of a multilateral environmental agreement can be mainstreamed into the private sector in a way that makes good sense for both business and biodiversity.

Distinctive signs

Distinctive signs, such as geographical indications, are potential tools to differentiate BioTrade products on markets.⁷⁰ UNCTAD and its partners have supported the development of studies to identify the unique characteristics of some BioTrade products in relation to their geographical origin, production processes and certain qualities or reputation that can be attributed essentially to their provenance. Geographical indications are also referred to as ‘Appellation of Origin’. Collective trademarks have been considered as important marketing tools for producers and BioTrade companies. They can be used to generate and consolidate niche markets, often with a premium price.

⁷⁰ UNCTAD (2007) Geographical Indications: Distinguishing the Uniqueness of BioTrade Products (Technical Updates, Issue 10)

Geographical indications – by protecting the identity and quality standards of BioTrade products – can preserve and enhance their reputation and market share, thus maximising the economic incentives for BioTrade activities. Through the recognition of the physical and environmental factors as well as the traditional practices linked to the product, geographical indications also have a potential to promote the sustainable use of the relevant components of biodiversity and protect the structures and knowledge that have maintained them.

Nevertheless, geographical indications have costs and limitations that must also be considered in order to determine their most useful application in relation to BioTrade products. In this respect, feasibility studies were developed with the support of UNCTAD and National BioTrade Programmes in Colombia, Peru and Ecuador for the species borojó (*Alibertia patinoides*), maca (*Lepidium peruvianum Chacon*) and cocoa Arriba flavor (*Theobroma cacao L.*), respectively.

The use of collective trademarks has also been explored. The strategy under collective trademarks is to develop a common concept and image identifying the SMEs or the products they make. This can include quality standards which have to be implemented in order to use the mark. Companies can then own their own logo. The trademark is the property of the persons who applied for it and not the property of the State, as it is the case with the ‘Appellation of Origin.’

As highlighted in the case studies, trademarks can play a particularly critical role for small, rural BioTrade associations such as Jambi Kiwa in Ecuador.

5.2 Social incentives

As discussed previously in this information paper, social incentives focus on the enhancement of skills, knowledge and abilities which are improved through access to training and technologies, as well as to the development of a supportive and cohesive environment around actors pursuing shared goals and adopting sustainable practices. In addition to market incentives, BioTrade provides an array of social incentives.

5.2.1 Strengthen skills, knowledge and abilities

The BioTrade Initiative and its partners provide guidance and technical assistance to enhance local capacities for developing sustainable practices. These are designed with a commercial value chain approach, as well as an ecosystem and adaptive management approach which are explained as follows:

- The **ecosystem approach** is based on a holistic vision integrating ecological and social issues, as well as the interactions and processes that are involved in a productive system. In practice, the planning of productive processes related to BioTrade initiatives is undertaken according to the ecosystem approach. This guarantees that the initiatives will be environmentally and socially responsible with regard to their impact on species, habitats and local communities.⁷¹
- The **adaptive management** allows for the implementation of corrective measures in systems on an ongoing basis, based on a process of continued monitoring. In the case of management of biological resources, adaptive management is different from the

⁷¹ UNCTAD (2007) BioTrade Principles and Criteria, p.2 (UNCTAD/DITC/TED/2007/4)

monitoring of the impacts (environmental, social and economic) on the eco-systems and populations resulting from the use of biological resources.⁷²

In the context of BioTrade, adaptive management contributes to the implementation of sustainable practices, the identification of impacts on species and ecosystems and the continual improvement of BioTrade initiatives.⁷³ In order to guide BioTrade actors on sustainable species' management, in 2009, the UNCTAD BioTrade Initiative published the 'Guidelines for the Development and Implementation of Management Plans for Wild-collected Plant Species used by Organisations Working with Natural Ingredients.' This guideline is based on the experiences in Bolivia, Brazil, Colombia, Ecuador, Peru, Uganda and Vietnam. It uses a participatory approach that facilitates the exchange of information among collectors, intermediaries and companies.⁷⁴

The guideline benefits BioTrade actors as it provides cost effective methodologies for the compliance with BioTrade principles and criteria, the implementation of good agricultural practices defined by the WHO (World Health Organisation) and the improvement of quality standards required along the supply chain. National programmes also provide technical assistance to organisations for the development of management plans for specific species. Furthermore, training is organised to enhance individual skills and abilities – i.e. human capital – for the adoption of sustainable practices.

Businesses have also seen BioTrade as a business tool to enhance their internal control systems guaranteeing not only the sustainable use of the species harvested/collected but also improving their documentation and traceability which are needed for accessing international markets.

Thanks to the technical assistance, BioTrade organisations improve their sustainable practices as well as the quality of their products and hence provide value-added products. This also enhances the negotiation power of BioTrade organisations on local, national and international markets. Hence, the improvement of human capital does not only act as a social incentive but also allows increased access to international markets for BioTrade products.

All of the case studies highlight the critical importance of strengthening skills and knowledge. However, the case of TreeCrops programme in Malawi is perhaps one of the most striking because it covers such a range of skills and knowledge needed from on-the-ground management of the biodiversity resource to opening up important international markets. The BioTrade approach leads to a development of skills and knowledge at several levels in order to access markets, increase values and ensure sustainability.

5.2.2 Strengthening social capital

The BioTrade Initiative and its partners provide support as well for strengthening 'social capital' – which is understood as the social structure enabling people to coordinate action in order to achieve desired goals, here the sustainable trade of biodiversity products and services. Social capital is enhanced through the creation of BioTrade networks, the strengthening of BioTrade value chains and the creation of sector associations.

⁷² CBD (2004) Addis Ababa Guidelines and Principles for the Sustainable Use of Biodiversity, see: <http://www.cbd.int/sustainable/addis-intro.shtml>

⁷³ UNCTAD (2007) BioTrade Principles and Criteria, p.2 (UNCTAD/DITC/TED/2007/4)

⁷⁴ Becerra, M.T. (2009) Guidelines for the Development and Implementation of Management Plans for Wild-collected Plant Species used by Organisations Working with Natural Ingredients (UNCTAD/DITC/TED/2007/8)

Creation of BioTrade networks

Through the creation of BioTrade networks which link national, regional and international organisations across value chains, BioTrade commerce can be implemented in an integrated manner. The different private sector actors interact regularly, for instance through the organisation of workshops and meetings. This structure strengthens the social capital of BioTrade actors by facilitating the sharing of experiences and the achievement of common objectives such as the promotion of an enabling environment for BioTrade products.

For instance, as previously noted, a platform was created in order to support the adoption of a development friendly regulation for Novel Foods. Regional workshops were organised in Latin America and in Africa which brought together different stakeholders involved in BioTrade. These workshops formulated recommendations to policy-makers to contribute to a fairer treatment from traditional foods, based on their experiences.

Other cases of the development of BioTrade networks include the unique partnership between Nativa and Cosmetic Valley – which is essentially a partnership of networks. Also, UEBT is providing new insights on the development of international networks across value chains.

Strengthening BioTrade value chains

In order to provide assistance for the creation of a cohesive social structure for selected BioTrade products, the BioTrade Initiative has adopted the value chain approach. The UNCTAD BioTrade Initiative sees the strengthening of value chains as a critical element in facilitating the implementation of good practices related to the sustainable use and conservation of biodiversity and in promoting the equitable sharing of environmental, social and economic benefits among value-chain actors.⁷⁵

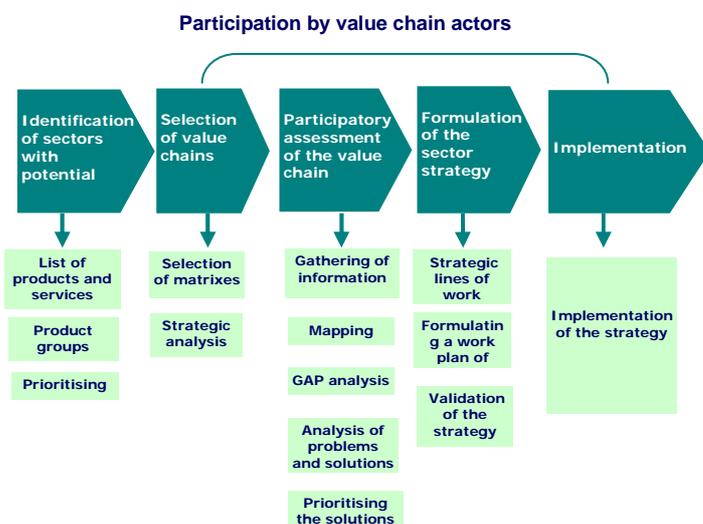
The strengthening of value chains helps to facilitate the coordination between the different actors and to increase competitiveness in the sector. For example, BioTrade Criterion 3.1 emphasises the importance of interaction between value chain actors and the engagement of all of them. This especially allows actors to assess their contribution to value creation and provides them with a solid footing for negotiating an adequate price and the equitable sharing of other monetary and non-monetary benefits.

BioTrade partners provide technical assistance to strengthen the value chain of BioTrade products. For instance, the UNCTAD BioTrade Initiative has set out a methodology based on experiences from BioTrade national programmes operating in Bolivia, Colombia, Costa Rica, Ecuador, Peru and Uganda, aimed at supporting value chains of BioTrade products – the ‘Guidelines for a Methodology to Support Value Chains for BioTrade Products’ (2009).

The methodology includes the mapping of value chain actors. The different actors in a value chain are characterised, their problems in accessing current and potential markets are identified and solutions to these problems are sought. Centred on the strengthening of relationships between different actors all along the value chain of BioTrade products, the value chain approach enhances the social capital of BioTrade private actors.

⁷⁵ UNCTAD (2007) BioTrade Principles and Criteria, p.2 (UNCTAD/DITC/TED/2007/4)

Each one of the steps of the value chain methodology consists of activities that lead to the achievement of tangible results. This is reflected in the following diagram⁷⁶ of the support processes with BioTrade value chains:



From the case studies, the strengthening of value chains is particularly evident in the case study of PhytoTrade Africa which has succeeded in linking remote BioTrade suppliers to developed markets in Europe and North America. This has required a strategic approach to identifying which BioTrade products to develop for which markets and to addressing the array of challenges and opportunities along the value chain.

The case study of *Caiman yacare* in Bolivia also highlights how the implementation of the value chain approach has allowed the generation of confidence relationships between value chain actors as well as the design of management plans coherent with local realities. As a result, a cohesive and supportive environment for sustainable trade of *Caiman yacare* was developed.

Sector associations

Another interesting approach to strengthening "social capital" is the creation of sector associations. The BioTrade Initiative and its partners have supported the development and/or the strengthening of sector associations such as PhytoTrade Africa and BioNativa.

The UNCTAD BioTrade Initiative and its partners supported PhytoTrade Africa in strengthening a viable and enduring natural products industry in Southern Africa based on natural resources accessible to poor rural producers. The existence of PhytoTrade Africa permits to develop a supportive and cohesive structure for the natural product industry in Southern Africa. Thanks to the strengthening of a network between value chain actors and to the services provided to its members, PhytoTrade Africa acts as an incentive measure for the engagement of Southern African businesses in sustainable activities. More information is available in the case study above.

The UNCTAD BioTrade Initiative and its partners also support BioNativa, the BioTrade Products and Ingredients Andean-Amazonian Trade Association. The creation of BioNativa

⁷⁶ Becerra, M.T. (2009) Guidelines for a Methodology to Support Value Chains for BioTrade Products. (UNCTAD/DITC/BCC/2008/1)

aims to develop a cohesive sector for natural ingredients for the cosmetics, pharmaceuticals and food industries, based on native products from the Andean and Amazon region that comply with BioTrade Principles and Criteria. The fair and equitable sharing of benefits as well as the respect of indigenous communities rights is primordial to the organisation of value chains. Thanks to the network created by BioNativa and its services, the sector association acts as an incentive measure to engage businesses in the conservation and sustainable use of biodiversity. Furthermore, by working together, businesses can have a greater power and the access of their products on international markets can be facilitated. Therefore, the creation of the trade association also acts as a market incentive for the engagement of private actors in sustainable practices.

5.3 Financial incentives

The BioTrade Initiative in itself might be considered a "financial incentive" as well as adherence to the BioTrade Principles can generate access to financial resources needed to develop sustainable businesses. Furthermore, the Initiative itself often facilitates the mobilisation of funds at the national level and to date has managed to leverage a significant amount of funds.⁷⁷ Such funding for the implementation of national and regional BioTrade programmes is normally obtained through public actors.

In addition as highlighted in the case studies, private BioTrade funds have been created to facilitate the access to finance for private actors engaged in the conservation and sustainable use of biodiversity. This includes the potential for foreign direct investment in BioTrade enterprises.

Directly focused on financing BioTrade businesses, the Fondo Biocomercio has provided funds to enable these business to develop their products and access markets. By strictly adhering to the BioTrade Principles, as highlighted in the case study, this Fund has used finance as a powerful driver to develop the BioTrade sector in Colombia.

On a much larger scale, Funbio has also developed innovative financial packages to support the development of biodiversity-based businesses. In particular, their various funding programmes have highlighted both the opportunities and the challenges of scaling up funding for this type of businesses.

5.4 Physical incentives

In some BioTrade projects, physical equipment is provided to reduce the environmental impact of companies' production modes. Thanks to the strengthening of physical capital the productivity of companies and the quality of products has improved and thus BioTrade companies are able to sell their products at higher prices.

As the strengthening of physical capital increases, the productivity of companies increase, costs of production can be reduced and a higher benefit can be obtained. Several National BioTrade programmes have also provided equipment to companies. For instance, Jambi Kiwa in Ecuador received a tea-bagging machine and a quality control laboratory through BioTrade support.

⁷⁷ UNCTAD (2005) UNCTAD BioTrade Initiative Implementation Strategy, p.7 (UNCTAD/DITC/TED/2005/5)

6. Concluding remarks

6.1 Towards a BioTrade incentive measures framework

Together the seven case studies presented in this information note provide the start of an information platform on which it might be possible to develop a BioTrade incentive measures framework which identifies key challenges and drivers. This section illustrates such a framework and at the same time summarises some of the key insights coming out of the case studies. In the follow section, the development of such of framework is presented as one of the possible recommendations for the next steps in a programme of work on BioTrade incentive measures.

The preliminary framework used in this section includes the following:

- Type/focus of activities
- Challenges/needs
- Incentive measures
- Key drivers

6.1.1 Innovative partnerships – Nativa and Cosmetic Valley

- ***Type/focus of activities***
Partnership between a BioTrade association and a competitiveness cluster
- ***Challenges/needs***
 - Converting the sustainable use of biological resources into a source of technical and market innovation
 - Accessing global markets
- ***Incentive measures (generated through the partnership)***
 - Market incentives
 - Access to niche markets interested in sustainable and responsible practices, with a broader and competitive product range
 - Social incentives
 - Experience and knowledge sharing enhanced, as well as the development of joint R&D projects
 - Financial incentives – shared funding for research and development and market promotion and access
- ***Key drivers***
 - Market demand for natural and sustainably produced cosmetic products
 - Creation of a business partnerships that increases the competitiveness of its members and enables knowledge-sharing

6.1.2 Ensuring sustainable supply – PhytoTrade Africa

- **Type/focus of activities**
Trade association in the natural products sector
- **Challenges/needs**
 - Ensure the existence of an adequate supply base to meet demand once products are launched into the market
 - Access to global markets for NPs
 - Develop and implement strategic marketing strategies, especially if the product is based on entirely new ingredients in the marketplace
- **Incentive measures**
 - Market incentives - support to obtain product certification, to access markets that fulfil regulatory requirements and to develop commercial partnerships
 - Social incentives - develop skills on sustainable production, harvesting and compliance to quality standards and broaden the social network
- **Key drivers**
Ensure a reliable supply chain, strengthen social capital and support the generation of reliable markets for BioTrade products

6.1.3 Integrated marketing strategies - TreeCrops

- **Type/focus of activities**
Sustainable and formal trade of baobab
- **Challenges/needs**
 - Develop and implement strategic marketing strategies, especially if the product is based on entirely new ingredients in the marketplace
- **Incentive measures**
 - Market incentives:
 - EU market entry of TreeCrops' baobab, thanks to the approval of PhytoTrade Africa's application to the EU Novel Foods Regulation
 - EU market entry of TreeCrops' baobab in the USA, thanks to the approval of PhytoTrade Africa's application to USA-GRAS
 - Direct access to potential buyers and markets, for instance through the participation to trade fairs
 - Social incentives
 - Enhance skills, abilities and knowledge of producers
 - New and extended social networks
- **Key drivers**
Market access to EU and USA
Expansion of formal employment thanks to the creation of TreeCrops

6.1.4 Direct financial support – Fondo Biocomercio

- **Type/focus of activities**
Private fund for BioTrade businesses
- **Challenges/needs**
Facilitate access to finance and broaden the knowledge of financial institutions on the risks and opportunities of BioTrade businesses
- **Incentive measures**
 - Financial incentives – tailored funding mechanisms to meet the needs and capacities of BioTrade business to grow and access markets
- **Key drivers**
Access to funding for BioTrade companies adapted to their business practices and needs
Strong knowledge on BioTrade related sectors by a financial institution

6.1.5 Trading CITES-listed species – Bolivian BioTrade

- **Type/focus of activities**
Sustainable use of a CITES-listed species
- **Challenges/needs**
 - Lack of cooperation within and among value chain actors
 - Policy constraints and measures that limited the sustainable harvest of biodiversity, considering its biological characteristics
- **Incentive measures**
 - Market incentives –stable supplies of skins and meat and access to higher prices
 - Social incentives – enhance skills, abilities and knowledge of producers on sustainable practices; strengthen relationships between value chain actors
- **Key drivers**
Participative value chain approach and joint elaboration of management plans valuing local knowledge and practices

6.1.6 Community-based BioTrade – Jambi Kiwa

- **Type/focus of activities**
Community-based SME dedicated to sustainable production and processing
- **Challenges/needs**
Need to introduce new concepts of self-management and institutional strengthening, market access with quality differentiated products
- **Incentive measures**
 - Market incentives – product differentiation through certification and inclusion of BioTrade practices, access to environmentally and socially responsible markets and business partnerships
 - Social incentives – enhance skills, abilities and knowledge of its members, organisational strengthening and enhanced networks

- Financial incentives – an operational micro-credit facility considering the needs of Jambi Kiwa and its members
- Physical incentives – improvement of facilities and equipment (e.g. tea-bagging machine, ventilators and quality control laboratory)
- **Key drivers**
Product differentiation based on sustainable practices and local culture; organisational strengthening; use of international standards

6.1.7 Verifying and promoting BioTrade – UEBT

- **Type/focus of activities**
Market differentiation of BioTrade products and companies
- **Challenges/needs**
Develop market-based recognition of commitments to BioTrade principles and supply of BioTrade goods and services
- **Incentive measures**
 - Market incentives – a differentiation scheme for member companies
 - Social incentives – international networking of BioTrade businesses
 - Financial incentives – facilitation of access to funding
- **Key drivers**
Market recognition of UEBT as a key driver for communicating its objectives and promoting its mission

6.1.8 Innovative financial support – Funbio

- **Type/focus of activities**
Private finance of biodiversity-based businesses
- **Challenges/needs**
Financial sustainability of beneficiary companies
- **Incentive measures**
 - Social incentives – sustainability dialogues to exchange best practices and lessons learned
 - Financial incentives – innovative funding mechanisms to meet the needs and capacities of BioTrade business to grow and access markets
- **Key drivers**
Develop and invest in regional portfolio of linked sustainability projects

6.2 Possible next steps

As this information paper makes clear, the work of the UNCTAD BioTrade Initiative has generated a set of incentive measures for the sustainable and responsible use of biological resources. For the most part, these are voluntary, market-based measures which directly engage the private sector in activities supporting the conservation of biodiversity. The experience to date provides a solid basis on which to further strategically develop the programme of work on BioTrade in support of the implementation of the CBD and other MEAs such as CITES. Some of the possible next steps could include the following:

- **Development of a BioTrade incentives measures framework**
Building on the cases in this information paper and the preliminary framework presented above, a more rigorous and well structure framework of BioTrade incentive measures could be drafted.
- **Development of a BioTrade Handbook**
As highlighted in the cases, there is now a considerable amount of guidance materials such as the BioTrade Principles and Criteria, the UEBT standards and various guidelines and information notes. These could be compiled into a BioTrade Handbook which would serve as the key reference document for BioTrade businesses and supporters.
- **Expanding BioTrade's regional and national programmes**
To date much of BioTrade's experience is in South America and southern Africa. BioTrade programmes are being developed in Southeast Asia (Vietnam and Indonesia) and efforts should continue in strengthening and expanding the activities in the area as well as in the Middle East. This will address the opportunities and challenges of BioTrade in other regions.
- **Developing the BioTrade approach in marine ecosystems**
To date most of BioTrade's experience is in terrestrial ecosystems. Nevertheless, there could be significant benefits to applying the BioTrade as well to marine ecosystems.
- **Establishing BioTrade within the programme of work of the CBD**
The UNCTAD BioTrade Initiative has been consistently recognised by the Parties to the CBD as a significant contribution to the implementation of the CBD. In the upcoming strategic review of the CBD's programme of work, there may be an opportunity to include BioTrade as a formal component of this programme.
- **Developing BioTrade programmes in biodiversity-related conventions**
As the case study from Bolivia demonstrated, BioTrade can and does play a significant contribution to CITES. It could as well play a significant role in addressing the role of sustainable and responsible use of biological resources in other conventions, notably Ramsar and UNCCD.

In short, BioTrade incentive measures are making an important contribution to the conservation of biodiversity. Thus the work of the UNCTAD BioTrade Initiative and its partners should be broadened to enable more countries and more ecosystems to benefit from the BioTrade approach to the sustainable and responsible use of biological resources.