



TRADE and BIODIVERSITY:

the BioTrade experiences in Latin America





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Contents

I. INTRODUCTION	1
II. THE BIOTRADE INITIATIVE	3
2.1. Background	3
2.2. The BioTrade framework.....	3
2.3. Overview of BioTrade programmes.....	4
2.4. BioTrade outcomes in the Latin American Region.....	5
III. MARKET ACCESS AND VALUE CHAIN DEVELOPMENT	11
3.1. Market potential for biodiversity-based businesses	11
3.2. Value chain development.....	12
3.3. Capturing the market potential for biodiversity-based products and services.....	14
IV. BIOTRADE IN LATIN AMERICA - ILLUSTRATIVE CASES.....	17
4.1. “Jambi Kiwa” Producers’ Association of Medicinal Plants from Ecuador.....	17
4.2. Fondo Biocomercio Colombia.....	19
4.3. Natura Cosmeticos and equitable benefit sharing	21
4.4. Business partnership between Nativa (Colombia) and Cosmetic Valley (France).....	23
V. INTERNATIONAL BIOTRADE ISSUES	25
5.1. UNCTAD XII and BioTrade	25
5.2. Multilateral Environmental Agreements (MEAs) and BioTrade	25
5.3. WTO, and SPS and TBT Committee	25
5.4. BioTrade within national and regional forums in Latin America	26
VI. LOOKING FORWARD - CHALLENGES AND OPPORTUNITIES	29
6.1. Challenges and opportunities in data and measuring the impact of BioTrade activities	29
6.2. Challenges and opportunities in developing/strengthening value chains	30
6.3. Challenges and opportunities in market access strategies.....	31
6.4. Challenges and opportunities with policy frameworks	33
VII. BIOTRADE AND INTELLECTUAL PROPERTY RIGHTS	35
7.1. Development opportunities for BioTrade in the current IPRs regimes	35
7.2. Other examples of IPRs applied to biodiversity-based products in Latin America and the Caribbean	37
7.3. Opportunities, challenges and lessons learned.....	37
VIII. CONCLUSIONS AND RECOMMENDATIONS	39
8.1. Upscaling BioTrade in the LAC region	39
8.2. Policy frameworks	40

8.3. Developing biodiversity-based sectors.....	41
8.4. Private sector engagement	41
8.5. Concrete policy recommendations	42

ANNEXES

Annex 1. BioTrade and UNCTAD Accra Declaration.....	45
Annex 2. BioTrade and the Convention on Biological Diversity (CBD)	46
Annex 3. Classification of the main IPRs figures.....	48
Annex 4. Addressing biopiracy through IPRs.....	49
Annex 5. Issues related to the CBD under discussion in the TRIPS Council, as stated by WTO	50

REFERENCES.....	51
------------------------	-----------

NOTES	55
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I. INTRODUCTION

Growth opportunities can be generated by sustainable business practices that enable countries rich in biological resources to achieve their development objectives. Current markets for environmentally-friendly products and services showed growth rates, despite the economic slowdown. For instance, in 2008, the United States organic sector showed a 17.1 per cent annual growth rate¹ and the 2009 Cone Consumer Environmental Survey revealed that 34 per cent of consumers are more likely to buy environmentally responsible products, and 44 per cent mentioned that their environmental habits have not changed as a consequence of the crisis². Consumers, particularly in Europe and United States, still search for ethical, social, natural, and healthy products.

In this scenario, UNCTAD suggests that countries rich in biological resources implement the BioTrade framework to capture this market potential, and transform it into a sustainable development engine. BioTrade simultaneously generates business opportunities, growth and sustainable livelihoods for rural populations, while allowing the conservation and sustainable use of biodiversity. The value of biodiversity can be enhanced, and risks associated to business as usual, such as the stresses on biological resources, can be reduced.

This paper illustrates the potential for developing Sustainable Environment Management practices such as BioTrade in Latin America. In 2008, these practices have already generated over \$230 million in exports of sustainably-produced products and services derived for Latin American's biodiversity. Examples of other results obtained are: the diversification of exports; the strengthening of biodiversity-based sectors

including the enhancement of the policy framework that promotes their sustainable development; facilitating access of small and medium enterprises (SMEs) with differentiated quality products to national and international markets, and the fair and equitable distribution of benefits generated. Hence, BioTrade makes good sense for both business and biodiversity.

These results are presented through case studies built on the experiences of BioTrade practitioners and programmes at the national, regional and international levels such as SMEs, multinational corporations (MNCs), financial entities and clusters. Issues related to Intellectual Property Rights (IPRs) are dealt indirectly through the experience of BioTrade practitioners with appellation of origin and green labels. The paper will not cover issues related to Free-Trade Agreements, or criteria and standardization issues (certification).

This paper is divided in eight sections. The second section refers to the framework of the BioTrade Initiative, providing an overview of its programmes and outcomes, particularly in Latin America. The third section describes the market potential of biodiversity-based products and proposes the value-chain approach as a way to capture this potential. Section four presents the business case for biodiversity with four BioTrade case studies in Latin America. International issues related to BioTrade are described in section five, and challenges and opportunities to develop BioTrade are shown in section six. Intellectual Property Rights, their relevance to BioTrade and some examples are presented in section seven. Finally, conclusions and recommendations are in section eight.

II. THE BIOTRADE INITIATIVE³

2.1. Background

Since 1996, UNCTAD, through its BioTrade Initiative, has been working to promote trade and investment in biological resources to further sustainable development in line with the three objectives of the Convention on Biological Diversity (CBD). The three objectives being: (a) conservation of biological resources; (b) sustainable use of its components; and (c) fair and equitable sharing of the benefits arising from the utilization of genetic resources.

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

To develop its activities, UNCTAD works with national and regional partners that implement BioTrade programmes in Africa, Asia and Latin America. These partners support SMEs, producer associations, cooperatives, government entities, academia, etc., in implementing viable and sustainable BioTrade value chains. South-South cooperation is also taking place to exchange information and experiences in implementing BioTrade in the several biodiversity-based sectors, for instance in accessing markets, developing and implementing management plans, value chain strengthening, among others. Capacity-building events as well as the development of methodologies with partners from Asia, Africa and

Latin America have also reinforced the South-South links established with BioTrade practitioners.

2.2. The BioTrade framework

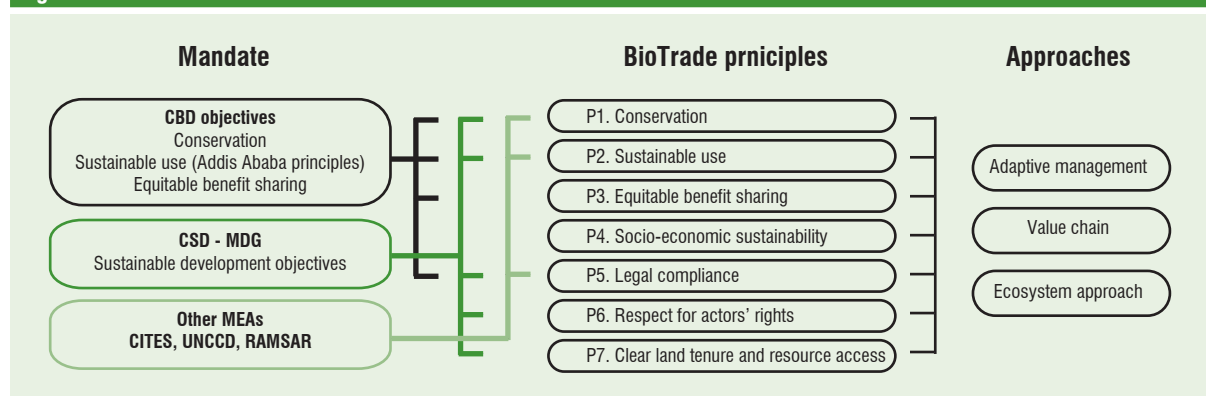
Through a joint process carried out by UNCTAD and several National Programmes, the BioTrade Principles and Criteria were agreed upon and adhered to by the BioTrade Initiative, its programmes and partners. The Principles and Criteria can be applied in different contexts, driving BioTrade processes to promote the conservation of biodiversity through sustainable commercial use (figure 1).

Also within this framework, BioTrade practitioners work considering three basic approaches (UNCTAD, 2007):

- o Value-chain approach - where the strengthening of value chain is a critical element in implementing BioTrade Principles and Criteria;
- o Adaptive management approach - when implementing sustainable practices, it is crucial to consider the identification of impacts on species and ecosystems, and the continual improvement of BioTrade initiatives; and
- o Ecosystem approach - the planning of productive processes related to BioTrade initiatives are environmentally and socially responsible with regard to their impact on species, habitats, ecosystems and local communities.

BioTrade frames the implementation of its activities within the global conservation and development objectives established under the Millennium

Figure 1. BioTrade framework



Source: UNCTAD, 2007.

Box 1. BioTrade Programmes developed in the Andean Region

In Colombia, the Sustainable BioTrade Programme was launched in 1998 as a worldwide pioneer initiative. It was created with the support of UNCTAD, the Ministry of Environment and the Alexander von Humboldt Institute. The Programme has evolved and is currently being managed by the National Technical Committee on Biodiversity and Competitiveness (CTNBC) (Presidential Decree 2828 of 23 August, 2008). Furthermore, *Fondo Biocomercio Colombia* was created in 2006 to help businesses implement their BioTrade activities and access to national, regional and international markets.

In 2001, Ecuador launched its programme as an initiative of the Ministry of Environment and UNCTAD. The programme coordination is implemented by the Export and Investment Promotion Corporation (CORPEI) in strategic alliance with the environmental NGO EcoCiencia.

In Peru and the Plurinational State of Bolivia, the programmes were launched in 2003. The Peru National BioTrade Promotion Programme (NBPP) was launched with nine institutions from the public and private sectors. The Ministry of Trade and Tourism is the President of the NBPP, which is managed by the Peruvian Export and Tourism Promotion Board (Promperu) and the Peruvian Amazon Research Institute (IIAP)⁴.

For the Plurinational State of Bolivia, the Sustainable BioTrade Programme was managed by *Fundación Amigos de la Naturaleza* (FAN) from mid-2005 until 2008. It is currently being incorporated into the activities of the Bolivian Vice-Ministry of Biodiversity and Natural Resources. Moreover, FAN continues supporting BioTrade value chains in their programmes.

Development Goals (MDGs), the Commission on Sustainable Development (CSD) as well as the CBD and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

2.3. Overview of BioTrade Programmes

The first National BioTrade Programme started in Colombia in 1998 and other programmes have been created in the Andean Region, the Plurinational State of Bolivia, Ecuador and Peru. Other countries are also involved in developing BioTrade activities, including Brazil, Costa Rica and Paraguay. These programmes

are developed jointly with local counterparts and considering the national circumstances and needs of each country and/or region. Furthermore, BioTrade is build considering a bottom-up approach.

As regional activities were needed, in particular to share experiences and knowledge, as well as to promote an enabling regional environment, UNCTAD, the General Secretariat of the Andean Community (SGCAN) and the Andean Development Corporation (CAF) launched the Andean BioTrade Programme at the World Summit on Sustainable Development (WSSD) in 2002. This programme also supports the

Table 1. Geographical scope and sectors supported by BioTrade Programmes

BioTrade countries	Biodiversity-based products and services supported
Plurinational State of Bolivia	Natural ingredients and products for cosmetics: essential oils, natural dyes, soaps, creams and butters, moisturizers, etc.
Brazil	Natural ingredients and products for pharmaceuticals: extracts and infusions from medicinal plants, natural medicine capsules, etc.
Colombia	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, crocodile meat, etc.
Ecuador	Leather and garments: skin from <i>Caiman yacare</i> and <i>Nile crocodile</i> , etc.
Peru	Wildlife for pets: butterflies, chameleons, snakes, tortoise, etc.
Southern Africa: Botswana, Malawi, Namibia, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe (through PhytoTrade Africa)	Flowers and foliage: heliconias and other tropical flowers.
Uganda	Fish products: paiche (<i>Arapaima gigas</i>).
<i>Under development:</i>	Handicrafts: furniture, decoration objects, jewelry and garments.
Viet Nam, Indonesia, Costa Rica, Paraguay	Sustainable tourism: ecotourism, nature-based tourism, bird-watching, etc.

implementation of the Regional Biodiversity Strategy of the Andean Community.

With the support of the Amazon Cooperation Treaty Organization (ACTO) and UNCTAD, activities are being developed to promote the sustainable use and conservation of biodiversity for the eight Amazon-basin countries. A regional programme was developed with the guidance of National BioTrade Programmes and other local partners. This programme focuses on four strategic lines: (a) enabling policy and legislation; (b) research and technological development; (c) market development; and (d) financial mechanisms.

Worldwide, BioTrade activities are also being developed in Southern Africa and Uganda, as shown in table 1. This generates a South-South cooperation scenario and platform where knowledge and information is being exchange with all BioTrade partners and practitioners.

The market has driven the selection of value chains that are supported by BioTrade programmes. Methodologies and tools to select the promising chain/products considering economic, financial, social, environmental and legal criteria are used in this selection and development process. The sectors that are being supported within the BioTrade network include natural ingredients and products for the food, cosmetic, pharmaceutical, garment industries; handicrafts; sustainable tourism, fauna, etc., as shown in the table above.

The methodologies and results obtained are detailed in the following sections.

2.4. BioTrade outcomes in the Latin American Region

BioTrade programmes in Latin America have focused in developing or strengthening value chains of BioTrade value added products and services. Through these actions, value chain actors (e.g. companies, producers, collectors, hunters) will be able to capture the growing market demand for biodiversity-based products and services that are environmentally and socially responsible. It is in these markets that BioTrade focuses with differentiated products and services.

Significant trade values of beneficiary countries have been obtained, contributing to the region's diversification of exports. This has generated business opportunities and contributed to the family income of rural producers, while conserving biodiversity. The

value added products and services offered come from a variety of sectors and species (See figure 2) such as:

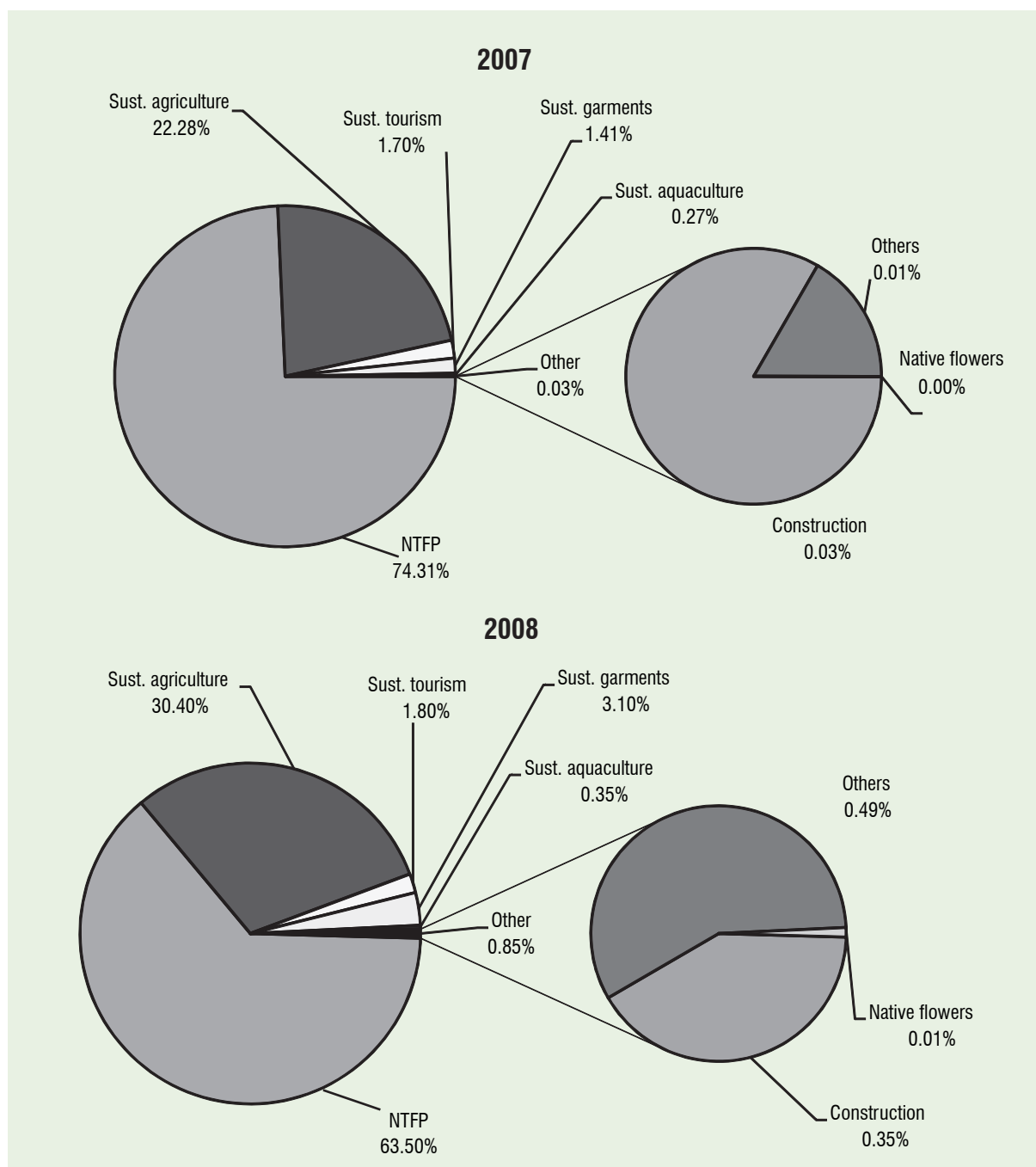
- o Sustainable agriculture/agroforestry systems: camu-camu (*Myrciaria dubia*), maca (*Lepidium meyenii*), tara (*Caesalpinia*), cocoa (*Theobroma cacao*), organic/shadow coffee;
- o Non-timber forest products: Brazil nut (*Bertholletia excelsa*), cochinitilla (*Dactylopius coccus*), amaranth, açai, honey, cupuazu (*Theobroma grandiflorum*);
- o Sustainable garments: *Caiman yacare*, vicuña (*Vicugna vicugna*), taitetú (*Tayassu tajacu*);
- o Sustainable aquaculture: paiche (*Arapaima gigas*) and ornamental fish;
- o Native tropical flowers and foliages: Heliconias;
- o Sustainable tourism: ecotourism, nature-based tourism, bird-watching;
- o Construction: jatata (*Geonoma deversa*); and
- o Others: butterflies.

Total sales (domestic and exports) of biodiversity-derived products in the Andean countries accounted for \$223.4 million for 2007 and \$238.7 million for 2008. Peru, for instance, has the highest export value with \$111.9 million and \$114.6 million for 2007 and 2008, respectively. If we consider the products derived from the priority species of the Peruvian BioTrade Programme, the value is high, with \$101.5 million for 2007 and \$101.7 million for 2008.

In the Plurinational State of Bolivia, the work undertaken by the *Fundación Amigos de la Naturaleza* (FAN) with the Brazil nut (*Bertholletia excelsa*) chain generated over \$77 million in exports for 2007. Similar figures are also registered in Colombia by *Fondo Biocomercio* from 2007-2009 (August), where the sales-turnover of beneficiary companies accounted for more than \$57 million. Colombian exports of natural ingredients generated around \$10 million in 2006, as stated by the Alexander von Humboldt Institute.

In Ecuador, sales of beneficiary BioTrade companies working with "Arriba flavour" cocoa and natural ingredients for the cosmetic and food industries have registered sales for almost \$6.5 million in 2008, however there was no data available from other beneficiary companies working in the bird-watching and decoration subsectors (table 2). Finally, if we consider the value of sales of the members of the Union for Ethical BioTrade (UEBT)⁵, the 2008 sales value accounts for \$2 billion. UEBT member's includes companies from Latin American and other regions

Figure 2. Sectors supported by the BioTrade Initiative in Latin America (estimates)

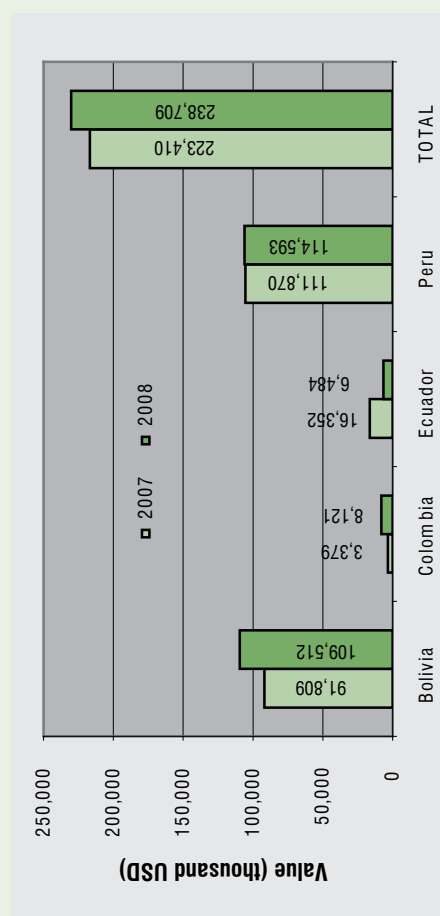


Sources: Plurinational State of Bolivia progress report BTFP I; FAN; FAN Report of activities PNBS and publication: "20 años conservando la biodiversidad de Bolivia"; Instituto Boliviano de Comercio Exterior (IBCE); Colombia progress report BTFP I; *Fondo Biocomercio*; CORPEI BioTrade National Programme Ecuador; Peru progress report BTFP I, Promperu and PeruBiodiverso report 2009.

Notes: For Colombia, it includes only the results of *Fondo Biocomercio* for 2008.

Table 2. Volume of sales generated in biodiversity-based sectors, including BioTrade beneficiary companies and initiatives (in thousand of United States dollars)

	Plurinational State of Bolivia		Colombia		Ecuador		Peru	
	2007	2008	2007	2008	2006/7	2008	2007	2008
Volume of sales (\$)	91,809,194	109,511,959	3,378,777	8,120,636	16,351,552	6,483,724	111,870,262	114,593,025
Examples of species, products or sectors being promoted	Cochinilla (<i>Dactylopius coccus</i>), amaranth, tarwi, maca (<i>Lepidium meyerii</i>), acai, honey, cupuazu (<i>Theobroma grandiflorum</i>), cacao (<i>Theobroma cacao</i>), Brazil nut (<i>Bertholletia excelsa</i>), quinoa, caiman yacare, tegu lizard.							
Sources	Plurinational State of Bolivia progress report BTFP I	FAN, pers. comm. Report of activities PNBS and publication: "20 años conservando la biodiversidad de Bolivia"; Instituto Boliviano de Comercio Exterior (IBCE); export information for 2008.	Colombia: progress report BTFP I.	Results of <i>Fondo Biocomercio</i> Colombia only.	Ecuador progress report BTFP I; BioTrade National Programme Ecuador.	CORPEI, national and international market information from 2008.	Peru progress report BTFP I and Promperu 2009 for market information 2007.	PeruBiodiverso report 2009, Promperu 2009 - international markets information from 2008.



Note: Plurinational State of Bolivia: information from UNCTAD BTFP progress report, FAN and Instituto Boliviano de Comercio Exterior (IBCE).
Colombia: information only from BioTrade beneficiary companies of *Fondo Biocomercio*.
Ecuador: information only from BioTrade beneficiary companies of the PNBS.
Peru: information from Promperu and PeruBiodiverso on sales of biodiversity-based sectors in general.

that are involved in natural ingredients and committed to implementing BioTrade Principles and Criteria.

Organization of the BioTrade value chains

Country assessments were developed for several Latin American countries (e.g. the Plurinational State of Bolivia, Colombia, Ecuador, Peru, Costa Rica) in defining their potential to develop BioTrade-related activities. Specific value chain assessments were also prepared as key inputs to formulate and implement strategies.

Findings of the assessment suggested that biodiversity-based sectors are not well organized, lacking a common vision and strategic documents. Few sector associations existed, and those that did,

had low participation of companies and recognition at the sector and government level, and often worked in a dispersed way⁶.

As a result of the support of BioTrade programmes and partners in the natural ingredients sector, the Peruvian Institute of Natural Products (IPPN) was strengthened, and *Nativa Colombia* and *Nativa Ecuador* were created. Furthermore, a regional business association Andean and Amazon Association for BioTrade of natural ingredients and products “*BioNativa*” was created involving BioTrade beneficiary companies in the Plurinational State of Bolivia, Colombia, Ecuador and Peru⁷. In the Plurinational State of Bolivia, the BioTrade Programme led by FAN supported the organization of the *Caiman yacare* value chain in the Department of Beni (see box 2).

Box 2. Strengthening of the *Caiman yacare* value chain in the Plurinational State of Bolivia

The *Caiman yacare* is a crocodilian species native to southern Brazil, the Plurinational State of Bolivia, Paraguay, and northern Argentina. Due to illegal hunting in the 1970's, its population was threatened and was considered as an Appendix II species under the CITES in 1975.

In the Plurinational State of Bolivia, the Government has been implementing programmes to control the illegal trade of the caiman's skins and meat. As part of these efforts, management plans were developed for ten indigenous lands (*Tierras Comunitarias de Origen*, TCO) and one Municipality in the Department of Beni. It involved approximately 13,700 inhabitants and 106 communities.

The sustainable management of the species generated the following benefits:

- o Double the price received by hunters for legally hunted crocodiles (and its skins) versus illegal ones;
- o Closer relationship between hunters and tanneries, which have increased the quality of the skins and strengthen the skills and capacity of value chain actors;
- o Legal hunters have a long term planning of their activities, which goes in line with the carrying capacity of the ecosystem and the species used. This long term planning of biodiversity has been incorporated into the territorial management of the TCO;
- o Tanneries can plan their production based on the annual quantities and also establish quality standards for their raw material. This allows them to increase the quality of their products and stabilize their supplies;
- o Wetlands upon which *Caiman yacare* depends are re-valued and conserved, hence reducing the transformation of its land to other uses (e.g. rice crops); and
- o Illegal hunting was reduced due to an increase in local controls (done by local legal hunters).

The plans were developed jointly by the non-governmental organization (NGO) Fundación Amigos de la Naturaleza as part of the BioTrade Programme in the Plurinational State of Bolivia, the indigenous organization Central de Pueblos Indígenas del Beni (CPIB), the Loreto Municipality (local government) and the NGO Asociación Boliviana de Conservación (ABC). It was also coordinated with local tanneries from Beni Department.

This species is important for local communities as over 60 per cent of the income from the trade in *Caiman yacare* leather is captured by indigenous populations as stated by a study of TRAFFIC International/WWF International (2008). This is a dynamic sector for the country economy, not only because it benefits local communities, but also generates income and taxes for the country. For instance, Bolivian skins and products derived from *Caiman yacare* were mainly exported to Italy, generating over \$1,4 million and a 282 per cent increase since 2003; to the United States, with \$496.8 thousand with a 364 per cent increase from 2003. (IBCE, August 2009)

Sources: Pers. comm. Alfonso Lobet, FAN, October 2009; PNBS - FAN - CAF (2009), Biocomercio Sostenible en Bolivia; IBCE (August 2009), and Roe, D (2008)..

Regional coordination activities and programmes were also developed, strengthening South-South cooperation and exchange of experiences in selected value chains and methodologies. In addition, multilateral projects were developed such as the CAF-UNEP-GEF Programme “Facilitation of financing for biodiversity-based businesses and support of market development activities in the Andean Region”. This five-year full-size programme supports BioTrade activities in Colombia, Ecuador and Peru, and is expected to start in 2010.

Social and environmental impact

Natural resources are located mainly in rural areas, where over 70 per cent of the world’s poor live and directly depend on those resources to cover 90 per cent of their needs in terms of food, fuel, medicine, shelter and transportation⁸. Some 1.6 billion people depend on forest and non-timber forest for their livelihoods and over three billion depend on marine and coastal biodiversity⁹. The Latin American Region is no exception to this - in Peru for example, 65 per cent of its agricultural production depends on its biological resources which provide a food security source for its inhabitants and even 25 per cent of its exports are based on those resources¹⁰. The Colombian natural products laboratories and SMEs for natural finished products generates approximately 8,200 direct and indirect jobs in 2001, however this figure for natural ingredients producers and raw material producers is difficult to obtained as it also involves growers, collectors and sellers of raw or dehydrated material or other ingredient.¹¹

From the case of *Caiman yacare* value chain in the Plurinational State of Bolivia (box 2), the work of FAN has benefited around 13,700 inhabitants and 106 communities from the Department of Beni. For 2007, through the work with the Bolivian BioTrade Programme in strengthening the natural ingredients, sustainable leather, Brazil nut and construction materials value chains, it benefited over 392 communities, 33 indigenous associations and over 21 companies.

In Colombia from 2001-2004¹², the Colombian BioTrade Programme benefited 529 initiatives, including companies (SMEs or Micro-SMEs), formal or informational associations, and foundations, among others. If we consider an average of 30 employees in each initiative, the programme benefited over 15,850 people¹³. These initiatives work mainly in sustainable agricultural systems, non-timber forest products,

ecotourism and timber products. Another key actor working in BioTrade is *Fondo Biocomercio Colombia* (FBC), which has benefited almost 60 companies, generating direct employment for over 700 people and directly impacting over 3,200 families from 2007 to 2009 (August). The results have also been positive in the environment, as over 19 thousand hectares are being sustainably managed, under BioTrade practices. In some cases, the good environmental management and the conservation of the associated natural resources (using BioTrade practices) has been a differentiation mechanisms in the market for BioTrade initiatives.¹⁴ However work is also needed in raising awareness within consumers and other possible beneficiaries and government agencies.

Within the value chains being supported by the Sustainable BioTrade Programme in Ecuador, the Ministry of Environment/CORPEI/EcoCiencia has benefited over 11 thousand families working with national “Arriba” cocoa, Amazon fruits and natural ingredients from the cosmetic and food industries from 2006 to 2008. The programme benefited for instance over 2,300 rural families grouped in 13 producers associations or foundations, and over 30 SMEs and laboratories preparing products or ingredients for the cosmetic and pharmaceutical industries¹⁵. These beneficiaries are mainly located in rural areas from the Andean, Amazon and Coastal region in the country. Furthermore, they are organized into producer associations and/or community-based companies.

In Peru¹⁶ between 2003 and 2007, approximately 2,550 families were involved in the BioTrade activities in the natural ingredients sector for the food, cosmetic and pharmaceutical industries with over 54,000 hectares distributed between Junin, Cajamarca, Madre de Dios, Huanuco, Huaraz, Loreto and Ucayali. Within Peru’s BioTrade Promotion Programme, in particular the Perubiodiverso project (SECO/GTZ), the Public-Private Partnership was currently established for the maca value chain in the Meseta del Bombon. Aside of Perubiodiverso, it also involved the Junin Region Association of Maca Producers and Processors (Nation Pumpush) and the corporation Bebidas Interandinas, benefiting 48 families directly and indirectly approximately 3,000 maca producing families.

Companies working under the BioTrade Principles and Criteria comply to generate social and environmental benefits, as they sustainably use and conserve their natural resources and implement fair and equitable

sharing practices that benefit mainly rural producers and their communities. In particular, benefit-sharing is widely recognized as essential to the conservation and sustainable use of biodiversity and is one of the objectives of the CBD, and thus for BioTrade¹⁷. The distribution of benefits is considered as how the participation of the actors involved in the chain takes place in relation to monetary and non-monetary gains that are derived from the use and trade of biological resources¹⁸. The generation of social capital is also one of the pillars of sustainable development and the respect for the rights of actors involved in BioTrade activities is a fundamental part of BioTrade.

Consequently, the activities promoted by BioTrade tend to generate as much as possible benefits to local communities. The social impact in many cases involves the establishment of business linkages between the company and its suppliers (producers), thus reducing the length of the value chain by reducing unnecessary intermediaries. These linkages are not a “one-time” transaction but a continued and mutually beneficial commercial relationship and partnership. These include a fair, equitable and mutually agreed price, as well as capacity building, technology transfer, generation of social funds, among other benefits so that the direct producers and the community

can also benefit. The benefits go beyond the direct suppliers (producers) of the company and involve also the local communities that are associated with the resource and/or the traditional knowledge used¹⁹. Illustrative cases with these types of partnerships as established was shown by the partnership between Nativa Colombia and Cosmetic Valley, and Natura (see section IV).

To maximize the generation of value added products at the community level is one of the key activities that is being promoted by BioTrade companies, hence increasing the income of local producers. One example is the distillation of natural ingredients by producers in order to obtain and trade essential or vegetable oils instead of fresh aromatic plants, another one is the trade of final products like the herbal infusions of Jambi Kiwa (illustrative case study in section IV).

BioTrade also contributes to food security as it provides a better management of biodiversity, rescue native species and therefore support the diversification of food products. Also, as the communities are dependent on more food products, their vulnerability to possible climate change effects can also be decreased.

III. MARKET ACCESS AND VALUE CHAIN DEVELOPMENT

3.1. Market potential for biodiversity-based businesses²⁰

International markets

A study prepared by the *Fondo Biocomercio* Colombia in 2008, reveals that the annual market for BioTrade products is estimated in \$141.3 billion.²¹ The market for BioTrade products and services is growing, because of the preference of consumers for healthy, natural, fair trade and organic products.²² The 2009 Cone Consumer Environmental Survey states that approximately “34 per cent of consumers are more likely to buy environmental responsible products and 44 per cent stated that their environmentally habits have not changed as a result of the economy.”²³ As a result of the 2009 Eurobarometer survey on the *EU's attitude to sustainable consumption and production*,²⁴ the environmental impact of a product is a key purchasing decision for 83 per cent of the surveyed participants.

According to the Organic Trade Association (OTA), United States sales of organic products, food/beverages and non-food (e.g. fibers, personal care products and pet foods) amounted to \$24.6 billion by

the end of 2008 (annual increase of 17.1 per cent).²⁵ The organic food sector's growth rate alone was 15.8 per cent, almost quadrupling the growth rate of the United States food sector of 4.9 per cent^{26, 27}. In particular for the food organic products, consumers are searching for traceability, ethical sourcing, sustainability and corporate social responsibility²⁸. Supermarket chains that are active in this segment are Whole Foods, Tesco, Carrefour, Sainsbury, Wal-Mart, REWE AG, Costco, Kraft, and General Mills, among others.

The EU market for natural cosmetics showed annual growth rates of 20 per cent in the last two years, and is expected to exceed €2.1 billion for 2008²⁹. The Ethical BioTrade Barometer³⁰ for the cosmetic industry stated that 87 per cent of consumers favor ethically sourced products when buying cosmetics and 79 per cent would boycott companies that disregard environmental and ethical concerns. This goes in line with the results presented by major companies in the organic cosmetic sector that reported positive growth for 2008, including Weleda (sales increased by 9.5 per cent to 238.3 million), Wala (Dr. Hauschka brand sales increased by 7.3 per cent to €103 million) and Lavera (increased by 16 per cent, €35 million).³¹

Table 3. Summary of South American Botanical Exports 2008 Volume (kg) and Value (United States dollars)

South America country	2008 export volume (kg) Botanical ingredients	2008 export value (USD) Botanical ingredients
Brazil	216,618,827	591,405,664
Argentina	128,987,213	220,864,210
Peru	107,878,633	243,929,720
Colombia	11,093,239	42,908,705
Ecuador	8,071,581	31,328,275
Paraguay	4,215,804	15,924,429
Bolivia	914,605	3,973,985
Uruguay	648,376	2,530,169
Guyana	447,471	539,830
Suriname	325,648	773,013
Total	479,201,397	1,154,178,000
Chile	2008 data not available	2008 data not available
Venezuela	2008 data not available	2008 data not available

Source: taken from Josef Brinckmann (2009), Consultant on Market News Service for Medicinal Plants and Extracts of ITC (UNCTAD/WTO). *The Market for Latin American Medicinal Plants and Market Access Requirements*. Presentation made at the Seminar Plantas Medicinales: Biocomercio y Desarrollo Sostenible, 26 to 28 October 2009, Panama

The trade volume of medicinal plants and extracts for South American countries in 2008, accounted over \$1.154 billion. Brazil is the leader country with 51 per cent of the market share, with the major exports coming from cocoa butter, essential oils and extracted oleoresins, pepper fruit (*Piper* spp.), maté leaf, among others. It is followed by Argentina and Peru.

In relation to the tourism industry, it is considered as one of the fastest and largest growing economic sectors worldwide and the world's largest service industry. It generated \$944 million for international tourism receipts for 2008 (1.7 per cent increase from 2007) and \$922 millions for international tourist arrivals (almost 2 per cent growth from 2007)³². By 2020, the United Nations World Tourism Organization (UN-WTO) estimated the revenues from tourism to reach \$1.6 billion,³³ representing an annual increase of 6.1 per cent between 2000 and 2020. This industry is increasingly addressing environmental issues in each stage of the tourism value chain, and even the European Travel Commission stated that the concept of sustainability be taken seriously in Europe.³⁴

Biodiversity and its sustainable use are being seen as a business opportunity and strategy in this new context. Particularly for biodiversity-based sectors such as sustainable tourism, agriculture, aquaculture, forestry, non timber forest products (NTFP), handicrafts and decoration, and garment industries.

Several efforts have been taken to promote the inclusion of social and environmental issues in business practices and trade, in response to the consumers demand mainly in Europe, America and Asia. According to the Dutch Centre for the Promotion of Imports from developing countries (CBI), businesses that want to access the EU market need to comply with social and environmental standards and practices, and define instruments for the implementation of good management and monitoring practices to guide, design and improve their activities and mitigate their impacts on the environment. Furthermore, the care for the environment is becoming a part of business activities and is an integral part of government policy, and consumers and environmental groups are pushing governments and industries to develop environmental standards.

Regional and domestic markets

Regional and domestic markets are important consumers of biodiversity-based products and

services. Access to these markets is an initial focus of SMEs and community-based associations/cooperatives, particularly for traditional food products. In general, BioTrade initiatives start consolidating their activities in the local market and later in national and international markets.

Market studies for BioTrade products in Colombia highlight the importance of national markets, identifying the main sales channels (supermarkets, restaurants, specialized stores such as for natural products, organic products, specialist flower shops, fairs or open markets).³⁵ Around 7 per cent of national consumers will be willing to pay a premium price between 6 per cent to 10 per cent for certified fruits, mushrooms, dried spices, jams, honey, *panela* and coffee³⁶. For heliconias, the national market absorbs 60 per cent of the total production.

The dependency of BioTrade companies in the domestic market is also shown in the results of a study³⁷ of 100 BioTrade initiatives supported by the BioTrade Programme in Colombia. Of the initiatives analyzed, 63 per cent sell at the local market, 50 per cent at the regional market and 29 per cent at national market. However, only 16 per cent of the initiatives have accessed international markets. The market requirements in terms of administrative procedures, quality, documentation volume, investment, logistics and marketing are the main reasons for this. The study also mentions that the limited value addition of the products sold is another factor limiting the sales of the BioTrade initiatives in Colombia.

3.2. Value chain development

The importance of a value chain approach

Coordination among and between actors involved in the production process of a product does not normally take place. Business relationships are characterized by lack of integration and trust between producers, processors, traders, exporters and government and support organizations. BioTrade assessments of the natural ingredients for the cosmetic, food and pharmaceutical industries in Latin America, Africa and Asia, identified the following problems:

- o Lack of trust among all actors of the value chain - private and public actors, and communities;
- o Low quality of products (no quality and planning systems in place, traceability is not done by middlemen, and no guarantee for the sustainable use of the resources and its long term supply);

- o Limited processing technology;
- o Lack of basic documentation and information of species and products needed to access markets, for instance for taxonomical identification and for preparing Material Safety Data Sheets;
- o Gaps and lack of clear application of relevant legislation (permits, quotas); and
- o Lack of a tool for environmental authorities to assure the sustainable use of the resources.

Consequently, the actors were informally organized with no short, medium or long term vision. Also, a lack of cooperation and trust was visible between and within actors from each stage of the value chain. In this context, the value chain approach was used as a methodology to develop and to strengthen the sector of natural ingredients.

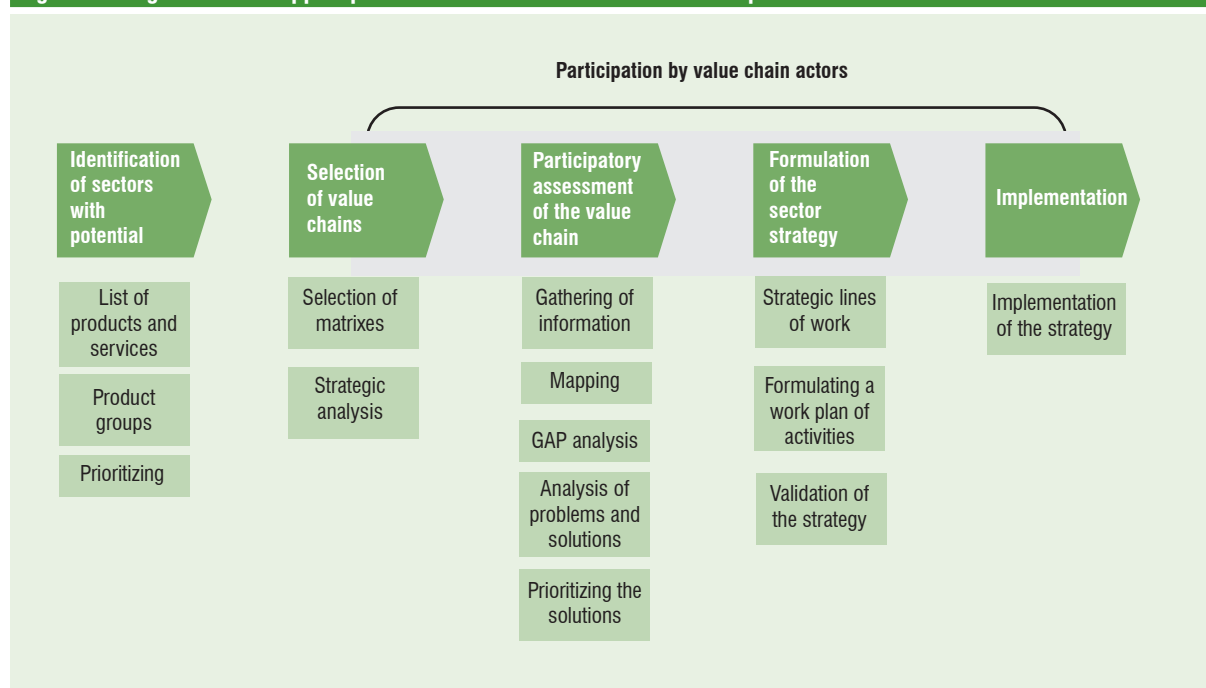
Value chain refers to coordinated relationships between actors who are involved directly and indirectly in a productive activity, with the aim of taking a product or service from supplier to manufacturer to wholesaler to retailer to consumer.³⁸ It establishes market-oriented strategic alliances between BioTrade producers, processors, distributors, traders, and regulatory and support institutions. All these actors are organized to meet a common agreed goal, which normally refers to the development and strengthening

of the sector, for instance, to access a target market or to satisfy consumer's needs.

These collaborative arrangements enhanced the competitiveness of the sector, facilitated cooperation and coordination between different actors, and obtained environmental, social and economic benefits throughout the value chain. Concretely, the results that can be achieved are:

- o Access to higher volume of quality raw material, hence reducing its waste;
- o Increase productivity, reducing waste rates and assuring product quality, safety and traceability throughout the value chain;
- o Broader range of quality products;
- o Create platforms to share best practices and information for instance on available technology, market requirements by linking producers to middle-men to processors to exporters;
- o Reduce costs, for example through common storage and transportation of raw material and final products, joint research and development projects, market studies and differentiation strategies, and trade fair participation;
- o Enhance the purchasing power of inputs needed for the harvesting and post-harvesting phases;

Figure 3. Diagram of the support process for the value chain of BioTrade products



Source: Becerra MT (2009 b).

- o Generate trust between the public and private sectors, and communities which strengthens communication flows between and among them;
- o Share responsibilities in the conservation and management of natural resources; and
- o Advocacy in creating an enabling policy environment.

Value chain methodology to support BioTrade products and services

Adapting existing methodologies of the UN Food and Agriculture Organization (FAO)³⁹ and ITC (UNCTAD/WTO),⁴⁰ UNCTAD BioTrade developed a methodology to support and/or strengthen value chains for BioTrade products and services. This methodology was also enriched with the experience accumulated in the Plurinational State of Bolivia, Colombia, Costa Rica, Ecuador, Peru and Uganda.

The BioTrade value chain methodology involves five steps. It starts from the *identification* and *selection* of sectors or value chains based on environmental, biological, social, political, economic, market, technological and infrastructure criteria. Then, a *participatory assessment* of the selected sector/chain is developed, that includes the identification of problems and solutions in accessing current and potential markets. Finally, a *sector strategy is formulated and implemented* to strengthen or develop the sector while promoting the empowerment of companies and sector associations in the process in the short, medium and long term. A monitoring system is also designed and implemented.

Each one of these steps consists of activities that lead to the achievement of concrete results, through an active participation of government representatives, private sector, academia, NGOs, community-based initiatives, and other actors working in the sector. The methodology follows an inclusive bottom-up approach that builds on existing capacities and knowledge, and promotes the sharing of information, coordination of activities and establishment of partnerships.

This process, which takes normally six months, and its deliverables can be seen in figure 3.

Value chains supported by UNCTAD BioTrade and partners in Latin America

Within the BioTrade framework, national and regional organizations are working towards the development and strengthening of selected value chains, and have developed complementary market strategies. In Latin America, over 15 value chains have been supported such as:

Plurinational State of Bolivia: Wildlife fauna for food and garment/leather industries (*Caiman yacare*, *Tayassu tajacu*, *Vicugna vicugna*); products and ingredients for the food, cosmetics and pharmaceutical industries; natural products for construction and handicrafts.

Brazil: Natural ingredients for the food, cosmetics and pharmaceutical industries with the support of FUNBIO and/or Amazon Cooperation Treaty Organization (ACTO) and/or Union for Ethical BioTrade (UEBT).

Colombia: Natural ingredients for the food, cosmetics and pharmaceutical industries; flowers and foliage; ecotourism; handicrafts; garments; natural products for construction, and fauna for the pet industry.

Ecuador: Natural products and ingredients for the food, cosmetics and pharmaceutical industries; bird-watching; handicrafts and garments.

Peru: Natural ingredients and products for the food, cosmetics and pharmaceutical industries; fish for ornamental use and consumption; and sustainable tourism.

Examples of activities that have been supported include, *inter alia*, the development of quality programmes for companies in selected value chains; capacity-building activities related to the sustainable use of native biodiversity and the implementation of management plans for wild-collected species; Business to Business (B2B) programmes, trade fair participation and business missions for SMEs from beneficiary countries in order to access international markets; and support in overcoming trade barriers by developing in-depth studies of their impact in selected countries and disseminate its results at appropriate bodies (e.g. sanitary and phytosanitary (SPS), and technical barriers to trade (TBT) committees of the WTO).

3.3. Capturing the market potential for biodiversity-based products and services

Market differentiation strategies for BioTrade products and services

Market recognition of BioTrade products and services is important to compensate the efforts made by companies engaged in the implementation of its Principles and Criteria. This will differentiate and

enhance their consumption at national, regional and international markets.

Within the BioTrade programmes and partners, various possibilities have been explored to differentiate products and services supported. These include specialized showrooms, a membership association, Appellation of origin and trademarks such as green labels. More information on the Appellation of origin and green labels, which are related to Intellectual Property Rights (IPRs), are shown in section VII.

o Specialized showrooms

Sala Andes Amazonia

For the Amazon Basin countries, activities have taken place in promoting the sustainable use and conservation of biodiversity through regional actions that favor trade and investment in biodiversity products and services, such as natural ingredients and ornamental fishes. The *Sala Andes and Amazonia* has been a concrete output of this collaboration and aims to differentiate BioTrade products and services derived from the Amazon and Andean regions. This showroom has allowed the participation at ExpoSustentat trade fairs 2007 and 2008, of over a hundred businesses and initiatives that are working with biodiversity-based products and services, benefiting over 3,500 families that include indigenous people, traditional communities and farmers from the Plurinational State of Bolivia, Brazil, Colombia, Ecuador and Peru. The *Sala* is a joint effort of National BioTrade Programmes in the region, ACTO, UNCTAD, Ministry of Environment of Brazil, GTZ and SGCAN.

PeruNatura

In Peru, the NBPP aims to contribute to the economic development of rural areas in the country through an adequate management of their biodiversity and by capturing the market demand for these products. PeruNatura is the main promotion platform for the products developed under the BioTrade framework, including organic and fair trade. The third edition of PeruNatura was organized during the Expo Alimentaria Peru Fair in September 2009, and was developed with the support of Promperu and the PeruBiodiverso Project (SECO/GTZ). Twenty-seven BioTrade initiatives participated, and reported estimated sales of \$1.350 million for the next 12 months. The importance of PeruNatura is seen by the buyers that visited the stands that included traders (20 per cent), exporters (16 per cent), agents (16 per cent), distributors (15 per

cent), importers (12 per cent) and processors (7 per cent). They were 59 per cent from America (18 per cent from the United States and 8 per cent from Canada), 25 per cent from Europe, 14 per cent from Asia and 2 per cent from other region. Also over 230 participants participated in the PeruNatura Forum, 43 per cent from the private sector and 57 per cent from public and support organizations involved in the food sector.

BioExpo Colombia⁴¹

In 2002, BioExpo Colombia was created in order to provide a specialized platform to disseminate, promote and strengthen clean production, green markets and BioTrade in the country. It is an initiative of the Ministry of Environment, Housing and Territorial Development (MAVDT), the Regional Autonomous Corporations (*Corporaciones Autónomas Regionales*) of CORANTIOQUIA, CVC, CORPOCHIVOR, CRQ, and the Alexander von Humboldt Institute. Since its inception, three versions of the fair have been organized in Armenia-Quindio in 2003, in Medellín-Antioquia in 2005, and in Cali-Valle in 2008. For BioExpo 2008, over 44 thousand people visited the fair and exhibitors reported sales of over COL\$500 million, and COL\$2 billion in expected sales. During the event, over 32 national and international speakers addressed topics such as production and competitiveness, and sustainable consumption.

The fourth edition of the BioExpo will be held in November 2010. The emphasis of this fair is on environmental services, especially ecotourism, one of the most important and promissory activity of BioTrade.

BIOEXPO 08 – The Plurinational State of Bolivia

In the Plurinational State of Bolivia, the first International BioTrade Fair – *BIOEXPO 08* – was held on 5-7 June 2008 in Santa Cruz, Plurinational State of Bolivia. It was organized by the Sustainable BioTrade Programme in the Plurinational State of Bolivia, the National BioTrade Chamber - BioNativa and the Ministry of Rural Agriculture Development and Environment. The Fair brought together more than 250 representatives of private companies, producers' associations, academia, certification agencies, government ministries and international cooperation institutions from the Plurinational State of Bolivia, Brazil, Colombia, Ecuador and Peru. The fair aimed to strengthen and contribute to the positioning of BioTrade sectors in the domestic and

regional markets, create opportunities to establish commercial and financial ties between participants, promote products, share experiences and develop common strategies. Participants were able to exhibit their products and benefit from business round tables as well as specialized round tables for exchanging experiences and lessons learned. Topics addressed included: market access to European markets, e-commerce, sustainable businesses, access and benefit sharing, among others.

o Membership associations

Membership associations were also created by BioTrade actors. Examples at the country level are the business associations BioNativa (Plurinational State of Bolivia), Nativa Colombia and Nativa Ecuador that groups BioTrade companies in the natural ingredients sector that are working to comply with BioTrade Principles and Criteria in each country. At a regional

level, the regional business association Andean and Amazon Association for BioTrade of natural ingredients and products “BioNativa” was created and includes the national associations mentioned above. At the international level, the Union for Ethical BioTrade was created in October 2007 as a non-profit membership association. (box 3).

A useful tool towards compliance with BioTrade Principles and Criteria is the BioTrade verification framework. The implementation of this framework also enhances market recognition of the ethical, environmental and quality standards of BioTrade products to be differentiated on markets. A first BioTrade Verification Framework was developed in 2007 for native natural ingredients and is currently being implemented by the UEBT at business-to-business level. In addition, BioTrade country programmes and partners are also using this framework to develop and implement their activities.

Box 3. The Union for Ethical BioTrade (UEBT)

UEBT is a non-profit association that promotes the “Sourcing with Respect” of ingredients that come from native biodiversity. It resulted from the expressed need of companies to differentiate their products in the marketplace. UEBT helps companies to adhere to the Principles and Criteria of Ethical BioTrade through the Ethical BioTrade verification system, which are based on the seven BioTrade Principles and Criteria defined in section 1. This 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. The verification system of the UEBT is further explained in section 6, and more information can be obtained from www.ethicalbiotrade.org.

IV. BIOTRADE IN LATIN AMERICA - ILLUSTRATIVE CASES

4.1. “Jambi Kiwa” Producers’ Association of Medicinal Plants from Ecuador⁴²

The business case of Jambi Kiwa is an interesting one, initiated and implemented by a minority group engaged in the production of marketable value added products considering environmental and social practices.

Producers Association of Medicinal Plants “Jambi Kiwa”

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. It aimed to improve their quality of life, foster gender equality, guarantee the sustainable use of their surrounding natural resources, and capture the market potential of medicinal plants.

This was achieved through the transformation and commercialization of medicinal and aromatic plants sold at the local and national markets. The project was created during the Ecuadorian crisis of 1998 that led to the dollarization of the economy.

Despite difficulties related to the instability of the local currency, prices and costs, the initiative evolved to a communitarian business (SME) named Jambi Kiwa

in 2001. This was the result of the leadership and commitment of the beneficiaries, the market potential of the products produced and the access to credit by a Canadian organization. The latter organization donated the credit to Jambi Kiwa, which was originally established in the local currency “Sucre”.

It involves more than 600 families (80 per cent are women with high levels of illiteracy and 75 per cent are indigenous Puruhá). Jambi Kiwa has been implementing the BioTrade concept since 2003. With the support of the Sustainable BioTrade Programme in Ecuador - PNBSE, a project from 2004 to 2008 was implemented with the support of Organization of American States (OAS). The project promoted 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.

Organization strengthening

Jambi Kiwa, as a small company, faces challenges in: strengthening its structure (both producer’s association and company), improving their production process, developing quality and value added products, accessing markets, among others. These challenges need to be addressed to allow Jambi Kiwa to be more competitive at the local, national and international markets.

The SME has dedicated resources and efforts in enhancing the technical and management skills and knowledge of its manager, leaders, factory employees, producers and members. Hence, the PNBSE supported Jambi Kiwa with capacity-building activities. Coaching and mentoring programmes were implemented, for instance, on business administration for Jambi Kiwa’s Manager and on Good Agricultural and Collection Practices (GACP) for the agronomist and producers. Technical trainings were also organized for its producers on sustainable use and management plans, organic agriculture, and Good Manufacturing Practices (GMP), among others. To replicate the experience and knowledge to other community-based projects in Ecuador, an internship programme was established.

Organizational trainings and workshops were also organized, so that the producer’s association - the

Box 4. Fact figures of Jambi Kiwa

Created: 1998

Members: 632 (480 active, 182 qualified producers); 80 per cent women; 75 per cent indigenous Puruhá.

Products: ingredients for food and pharmaceutical industries, and personal care products.

Markets:

- Local and national markets (7 per cent of the total medicinal herbs national market). Its products are sold through the biggest national supermarket chains;
- International: France, Canada and Latin America.

Additional information:

- Quality certification ISO/TEC 17025, organic and fair trade certifications;
- Brand recognized at the national market and registered with the Ecuadorian Intellectual Property Institute (Instituto Ecuatoriano de la Propiedad Intelectual (IEPI).

Sources: CORPEI (2008), OAS (2008).

Box 5. Summary of the support provided by the PNBSE

To strengthen the structure of Jambi Kiwa

- Trainings were organized on the following topics: organizational strengthening and association; sustainable use and management of medicinal plants; GACP and GMP; among others.
- Technical assistance was provided to Jambi Kiwa's producers for implementing GACP and management plans for wild-collected species. This assistance also supported the development of Jambi Kiwa's internal control system in line with ISO/TEC 17025.
- Coaching to Jambi Kiwa's indigenous manager on business administration, and the agronomist and extensionists on harvesting practices.
- One-week internships for over 93 producers from other Ecuadorian projects located in the coast, Andean range and Amazon regions.

Market access and differentiation of Jambi Kiwa's products

- Participated in national, regional and international trade fairs, as well as in buyer and sellers missions. This generated exports to the EU, Latin and North American markets.
- Accessed to major Ecuadorian supermarket chains, hence having a nation-wide presence. This was done through a strategic alliance with a major Ecuadorian tea/infusions company.
- Enhanced the processing capacity of the SME to generate quality and value added products that compete in the national and international markets (e.g. purchasing of equipment and establishing a quality control laboratory).
- Improved the quality and packaging of products, while increasing the product range of Jambi Kiwa.
- Established a communication and marketing strategy that revalues the culture and traditions of Jambi Kiwa's members, in particular women, and promotes the empowerment of the company by its members.

basis of the SME - is also strengthened. Currently, Jambi Kiwa is implementing planning and quality control systems which enhance its productivity, generate high quality value-added products and use natural resources sustainably.

Quality and differentiated value added products to access niche markets

Jambi Kiwa has participated in several local and national trade fairs, as well as international ones in Europe, North and South America. This has allowed the SME to understand the market needs and trends, and guide its activities to satisfy them.

This company has prioritized the generation of value added and quality products through trainings, capacity-building activities and acquisition of equipment, to be more competitive at national and international markets. For instance, organically certified medicinal herbs' "tea-bags" are sold instead of dried herbs which increased the sales price of Jambi Kiwa's products.

It has accessed niche markets by differentiating its products through certification schemes, quality certifications and BioTrade practices. Jambi Kiwa is currently recognized as a supplier of high-quality medicinal and aromatic plants in Ecuador, and its

products are sold at national and international markets (Latin and North America, and Europe).

Sustainable use of biodiversity

Jambi Kiwa has the capacity to develop, implement and monitor management plans for collected species, as well as good practices plans for cultivated species. Through a participatory process supported by the PNBSE, these plans identified sustainable harvest rates adequate to the species, good recollection and agricultural practices, and documentation and monitoring systems.

The importance and usefulness of these plans, and the differentiation characteristic that is achieved through their implementation, has motivated Jambi Kiwa to engage in BioTrade.

Creation of a microcredit fund

Small producers need access to funds in order to improve their yields (quantity and quality products and raw material), as well as their harvesting and post-harvesting practices. The establishment of a microcredit fund was the mechanism used by Jambi Kiwa to address this need.

The structure and operation of this fund is unique to Jambi Kiwa, and was designed according to its

needs, structure and operation. Its members (through Committees) decide on its operation, and granting of microcredits and guarantees; the SME manages this fund. Trainings have been given to the members and staff in Jambi Kiwa so that they are able to manage the fund adequately.

Credits are allocated after a thorough assessment by the Committee of the technical, economical and financial viability of each application. Currently, 56.2 per cent of the resources of the fund have been placed, and 37.8 per cent has already been recovered. The fund is considered as a revolving fund as 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 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.

Lessons learned

“Finally, the most significant social impact of the experience [BioTrade project], is the achievement of an economic development model for indigenous and farmers’ communities, that allows them to compete on the international market, while strengthening their local culture and consolidating production methods that sustainably use biodiversity and the ecosystems in the region” [Translated from Spanish] (OAS, 2008).

- o The leadership, engagement and active participation of Jambi Kiwa members in the business, as well as in sustainable practices - such as BioTrade, are key drivers to their success.
- o The market-driven strategy implemented by Jambi Kiwa has resulted in the development of value added products that comply with market requirements and have differentiated characteristics: certifications, sanitary permits, sustainably produced products and recognized the Puruhá culture and traditions.
- o Traditional knowledge has been recovered and used to reinforce their collective identity.
- o Jambi Kiwa mobilized (cash and in-kind) resources from its members and the organization itself to co-finance activities. The creation of the revolving microcredit fund was an important activity for the company and to further engage its members.
- o The planning and monitoring tools developed with the support of the PNBSE since 2004, have allowed Jambi Kiwa to obtain GACP, GMP, organic certification, fulfill quality standards (ISO/

TEC 17025) as well as implement plans for the sustainable use of their biodiversity.

- o Their gradual access to different markets was also an important lesson learned. Firstly, the SME satisfied the high demand of medicinal and aromatic plants at the local market; once the activities were more consolidated it expanded to national and later to international markets.

4.2. Fondo Biocomercio Colombia⁴³

Access to finance for biodiversity-based SMEs

The need for biodiversity-based companies to access financial resources is also a key challenge for BioTrade initiatives (e.g. SMEs, community-based associations, projects, etc.). In general, traditional financial entities do not differentiate between conventional and environmentally-friendly companies. Furthermore, they are not familiar with biodiversity-based sectors and markets, and therefore consider them as risky with higher interest rates; or the amounts required by BioTrade companies are too small. On the demand side, businesses are not aware of the available financial opportunities, lack the needed business capacity, guarantees and in some cases, formality, or don't have a credit history.

A study prepared by SME Partners (2005)⁴⁴ stated that the major financial needs of BioTrade business in Colombia, Ecuador, Peru and the Bolivarian Republic of Venezuela is for working capital, infrastructure and equipment, access to markets and information, technical assistance, and training in business administration.

The Fondo Biocomercio Colombia

In general, Colombian BioTrade companies:

- o Are newly established companies with limited administrative and management capacities;
- o Lack of business guarantees that fulfill the requirements of financial institutions;
- o Have limited experience and knowledge on using and managing credits; and
- o Have a culture of non-reimbursable financial support.

In this scenario, the *Fondo Biocomercio* was created by the Colombian BioTrade Programme (managed by the Alexander von Humboldt Institute) in December 2005. It was launched in 2006 as a non-profit organization that “aims to contribute to the implementation of the

CBD objectives by providing the coverage of financial services enhancing the development of BioTrade in Colombia⁴⁵. Therefore, the Fund provides financial services to companies committed to comply with BioTrade Principles and Criteria. The products and services financed by *Fondo Biocomercio* include: non-timber forest products (e.g. plants parts for medicinal, cosmetic and food industries); ecotourism; agricultural productive systems (e.g. agricultural products, agro-ecological practices, wildlife breeding farms) and timber products (e.g. wild timber species).

Financial support has been received initially from the Global Environment Facility (GEF) through the World Bank and from the Royal Netherlands Embassy in Colombia. The Fund responds to the MDGs, the CBD objectives, the Colombian Agenda 2019, the National Development Plan and the National Strategic Plan for Green Markets.

Criteria for applying to the financial services

A company requesting financial support needs to agree to comply with BioTrade Principles, be legally established and registered in the Chamber of Commerce. It should have an experience of minimum one year commercializing its goods and services, prepare a business plan and fill a request form.

After the loan allocation, respect of social, environmental and economic criteria is assessed through progress reports and field visits. In this way, the progress of the company to full compliance of BioTrade Principles is monitored and measured, and also through *Fondo's* monitoring and evaluation system it aims to guarantee that its beneficiaries:

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

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

Financial services provided

Fondo Biocomercio offers BioTrade companies with financial services adequate to their needs and

characteristics. These services are flexible and take into account risks associated with biodiversity-based products and services, and include loans, factoring and investment.

Credit loans, there are three type of loans:

- o *Basic loan* which can only be used for working capital, not to reimburse debts, cover administrative costs or buy land. The minimum amount is \$1,400 (3 million Colombian pesos) with an interest rate of 8 per cent indexed to the DTF interest rate⁴⁶. Loans are payable in Colombian pesos and in fixed monthly payments for 24 months.
- o *Expolínea loan* which can be used to facilitate the participation of enterprises to fairs and commercial events. The amount provided is between \$1,400 to \$2,900 (3 million to 6 million Colombian pesos) with an interest rate between 12 per cent and 14 per cent indexed to the DTF rate. The duration is from 3 to 6 months, and it is reimbursable in a maximum of six fixed monthly payments in Colombian pesos.
- o *Ecoturismo loan* which can only be used for ecotourism activities. Its reimbursement is not fixed on a monthly basis but defined according to seasons and planned tourist visits. This mitigates risks associated to the instability of tourism and can therefore motivate companies to engage in ecotourism. In addition, contracts with travel agencies are considered as guarantees for the credit, as they create potential income increase.

Associations and cooperatives also have other financial options. For example, they may request for a loan and convert it into a revolving fund.

Venture Capital Investment - The *Fondo* can also invest in the capital of the company, with the purpose of guaranteeing the sustainability of the project. It can contribute up to 49 per cent of the company's patrimony.

Factoring - The *Fondo* also proposes a "factoring" service to enhance the working capital (liquidity) of BioTrade companies. The term for the acceptance of invoices is of maximum 180 days, for a maximum amount of \$490 (1 million Colombian pesos) which can be distributed in one or many invoices. The companies need to pay a commission of 12 per cent indexed to the DTF rate.

Results obtained

Since 2007, its beneficiaries have stated an improvement of 40 per cent and 50 per cent on their environmental

Table 4. Results achieved by *Fondo Biocomercio* from 2007- 2009 (August)

Number of companies benefiting from <i>Fondo Biocomercio</i>	59
Total turnover of beneficiaries (2008)	\$57'645.824
Hectares under BioTrade practices	19.252
Number of species under BioTrade practices	306
Employment generated for local communities and minorities	707
Number of beneficiary families	3,206
Number of companies that add-value to their biodiversity-based products and services	55 per cent

Source: *Fondo Biocomercio Colombia*, September 2009.

and social performances, respectively. Other impacts of Fondo's activities are shown in table 4.

Lessons learned

Access to financial resources for working capital or other requirements is difficult for SMEs and communitarian initiatives, and even more in new sectors such as BioTrade. In this sense, the financial services offered by *Fondo Biocomercio*, support the companies that are engaged in implementing conservation and sustainable use practices.

A fund dedicated to biodiversity-based companies should consider the challenges faced by BioTrade companies, such as the amount required, the reimbursement period, and amount and the guarantees. For instance, the reimbursement of the loan "ecoturismo" is defined considering the seasons and planned tourist visits.

Finally, the guarantee required (e.g. feasible and strong business plan or the contracts from travel agencies) by the *Fondo Biocomercio* is a key driver for the attraction of private actors in sustainable practices.

4.3. Natura Cosméticos and equitable benefit sharing⁴⁷

Access and benefit sharing is one of the three main objectives of the Convention on Biological Diversity and, although the framework under the Convention refers specifically to genetic and not to biological resources, equitable distribution of benefits arising from the sustainable use and trade of biodiversity products and services is a central characteristic of BioTrade.

The Brazilian multinational cosmetic enterprise Natura offers a concrete example on how through BioTrade and other methodologies, fair and equitable sharing of

benefits is promoted. Through the launch of the Ekos line in 2000, Natura was the first Brazilian company to commit itself to share the benefits generated by innovation in accessing the genetic assets and communities' traditional knowledge.

Relationships with communities

Natura currently has 56 negotiated natural asset supply agreements with farms, companies and communities in Brazil and in Latin America. Out of them, 19 natural supply asset agreements are with traditional communities and local providers of genetic assets or associated traditional knowledge regarding native species. Those agreements have benefited 1,600 families.

Relationships with communities are assessed on the basis of seven criteria. Among them, one group

Box 6. Fact figures about Natura's Ekos product line

Ekos line

Ekos line accounts for 10 per cent of the company's sales. In 2008, total sales of Natura accounted for 4.9 billion Brazilian Reais and 4.3 billion in 2007. Benefit sharing is an important aspect of Ekos line products.

Communities network

19 natural supply asset agreements with traditional communities and local providers.

Examples of raw materials sourced

Brazil nut (*Bertholletia excelsa*), breu branco (*Protium carnosum*), murumuru (*Astrocaryum murumuru*), andiroba (*Carapa guianensis*), candeia (*Vanillosmopsis erythropappa*), cupuazu (*Theobroma grandiflorum*), erva-mate extract, aromatic erva-mate extract, maracujá-proteína, pariparoba, sesbânia.

Source: Ricardo Arnt (2008). Natura and access to genetic resources and traditional knowledge.

of criteria refers to the level of understanding by communities of the agreements they enter, the information transparency, the payment punctuality and the satisfaction with the final result. Another criterion examines the participation of communities in price negotiation.

Challenges surrounding the legal framework for benefit sharing

By ratifying the CBD in 1992, Brazil took on the obligation to define rules to regulate access and benefit sharing of genetic resources, as well as the respect of traditional knowledge of local communities. Several bills were proposed but none of them approved. The share of genetic resources is currently regulated by Provisional Measures 2.052-00 and 2.186-16 (August 2001) which created the Genetic Asset Management Council (CGEN). The Provisional Measures define a contractual requirement for the "owner" of an associated traditional knowledge that would merit benefit sharing. However, traditional knowledge is widely disseminated on vast territories and among many persons. Therefore, identifying

the owner of the traditional knowledge is difficult and arbitrary. This legal context makes it challenging for Brazilian companies to work closely with local communities: at any moment, new "owners" might request companies to obtain their share of benefits for traditional knowledge.

Natura has actively participated in the discussions surrounding benefit sharing. Despite difficulties surrounding the legal framework, it has continued working with local communities and the sustainable use of biodiversity.

Benefit sharing in practice

In practice, through benefit distribution, Natura seeks to generate relationships that empowers the communities they work with. The CGEN has approved eight Benefit Usage and Sharing Agreements from Natura. These regulate the access to breu branco, candeia, cupuazu-manteiga, erva-mate extract, aromatic erva-mate extract, maracujá-proteína, pariparoba and sesbânia. Benefit distribution to the 19 traditional communities that is regulated by the

Box 7. The Iratapuru case - extract from Arnt (2008)

Surrounding the Iratapuru State Sustainable Development Reserve, in the Amazon forest in the State of Amapá, the remote Iratapuru community is an exemplary case of Natura's learning from traditional and local communities. The communities had lived off of collecting the Brazil nut for several generations, and it has always used extractivistic techniques and approaches that have changed very little through time. In 2002, important changes were made after the agreement was signed with Natura for the provision of Brazil nut oil for the Ekos line.

Composed of 30 families, the Mixed Extractivistic Producer Cooperative of the Iratapuru River sells crude Brazil nut oil to Cognis, a processing company that refines the essence and delivers it to Natura which, in turn, uses it to manufacture shampoos, conditioners, and bar soap. The community is paid twice, in the beginning of the productive chain, as a provision and for oil sale, and in the end, as a percentage of Natura product sales.

To set the fair price for the input and the percentages on the sale, several community meetings were held with the participation of family leaderships, Natura professionals, and Cognis employees. All stakeholders presented their needs and expectations and debated costs, prices, and profit margins. State of Amapá Government, "Amigos da Terra" (Friends of Earth) environmentalist organization, and of the local academic community representatives supported and participated in the negotiations. In spite of the positive outcomes, as all learning processes, Natura's relationships are not setback- and problem-free.

In four years, resources derived from the agreements and from investments Natura made in the community allowed the construction of an oil extraction plant at the community which the community itself operates. Natura paid for the hiring of Imaflora, Forest Stewardship Council's representative in Brazil, which certified nut production with the "FSC green seal" in 2004.

To keep the community from becoming dependent on the company, and to prevent the appearance of a "handout" relationship, part of the value received for the sale of products was allotted to the creation of a Sustainable Development Fund. Its purpose is to foment other economic initiatives at the community in order to reinforce its technical and commercial management capacity. The community itself will be in charge of setting its own sustainable development goals without the need for support from Natura.

Genetic Asset Access Law, represent 9 per cent of the total payments made either directly or indirectly by Natura.

With these activities, Natura contributes to the generation of income for communities through the purchase of raw materials. The company encourages the development and strengthening of productive chains which generate greater income distribution. Box 7 illustrates how Natura has promoted fair and equitable sharing of benefits.

4.4. Business partnership between Nativia (Colombia) and Cosmetic Valley (France)⁴⁸

Nativia (Colombia)

Nativia (Colombia) was created on August 2006 with the support of the UNCTAD BioTrade Initiative and partners, CBI and the Colombian BioTrade National Programme/Alexander von Humboldt Institute. It is the sector association of BioTrade companies involved in native natural ingredients. The association recognizes the important role the private sector has to play for the implementation of the CBD and the MDGs. To fulfill this role, enterprises acknowledged the importance of working together, first at a national level with the creation of Nativia and finally also at a regional level with the creation of BioNativia.⁴⁹

The Colombian association focuses on the sustainable use of native ingredients (e.g. plants) and promotes the development and trade of value-added products, involving six companies and over 200 producers. Their activities are carried out through the framework of the value chain approach and the implementation of BioTrade Principles and Criteria. As part of its activities, Nativia also aims to contribute to the development of a supportive environment and a network for companies working in the natural ingredients sectors and respecting BioTrade Principles and Criteria. For instance, the sector association promotes knowledge sharing, facilitates the development of studies and projects, as well as access to finance for its members.

Cosmetic Valley (France)

Cosmetic Valley was created in 1994 and is hailed by the French Inter-ministerial Committee for Regional Development and Competitiveness as a *competitiveness cluster*⁵⁰. This French association is

the world leading resource centre for perfumes and cosmetics with forty-five thousand jobs and a €10 billion turnover.

It coordinates a network of 470 enterprises, both big perfume and cosmetic companies and SMEs, 200 public research laboratories, 136 training institutes, six universities and 7,580 scientists. Some of its company members are 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. Cosmetic Valley works in 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).

This cluster creates a supportive and cohesive structure for the cosmetic sector and its approach promotes innovation and the expansion on international markets. It also aims to adopt practices respecting biodiversity conservation. However, one of the main challenges for Cosmetic Valley is on how to include/promote conservation and sustainable use practices within its business activities, as well as how to convert these practices into a source of innovation.

In particular, 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 GMPs, responsible production and consumption practices as well as clean means 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 agreed commitments such as resources preservation, fair relations with southern countries, carbon sinks and scientific cooperation programmes.⁵¹ Finally, the cluster is willing to create a sustainable partnership with countries rich in biodiversity.

Business partnership between Nativia (Colombia) and Cosmetic Valley

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 Organization Service in France (UNIDO - France). Within their activities, they organized a French-Colombian exchange of experiences on

Table 5. Results from the Nativa (Colombia) - Cosmetic Valley partnership

Cosmetic Valley	Nativa (Colombia)
• Learned about interesting products derived from native biodiversity. • A complementary product offer for the Cosmetic Valley cluster. • Facilitated access to Colombian companies and research organizations.	• Facilitated access to potential buyers and pool of experts (market access, product quality, sustainable supply chains, etc). • Learned how to develop a competitive cluster for the cosmetic sector. • Created possibilities for the training of its members (e.g. universities and training institutes).
Joint activities implemented • Joint participation at the trade fair Beyond Beauty (Paris, October 2008) that have strengthen the links between members of both associations. • Mutual promotion of Nativa (Colombia) and Cosmetic Valley 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. • Development of 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 natural ingredients, colorants, etc, with the financial support of Cosmetic Valley and Colombian Administrative Department for Science, Technology and Innovation (Colciencias).	

competitiveness clusters, where Cosmetic Valley and Nativa Colombia participated.

As a result of this activity, Cosmetic Valley and Nativa (Colombia) 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. 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 Colombian *Fondo Biocomercio*.

As a result of this partnership, members of both organizations have gain access to a broad number of Colombian and French companies, laboratories and research organizations. Detailed results can be seen in the table above.

Lessons learned

The existence of a market for biodiversity-based products of BioTrade companies is a must for guaranteeing the medium to long term sustainability of the activities and companies supported.

The creation of environmentally responsible clusters, such as Nativa (Colombia) and Cosmetic Valley, can promote the adoption of practices respecting biodiversity conservation and sustainable use criteria because it brings together various companies, academia and laboratories.

The benefits obtained both for the cluster/association and the individual companies must be seen in order to promote their engagement in the partnership and in BioTrade. For instance, the results obtained from the Nativa (Colombia) - Cosmetic Valley partnership are:

- o *Members from Nativa (Colombia) and Cosmetic Valley*: access to target markets with a broad range of products; develop R&D projects; positioning of the organization (e.g. company, university) and its products on national and international markets; and share costs, information and technology to enhance the company's competitiveness.
- o *Organization strengthening of Nativa (Colombia) and Cosmetic Valley*: offer value-added services to their members such as training and information; and facilitate access to markets through joined trade fair participation.

V. INTERNATIONAL BIOTRADE ISSUES

5.1. UNCTAD XII and BioTrade

Within UNCTAD, its 193 member States recognized the positive contribution of the BioTrade Initiative in making trade work for the conservation and sustainable use of biodiversity. In addition, Member States have instructed UNCTAD to continue its support in creating an enabling policy environment that fosters private sector engagement (UNCTAD XII Accra Accord, 2008). For information on the Accra Accord, please refer to annex 1.

5.2. Multilateral Environmental Agreements (MEAs) and BioTrade

Multilateral Environmental Agreements have also recognized UNCTAD's efforts in developing the BioTrade Initiative, which is now considered as an incentive measure for the conservation of biodiversity under the CBD Decisions VIII/26 and IX/6, as a tool that promotes private sector engagement (CBD Decisions IX/26) and Agricultural biodiversity (CBD Decision VIII/23).

After this report went to press, the COP Decisions reached at the Tenth Session of the Conference of the Parties (COP 10) made reference to the work of UNCTAD on poverty alleviation and development (DX/6), cooperation with other conventions and international organizations and initiatives (DX/20), sustainable use of biodiversity (DX/32), as well as business engagement and incentive measures (D/X21 and DX/44, respectively). For more information on the text of the CBD Decisions, please refer to annex 2.

Within the CITES, BioTrade is recognized in Decision 14.46 where countries instruct its Secretariat to continue the cooperation with BioTrade/UNCTAD. Furthermore, a Memorandum of Understanding was signed between UNCTAD and CITES in March 2010.

5.3. WTO, and SPS and TBT Committee

Biodiversity has been on the agenda of the multilateral trade framework for many years, but it was not until recently that the debate has included issues related to new emerging markets from biodiversity and green technologies from the perspective of market access and creation, sanitary and phytosanitary measures,

trade facilitation, technical barriers to trade, technology transfer and innovation, trade related investment issues, and subsidies and incentive measures. This adds to the traditional discussions related to the intellectual property rights linked to traditional knowledge as well as the discussions between World Trade Organization (WTO) and MEAs.

One example of this growing interest in emerging biodiversity issues and ensuring an adequate international trade policy framework to enable the development of these emerging markets has been the increase of trade concerns put forward by developing countries on issues such as the European regulations on novel foods and the Registration, Evaluation, Authorization and Restriction of Chemical substances (REACH) within the sanitary and phytosanitary (SPS), and technical barriers to trade (TBT) committees of WTO.

The Regulation (EC) No 258/97 on novel foods

Trade concerns related to the EU Novel Food Regulation (NFR) refer to the application of this Regulation to traditional foods from third countries and the possible incompatibility of this Regulation vis-à-vis WTO Agreements, especially the SPS Agreement.

As a result of using SPS measures which are seen by some countries as not being the less trade restrictive, developing countries have not been able to take full advantage of their comparative advantages in the area of emerging markets from biodiversity due to costly processes that require extensive scientific and historical data to prove their safety.

The Regulation on novel foods, an EU regulation that was adopted in 1997 and which has the main objective of establishing harmonized rules for the placing of novel foods in the Community with a view to ensuring a high level of human health and consumers' protection, has posed important barriers to producers of traditional foods from developing countries.

Moving on the strategic window of opportunity opened by the mandated revision of this Regulation, UNCTAD and an important number of strategic partners and countries at the international level began a process of research and dialogue to document the negative trade impacts of this Regulation on BioTrade activities and formulate recommendations for its modification and

adoption of the treatment for traditional foods from third countries where the BioTrade products fall into. As a result of these and others efforts from developing countries and stakeholders, as well as of the results of a worldwide consultation, the EU Commission published a new NFR proposal on January 2008.

After its publication, international efforts to address the inefficiencies of the Regulation were stepped up. Since 2008, a research agenda is developed and implemented which included the development of two technical studies:

- o Legal analysis of the NFR and its application to the Nangai Nuts was conducted in collaboration with Sidley Austin LLP; and
- o Policy Paper on History of Safe Use and Definitions for the NFR.

At the same time, through bilateral discussions and regional and multilateral forums, government representatives and negotiators mainstreamed substantive and legal arguments in the various consultative processes. International and civil society organizations played a pivotal role in facilitating dialogue between actors and on providing essential communication channels to better inform relevant stakeholders.

In this process, UNCTAD BioTrade brought together, governments, universities, specialized consulting firms, SMEs, MNCs, scientific communities, international organizations, regional organizations, finance institutions, donor agencies, civil society organizations, law firms, and business associations, to work together on contributing to a fairer treatment from traditional foods under the EU NFR.

Representatives and institutions from several Latin American countries have participated in the project including from: the Plurinational State of Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Paraguay and Peru.

In ongoing negotiations between three Andean countries and the European Union, a biodiversity negotiating table has been created where important issues such as non-tariffs barriers, intellectual property rights, environmental protection clauses, environmental goods and services are being discussed.

5.4. BioTrade within national and regional forums in Latin America

The BioTrade concept has been discussed in several national and regional fora in Latin America,

particularly as it can be a tool that promotes economic development and contributes to poverty alleviation, in line with the sustainable use and conservation of biodiversity.

Within the Andean Community, the BioTrade concept and implementation has been considered a key topic to enhance the conservation and sustainable use of biodiversity. In particular, the need to support BioTrade projects was recognized as part of its Line of action 5⁵² of the Decision 523 "Regional Biodiversity Strategy for Tropical Andean Countries".

The Andean Environment Agenda 2006-2010 also recognizes the importance of BioTrade and supports the consolidation of the Andean BioTrade Programme (Line of action 1: Conservation and Sustainable use of biodiversity).

In Brazil, during the *Conferência Nacional sobre Direito Ambiental e a Questão da Amazônia* organized in Manaus, BioTrade-related activities were supported within the Manaus Declaration, paragraph 8. This event took place during the Amazon Day in September 2009.

During the Latin American Seminar on "Sustainable use of Medicinal Plants and BioTrade" (*Seminario Latinoamericano sobre aprovechamiento de Plantas Medicinales y Biocomercio*) organized by the University of Panama and OAS, BioTrade was recognized as an opportunity to support the development of the medicinal plants value chain in Latin America. This event was held in October 2009 in Panama City. Participants and speakers were from Argentina, the Plurinational State of Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru and the United States, from the government, academia and private sectors, NGOs and IGOs.

In Latin America, several conferences and forums have been organized by BioTrade Programmes of the Plurinational State of Bolivia, Colombia, Ecuador and Peru as well as regional partners such as ACTO and SGCAN. In Colombia, for instance, the Forum on "BioTrade, green markets and rural development" (*Foro sobre Biocomercio, mercados verdes y desarrollo rural*) was held in the Colombian Congress on 12 August 2009. The Fifth Chamber of Representatives, PBA Corporation and *Fondo Biocomercio Colombia* organized this event that aimed to discuss and promote agreed and concrete public policies to sustainably use

biodiversity as a mechanism for rural development in Colombia.

Other events have been organized during the Conference of the Parties of MEAs (CBD, CITES, Ramsar, UNCDD) and trade fairs (e.g. PeruNatura and

Sala Andes). Furthermore, BioTrade forums have also been organized such as the First International Seminar on Sustainable BioTrade (*Seminario Internacional de Biocomercio Sostenible*) held in Cartagena, Colombia in 2005.

VI. LOOKING FORWARD - CHALLENGES AND OPPORTUNITIES

6.1. Challenges and opportunities in data and measuring the impact of BioTrade activities

Despite the importance of biodiversity and ecosystems to humans, their economic valuation is not established, nor are dedicated systems available for its valuation. Consequences of the lack of market prices⁵³ for biodiversity and ecosystems services has resulted in the overseeing, neglecting and undervaluation in decision-making processes of the benefits derived from these goods which are normally considered of public nature. Thus, activities that threatened biodiversity are fostered which contribute to the loss of biodiversity and poverty. As biodiversity is affected by its use, it is important to measure, monitor and report its positive and negative impacts and search for equilibrium between development and conservation of natural resources. In relation to BioTrade, the adaptive and ecosystem approaches upon which is based, addresses this need.

As BioTrade activities are being implemented worldwide, there is a constant need to demonstrate and measure its contribution to sustainable development through trade and investment, and to the conservation and sustainable use of biodiversity. The need is to obtain real, precise and comparable information on the ground to monitor the social, economic and environmental benefits that are generated in relation to the conservation and sustainable use aspects of the species and ecosystems used, and the economic benefits generated. *The BioTrade Impact Assessment System* intends to address this need and is explained in the next sub-section.

Many of the BioTrade products are included into general HS codes, hence making it difficult to obtain concrete data on trade flows. For instance, natural dyes commercialized by Andean companies are included in *HS 3203008000 Coloring matter of vegetable or animal origin, not elsewhere specified (nesoi)*. For other products where data is shown, it does not differentiate between the trade generated by conventional products and the one from environmentally friendly products (e.g. BioTrade, FSC, organic, Rainforest Alliance, etc.). The lack of this information, may allow policymakers to underestimate

the trade importance of products and services derived from biodiversity, in particular native species.

Confidentiality issues also limit the access to data such as turn-over, costs and margins, which are sensitive companies' information. Some BioTrade programmes and associations however have access to this information thanks to the trust and confidentiality upon the basis which the information is used.

Biological information is normally limited, even more for the species promoted by BioTrade. Partnerships with academia are needed for applied research relevant to the private sector (e.g. biological identification of the specie being used, as well as identify and document its uses) and to the identification of a huge number of potential species and products that could be developed. However, the research must be applied in an organized and cost-efficient manner, hence prioritizing the species and products considering their social, economic and environmental feasibility.

For instance, the BioTrade programmes in Colombia, Ecuador and Peru have identified a list of priority species for the natural ingredients and products sector, considering the species social, economic/market and environmental potential. In Peru, the BioTrade sectors were included in the national research plan; in Colombia 38 monographs of medicinal plants were elaborated by local universities, the Alexander von Humboldt Institute and UNCTAD. These activities have increased the product lines offered by Andean BioTrade companies, including essential oils, extracts, vegetable oils, oleoresins and resins, infusions, personal care products, cosmetics, etc.

These findings are not only relevant for BioTrade activities, but for most of the biodiversity-based initiatives working in Latin America.

BioTrade Impact Assessment System (BTIAS)

Within the BioTrade network, independent efforts by national and regional programmes and partners to measure and report the impact of the activities supported have taken place, however the data obtained is not always comparable. UNCTAD is developing a BioTrade Impact Assessment System (BTIAS) to measure the contribution that BioTrade (UNCTAD, national, regional, and international

partners, and beneficiary companies) is having in sustainable development. The BTIAS is based on the seven BioTrade Principles and Criteria and the adaptive management, ecosystem, value chain and sustainable livelihood approaches.

The BTIAS is conceived as an information management tool that will compile and process data on the field in order to report the impact of BioTrade - for instance to beneficiary Governments, donors and MEAs (CBD, CITES), while identifying areas for improvement. Through environmental, social, economic and governance indicators, BioTrade's contribution to sustainable development and in particular to the objectives of the CBD, is measured. Examples of impact indicators address the effectiveness of the management of conservation areas within the area of influence of the BioTrade business, usage or exploitation rate of the resources in relation to the regeneration capacity, benefit-sharing and compliance with national and international environmental and social legislation, among others.

A major challenge in the development of this system is the identification and selection in a participatory process of indicators that are quantifiable, accurate, relevant, useful, practical, objective and credible. The reason is not only the diversity of sectors and actors that are supported within the BioTrade network, but also the geographical distribution of its activities. In some cases it is difficult to measure the impact of BioTrade because of the timeframe upon which results are obtained (medium to long term) and the complexity of isolating BioTrade contribution when there might be also other factors that generated the impact (e.g. Government expenditure in infrastructure: roads, telecommunication, water supply, among others). The continuous engagement of BioTrade programmes and practitioners in this system is crucial for its success as they are the users and generate the data that is periodically fed into the system.

6.2. Challenges and opportunities in developing/strengthening value chains

The 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 participants
(UNCTAD, 2007).

The implementation of BioTrade activities under a value chain approach has created opportunities for beneficiary SMEs and countries to become more active in the sustainable commercialization and trade of biodiversity-based products. The development of sector strategies through the process suggested by UNCTAD combines different objectives and interests of value chain actors into a common goal. This goal normally aims to enhance the growth of the chain considering social, economic and environmental sustainability (BioTrade Principles).

Horizontal and vertical integration processes are taking place within the BioTrade practitioners, as well as South-South cooperation activities and sharing of information. This integration facilitates the capturing of commercial opportunities and overcoming of common problems/barriers while channeling and prioritizing resources and effort for planned activities. Some examples of these activities are: the access to finance and the establishment of BioTrade funds, the improvement of the quality of raw material to meet sustainability and market requirements (e.g. norms, standards, sustainable protocols/management plans), the access to markets and the establishment of strategic partnerships between producers and SMEs or between business associations from developed and developing countries.

Consequently, the tools and methodologies developed by UNCTAD BioTrade⁵⁴ have created opportunities and cost-efficient guidance for implementing sustainable practices by the private sector, hence supporting their engagement in the implementation of the CBD and other MEAs. In particular, business actors have seen BioTrade as a business tool to enhance their Internal Control Systems and differentiate their products in the marketplace, by guaranteeing the sustainable use of the species harvested/collected and improving their product's documentation and traceability. All these are requirements needed for accessing international markets.

These are several of the achievements obtained by BioTrade programmes and practitioners in the development of value chains in Latin America, but joint efforts need to continue to:

- o Create an enabling policy environment for BioTrade businesses;

- o Select priority products that fulfill market, environmental, social and technological criteria and identify the adequate distribution channels and markets that value the specific characteristics of BioTrade products and services;
- o Access to market and to accurate, reliable and current market information of the priority products identified and supported;
- o Generate 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;
- o Differentiate BioTrade products and services in the marketplace;
- o Obtain scientific and technical knowledge and information of species – in particular native species - and ecosystems that are being used, as well as facilitate the technology and infrastructure in order to use them sustainably;
- o Strengthen technical, entrepreneurial and organizational capabilities of producers, SMEs and sector associations, including the formalization of their organizations and products;
- o Maintain sustainable supply chains management and development of quality and value-added products that will improve the competitiveness of SMEs at national and international markets;
- o Empower and continue engaging all value chain actors in the process to obtain results at the sector and business levels. In particular, the engagement and empowerment of the private sector (e.g. SMEs) is crucial in implementing sector/value chain strategies in the medium to long term;
- o Share fairly and equitably benefits generated by BioTrade, throughout value chain actors;
- o Facilitate access to finance for BioTrade initiatives; and
- o Develop biodiversity conservation schemes that can be adapted and incorporated into normal business practices.

Concretely in Peru⁵⁵, despite the progress made in relation to BioTrade at the country level, there are several challenges that need to be overcome such as limited applied research and development on the potential of biodiversity-based products that fulfill market requirements, research and implementation of quality systems, limited organization (association) between producers, non-tariff barriers such as the Novel Foods regulation, statistical information that do not allow to obtain specific data within the Harmonized System and even less to obtain information on

companies complying with BioTrade Principles and Criteria.

6.3. Challenges and opportunities in market access strategies

BioTrade products are non-traditional commodities (e.g. developed from native species from developing countries) not widely known, particularly in international markets such as EU, United States or Japan. These products are frequently traded in unstructured or niche markets and therefore their knowledge by regulators and consumers is often limited or non-existent.

This situation presents several challenges at different levels. For instance, in creating a market demand and building awareness of the products or services in target markets, in accessing reliable market information on their potential, and in verifying safety issues for the consumer.

Creating a market and raising consumer's awareness

At the national and regional levels, sector trade fairs have been organized to display BioTrade products, services and beneficiary companies to potential clients, general public and media. Events such as PeruNatura, BioExpo Colombia and the Bolivian BIOEXPO 08, or the buyer-sellers meeting for the Natural ingredients sector in Colombia and Ecuador, are just examples that were developed by BioTrade partners in the Andean region.

Producers and SMEs have also participated in regional and international trade fairs such as Biofach, In-Cosmetics, Beyond Beauty, Vitafoods, Expo-East and Expo-West. This participation allowed them to establish contacts with potential buyers, to display their product's offer and to learn about market trends, requirements and competition in target markets.

BioTrade practitioners have also been working to understand the requirements and trends of their target markets. It is basic to have a high-quality product in addition to ethical and environmental issues, which can also motivate their purchasing by target consumers. Also, consumers' awareness studies are being developed, such as UEBT's Biodiversity Barometer that provides an overview of consumers' awareness on biodiversity in the United States and selected EU countries. BioTrade partners can then use this information to develop marketing strategies at the company, sector or country levels. Technology and scientific information and capacities

can contribute to further development of BioTrade products and services, that can increase their market value while allowing the development of marketing strategies to position these products and services in target markets. Examples are the Ecuador's slogan for the natural ingredients sector: *Biodiversity from the center of the world* or the slogan for the Bogota and Cundinamarca region: *Colombia: Native Biodiversity for a World of Beauty*.

The participation and organization of events, trade fairs and B2B need to be complemented with promotional material, newsletters and publications in specialized media, and in some cases even product testing (e.g. testing of a fruit or infusion in a supermarket chain in the target market). Market studies, species and product's research, and the establishment of business partnerships, are also key components in creating markets and raising consumer's awareness for BioTrade products.

As natural, environmentally-friendly and socially responsible products are being demanded, special attention needs to take place to avoid being associated with green-washing and/or generate confusion. An example of the latter exists in the EU market for the word BioTrade, as consumers confused it with organic products that are normally recognized by the word *Bio*.

Despite these efforts, government and support organizations still need to understand what BioTrade is and its importance for the country's development. Additionally, implementing the above-mentioned activities is often too expensive for BioTrade companies. These challenges however, must be overcome in an integrated and coordinated manner, involving all value chain actors and BioTrade practitioners at the local, national and international levels.

Market barriers

BioTrade products are innovative and in general, the identification of non-tariff barriers needs to be carried-out and this may vary depending on the final use of the product that could be for instance as food, dietary supplements, personal care product, among others.

In 2005 and 2006, BioTrade Programmes in Colombia, Ecuador and Peru prepared studies to identify barriers that limit the development of biodiversity-based markets⁵⁶. The barriers identified at the national level are related to the lack or duplicity of laws and regulations (e.g. permits required for an activity are

under the competence of several Ministries) and the lack of clarity for the implementation of norms and protocols for the sustainable use and/or trade of biodiversity. Other issues are for instance the difficulty in applying legal requirements that not consider the special characteristics of the business activity and/or the species being used.

These are obstacles that can discourage investments in biodiversity-based sectors. For some of these barriers, BioTrade programmes, government entities and value chain actors (SMEs and communities) have worked jointly in providing recommendations and solutions to overcome them. For instance, the activities implemented included: identification and development of recommendations to overcome market barriers for specific sectors; facilitate the creation of sector committees/roundtables to enhance the communication between public and private actors; and development of guidelines on how to fulfill legal requirement to export natural ingredients. Further information is also mentioned in section VI.4.

At the international level, UNCTAD has been working closely with the Ministries of Foreign Affairs in several Latin American countries in order to coordinate efforts to overcome certain international market access barriers. The region has been very active in enhancing the regulatory and policy market access framework through bilateral, plurilateral and multilateral platforms. Topics addressed are for example on sanitary and phytosanitary issues, standards, certification, packaging and other technical barriers to trade, both at the regional and international levels.

Market information

Market information is usually costly, even more as when it relates to niche markets and biodiversity-based products which are not known in international markets. Specific market studies and briefs need to be prepared which might be an expensive activity for individual SMEs. For this reason, the work under a value chain approach can be used to leverage funds to do it as well as for the establishment of strategic alliances with trade promotion agencies. In relation to this challenge, strategic partnerships have been established with trade promotions agencies such as CBI from The Netherlands, Swiss Import Promotion Programme (Osec/SIPPO) and the ITC (UNCTAD/WTO). Furthermore, in some countries the BioTrade programmes are hosted in the trade promotion agencies such as Promperu.

6.4. Challenges and opportunities with policy frameworks

The policy frameworks related to BioTrade are very broad and address several important issues such as development cooperation, technology and innovation, public health, environment and agriculture, just to mention a few. This complexity comes along with important challenges that need to be tackled with a coherent and inclusive matter, such as the value chain approach.

BioTrade partners have been addressing these challenges as mentioned before in section 6.3, through identifying market barriers, proposing recommendations and establishing multi-institutional platforms where public and private actors can communicate and coordinate actions considering a value chain approach. Examples are the National Technical Committee on Biodiversity and Competitiveness (CTNBC) in Colombia and the Peru National BioTrade Promotion Programme (NBPP). BioTrade has also been mainstreamed into

several national and regional strategies throughout Latin America, especially in the four Andean region countries.

For instance, regulatory frameworks for the natural ingredients sector are not well-defined, confusing or even absent, hence limiting its development. This situation has improved in some countries with the support of governments, value chain actors and BioTrade partners. In Colombia and Ecuador product standards were developed, administrative processes streamlined, communication channels between sector associations/companies and their Government were enhanced. Finally, capacity-building and awareness raising activities for government officials and private actors were developed. A concrete example is the 48-hours specialization course on BioTrade and Sustainable Development that is being organized by the Swiss-German funded project “*Fomento de Productos y Servicios de la Biodiversidad - PeruBiodiverso*” implemented under the NBPP, and the Catholic University of Peru in 2009.

Box 8. National legislations promoting BioTrade

Colombia is one example of how BioTrade has been integrated into national legislation and strategies. The BioTrade concept is not only included within the National Biodiversity Strategy and Action Plan, but also into the National Development Plan 2006-2010. In 2008, the High Council for Competitiveness and the Regions of the Presidency of the Republic established the National Technical Committee on Biodiversity and Competitiveness (CTNBC), which is part of the National System of Competitiveness. It was created by Presidential Decree 2828 of 23 August 2008. The Technical Committee is focused on the sustainable use of biodiversity in Colombia as a strategic sector for the country's development and includes the promotion of BioTrade as part of its specific objectives. Eight regional Competitiveness and Biodiversity committees are established and include regional environmental authorities, academia, private sector, trade chambers and research institutes/centers.

In Peru, the definition and importance of BioTrade is stated within the Regulation of the Conservation and Sustainable Use of the Biodiversity (Supreme Decree N° 068-2001-PCM). Furthermore, a National BioTrade Strategy 2007-2011 was adopted within the NBPP involving four strategic lines: (a) Development of a competitive supply in Peru; (b) Promotion and market access; (c) Fostering research and innovation; and (d) Policy advocacy and institutional capacity-building. NBPP members include the Ministries of Trade and Tourism, Foreign Affairs and Production, Promperu, National Council for Science and Technology (CONCYTEC), Peruvian Exporters Association (ADEX), Peruvian Institute of Natural Products (IPPN), among others.

Sources, Colombia: MAVDT (May 2005). Comité de Biodiversidad y Competitividad liderado por la Presidencia de la República, document given to UNCTAD during the meeting with the ViceMinister Claudia Mora; Pers. comm. with Felipe Gómez Villota, MAVDT and Diana Toscano, *Fondo Biocomercio*.

Peru: Jaime Cárdenas (2009). Estrategia de institucionalización: Perú. Presentation made during the Regional Sala Andes Amazonia workshop, 28-29 January 2009. Brasília, Brazil; and The National BioTrade Promotion Programme - NBPP, brochure 2009.

VII. BIOTRADE AND INTELLECTUAL PROPERTY RIGHTS (IPR'S) (DISTINCTIVE SIGNS)

Intellectual Property Rights (IPRs) can be used as tools to generate added value for BioTrade products and services through their differentiation in the market place. IPRs can facilitate the access to markets of BioTrade products and services, while reinforce the social benefits of BioTrade, thus the participation of smaller producers in the value chain and in the benefits obtained. The classification of the main IPRs figures include: industrial property, rights over plant varieties, and copyrights and related rights (annex 3). This section will analyze only the distinctive signs, in particular geographical indication (GIs)/appellation of origin (AoO) and Trademarks/brands that are more relevant to BioTrade products. It would also show practical examples of GIs/AoO and Trademarks applied to biodiversity-based products from the LAC.

7.1 Development opportunities for BioTrade through the strategic use of distinctive signs

In general, BioTrade products and services have a significant added value as they are not only sold as the product *per se*, but also include the effort made by BioTrade companies/beneficiaries to conserve biodiversity in making a sustainable use of biodiversity while providing sustainable livelihoods for rural populations. Thus, BioTrade supports local producers with the possibility to obtain a specific product that can benefit of a premium-price which can be paid easily if identified with a trademark or a GIs or protected with an industrial design.⁵⁷

GIs can be a sign used on biodiversity-based products that have a specific geographical origin and possess qualities or reputation that are due to the place of origin. The subject matter of the GI protection tends to cover indications with geographical connotation. For consumers, the use of GIs distinguishes the origin and the unique characteristics linked to that origin, and can guarantee that the benefits generated stay within the control of the owners/producers and are developed responsibly and according to established procedures.⁵⁸ GIs can be applied to biodiversity-based products such as agricultural products and handicrafts, either primary or processed. Traditional knowledge is also an important component, particularly for processed products.

A special kind of GIs, is the **Appellation of Origin (AoO)** that is used on products that have a specific quality or characteristic which is exclusively or essentially due to the geographical environment including natural and human factors, in which the products are produced. The *uniqueness* of the product can, for instance, be related to post-harvesting practices, industrial processing, ecology of the site and genetic characteristics. GI for instance is applied to Café de Colombia, while the AoO is applied to a coffee produced in a particular region of the country.⁵⁹

Trademarks/brands are signs that can be used by a company or a specific holder with exclusive rights for its use. **Collective trademarks/brands** are particularly relevant for BioTrade, as the holder to use the brand is an association that groups either individual producers or private companies. Thus, it is suited to be implemented by communities and costs can be shared among all its holders.⁶⁰ **Certifications or standards** such as ISO or organic are also instruments used to differentiate a specific aspect of the products in the marketplace such as technical specifications of the product or production methods. Decision 486 of the Andean Community regarding the common regulation for industrial property, states these as *signs designed to be applied to products or services whose qualities or other characteristics have been certified by the trademark holder. However, certifications are not instruments for the protection against violation of GIs or IPRs*.⁶¹

BioTrade and GIs/AoO

GIs can be important to promote the market differentiation of BioTrade products and services (sustainable tourism) as they are built on local agro-ecological (e.g. unique organoleptic aspects unique to a region) and cultural characteristics (e.g. traditional production practices) of products that are currently valued by consumers. GIs contribute also to the organization of the product's value chain, improve the quality and traceability/documentation of the products registered, as well as allow for the establishment of a monitoring system.

Within the BioTrade partners and practitioners, AoO has been assessed as a market differentiation tool that may reinforce its activities towards the conservation of

biodiversity and the contribution to poverty alleviation of rural communities. Particular in the Andean region, feasibility studies to obtain AoOs for selected BioTrade products were developed. As a result of this work, in 2008 the AoO for the Ecuadorian cocoa “Arriba” was obtained (box 9).

BioTrade and trademarks, collective trademarks and certifications or standards

Trademarks and collective trademarks have been implemented by BioTrade beneficiaries such as producers’ associations and companies. They have been used to differentiate the product in target markets and to show fulfillment of technical specifications and production methods. There are several examples such as the experiences to promote green trademarks by the Colombian BioTrade Programme for Amazon value chains. For the native Amazon fruits chain, a regional identity strategy was designed and developed jointly with the Corporación de Desarrollo Sostenible para el Sur de la Amazonia - Corpoamazonia (environmental authority for the region). It included a communication strategy with a unique logo and the phrase “Amazonia, essence of life” (*Amazonia, esencia de vida*). The guideline to

use and manage this brand (“logo”) was currently finalized by Corpoamazonia and a consultancy is being implemented to register it as a trademark.⁶²

Another interesting example is the UEBT⁶³ that is a pioneering model that gives its member companies the possibility to differentiate themselves by demonstrating ethical and responsible sourcing of native biological resources. *UEBT acknowledges incremental progress rather than strict compliance, hence its members companies gain recognition for their efforts toward compliance with the Ethical BioTrade Principles* (same BioTrade Principles mentioned in section 1). *Through a third-party verification system that assesses companies’ management systems and supply chain practices, all the way to the source.* UEBT members are evaluated using the verification system that allows the identification of activities that need to be implemented, and after 5 years these companies need to achieve full compliance. As this system applies to the UEBT member companies rather than to products, the claim for adhering to the Ethical BioTrade Principles can be made at the company level through the use of the UEBT membership logo in corporate communications.⁶⁴

Box 9. BioTrade experiences with Appellation of origin (AoO)

UNCTAD, jointly with BioTrade programmes in Colombia, Ecuador and Peru, prepared studies that analyzed the feasibility in obtaining the AoO of selected BioTrade products. The BioTrade products analyzed were maca (*Lepidium meyenii*) and paiche (*Arapaima gigas*) in Peru, cocoa “Arriba” (*Theobroma cacao*) in Ecuador and borojó (*Borjoia patinoi*) in Colombia. A capacity-building event was organized by UNCTAD BioTrade, jointly with World Intellectual Property Organization (WIPO), International Centre for Trade and Sustainable Development (ICTSD) and SGCAN in order to discuss and address the feasibility of the results obtained in the studies, exchange information and lessons learned, while receive further guidance on next steps needed to obtain the AoO.

After two years of work by the BioTrade programme in Ecuador, jointly with the support of producers’ associations (UNO CACE, FEDECADE), sector associations (ANECACAO in representation of its producer members), Ecuadorian research organizations (INIAP) and individual producers, the Appellation of Origin for cocoa “Arriba” was obtained in 2008. It became the first one being issued in that country and was given by CORPEI/BioTrade Programme to the Ministry of Agriculture, who is the owner. This Appellation was built on the worldwide reputation of the product that is based on its unique combination of geographical, historic and human factors. Cocoa “Arriba” is an important product for the country’s economy as it generates significant export revenues, is an important source of employment, and contributes for the conservation of biodiversity in Ecuador as is produced on environments that favor biodiversity (agroforestry). However, current support is needed to implement and manage the AoO (e.g. Regulatory council), including legal and technical assistance, and capacity-building activities to government officials and value chain actors involved.

Sources: UNCTAD, ICTSD, SPDA and CAN, (November 2005); Pers. comm. Nancy Sánchez and Ana Carolina Benitez, Sustainable BioTrade Programme in Ecuador; Luis Vayas, Mission of Ecuador to the UN and other international organizations in Geneva; Invitation and speech made by Ricardo Estrada/CORPEI for the official hand-over event of the AoO of cocoa Arriba to the Ecuadorian Government/Ministry of Agriculture, Livestock, Aquaculture and Fisheries on June 2008.

7.2 Other examples of IPRs applied to biodiversity-based products in Latin America and the Caribbean (LAC)

The potential of LAC for IPRs instruments is huge; however countries have not benefited enough from it. In general, studies reveal that 90.4 per cent (8,600) of GIs are registered by developed countries, and only 9.6 per cent (913) are for developing countries⁶⁵. In a study commissioned by ITC⁶⁶ in 2007, from the LAC region only Brazil, Chile, Colombia, Cuba, Dominican Republic, Guatemala, Mexico and Peru have established registers and have registered GIs. Most of these are for wine and spirits, but also for tobacco, coffee as shown in the following list:

- o Brazil: 2 for wine and coffee
- o Chile: 82 for wines and spirits
- o Colombia: 1 for coffee
- o Cuba: 19 for tobacco and cigars
- o Dominican Republic: 6 for tobacco and bananas
- o Guatemala: 1 for coffee
- o Mexico: 11 (2 coffees, 4 spirits, 1 mineral water, 3 industrial and 1 agricultural products)
- o Peru: 1 for agricultural product and 1 for spirit

However, there are also other interesting cases that are relevant for BioTrade such as the AoO for Quinoa Real from the Oruro and Potosi Departments in the Plurinational State of Bolivia that was obtained in 2002; the AoO for Maiz Gigante de Cuzco from Peru that was obtained in 2005; and the cacao AoOs obtained for Ecuador (cocoa "Arriba" in 2008) and the Bolivarian Republic of Venezuela (Chuao cocoa in 2000 and Cocuy Pecayero in 2001). In the Andean region, Peru⁶⁷ is an active actor with GIs as 23 products are recognized as potential candidates for GI out of which 6 are being registered and four are currently in the process of being registered. The main goal of IPRs was to differentiate these products at the international markets.

In relation to trademarks, there are interesting cases such as the trademark NATURA COSMETICOS S/A⁶⁸ and the collective trademark "Chirimoya Cumbe" of the Pueblo de Santo Toribio de Cumbe in Peru that includes 106 community members⁶⁹. Other interesting example of a product that links biodiversity conservation and organic production is *Café de Colombia* which has obtained several types of trademarks and was the first GI recognized at the Community level in the EU.

In addition to the case of *Café de Colombia* that was led by the private sector, there are examples

of green labels that are being promoted in support of environmentally friendly and socially responsible products by Colombian public institutions. Two examples are the Ecological Food Label (*Sello de Alimento Ecológico*)⁷⁰ and the Green Environmental Label (*Sello Ambiental Colombia*).⁷¹

The former was created by the Ministry of Agriculture and Rural Development in 2004, and its administration and use was defined in 2007. The aim of this food label is to promote, differentiate and position ecological products (also known as organic), and consumers are guaranteed of the quality and characteristics of the product they are purchasing by the Ministry. Particularly in 2006, the regulation for the primary production, processing, packaging, storage, labeling, certification, import and commercialization of products was adopted and a control system is established. Over 45 thousand hectares are under ecological production (certified or in conversion) in 2008 and include products such as cocoa, coffee, infusions, honey and derivatives, cane, cereals, flowers, fruits, palm oil, among others.

The Green Environmental Label is a voluntary scheme to differentiate environmental products and services, and is one of the first eco-labeling schemes in Latin America. It was launched in 2005 by the MAVDT, and the Ministry of Trade, Industry and Tourism. The MAVDT and ICONTEC (national norms organization) developed the technical norms for the implementation of this environmental label with handicrafts (with *caña flecha*, and *enea* and *junco*), natural fibers (*fique*) and sustainable tourism.

7.3. Opportunities, challenges and lessons learned

BioTrade products need to be differentiated in the market in order to recognize the additional effort of companies to implement the BioTrade Principles, that are socially, environmentally responsible. Distinctive signs can be used for this purpose as they offer several benefits such as: facilitates wider recognition of BioTrade products in targeted markets with a better quality and premium price; enables participation of producers into the BioTrade value chain and supports to benefit sharing and recognition/revaluation of traditional practices; and promotes the implementation of biodiversity-friendly practices. Furthermore, there are other complementary business initiatives that can be developed such as tourism that could benefit of

certification marks. At the consumers level there are also benefits obtained such as the guarantee for quality, origin and in some cases, environmental and social sustainability of the product.

GIs in particular, are being used as a way to differentiate products originating from specific regions and the reasons for using them is to (a) protect the value and identification of local unique/special/differentiated products such as BioTrade products; (b) improve the product's quality through standardization of producers and processors practices; (c) encourage horizontal and vertical partnerships and benefit sharing; and (d) facilitate access to target markets that prefer those unique products⁷².

For GIs and AoO to be more effective the unique characteristic of a product must already be recognized by the target consumers, because of the significant costs that are needed to position the product, particularly in international markets. Thus, this recognition is the first step in the process to obtain the GIs as showed by most of the successful cases from developing countries that built on long-standing popular products and further marketing implemented by strong partners⁷³. GIs when applied to intermediary products may be more challenging as further standardization, marketing and promotion might be needed to be implemented to make them more visible for potential buyers and consumers.

Four main factors that contribute to the success of GIs are identified by ITC study⁷⁴ as being: (a) strong organizational and institutional structures, (b) equitable participation among producers and companies in the GI region, (c) strength of market partners that can support the promotion and commercialization

of the GI in the long term, and (d) effective legal protection with strong national protection systems. Other important issues that can also be relevant for effective GIs are: good governance, delineation of the GI territory, relation of quality to the reputation and success of the origin, costs of putting and maintaining a GI on the market (e.g. ongoing operational costs such as dissemination, marketing, monitoring and management, including legal enforcement), market saturation, and time required to mount a GI as it requires patient implementation and sustained commitment of resources to keep differentiate the GI with consumers.

In the LAC, the use of distinctive signs (trademarks and AoO) for BioTrade products remains quite limited due to the costs involved such as to develop, manage and maintain a well-thought implementation and promotion strategy for the AoO; and the institutional capacity, organization and development of the value chain and its actors. Particularly in the Andean region, a regional legislation is available for GIs, but national institutional capacity is limited, national strategies to promote and maintain GIs are lacking, and capacities are generally non-existent at the local level and for producers of potential GI products⁷⁵.

Market incentives for BioTrade should be accompanied by instruments that guarantee the protection of biodiversity and traditional knowledge, compliance and enforcement and promote sustainable businesses and sectors in order to generate the expected benefits to the country and value chain actors, in relation to economic, environment and social issues. IPRs instruments can be used as mechanisms in this regard.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The LAC region has a huge BioTrade potential because of its rich biological resources (six out of the 17 megadiverse countries are in the region) and its traditional use of those resources in a variety of products. This biodiversity if managed sustainably and if transformed into differentiated and value added products and services, could become a development engine for the region. National and regional cooperation between and among public and private actors is needed to work under this goal.

A long term vision that promotes the conservation and sustainable use of the resources in the region could position the LAC into a power in biodiversity. Mechanisms to differentiate and recognized the effort made by the region and its inhabitants to maintain its natural resources should be sought. Furthermore, the region should seek for a strategic positioning of the LAC into the CBD negotiations and COP 10 in particular.

Currently, the economic value of biodiversity is not recognized nor measured. Therefore it is important to develop instruments that generate an economic premium to biodiversity and an alternative is to link biodiversity to existent and consolidated markets. BioTrade in general and the work in developing the BTIAS in particular can contribute in addressing this challenge.

Biodiversity and BioTrade have been recognized as a strategic development issue in the countries where activities are being implemented. Examples are The Colombian National Technical Committee on Biodiversity and Competitiveness, and the Peruvian Regulation on the Conservation and Sustainable Use of Biodiversity (Supreme Decree N° 068-2001-PCM) at the national level; the Regional Biodiversity Strategy for Tropical Andean countries at the regional level; and the CBD Decisions IX/6 on incentive measures IX/26 on promoting business engagement at the international level.

8.1 Upscaling BioTrade in the LAC region

BioTrade offers an opportunity for the LAC region as it contributes to the sustainable development of the region, the achievement of the MDGs and MEAS objectives. The progress made in the region and

the efforts made by national and regional BioTrade counterparties and UNCTAD in developing BioTrade should be recognized and strengthened. Policies, strategies and resources are needed to upscale its activities and impacts in other countries and regions (e.g. Central America).

Necessary policy frameworks and strategies that upscale BioTrade activities are needed in order to go beyond small niche markets and include strong economic sectors that highly contribute to local and national economies. IPR mechanisms and institutions can be used to promote BioTrade and protect biodiversity, and to reinforce BioTrade's positive social, economic and environmental contribution.

South-South cooperation mechanism to exchange knowledge and experiences at the regional and international levels can be further strengthen and broaden its scope in order to develop institutional and policy frameworks that facilitate the development of BioTrade in the region. For instance the sharing of experiences, methodologies and information can be used to expand the implementation of BioTrade programmes in the LAC. Also, capacity-building activities are important and in this regard, UNCTAD will be launching an e-learning course on "BioTrade and Value Chain development".

One of the main challenges for the development of BioTrade in the region relates to the limited resources available to implement BioTrade activities in new countries, including programmes for strengthening and training on production, processing and trading; limited use of current instruments for the protection of IPRs and ABS, limited/contradictory laws and policy frameworks; lack of clarity in the implementation of norms and protocols related to the sustainable use and/or trade of biodiversity-based products and services.

For instance, lack of funding to implement the Costa Rican BioTrade programme has limited its development and the strengthening of priority sectors identified: community-based tourism, plants and foliages, and butterflies. Interest to develop BioTrade programmes has also been received by Guatemala and Nicaragua, but funding is needed to prepare

an assessment of the country and identify priority sectors and activities that foster their development. Therefore, funding sources should be sought in order to implement the BioTrade programmes in Costa Rica and other countries in the region.

8.2 Policy frameworks

Policy frameworks need to be in place to provide a transparent and enabling environment for the development of biodiversity-based sectors and BioTrade. National, regional or international action must be taken to ensure that the international legal and policy framework does not have negative impacts on BioTrade.

For this, the formulation of incentive measures for sustainable businesses that use native biodiversity, implementation of IPRs instruments, clarity in relation to land tenure, laws determining the use and access to natural resources and knowledge, and the requirements for fair and equitable sharing of the benefits, are essential.

Economic incentive measures are important policy instruments for the conservation and sustainable use of biodiversity. Most of the countries in the region have embarked in the formulation and implementation of such measures, although a lot of research is still to be done regarding the effectiveness of certain measures and their compatibility with other international norms. One example of an incentive measure in the region which links conservation with trade is the one adopted by Ecuador for the preservation and sustainable

development of the Province of Galapagos. The measure ensures privileged participation of the local community in development activities and in the sustainable economic use of the islands. It provides four specific economic incentives: (a) Incentives to productive and conservation activities by granting preferential loans and more favorable interest rates and making them tax deductible, (b) Tax deductions for private sector trainings, (c) Preferential lending conditions for permanent residents of the province, and (d) Tax deductions for donations in favor of environmental sanitation activities.

Policy instruments need to be in place to help with the compliance of national and international requirements regarding issues such as quality, market access, and conservation and sustainable use of biodiversity in a coherent manner. Institutional infrastructure needs to be available for example to evaluate and determine the traditional knowledge involved in the sustainable use of biodiversity. Market barriers for BioTrade products and services must be identified and documented, jointly with a list of BioTrade products/services, producers/companies involved.⁷⁶ Also the development of scientific knowledge and capacities in local universities is crucial as can be used to provide key information to fulfill documentation requirements to access markets and to protect biodiversity-based products at the international level.⁷⁷

Inter-sectoral and multidisciplinary work is also essential at the country, regional and international levels in order to coordinate actions, to establish

Box 10. Peruvian experience with market access barriers and biopiracy

To address market barriers and biopiracy, Peru has established two technical groups: Technical Group for Market Access that for instance, coordinates efforts and share information in relation to the NFR, and the National Committee against Biopiracy that has effectively revoked seven patents referring traditional uses of Peruvian biodiversity-products at the international level. The patents requested involved *sacha inchi*, *camu camu* and *maca* for the EU, Japanese, Republic of Korea, and/or United States markets. Through this Committee, the use of Peruvian natural products and their associated knowledge at the international market are not limited but require that it should also benefit the country and in particular, the related indigenous communities.⁷⁸

Sources: Taken from the speech of the Peruvian delegation during the UNCTAD/UNDP meeting BioTrade Potential for Growth and Sustainability, held on 7 April 2010 in Geneva, Switzerland, and included in the meeting report.

Note: BioTrade does not work with genetic resources, but it was considered relevant to include the example of the Peruvian Committee against Biopiracy, as well as the contribution prepared by the expert David Vivas (annex 4).

transversal activities and to avoid duplication within the CBD, WIPO, FAO and WTO. For instance, the framework of the WTO can be used to generate synergies between environmental goods and services (e.g. including BioTrade products) and to enhance the competitiveness of the region. Coordinated efforts at the international level are important, for instance, to overcome key issues such as non-tariff barriers and even to obtain the differentiation of biodiversity-friendly products such as BioTrade within the Harmonized System classification nomenclature. Peru, for instance, has created technical groups to address market barriers and biopiracy as seen in box 10.

During the event BioTrade Potential for Growth and Sustainability organized in April 2010, private standards was considered as a major barrier for the region due to the current priority for these standards, generating a diversity of requirements for producers from developing countries. The use of private standards involves additional challenges to non-tariff barriers, in addition to the ongoing discussions in the WTO on the NFR and the trade in environmental goods and services. WTO discussions may promote the harmonization of those standards and platforms should be used to foster the exchange of practical experiences between countries.

Latin American countries are well placed to have a positive impact in promoting an enabling policy and legal framework for BioTrade activities and further strategies should be envisaged in this direction. To develop initiatives aimed to mitigate and/or overcome new barriers, active participation of countries in the region is needed for coordinating activities, documenting and sharing information and practical experiences, strengthening public-private links and create spaces for discussions with all the countries involved. In many cases, regional and international cooperation is sought to broaden the scope and impact of the activities. Existing institutions can be used as discussion platforms and also to position the region in the international arena.

UNCTAD and its partners can be key actors to facilitate South-South cooperation and motivate regional and international cooperation in this context.

8.3 Developing biodiversity-based sectors

For the development of sustainable and competitive biodiversity-based sectors, it is necessary to

strengthen the institutional framework that facilitates the development of BioTrade products and services; strengthen business, production and sustainable management capacities and skills of private and public value chain actors; enhance consumers' awareness for instance through campaigns; differentiate products in the marketplace that recognized the effort made by companies complying with BioTrade; facilitate access to markets and generate an enabling policy environment.

IPRs can be further promoted but their limited knowledge on the use and implementation of GIs is also a challenge to be overcome. For instance by capacity-building activities and coaching for producers in order to foster the use of these instruments in their favour and in favour of biodiversity. This could generate a domino effect where more products and actors will be willing to develop and implement these instruments.

An important barrier for the development of BioTrade products is the formalization of biotrade products and companies/associations. In the region, the majority of products are informal and can not access international markets because of the sanitary, phytosanitary, packaging, and standards requirements, among others. SMEs, particularly micro, and small producers should be supported with technical assistance, training and resources to fulfill the national and international market requirements. Note that the access to markets must be done gradually from local to national to international, considering the specific characteristics of the company. Thus companies need to learn how to deal with the requirements such as funding (liquidity for working capital), formality, volume, language (English), management and negotiation capacities, etc. Furthermore, the vertical and horizontal integration between value chain actors can help overcome challenges related to the volume and quality of the products for international markets.

8.4 Private sector engagement

The private sector is a key stakeholder in the conservation and sustainable use of biodiversity, as they are the actors implementing the activities. Their engagement and the creation of an enabling environment for the development of private initiatives are crucial to obtain the impacts desired by BioTrade.

Considering the economic slowdown, special attention should be given to companies engaged in

the conservation and sustainable use of biodiversity to assure and support their sustainable practices and involvement. As companies are expanding and competing on exigent markets that are affected by the crisis, there is a risk that companies will sacrifice their engagement in biodiversity conservation when they need to reduce costs and generate additional incomes.

The needs, challenges and motivations of all the value chain actors need to be understood by policymakers in order to define measures that can be translated into viable private sector practices. Within the value chains and sectors selected, biodiversity-based products and sectors being promoted need to be further identified and then assess their barriers in relation to the production, commercialization and distribution process. However, the identification and selection of priority products is difficult, as these are normally new products with limited information available (e.g. market, scientific, biological).

8.5 Concrete policy recommendations

In summary, to promote BioTrade and the development of biodiversity-based sectors in general, the following recommendations are suggested.

1. *Enable policy environment for sustainable biodiversity-based businesses and sectors*, through:

- o Regulatory frameworks and incentives that promote the sustainable use and trade of biodiversity-based products such as BioTrade, including fiscal incentives for companies implementing sustainable practices, adopt regulatory frameworks that address existing gaps for the sustainable use and trade of biodiversity-based products and reform adverse regulatory frameworks and incentives;
- o Inclusion of native species in national and regional strategies, particularly those related to research and development, technology transfer, export and development;
- o Strengthening the capacities and awareness of government officials in implementing regulations related to the sustainable use and/or trade of biodiversity-based products, particularly in local areas;
- o Public investment in infrastructure and adequate basic services that can support the development of biodiversity-based companies;
- o Establishing and clearly defining property and use rights of land, knowledge and natural resources,

which allow more stable incomes and long-term planning of the actors involve in BioTrade (e.g. land tenure, benefit-sharing).

2. *Facilitate access to markets* through:

- o Awareness raising campaigns and promotion of BioTrade products and services at local, national and/or international markets and depending on the cost/benefits obtained, they can be developed as a sector, region or country and include:
 - Differentiate products through an enabling environment for the development and implementation of distinctive signs;
 - Position the sector, country and/or region on target markets as environmentally friendly and socially responsible (BioTrade);
 - Support the establishment of platforms for displaying BioTrade products and services, for instance in trade fairs (e.g. Sala Andes Amazonia) or virtual (e.g. *Obio*⁷⁹ in Colombia);
 - Support the understanding and use of GIs in order to differentiate BioTrade products in the market while fostering the involvement of producers in the value chain;
 - o Public procurement programmes that use sustainably and socially produced products such as BioTrade;
 - o Facilitate the removal or mitigation of market barriers, where regional and international cooperation is crucial (e.g. South-South cooperation);
 - o Facilitate access to updated and reliable market information for BioTrade products and services and business contacts. This can be lead by national promotion organizations and also by establishing strategic alliance with import promotion organizations and programmes such as CBI, SIPPO or the ITC (UNCTAD/WTO).
- ### 3. *Strengthen the skills and knowledge* by:
- o Fostering broader cooperation between public and private actors, for instance, through public-private partnerships and platforms for coordinating activities in BioTrade sectors/chains, and for sharing of knowledge, information and lessons learned. The platforms should include all value chain actors, from producers/hunters/collectors, to intermediaries, processors, distributors, retailers, traders, and representatives from the government, business support organizations, NGOs, among others;
 - o Strengthening or developing business support services organizations, including sector associations;

-
- o Establishing capacity-building programmes related to business management, sustainable management of wild collected species, GAPs, GMPs, commercialization, etc., in particular for rural areas.
4. *Facilitate access to finance* by:
- o Capacity-building and awareness raising campaigns on biodiversity-based sectors (including BioTrade) and its potential, for representatives from public and/or private financial institutions;
 - o Establishing of green funds or credit lines within existing institutions that are adapted to the needs and scale of biodiversity-based businesses.
5. *Enhance production facilities, equipment and natural capital (biodiversity) by:*
- o Facilitating the development of technology and research in native species and in the development of value added products and management plans.
6. *Measure the impact and value of biodiversity through:*
- o Developing systems to measure, monitor and report the impact of biodiversity-based sectors, for instance through the development and implementation of the BioTrade Impact Assessment System.
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ANNEX 1. BIOTRADE AND UNCTAD ACCRA ACCORD

UNCTAD - ACCRA ACCORD (2008) - 193 signatory States

Policy Analyses

59. The conservation and sustainable use of biodiversity provides new opportunities for developing countries' trade and investment, as well as for their small and medium-sized enterprises dealing with biodiversity products. Trade in products and services related to biodiversity provides, for some countries, an important tool for preserving biodiversity and enhancing development, while acknowledging the social, cultural, legal and economic complexity of this issue.

Policy Responses

84. The conservation and sustainable use of biodiversity provide opportunities in trade, investment

and development for developing countries. Strategies to facilitate trade in products and services related to biodiversity should be considered, as appropriate, to promote trade and sustainable development.

UNCTAD's Contribution

102. UNCTAD should continue to build on its experience to enhance its BioTrade Initiative, which gives support to the growing market for biodiversity products and services produced in a sustainable manner. The BioTrade Initiative should continue to support the creation of an enabling policy environment to foster private sector engagement in the sustainable use and conservation of biodiversity, while acknowledging the social, cultural, legal and economic complexity of this issue.

ANNEX 2. BIOTRADE AND THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

CBD - 191 States party to the Convention

COP 8, Curitiba 2006

DECISION VIII/17. Private-sector engagement

Noting that further work on ways and means of supporting small and medium-sized enterprises with environmentally sound products, such as that developed by the UNCTAD BioTrade Initiative, would help to promote good biodiversity practice among business and industry...

DECISION VIII/23. Agricultural biodiversity

Annex, Proposed framework for a cross-cutting initiative on biodiversity for food and nutrition, D. Elements, Element 3. Conserving and promoting wider use of biodiversity for food and nutrition - Ways and means

...In addition, there are opportunities for cooperation with the BioTrade Initiative of the United Nations Conference on Trade and Development (UNCTAD) to, *inter alia*, provide technical assistance and create an enabling policy environment. Planned activities could be tested through pilot projects in selected countries, in order to evaluate effectiveness and develop approaches.

DECISION VIII/26. Incentive measures: preparation for the in-depth review of the programme of work on incentive measures

Positive incentive measures

9. *Invites* the United Nations Conference on Trade and Development, through its initiatives, including, BioTrade initiative, to continue supporting the programme of work on incentive measures of the Convention.

COP 9, Bonn 2008

DECISION IX/26. Promoting Business Engagement

Annex, Priority Area 1 – Build and promote the business case for biodiversity

2. 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.

Annex, Priority Area 2 – Disseminate tools and best practices

6. Disseminate tools and best practice of companies involved in biotrade.

DECISION IX/6. Incentive Measures (Article 11)

Cooperation

13. *Invites* the Biotrade Initiative of the United Nations Conference on Trade and Development 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 on Biological Diversity, through capacity-building, enhancing market access, promoting enabling environments and engaging relevant public and private actors;

15. *Invites* the Food and Agriculture Organization of the United Nations, the United Nations Conference on Trade and Development, the United Nations Environment Programme, the Organisation for Economic Co-operation and Development, and other national, regional, and international organizations and initiatives to undertake, and *requests* the Executive Secretary to encourage, further studies on payments for ecosystem services and other positive incentive measures at local, national, regional and international levels, their advantages as well as their potential limitations and risks, their cost-effectiveness, potential implications for biodiversity and indigenous and local communities, and their consistency with other international obligations. The studies should also address whether designating indigenous and local communities or local authorities as recipients of payments could help address concerns regarding equity consideration and the practical implementation of payment schemes;

16. *Invites* relevant national, regional and international organizations to promote scientific and technical cooperation among Parties on the design and implementation of incentive measures, including

through international courses and workshops for the exchange of experiences, and to provide technical support, capacity-building and training:

- a) On the valuation of biodiversity and associated ecosystem services;
- b) For the design and implementation of incentive measures that are appropriate to national circumstances;
- c) For the promotion of biodiversity-based products which are produced in a sustainable manner ("biotrade").

COP 10, Nagoya 2010

DECISION X/6. Integration of biodiversity into poverty eradication and development

12. Encourages synergies between ongoing initiatives linking biodiversity, development and poverty eradication, such as the Equator Initiative, the ABS Capacity Development Initiative for Africa, the LifeWeb Initiative, the UNCTAD BioTrade Initiative, the Poverty-Environment Initiative, the Biodiversity Technology Initiative, and the Multi-Year Plan of Action for South-South Cooperation;

Decision X/20. Cooperation with other conventions and international organizations and initiatives

19. Further requests the Executive Secretary to continue cooperation on biotrade and other trade-related matters with, inter alia, the United Nations Conference on Trade and Development and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Decision X/21. Business engagement

Recognizing the relevance of existing developments and work processes under various forums, including relevant international organizations, such as the Green Growth Initiative of the Organisation for Economic Co-operation and Development, the proposed green economics theme for the 2012 United Nations Conference on Sustainable Development, the Marrakech Process on Sustainable Consumption and Production supported by the United Nations Environment Programme and the United Nations Secretariat, the Biotrade Initiative of the United Nations Conference on Trade and Development, as well as existing initiatives that promote corporate social responsibility and the greening of supply chains...

1. Invites Parties:

... (c) To identify a range of options for incorporating biodiversity into business practices that take into account existing developments under various forums, including relevant institutions and non governmental organizations, such as the Business and Biodiversity Offsets Programme, the International Union for Conservation of Nature, the United Nations Environment Programme, the Biotrade Initiative of the United Nations Conference on Trade and Development, the World Business Council for Sustainable Development, the Organisation for Economic Co-operation and Development, Nippon Keidanren, the Business and Biodiversity Initiative initiated at the ninth meeting of the Conference of the Parties;

Decision X/32. Sustainable use of biodiversity

3. Invites Parties, other Governments, and relevant international and other organizations to:

... (e) Welcome and strengthen initiatives that link biodiversity, development, and poverty alleviation, for example the BioTrade initiative of United Nations Conference on Trade and Development;

Decision X/44. Incentive measures

13. Also recognizing the methodological limitations of existing approaches, such as of existing valuation tools, welcomes the work of relevant international organizations, such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and its initiative on the Economics of Ecosystems and Biodiversity (TEEB), the Organisation for Economic Co operation and Development (OECD), the International Union for Conservation of Nature (IUCN), as well as other international organizations and initiatives, to support the efforts at global, regional and national levels in identifying and removing or mitigating perverse incentives, in promoting positive incentives for the conservation and sustainable use of biodiversity, and in assessing the values of biodiversity and associated ecosystem services, and invites them to continue and intensify this work with a view to raising awareness on, and promoting common understanding of, the removal or mitigation of perverse incentives, the promotion of positive incentive measures, and the assessment of the values of biodiversity and ecosystem services;

ANNEX 3. CLASSIFICATION OF THE MAIN IPRS FIGURES

“Industrial property - The registration required to obtain protection is the basic characteristic of the industrial property. The legal provision regulates the following legal figures:

- o Patents - regulation to protect those inventions meeting the innovation, eminent inventive and industrial application requirements
- o Distinctive signs - regulation to protect the signs used to distinguish products and services in the trading arena, as well as from competition. They include trademarks, collective trademarks, certification trademarks, commercial logos, geographic indications and appellations of origin
- o Industrial designs - regulation to protect the aesthetic aspects inherent to the objects
- o Utility models - regulation to protect the utility aspects inherent to the objects
- o Trade secrets - regulation to protect confidential information with commercial value

“Rights over plant varieties - as in the case of industrial property, registration is required to grant protection...

“Copyrights and related rights - protects the authors of artistic expressions (original works). It does not need to meet any registration formalities to obtain protection. The following are the main copyrights:

- o Works - the main types of works are literary, musical, artistic, textile, technical plans and drawings, photography, movies, computer programs and databases
- o Neighboring rights - these include the protection of artists, singers, performers, phonogram producers, radio broadcasting organization, etc.”

Source/authors: David Vivas and Manuel Ruiz (2001). Handbook on mechanism to protect the traditional knowledge of the Andean region indigenous communities. UNCTAD, p. 5-6.

ANNEX 4. ADDRESSING BIOPIRACY THROUGH IPRS (PREPARED BY DAVID VIVAS, ICTSD)

The numbers of cases of illegal access and use of genetic resources and traditional knowledge have during the last two decades generated high concerns and disappointment on how the Intellectual Property (IP) system has been designed and implemented. Biodiversity rich countries have constantly pointing at gaps in terms of specific measures in the international IP to avoid biopiracy and other form of misappropriation over indigenous names and traditional expressions. This requests and concerns have led to several international negotiations and discussions under the CBD, WTO and WIPO.

At the national level, some countries have incorporated specific measures to avoid biopiracy practices in the IP, biodiversity and science and technology legislation. One interesting case is from Peru. Peru created some years ago the National Committee against Biopiracy (*Comité Nacional contra la Biopiratería*) with the objective of monitoring, preventing and avoid biopiracy acts in order to protect the natural patrimony of Peru. This Commission has proven to be quite effective in monitoring and taking action in cases where patents, using or incorporating Peruvian genetic resources

or traditional knowledge without consent, have been granted or are under examination.

However, these types of national experiences still are in an incipient phase. Therefore efforts toward the establishment of adequate measures and regulatory frameworks within the above mentioned international forums with the support of international organizations like UNCTAD and UNDP could provide coherent and effective solutions. One recent example on how an active stand on monitoring and avoiding biopiracy cases could bring results was the case of the revocation of the Enola or yellow bean patent (“Frijol Amarillo”) by the United States Court of Appeals for the Federal Circuit in 2009. In this case the patent was revoked lack of fulfillment of the “non-obviousness” criteria.

Finally, in the particular case of trademarks and GIs, they could be of assistance in providing additional evidence to patent examiners on the state of the art related to specific genetic resources and traditional knowledge by making clear wide historic use commercialization.

ANNEX 5. ISSUES RELATED TO THE CBD UNDER DISCUSSION IN THE TRIPS COUNCIL, AS STATED BY WTO

"More recently, the topic has been the subject of informal consultations chaired by the WTO director-general or by one of his deputies. The present debate focuses on how the TRIPS Agreement relates to the Convention on Biological Diversity (the last two of the topics listed above). The ideas put forward include:

"Disclosure as a TRIPS obligation: A group represented by Brazil and India and including the Plurinational State of Bolivia, Colombia, Cuba, Dominican Republic, Ecuador, Peru, Thailand, and supported by the African group and some other developing countries, wants to amend the TRIPS Agreement so that patent applicants are required to disclose the country of origin of genetic resources and traditional knowledge used in the inventions, evidence that they received "prior informed consent" (a term used in the Biological Diversity Convention), and evidence of "fair and equitable" benefit sharing.

"Disclosure through WIPO: Switzerland has proposed an amendment to the regulations of WIPO's Patent Cooperation Treaty (and, by reference, WIPO's Patent Law Treaty) so that domestic laws may ask inventors to disclose the source of genetic resources and traditional knowledge when they apply for patents.

Failure to meet the requirement could hold up a patent being granted or, when done with fraudulent intent, could entail a granted patent being invalidated.

"Disclosure, but outside patent law: The EU's position includes a proposal to examine a requirement that all patent applicants disclose the source or origin of genetic material, with legal consequences of not meeting this requirement lying outside the scope of patent law.

"Use of national legislation, including contracts rather than a disclosure obligation: The United States has argued that the Convention on Biological Diversity's objectives on access to genetic resources, and on benefit sharing, could best be achieved through national legislation and contractual arrangements based on the legislation, which could include commitments on disclosing of any commercial application of genetic resources or traditional knowledge".

Source: WTO, www.wto.org/english/tratop_e/trips_e/art27_3b_background_e.htm, 26 May 2010.

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- ⁷⁹ The National BioTrade Observatory (Obio) aims to promote BioTrade products and services, and to become a place where the offer and demand of products come together. It also formulates market and product-sector analyses, assist with information on technologies, and track management and competitiveness indicators in BioTrade enterprises. This was created by the Colombian National BioTrade Programme and the export promotion agency Proexport Colombia, and is currently managed by *Fondo Biocomercio* Colombia. For more information, please visit www.obiocolombia.com.
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