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**THE BIOTRADE IMPACT ASSESSMENT SYSTEM**

*Information note by the Executive Secretary*

1. The Executive Secretary is pleased to circulate herewith, for the information of participants in the meeting of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020, an information document entitled "The BioTrade Impact Assessment System" submitted by the United Nations Conference on Trade and Development.
2. The document is being circulated in the form and language in which it was provided to the Secretariat.

In order to minimize the environmental impacts of the Secretariat's processes, and to contribute to the Secretary-General's initiative for a C-Neutral UN, this document is printed in limited numbers. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

# **THE BIOTRADE IMPACT ASSESSMENT SYSTEM**



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Contributions and comments were received from the BioTrade partners and practitioners in the Plurinational State of Bolivia, Colombia, Ecuador, Peru, Uganda, as well as from General Secretariat of the Andean Community (SGCAN), PhytoTrade Africa, Union for Ethical BioTrade (UEBT), Osec/Swiss Import Promotion Programme (SIPPO), FairWild and the GEF/CAF/UNEP programme.

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## **Contents**

I. Introduction	1
II. The BioTrade Impact Assessment System (BT IAS)	2
III. BT IAS - Information System	5
IV. Baseline and measurement period	7
V. Gathering the information in the field	8
VI. Summary of the BT IAS indicators	10
VII. Other relevant efforts underway and their linkages with the BT IAS	11
BioTrade network contacts	13
Annex 1. Guideline sheet per BT IAS indicator	14
Annex 2. Data collection sheet for the BT IAS	37
Annex 3. Sample report of the BT IAS	47
References	49

## BIOTRADE IMPACT ASSESSMENT SYSTEM

### I. Introduction

The BioTrade Initiative aims to promote the conservation of biodiversity to further sustainable development through its sustainable commercial use. A variety of sectors are being supported since 1996 in Africa, Asia and Latin America, in partnership with regional and national organizations. These sectors include non-timber forest products, wildlife-derived products, sustainable agriculture and tourism.

As programmes and partners are implementing BioTrade, there is a constant need to demonstrate and measure on the ground the social, economic and environmental benefits that have been generated. Particularly, we need to validate the phrase that "*BioTrade - hence the promotion of trade and investment in biodiversity under its principles and criteria - contributes positively to sustainable development*".

BioTrade programmes and partners have invested considerable independent efforts in measuring and reporting the impact of their activities. However, the data obtained has not always been comparable or cannot be easily aggregated. To address this problem, the United Nations Conference on Trade and Development (UNCTAD) with the active participation of its partners, has been developing the BioTrade Impact Assessment System (BT IAS) since 2006. Partners are encouraged to use the BT IAS to uniformly measure the impact of their activities and to eventually receive concrete, coherent data results.

#### The BioTrade Network

The BioTrade Initiative was launched by UNCTAD in 1996. Its mission is 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). It frames the implementation of its activities within the global conservation and development objectives established under the Millennium Development Goals; Commission on Sustainable Development; CBD; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); United Nations Convention to Combat Desertification; and Ramsar Convention on Wetlands

The concept of BioTrade refers to those 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 complement it, UNCTAD, together with national and international partners defined seven BioTrade Principles and their respective Criteria. The Principles and Criteria (P&C) can be applied in different contexts, driving BioTrade processes and programmes to promote the conservation of biodiversity through sustainable commercial use.

More than a decade has passed since the first programme was launched in Colombia in 1998, which then was replicated in and adapted to other countries in the Andean region and Africa. Currently, more than fifteen countries have benefited from BioTrade programmes in Africa, Asia and Latin America and work on a diversity of biodiversity-based sectors including cosmetic and personal care, food, medicinal, handicrafts, sustainable leather, garments and sustainable tourism.

Thus far, results have promoted the development of biodiversity-based sectors, generated additional income to producers and local populations, fostered sustainable practices that enhanced the use of native biodiversity, created an enabling policy environment, increased knowledge and capacity of producers, companies and government officials in implementing

and monitoring BioTrade, etc. However, the task of obtaining comparable quantitative and qualitative data and aggregate figures at the regional and international levels has been challenging.

## **II. The BioTrade Impact Assessment System (BT IAS)**

UNCTAD is developing a BioTrade Impact Assessment System (BT IAS) since 2006. This system aims to define and measure BioTrade's contribution to sustainable development and the conservation/sustainable use of biodiversity.

The development process of the BT IAS includes two phases. The first phase started in 2006 when UNCTAD commissioned a consultancy to define the Impact Assessment System for BioTrade and a series of working documents were then prepared. In parallel, consultations took place with BioTrade programmes in South America, certification agencies, government representatives, cooperation agencies and experts. During these consultations, the process and method to define the main elements of the system and the definition of the basic tools to identify, collect and analyze the data that will be included was adjusted based on the feedback received.

In January 2008, the Working Document No.5: *Building a system to assess the impact of the BioTrade concept on sustainable development (WD5)* was finalized. This document proposes impact and implementation indicators to measure BioTrade activities in line with its Principles and Criteria. It includes also guidelines and technical sheets for the collection of data in the field.

The second phase started in November 2008 with a consultation phase on the initially proposed BT IAS. The consultation involved for the first time African partners and experts, including the organization of the African Technical Workshop on the Impact Assessment System for BioTrade. In addition, comments were also received from other BioTrade partners and practitioners in Latin America and Europe.

With the inputs received and with the support of an international expert, the concept for field-testing was prepared and tested from March to September 2009 in:

- Africa: Swaziland and Namibia with natural ingredients chain; and
- Latin America: Bolivia with wildlife chain, Colombia with tourism and handicrafts chains, and Ecuador with natural ingredients and final products for the food industry.

Consultations with other partners were also held.

With the inputs received, a new version of the BT IAS was developed, which was informally discussed and adapted with partners' comments in January-February 2010. This adapted version was the background document used in the BT IAS Workshop held in March 2010 in Lima, Peru. This workshop aimed to present the progress in the development of the BT IAS, as well as to agree with BioTrade partners the system that will be used for developing the information system. Participants included representatives from BioTrade programmes, Environmental Authorities and partners in the Andean region as well as PhytoTrade Africa and the Union for Ethical BioTrade (UEBT).

The final system and its indicators are the result of the agreements made by all BioTrade practitioners during the BioTrade Impact Assessment Workshop held in March 2010, the work and discussions that followed this workshop and the meeting with the UEBT in October 2010.

Conceptualization of the BioTrade Impact Assessment System

The conceptual basis of the system includes the following approaches:

- **sustainable livelihood approach** - it strengthens the human, social, physical, financial and natural capital of people and communities
- **value-chain approach** - where the strengthening of value chain is a critical element in implementing BioTrade Principles and Criteria;
- **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
- **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.

The seven BioTrade Principles and Criteria are the core conceptual framework of BioTrade and therefore, of the impact assessment system and the indicators proposed to measure and track the changes generated. For this reason, the indicators proposed respond to these principles grouped under environmental, socio-economic and governance categories<sup>1</sup>.

Environmental

- Principle 1: Conservation of biodiversity
- Principle 2: Sustainable use of biodiversity

Socio-economic

- Principle 3: Fair and equitable sharing of benefits derived from the use of biodiversity
- Principle 4: Socio-economic sustainability

Governance

- Principle 5: Compliance with national and international regulations
- Principle 6: Respect for the rights of actors involved in BioTrade activities
- Principle 7: Clarity about land tenure, use and access to natural resources and knowledge

There are benefits in developing an impact system that not only goes in line with measuring the impact but also assess the activities that are being implemented. For instance, it can allow the identification of areas for improvement or that are successful, define a better resource allocation, among others. Box 1.

**Box 1. Eight Potential Benefits of the BT IAS**

1. **Project vision and programme design** (*If we achieve our objectives, what would success look like?*)
2. **Project management** (*Are our objectives being achieved? Are we being accountable?*)
3. **Organizational learning** (*What seems to be working (or not working) and why?*)
4. **Stakeholder management** (*To whom must we demonstrate our BioTrade business impacts and what evidence do we need to do that?*)
5. **Resource allocation** (*Where should we put more resources based on the results achieved to date? Where are the payoffs?*)
6. **Training and capacity building** (*Are we helping to improve the ability of people along the supply chain to learn and improve? Is it increasing their self-monitoring ability?*)

<sup>1</sup> For more information on the BioTrade Principles and Criteria, please refer to UNCTAD/DITC/TED/2007/4.

7. **Building a shared understanding of the BioTrade business** (*How do we get clarity about the business amongst all stakeholders? Are we communicating effectively?*)
8. **Sustaining the business** (*How can we protect that natural resource base of the business? How can we improve or sustain our reputation for a quality product? How can we grow the business through customer satisfaction?*)

Source: A.B. Cunningham, *BioTrade Impact Assessment - Working Document No. 6, UNCTAD* .(internal document)

The BT IAS is conceived as an integral tool to be used by partners implementing BioTrade activities and carried out as part of their monitoring and evaluation systems. The BT IAS comprises guidelines for partners to understand the concept of the system, as well as indicators to measure and to track the social, environmental and economic impact of their BioTrade activities. Furthermore, by using the system in a regular basis, we can be able to analyze and define the lasting changes that have been generated.

Due to the broad scope of BT in several sectors, and considering the feedback from the field testing and consultations, the current BT IAS will be used to measure products derived from flora and fauna only. For sustainable tourism activities, UNCTAD will link with the on-going work carried out by the Sustainable Tourism Stewardship Council.

#### *The objective of the BT IAS*

The aim of the BioTrade Initiative is to promote the conservation of biodiversity to further sustainable development through its sustainable commercial use. Thus, the BT IAS aims to validate that statement, in particular if the promotion of trade and investment in biodiversity under BioTrade principles and criteria is positively contributing to sustainable development and the objectives of the CBD in particular.

With this system, we “*intended to determine more broadly whether the programme [BioTrade] had the desired effects on individuals, households and institutions and whether those effects are attributable to the programme intervention.*” (Cunningham, 2009, p.4). “*The BioTrade impact assessment system is based on an analysis of the lasting [not temporary] changes in the lives of local communities and the environment in which they live that can be attributed to the concept, be they positive, negative, intentional or unintentional. This should not be confused with assessing the implementation of the BioTrade initiative which provides information, amongst other, on the number of producers engaged, the number of products in the portfolio and laws that have been enacted or modified. It is also distinct from the result of the application of the UEBT verification framework, that reveals if and how the producers or other actors along the supply chain conform to the targets set by the BioTrade principles and criteria.*” (Pi Environmental Consulting, 2008, p.10).

#### *Relationship with biodiversity-based sectors supported*

The development of a BT IAS was challenging because of two main issues. First, BioTrade programmes and activities are implemented in a wide range of countries and regions in Africa, Asia and Latin America. Secondly, it involves a wide number of biodiversity-based sectors (e.g. cosmetic, pharmaceutical, food, decoration, eco-fashion, flowers and sustainable tourism), productive practices (e.g. agroforestry systems, wild collection, farming, etc) and private property rights (e.g. privately owned, community owned, or government owned).

Long and endless discussions on these issues can divert to obtaining a practical and cost-effective tool, and thus generate the following pitfalls<sup>2</sup>:

- Overemphasis on "top-down" control and loss of ownership by developing country partners;
- Lost opportunities to develop and fully use local capacity;
- Over-planning and loss of flexibility in impact indicator design;
- Oversimplification and misunderstanding of how development outcomes occur;
- Overemphasis on impacts that are easy to quantify at the expense of less tangible, but no less important outcomes; and
- Mechanical use of impact indicators for reporting purposes in ways that fails to feed into strategic thinking and organizational learning.

Efforts are to render this system applicable for all of its users, starting with a broader category which relates to fauna and flora *in-situ* and *ex-situ*. For other sectors like sustainable tourism, the proposed BT IAS should be adapted to consider the unique characteristics of this service sector as well as other on-going initiatives like those carried out by the Sustainable Tourism Stewardship Council.

Additionally, as the first data is gathered, a revision of the BT IAS would take place in order to adapt and improve the system. (This topic is further developed in section *Baseline and measurement period*).

### ***III. BT IAS - Information System***

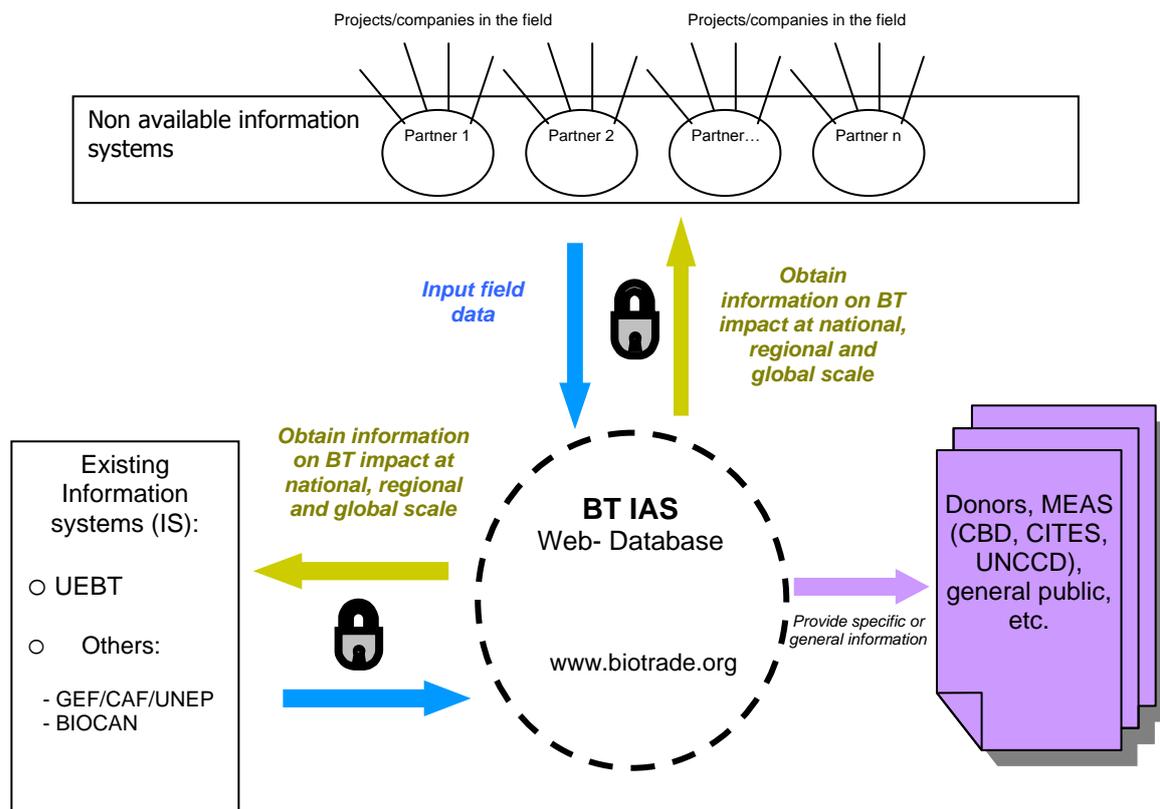
The BT IAS has been conceived as an information management tool that partners can access through the Internet to obtain information and/or to enter data into the system (Figure 1). As much as possible, the BT IAS intends to build on the existing information and activities already implemented by partners. BioTrade partners in the field will compile the information in the field based on the agreed indicators and datasheets, as part of their monitoring and evaluation systems. For other partners who have developed or will develop their databases systems, the process would be to establish linkages to share information already available (e.g. UEBT, GEF/CAF/UNEP project).

As a result, the system will then compile and process all the data received to prepare reports on the impact of BioTrade worldwide. These reports can be used, for instance, to show the impact of BioTrade to beneficiary governments, donors and MEAs (CBD, CITES and the 2010BIP), while identifying areas for improvements.

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<sup>2</sup> A.B. Cunningham, 2009. BioTrade Impact Assessment - Working Document No. 6, UNCTAD. (internal document)

Figure 1. Information System for the BT IAS



#### Users of the BioTrade Impact Assessment System

The BT IAS is developed as a tool to be used by BioTrade programmes, partners and practitioners that are implementing BioTrade activities. It has been developed in a participatory manner with the aim to search for a balance between the required information and the practicality, so that it will be successfully used by BioTrade partners.

The system will have three types of users as described below.

#### **USERS: BioTrade partners**

##### **RIGHTS: write and read**

This user includes BioTrade partners such as BioTrade focal points of BioTrade programmes, and national, regional and international partners such as PhytoTrade Africa, UEBT, CAN, CAF, ACTO, BioNativa, among others. These users will have the rights to input information into the system which refers to their activities in the field. However, they will have access to aggregated figures at the national, regional and international levels that were inputted by other user and no access to individual company/project information will be available.

#### **USERS: Donors and other users of BioTrade**

##### **RIGHTS: read only of aggregated figures**

This user will be able to read aggregated information at the national, regional and international levels that is gathered by BioTrade partners. No access to individual

company/project information will be available to them. If that information is requested, it will need to be addressed to the BioTrade partner directly.

**USERS: General public and other users**  
**RIGHTS: read only of general information**

This user will be able to read only regional and global aggregated figures.

#### IV. Baseline and measurement period

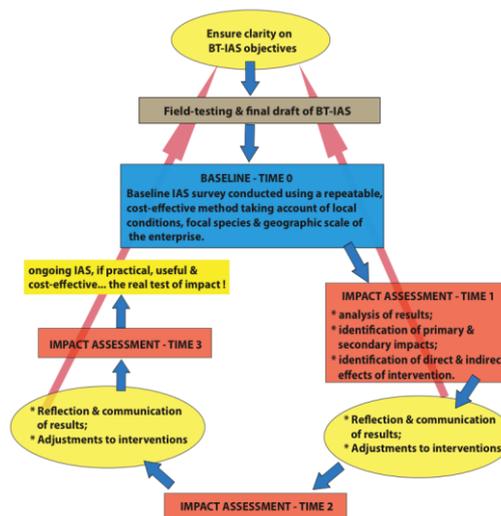
The baseline for the BT IAS will be the first data gathered in the field and future measurements will be compared to it.

The gathering of the information for the BT IAS is expected to be done annually, as part of the monitoring activities of BioTrade partners and practitioners. However, it is also envisaged that third-party audits and/or company self-assessments will be carried out to gather the information, as is the case of the UEBT.

Through the systematic use of the system (data gathering in the field and analysis by BioTrade partners), a revision of all the components of the BT IAS could take place, for instance after the first measurement and then on an on-going basis every other year<sup>3</sup>.

The clarity of the objectives of the BT IAS needs to be ensured by an analysis of the results obtained from its application, and the identification of primary/secondary impacts and the direct/indirect effects of BioTrade activities. Thus, the BT IAS is carried out and improved on an ongoing basis as shown in the figure below:

**Figure 2. Enhancing the BioTrade Impact Assessment System**



Source: A.B. Cunningham 2009.

<sup>3</sup> Pi Environmental Consulting (2008). Building a System to Assess the Impact of the BioTrade Concept on Sustainable Development - Working Document No. 5. UNCTAD. pg. 10

### ***V. Gathering the information in the field***

An interpretation datasheets will accompany the BT IAS, which allows assessors to interpret the indicators and register the information using the datasheets developed. The final indicators, as well as the interpretation guidelines (datasheets) were agreed and developed jointly with BioTrade practitioners in Africa and Latin America.

The gathering of information of each BioTrade organization that is being supported will be feed into the information system of the BT IAS. This will be done by experts during their monitoring activities (e.g. for instance of the monitoring team of BioTrade programmes or regional partners such as PhytoTrade Africa) or during the verification and self-evaluation assessments (e.g. for instance required by the UEBT).

A **BioTrade organization (BTO)** refers to all entities that are using and trading biodiversity-based ingredients and products in compliance with BioTrade Principles and Criteria. Companies (e.g. transnational, small and medium and micro enterprises), business associations and cooperatives (e.g. producers' associations), NGOs and Foundations are examples of BTOs.

Two complementary steps are envisaged. Firstly, the evaluator/assessor should review relevant documents and information on the company/project that will be assessed, in order to have concrete idea of the activities undertaken and the information that should be sought in the field visit (next phase). Secondly, the evaluator/assessor will visit the company/project to discuss with the beneficiaries in order to complement or verify the information obtained.

Finally, the information will be feed into the information system on a yearly basis. The analysis of the annual data obtained will make it possible to assess and track the changes that have been generated in a systematic manner.

- *Guideline sheets for BT IAS indicators*

Guidelines sheets were prepared jointly by BioTrade partners and practitioners and UNCTAD. These sheets explain what is to be measured/assessed as well as how to measure/value and interpret what is being found in the field.

Summary of key analytical steps that should be followed when carrying out the BT IAS are:

1. Identify the BioTrade organization being assessed; gather as much information as possible on the initiative, its value chain processes and actors involved as well as review registries and reports relevant to BioTrade. This will involve for instance, secondary information available on the initiative in BioTrade programmes, UEBT, PTA, BioNativa, and others.
2. Establish meetings with key actors identified including managers, technical staff related to the production and processing processes, producer's leaders, and government staff relevant to the sustainable use of biodiversity (e.g. CITES).
3. With the information available, for each indicator assess the organization using the scores (1 to 5) shown in the guidelines and record it in the data-gathering sheets (explained below). Once all the scoring is finished, analyze the impact of the organization through the interpretation of the results of each indicator.

Each guideline sheet is organized with the following information, and the complete set can be seen in Annex 1.

<b>Indicator X:</b> <i>[Name of the indicator]</i>
<b>Reason for the indicator:</b> <i>explain why this indicator is important and demonstrate how it is linked to sustainable development, in particular its relationship towards environmental, social or economic sustainability. It can also give a broader overview of what the BTO should be doing in this regard. Finally, it also highlights its relationship to the BioTrade principle(s).</i>
<b>Definition:</b> <i>described the type of indicator (quantitative or qualitative) as well as specific definitions used.</i>
<b>Interpretation:</b> <i>explain what is intended to be measured with the indicator and interpret its results. Also mention its limitations, if any.</i>
<b>Indicator scale:</b> <i>describe where the data will be obtained and how it would be compiled.</i>
<b>Information source &amp; type:</b> <i>described the required data and the source &amp; type of information needed to assess the indicator. Finally and if needed, please mention the formula to obtain the data for the indicator.</i>
<b>Measurement level:</b> <i>explain how the BioTrade organization will be measured from 1 to 5, 1 being the lowest and 5 the highest.</i>

- *Data-gathering sheets for BT IAS*

To register the information and score obtained under each indicator for the BTO being assessed, the BT IAS includes data-gathering sheets. These sheets can be fulfilled directly in the IS of UNCTAD or in partner`s web-databases upon which BioTrade will extract the information. The data-gathering sheets include the following fields that need to be duly filed:

<b>CONTACT DETAILS AND INFORMATION OF THE BTO, THE ACTIVITY/INDUSTRY AND THE SPECIES USED</b>		<b>CONTACT DETAILS OF EVALUATOR:</b>			
<b>Area of influence (in hectares: ha) of the producers/collectors of the BTO, including Privately owned land, communitarian area, state-controlled area, no-harvest area, or other.</b>					
<b>Type of Impact Evaluator:</b>					
<ul style="list-style-type: none"> <li>• First party - being the BTO</li> <li>• Second party - being BioTrade programmes and partners that have no direct link to the BTO</li> <li>• Independent third party - being auditors such as those involved in UEBT</li> </ul>					
<b>Date of evaluation:</b>		<b>Period covered in the evaluation:</b>			
<b>INDICATOR</b>	<b>SCORE FOR EVALUATION</b>				
<b>Environment, Social or Governance indicators</b>					
<b>Number and name of indicator</b>	<i>BT Impact Indicators: please put an "x" in the box "☒" according to the results of the assessment, hence on the score from 1 to 5, or enter the information accordingly.</i>				
	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	Description of score	Description of score	Description of score	Description of score	Description of score
	Comments/observations:				

The data-gathering sheet of the BT IAS can be seen in Annex 2.

## VI. Summary of the BT IAS indicators

The definition of the indicators and their interpretation and measurement is based on extensive research and analysis of experts and BioTrade practitioners that started in 2006, in particular, the work carried out by Pi Environmental Consulting (through their technical documents one through five) and Anthony B. Cunningham (through its two technical papers). Their work included the analysis of linkages between BioTrade and sustainable development, the identification of possible indicators and variables, and finally the analysis of the field testing of the BT IAS in Africa and Latin America.

Moreover, the definition of the BT IAS indicators was developed under the umbrella of the following criteria:

### BOX 2: CRITERIA FOR SELECTING INDICATORS

(adapted from Hagan and Whitman (2006))

**Practicality:** How easy and cost-effective is it to measure the impact criteria? What sort of training is required?

**Breadth:** Are some impact indicators redundant because other more inclusive impact indicators already cover them? It is better to choose indicators that correlate with several components.

**Scientific merit:** it is important that impact indicators are backed up by well-founded relationships between the indicator and the component of interest. However, it is often much more difficult to establish scientific merit for a target level for an indicator.

**Accuracy:** How precise do we want (or need) to be? This is a very important trade-off. In general, very accurate measurements cost more and as a result, may not get done at all. On one hand, as Legg and Nagy (2006) point out: *“The results of inadequate monitoring can be both misleading and dangerous not only because of their inability to detect ecologically significant changes, but also because they create the illusion that something useful has been done”*.

**Credibility:** Impact assessments need to be impartial, reflecting positive, negative or neutral outcomes. It is essential that there is no conflict of interest between the BioTrade related enterprise and those doing the impact assessment. Third-party certification is widely recognized as necessary. It is equally important that independent assessors, such as university researchers or independent consultants, conduct impact assessments<sup>7</sup>. On-the-spot assessments will generally be necessary. Using methods such as telephone interviews with BioTrade businesses will lack credibility: after all, how many BioTrade business managers are going to say things are not working if continued trade depends on the answer?

**Relevance:** How appropriate are the impact indicators to the values of stakeholders? This largely depends on the extent to which key stakeholders have been involved in the indicator selection process. One of the significant challenges with BT-IAS is that BioTrade covers so many different types of enterprises, from crafts to crocodiles and tourism to tortoises.

**Usefulness:** A key objective of impact assessment is to leverage positive changes and improvements. Can the participants in BioTrade enterprises make decisions based on the indicator? For this to happen, it is not only the independent evaluators, but also the participants in the BioTrade supply-chain who have to reach consensus and an understanding of what are good or bad levels for an indicator. Impact indicators generally are most useful when target levels or goals have been set and understood.

Source: extract from A.B. Cunningham, 2009.

Summary of Indicators

As a result of an extensive consultative and participatory process with all BioTrade practitioners and programmes, the following ten indicators were agreed as part of the BT IAS:

<b>INDICATOR</b>
<b>Environment indicators</b>
1.1 Conservation area under the management of BioTrade organizations
1.2 Impact on conservation and sustainable use of <i>in-situ</i> biodiversity (wild species)
1.3 Usage or exploitation rates of resources are defined according to the species characteristics (wild species)
1.4 Environmental sustainability of the <i>ex-situ</i> production systems
1.5 Level of use of toxic or dangerous substances in agricultural practices
<b>Social indicators</b>
2.1: Increase in the average annual income for actors at the first stage of the value chain that are involved in BioTrade
2.2: Employment generated by the BioTrade organization at the producer's level
2.3: Volume and value of annual sales of the BioTrade organizations
2.4: BioTrade organizations have established partnerships between its suppliers that comply with BioTrade requirements of traceability, inclusion, transparency and fair pricing
<b>Governance indicator</b>
3.1: Level of compliance with legal requirements and adoption of additional social and environmental responsibility activities

**VII. Other relevant efforts underway and their linkages with the BT IAS**

- 2010 BIP ([www.twentyten.net](http://www.twentyten.net))

The 2010 Biodiversity Indicators Partnership (BIP) is a global initiative that aims to track progress towards achieving the "2010 biodiversity target" to significantly reduce the rate of biodiversity loss at the global, regional and national levels by 2010. To do so, it develops global biodiversity indicators and information on the trends of biodiversity. UNCTAD is an Affiliate Partner of this initiative since April 2010.

The 2010 BIP includes 17 headline indicators and indicators as described below:

<b>Focal Area</b>	<b>Headline indicator</b>	<b>Indicators</b>
1. Status and trends of components of biodiversity	1.1 Trends in extent of selected biomes, habitats & ecosystems	1.1.1 Extent of forests & forest types 1.1.2 Extent of assorted habitats
	1.2 Trends in abundance & distribution of selected species	1.2.1 Living Planet Index 1.2.2 Global Wild Bird Index 1.2.3 Waterbird Indicator
	1.3 Coverage of protected areas	1.3.1 Coverage of protected areas 1.3.2 Overlays with biodiversity 1.3.3 Management effectiveness
	1.4 Change in status of threatened species	1.4.1 Red List Index
	1.5 Trends in genetic diversity	1.5.1 <i>Ex-situ</i> crop collections

		1.5.2 Genetic diversity of terrestrial domesticated animals
2. Sustainable use	2.1 Areas under sustainable management	2.1.1 Area of forest under sustainable management: certification 2.1.2 Area of forest under sustainable management: degradation and deforestation 2.1.3 Area of agricultural ecosystems under sustainable management
	2.2 Proportion of products derived from sustainable sources	2.2.1 Proportion of fish stocks in safe biological limits 2.2.2 Status of species in trade 2.2.3 Wild Commodities Index
	2.3 Ecological footprint & related concepts	2.3.1 Ecological footprint and related concepts
3. Threats to biodiversity	3.1 Nitrogen Deposition	3.1.1 Nitrogen deposition
	3.2 Invasive Alien Species	3.2.1 Trends in Invasive Alien Species
4. Ecosystem Integrity and ecosystem goods and services	4.1 Marine Trophic Index	4.1.1 Marine Trophic Index
	4.2 Water quality	4.2.1 Water Quality Index for Biodiversity
	4.3 Connectivity/fragmentation of ecosystems	4.3.1 Forest fragmentation 4.3.2 River fragmentation & flow regulation
	4.4 Health & well-being of communities	4.4.1 Health and well being of communities directly dependant on ecosystem goods and services
	4.5 Biodiversity for food & medicine	4.5.1 Nutritional status of biodiversity 4.5.2 Biodiversity for food & medicines
5. Status of Traditional knowledge, innovations and practices	5.1 Status and trends of linguistic diversity and numbers of speakers of indigenous languages	5.1.1 Status and trends of linguistic diversity and numbers of speakers of indigenous languages
6. Status of access and benefits sharing	To be determined	To be determined
7. Status of resource transfers	7.1 Official development assistance provided in support of the Convention	7.1.1 Official development assistance provided in support of the CBD

*2010 BIP Biodiversity Indicators, May 30<sup>th</sup>, 2011*

*Note: blue text is where possible collaboration/synergies exist.*

- Sustainable Tourism Stewardship Council  
This initiative is led by UNEP and the UN World Tourism Organization. Efforts are being led by UNCTAD to participate in this council which is developing impact indicators for sustainable tourism initiatives.

**BioTrade network contacts:**

Bolivia	Viceministry of Biodiversity, Forestry Resources and Environment, Bolivia
	Fundación Amigos de la Naturaleza (FAN), Bolivia
	BioNativa, Bolivia
Colombia	Ministry of Environment, Housing and Territorial Development, (MAVDT), Colombia
	BioTrade Fund, Colombia
	BioNativa, Colombia
Ecuador	Ministry of Environment of Ecuador
	Export and Investment Corporation (CORPEI), Ecuador
	EcoCiencia, Ecuador
	Nativa Ecuador
Peru	Ministry of Environment, Peru
	PROMPERU, Peru
	Peruvian Institute of Natural Products (IPPN), Peru
Uganda	Uganda Export Promotion Board (UEPB), Uganda
Southern Africa	PhytoTrade Africa (PTA), Zimbabwe
Andean and Amazonian regions	General Secretariat of the Andean Community (SG CAN), Peru
	Andean Development Corporation (CAF), Venezuela
	Amazon Cooperation Treaty Organization (ACTO), Brazil
	BioNativa, Colombia
International level	Union for Ethical BioTrade (UEBT), Switzerland
	UN Conference on Trade and Development (UNCTAD), Switzerland

Annex 2. Guideline sheet per BT IAS indicator

<b>Environment indicator 1.1 Conservation area under the management of BioTrade organizations</b>
<p><b>Reason for the indicator</b></p> <p>BioTrade organizations (BTOs) that have land and resource usage rights, should strive to maintain the ecological conditions (genetic variability, ecological processes, air, soil and water quality, ecosystem functions, species interactions, among others) of the ecosystems and species that are related to their production activities.</p> <p>Ideally, BTOs should define clear and measurable conservation objectives and good practices, within their area of influence, with other stake holders in the value chain, and implement activities that allow for the conservation of the species and ecosystems they use (BioTrade Principles 1 &amp; 2). These conservation objectives, good practices, and other information relevant to the conservation and sustainable use of resources and ecosystems should be set out in a document that guides the actions of BTOs, and should be coherent with the conservation plans set out by environmental authorities.</p> <p>Information relevant to conservation and sustainable use of biodiversity may include elements such as the harvest rates, regeneration rates, efficiency indexes, and a monitoring protocol that allows for the estimation of the impact of productive activities over resources and ecosystems.</p> <p>Measuring the total area of land owned or managed by a BTO and comparing it to the area dedicated by it for conservation, allows for the estimation of the commitment it has towards the sustainable use of natural resources, and is an indication of their impact on conservation. Measuring the total area under the management of BTOs will also allow us to estimate the total land dedicated to BioTrade activities in a specific region.</p>
<p><b>Definition</b></p> <p>Quantitative indicator that should be measured within the area of influence of the BioTrade organization.</p> <p>The area of influence is to be understood as the land that is owned by the BioTrade organization or over which it has legal rights of use or where its activities have a direct impact. These areas may include public areas (whose zoning allows usage), protected areas, buffer zones and/or private areas, which are not necessarily demarcated in accordance to the legal requirements (pg. 24, Pi, 2008).</p> <p>The protected and/or conservation areas are understood under the definition given by the IUCN "An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means".</p> <ul style="list-style-type: none"><li>• For an ex situ production system, the conservation area is considered as the no-harvest zone (e.g. monocrops/plantations). In particular for agro-forestry or similar systems, the conservation area is the sum of the production and the no-harvest areas.</li><li>• For an in situ production system, the conservation area is to be considered as the total area used by the organization.</li></ul> <p>Sustainable practices are to be understood as measures taken by the organization to reduce their</p>

environmental impact, as stated in the BioTrade guidelines (BioTrade Principles and Criteria, management plans, Verification Framework). These can include practices to save water, energy and materials and appropriate waste disposal, among others.

Conservation activities are to be understood as measures taken by the company to help conserve the biodiversity in their area of influence. These can include crop rotation, crop association, vegetative barriers, biological control, agro-forestry, body water protection, biological corridors, among others.

**Interpretation**

For this indicator, data collectors should measure the total area of influence and the conservation area as indicated above, and determine the proportion between them. The higher the proportion of conservation area, the higher the organization will score. For the analysis of the data, changes in the proportion of the conservation area over time should be taken into account, so the evolution of the contribution can be assessed. To help analyze this indicator, it is recommended that additional data is collected by the evaluator: listing and describing the conservation activities and the sustainable practices implemented by the organization.

Limitations: There are two main limitations to this indicator. The first one assuming that the bigger the area is better. The other one is in the case of in situ and specific ex situ productive systems, the area of influence is equal to the conservation area and little information can be inferred from this indicator. To solve these problems, complementary information can be collected such as:

- list and describe the conservation activities implemented by the organization; and
- list and describe the sustainable practices implemented by the organization.

**Indicator scale**

Data for this indicator should be collected on site by the evaluator and applies to organizations that are on the first link of the value chain (primary producers and collectors). The compilation and analysis of the data will allow evaluators to determine the degree of commitment an organization has towards BioTrade principles 1 and 2.

**Information source & type**

To measure this indicator, the evaluator should measure the area of influence, the production area and the no-harvest area, as well as list and describe the activities that are being implemented by the company in order to conserve biodiversity. The information needed for this indicator is obtained on site by the evaluator:

1. Direct measurement of the influence area (area in ha.)
2. Direct measurement of the conservation area (area in ha.). Formula: (conservation area/influence area)\*100

**Measurement level:**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Very low	Low	Medium	High	Very high
<0 to 0%	0 to 5%	5 to 10%	10 to 15%	> 15%.

<b>Environment indicator 1.2 Conservation and sustainable use of in-situ biodiversity (wild species)</b>
<p><b>General introduction</b></p> <p>The purpose of this indicator is to assess the conservation and sustainable use of <i>in-situ</i> biodiversity that results from the work implemented by the BioTrade Organization (BTO), in the area where it has land and resource usage rights. In particular, it aims to assess if the organization, through tools and managerial documents, is maintaining the ecological conditions (genetic variability, ecological processes, air, soil and water quality, ecosystem functions, species interactions, among others) of the ecosystems and species that are related to their production activities.</p> <p>In doing so, the BTO through the definition of clear and measurable conservation objectives and good practices within its area of influence and with other stakeholders in the value chain, and the implement activities, allows for the conservation of the species and ecosystems they use. All these objectives, practices, and activities are set out in a document that guides the actions of the BTO, and should be coherent with the conservation plans set out by environmental authorities.</p> <p>This indicator relates to the BioTrade Principles 1 and 2, in particularly to those related to <i>in-situ</i> species.</p>
<p><b>Reason for the indicator</b></p> <p>This indicator determines if the BTO has clearly identified its conservation objectives that are coherent with conservation plans of environmental authorities, has information and defines the harvest, regeneration and efficiency rates, has defined/implemented sound practices, and a monitoring protocol. This indicator also assess if these information was build and socialized with key actors of the value chain. Ideally a BTO should have abundant and good quality information to determine harvest, regeneration and efficiency rates, from a well defined monitoring protocol or system.</p> <p>The limitation of this indicator is that a direct link cannot be established between the improvements in the current conservation status of biodiversity and the implementation of the objectives, practices and activities implemented by the BTO. This indicator suggests that by implementing them, the BTO supports biodiversity in its area of influence and do not threat the surrounding ecosystems.</p>
<p><b>Definition</b></p> <p>Qualitative indicator that should be measured directly with the BTO, only when is related to wild collected species.</p> <p>Conservation and sustainable use objectives are goals set out by the BTO, ideally with key actors of the value chain, regarding BioTrade Principles 1 and 2.</p> <p>Good practices are strategic management activities or methodologies that allow or encourage the sustainable and efficient use of resources and ecosystems. Information relevant to conservation and sustainable use of biodiversity may include elements such as the harvest rates, regeneration rates, efficiency indexes, and a monitoring protocol that allows for the estimation of the impact of productive activities over resources and ecosystems.</p> <p>Monitoring protocol is a document that defines the information and manner of collecting it, necessary to determine harvest, regeneration and efficiency rates.</p>

Sustainable practices are to be understood as measures taken by the organization to reduce their environmental impact (e.g. BioTrade Principles and Criteria, management plans, Verification Framework). These can include practices to save water, energy and materials and appropriate waste disposal, among others.

Conservation activities are to be understood as measures taken by the company to help conserve the biodiversity in their area of influence. These can include body water protection, biological corridors, among others.

**Interpretation**

This indicator allows assessing the degree of implementation of activities that allow for the conservation and sustainable use of resources and ecosystems by BTO. Ideally BTOs and key actors in the value chain should be maintaining ecosystem structural and functional connectivity. Verification elements are: wild area maps, management plan, good practices document, monitoring documents, evaluation documents, and harvest, regeneration and efficiency rates.

To help analyze this indicator, it is recommended that additional data is collected by the evaluator: listing and describing the conservation activities and the sustainable practices implemented by the organization and if any particular achievement has been obtained in terms of the species and ecosystems managed.

This indicator, which is applied only to wild-collected species, is linked to the environmental indicators: 1,1 and 1.3, as well as the governance indicator 3.1.

**Indicator scale**

Data for this indicator should be obtained through direct interaction with BTOs that are on the first link of the value chain, which is related to the wild collection.

**Information source & type**

The BTO has:

1. identified influence and conservation areas, and has information on ecosystems and species used;
2. determined clear conservation objectives, coherent with conservation plans of environmental authorities;
3. defined and implemented good practices for species utilized:
4. implemented a monitoring protocol or system that allows to measure the achievement of conservation and sustainable use objectives; and
5. has information to define harvest rates based on data of regeneration, efficiency rates and tendencies on the harvest effort and the yields

<b>Measurement level:</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
<p>There is no evidence that the BTO has identified its conservation and/or influence areas, nor the ecosystems upon which its activities are being developed</p>	<p>There is evidence that the BTO has defined its influence and conservation areas, ecosystems and species, and knows about their characteristics</p>	<p>There is evidence that the BTO has defined clear and measurable conservation and sustainable use practices for their influence area</p>	<p>There is evidence that the BTO has defined and implemented good practices for the collection and transformation of the species utilized</p>	<p>There is evidence that the BTO has a monitoring system which includes harvest, regeneration and efficiency rates of the species used, as well as tendencies on the harvest effort and the yields</p>
<p><b>List and describe the conservation and sustainable practices, in particular if any achievement has been obtained in terms of the species and ecosystems managed:</b></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>				

**Environment indicator 1.3 Usage or harvest rates of resources are defined according to the species characteristics**

**General introduction**

The harvest rate is the basis of the production capacity of a BioTrade Organization (BTO) dealing with wild species. A BTO interested in the sustainability of the natural resource and its business invests time and money in improving the knowledge about the biologic characteristics of the managed species and the implementation of monitoring systems. Management arrangements should allow the implementation of an adaptive management system that contributes to the sustainable management of the species.

**Reason for the indicator**

The sustainable harvest rate of wild species may guarantee that this resource is not depleted by its use and that *the business activity will not be affected by scarcity of the raw material from overexploitation* (Pi, 2008, pg 13).

**Definition**

Qualitative indicator for wild collected species that should be measured by the BTO based on information of harvest rates of their providers.

Defining the sustainable harvest rate of wild species involves the analysis of existing information on the specie and its ecosystem, the application of valid methodologies to assess the abundances of the species and the reproductive surplus that could be considered as the production capacity of the species in the production system. In this context, a BTO need to have a resource assessment that identifies the basic characteristics of the species (regeneration rate, mortality rate and production capacity, among others) based on scientific and traditional knowledge. The harvest rates are defined and upgraded based on information from the monitoring system (adaptive management system).

**Interpretation**

The lower score of this indicator shows that the wild species is used above its regeneration capacity and therefore its depletion and that the business is affected by scarcity. The higher score means that the BTO allows the species to be regenerated and can even contribute to improve its abundance.

The main limitation for this indicator as it states that the measurements established do not necessarily consider the precautionary principle and the species characteristics. This problem is somehow solved by including additional information on how thoroughly this rate was calculated.

**Indicator scale**

Data should be obtained by interviews with producers and BTO staff in charge of production management. It is important to ask for documents related to the resource assessment and secondary information of the managed species.

**Information source & type**

To measure the indicator the evaluator has to consider the following documents: Registers of providers, resource assessment of managed species, collectors' manuals and monitoring systems of the BTO. Within this, the usage and harvest rate should be defined.

However, the evaluator may also consider the following:

<p>1. BTO works based on a harvest rate defined in a management document;                  2. harvest rate is justified by scientific or traditional knowledge;                  3. BTO has a resource assessment or has planned the development of this assessment to support decisions related to the harvest rates and their management practices;                  4. BTO has planned to review the harvest rate for each harvest season, based on information derived from the production system or standardized monitoring procedures; and                  5. The organization's monitoring system includes specific methods to assess harvest rates and follow up the response of the population to the management conditions.</p>				
<b>Measurement level:</b>				
1	2	3	4	5
Very low	Low	Medium	High	Very high
>120% or not available	120 to 105%	100%	95 to 80%	<80%
<p><b>How was the usage or harvest rated calculated considering the species characteristics (traditional knowledge and/or scientific knowledge, etc.)</b></p>				

Source: Indicator briefly adapted from Pi, 2008

#### Environment 1.4 Environmental sustainability of the ex-situ production systems

**Reason for the indicator:**

This indicator aims to provide an overall assessment of the adoption of management practices under production systems (e.g. agroforestry system, monocrops, animal breeding, etc.) that are potentially supporting biodiversity conservation. By the implementation of these practices, the pressure on biodiversity can be reduced. It intends to assess the impact of human activities related to the production of native species (agricultural systems) that are being implemented by the BioTrade organization or its suppliers (producers). It is particularly relevant since unsustainable practices related to agriculture, are considered as one of the major contributors to *the degradation of land and water resources and related losses to ecosystem goods and services, including biodiversity* (BIP-Indicator 2.1.3).

This indicator is related to Principle 2: Sustainable use of Biodiversity. However it is also linked to Principle 1.

**Definition:**

Qualitative indicator applied at the first stage of the value chain, hence at the production site. Ex-situ production systems refer to those practices that include the cultivation or breeding of native species that aimed to develop the activity sustainably. For instance in agriculture, management practices are divided in: (CDE/WOCAT, FAO/LADA, ISRIC, 2008):

- Agronomic measures such as mixed cropping, rotation of crops, contour cultivation, mulching, etc.
- Vegetative measures such as grass strips, hedges barriers, windbreaks, etc
- Structural measures such as terraces, banks, bunds, palisades, etc
- Management measures such as land use change, rotational grazing, area closure, etc.
- Protection and sustainable management of water sources
- Combined measures that involve the application of the above measures as complementary efforts to broaden the impact. Examples are agroforestry system (agronomic measure), with windbreaks (vegetative measure) and bend terraces (structural measure aimed for the conservation of soil)

For animal breeding, these measures include:

- adequate management of the wildlife breeding center according to national laws, the species characteristics and its impact on the wild populations
- mitigation strategy to minimize the impact of the infrastructure in water and land resources

Considering the experiences of BioTrade practitioners and programmes, these practices are grouped with good practices (soil and water) defined jointly with the producers and documented in sustainable use plans.

**Interpretation:**

With this indicator, the degree of implementation of sustainable practices by the BioTrade organization is being assessed. A higher score will mean that the organization is implementing these sustainable measures that may go beyond its direct intervention for its producers, but may also involve the community as a whole. However, a low score can be interpreted that natural ecosystems are being destroyed (deforestation) and therefore biodiversity is depleted.

A limitation for this indicator is that a direct link cannot be established between the improvement in the current conservation status of biodiversity and the implementation of management practices as stated before. At best, the indicator suggests that the activities

implemented by the BioTrade organization are supporting biodiversity in its area of influence and are not a threat to the surrounding ecosystems. To help analyze this indicator, it is recommended that additional data is collected by the evaluator: listing and describing the conservation activities and the sustainable practices implemented by the organization and any achievement obtained as a result of its implementation.

This indicator is closely linked to Indicators 1.1. to 1.3, 1.5 and 3.1.

**Indicator scale:**

Data for this indicator is generated for each BioTrade organization at the production area, hence the first stage of the value chain (production).

The compilation of data will allow a national, regional and global assessment of the implementation of practices that contributes to the conservation of biodiversity.

**Information source & type:**

Information of the production zone (registries, sustainable use plans, yields and harvest protocols, etc) that can be obtained from the BioTrade organization and from the producers and from community leaders. Organization's employees and producers should also be interviewed, as well as government entities, universities and BioTrade programmes (if appropriate).

**Measurement level:**

1	2	3	4	5
Very low	Low	Medium	High	Very high
There is no evidence that the BTO has identified its ecosystems and species upon which its activities are being developed. However there is evidence that the BTO is converting natural habitats by its production activity.	The BTO has identified sustainable practices / measures to conserve the soil and water sources within its area of influence.	The BTO has implemented sustainable measures / practices according to the species and ecosystems. The suppliers / producers of the BTO are not aware of these measures / practices.	The BTO implements sustainable measures / practices identified. There is evidence that its suppliers / producers are aware of them, but no indication if they are being implemented by these actors	The BTO and its suppliers/producers are implementing the sustainable measures / practices identified. These measures/practices are compiled in a managerial document (e.g. production plans, producers` guidelines, other).

**List and describe the conservation and sustainable practices, in particular if any achievement has been obtained in terms of the species and ecosystems managed:**

- 1.
- 2.
- 3.

Sources: Pi (2007), Memorias taller Quito (2007), BIP 2010, CDE/WOCAT, FAO/LADA, ISRIC, 2008.

<b>Environment Indicator 1.5 Level of use of toxic or dangerous substances in agricultural practices</b>
<p><b>Reason for the indicator:</b></p> <p>This indicator assesses the use of the BTO of highly dangerous chemical substances that can have an effect on human health and the ecosystem of its area of influence. It is important to evaluate the level of use of these substances to prevent any harm to biodiversity and the community (Pi, 2008, pg. 14).</p> <p>This indicator is related to BioTrade Principles 1 and 2.</p>
<p><b>Definition:</b></p> <p>Qualitative indicator applied at the production site for agricultural activities. It is not used for wild collected species of flora and fauna.</p> <p><i>The international standards issued by WHO lists 1 and 2 establish extremely toxic and highly dangerous chemicals (Pi, 2008, pg. 14).</i></p>
<p><b>Interpretation:</b></p> <p>With this indicator, the level of use of low toxic substance is assessed. A higher value will mean that the organization is not using these substances and thus it is not harming the surrounding ecosystems and its biodiversity. However, a lower value will mean that the organization is using those substances and therefore, there is an increase risk of biodiversity loss and an adverse effect on human health.</p> <p>The evaluator may obtain the information of the use of these substances, but not if there are residues in the soil and water. However, if this information is available, it should be considered by the evaluator. As the indicator is applied to the BTO, there might be other organizations (not committed to the BioTrade) that use these substances in the area, which can pollute the water and the soil of the area of influence.</p> <p>This indicator jointly with the others developed in this section, in particular to all environmental indicators 1.1, 1.4 and 3.1, contributes to assess if agricultural practices are contributing to the conservation of biodiversity in the area of influence.</p>
<p><b>Indicator scale:</b></p> <p>Data for this indicator is generated for each BioTrade organization at the area of influence and is applied only for the actors involved in agricultural practices.</p> <p>The compilation of data will allow a national, regional and global assessment of the use of toxic substances by BioTrade organizations.</p>
<p><b>Information source &amp; type:</b></p> <p>Information on the toxic or dangerous substances used by the BioTrade organization should be obtained through revision of the BTO and producers/suppliers' documentation, as well as with interviews with employees, producers, local community and organization actors involved in the production and processing phase. Other organizations that can facilitate this information are BioTrade Programmes and partners, UEFT, local universities and research organizations, local government, etc. If available, information can also be considered from studies on the presence in the ground of residues of these substances (Pi, 2008, pg. 14).</p> <p>The toxic and dangerous substances are those in the WHO lists can be obtained from <a href="http://www.who.int">www.who.int</a> or directly from <a href="http://whqlibdoc.who.int/publications/2010/9789241547963_eng.pdf">http://whqlibdoc.who.int/publications/2010/9789241547963_eng.pdf</a> (Pi, 2008, pg. 14), and from any other national or local list relevant for the business activity.</p>

Also the evaluator should assess if the organizations implements an Integrated Pest Management (IPM) that "*means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are [legal and] economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms*" (FAO).

**Measurement level (UEBT, 2010, pg 8):**

1	2	3	4	5
Very high	High	Within the legal limits	Low	Very low
Evidence of a significant usage of these substances in the area of influence. No awareness by local actors about the danger of the substances.	Evidence of usage above legal limits. A beginning of awareness about dangers identified within the area of influence.	Despite the international ban on these substances, the local legislation authorizes them. The use is documented and control happen. The BTO has developed and implemented an IPM.	General awareness of the danger within the area of influence. There is however suspicion that other actors nearby (neighbors) are using them, therefore polluting the area of influence of the BTO.	Actors in the area of influence are completely sensitized about the use of these substances. No indication that anybody uses the substances. Ideally this is controlled by the authorities or independent evaluators (UEBT verification, National Programmes, BioTrade partners)

Source:

Pi (2008); Pi (2007); COSA Indicator Framework (*draft*) (2009); UEBT (2010)

FAO: [www.fao.org/agriculture/crops/core-themes/theme/pests/ipm/en/](http://www.fao.org/agriculture/crops/core-themes/theme/pests/ipm/en/)

**Social indicator 2.1: Changes (increase/decrease) in the average annual income for actors**

at the first stage of the value chain that are involved in BioTrade

**Reason for the indicator:**

The need to generate economic benefits to the first stage of the value chain (producers, harvesters, breeders, hunters, etc) is crucial as those actors are directly involved in the conservation and sustainable use of biodiversity. These actors are the ones living in the areas rich in biodiversity so they need local economically and environmentally feasible activities to support their livelihoods.

This indicator intends to measure the income that was generated to local actors that are directly involved in BioTrade activities, either as producers, harvesters, collectors, breeders or hunters of biodiversity-based products/ingredients that are used by the BioTrade organization to elaborate their products.

In particular this indicator is closely linked to Principle 3: Fair and equitable sharing of benefits derived from the use of biodiversity.

**Definition:** This is a quantitative indicator applied at the first stage of the value chain. It intends to measure if the BioTrade organization and thus, the involvement in BioTrade, is generating tangible economic benefits to the producers, collectors, harvesters, breeders or hunters involved in the sustainable use of the biological resources.

The annual income is considered as the economic resources (in USD) received in average by a supplier in a year. *"The level of income indicates the increase of economic capital [that was generated through the involvement with the BioTrade organization/chain, and] to some extent, how much of the benefits derived from biodiversity are being shared fairly and equitably"* (2008, Pi, pg.34).

For the purpose of this indicator, the term **producer/supplier** is considered in a broader concept involving producers, collectors, harvesters, breeders, hunters or other actors that are directly involved in the sustainable extraction of the species of flora and fauna that are feed into the BioTrade organization's value chain.

**Interpretation:**

The indicator intends to measure the variation of the income generated at the **producers/suppliers'** level that resulted from their involvement in BioTrade. Hence, a higher valuation will mean an increase in the income for the producer that resulted from the involvement in BioTrade and thus, a decrease in the risk to be involved in other unsustainable activity. On the contrary, a low score will mean that a limited increase in the supplier's income was generated by their involvement in BioTrade.

This indicator expects that there will be an increase in the income generated by the involvement of suppliers in BioTrade. However, there are external factors that may affect this rate such as was seen with the 2008 global economic crisis that reduced the demand for some biodiversity-based products and therefore impacting all the actors involved in the value chain. Also, the change on the average income of producers/suppliers can be measured from the second year (second measurement) as the first measurement is considered the baseline

This indicator is closely related to the indicators 2.2 to 2.4 and 3.1. All these indicators aim to assess monetary and non-monetary benefits that are being exchanged within actors involved in the activity, hence allowing an overall idea of how ABS is being assessed by the organization and if there is concentration of the benefits generated.

<p><b>Indicator scale:</b> The data will be obtained at the first stage of the value chain (e.g. producers/breeders or collectors/harvesters).</p>				
<p><b>Information source &amp; type:</b></p> <p>The information will be obtained from the BioTrade organization's records as well as from the registries of the suppliers. Also interviews with the BioTrade producers/suppliers are essential to verify information obtained in the registries.</p> <p>The average annual income will be calculated for a specific year based on the total payments made by the BioTrade organization to their producer/suppliers divided by the total number of suppliers.</p> <p>Comparison with the previous year will determine the growth rate, and will start from the second measurement as the first is considered the baseline.</p>				
<p><b>Measurement level:</b> Open response, and the evaluator should fill up the following table with the information available:</p>				
	<b>Women</b>	<b>Men</b>	<b>Total</b>	<b>Comment/feedback (e.g. why a decrease happened)</b>
(A) Total payments made by the BTO to their producers/suppliers (first stage of the value chain)				
(B) Total number of suppliers (first stage of the value chain)				
Annual income for actors at the first stage of the value chain = (A)/(B)				

<b>Social indicator 2.2: Employment generated by the BioTrade business at the producer's level</b>
<p><b>Reason for the indicator:</b></p> <p>The indicator intends to assess the employment, permanent or temporary, which is created for the first stage of the value chain (e.g. producers, collectors, breeders, etc) by the BTO. The importance of this indicator is because of the need to create economic opportunities at the local level, hence where the biodiversity exists and the species are being used (harvested, collected, breeds and/or hunted). If local stakeholders are therefore involved in a sustainable activity, the risk for them to enter into unsustainable practices is reduced.</p> <p>Also the importance of this indicator is that it intends to assess if there is also an economic benefit that is being obtained in the first stage of the value chain, hence for the owners of the resources being used and/or those who are directly in contact with the sustainable use of the biological resources in the area of influence. Therefore, this indicator combined with 2.2, 2.3, and 2.4 provide an overall picture of how the access and benefit sharing is being addressed by the company, and how the producers/harvesters/breeders are benefiting from it.</p> <p>This indicator relates to BioTrade Principle 3.</p>
<p><b>Definition:</b></p> <p>It is a quantitative indicator applied at the first stage of the value chain, hence <i>production, wild-collection or farming zone</i>.</p> <p>Employment considered for this indicator includes permanent or temporary workers that are being involved in the activity and for this indicator, are classified according to gender. The indicator is measured by the employment generated considering the number of days per men and number of days per women in a year time.</p>
<p><b>Interpretation:</b></p> <p>This indicator shows the direct and indirect employment generated by BioTrade that is permanent or temporary, and therefore impacts (positive or negative) employees and families.</p> <p>The limitation for this indicator is that it only intends to measure the employment generated for the first stage of the value chain, hence not considering other employment that can be generated in the other stages of the value chain: transformation, commercialization, etc. Also for a company that is involved in <i>in-situ</i> and <i>ex-situ</i> activities of flora and fauna, this indicator does not differentiate if the employment generated considering if it is breeders, producers, wild-collectors, etc. Finally, it does not consider the size of the company, its type of business or where the employment is generated. Through time, the indicator shows how the employment has been generated by the BioTrade organization in a year time.</p>
<p><b>Indicator scale:</b></p> <p>The indicator is applied to each BTO in the field, hence it intends to measure the employment created for producers, wild-collectors, harvesters that are sourcing the species to the organization.</p> <p>The compilation of data will allow a national, regional and global assessment of the level of employment generated within the BioTrade programmes and practitioners.</p>
<p><b>Information source &amp; type:</b></p> <p>The evaluator should have knowledge of the producers/suppliers that provide the raw material</p>

to the BTO

To facilitate information-gathering, the expert should have access to the relevant information of the company or other systems in place (Obio in Colombia, UEBT tools).

Formula:  $\Sigma$  actors involved in the first stage of the value chain: producers, harvesters/collectors, breeders, etc. which are differentiated by men or women.

**Measurement level:**

Open response, and the evaluator should fill up the following table with the information available:

	<b>Men</b>	<b>Women</b>	<b>Total</b>
Number of employments generated at the first stage of the value chain (suppliers/producers)*			
<b>Comment/feedback (e.g. why a decreased happened)</b>			

\* This information is the same as listed in indicator 2.1, icon (B) in the requested information

<b>Social indicator 2.3: (changes in) Volume and value of annual sales of the BioTrade Organization (BTO)</b>
<p><b>Reason for the indicators:</b></p> <p>For a BioTrade organization (BTO) to be sustainable, it should be able to sell its products and obtain therefore resources to continue its functioning. If a BTO generates resources, it can also distribute them to the other value chain actors upon which it cooperates.</p> <p>This indicator is related to Principle 4.</p>
<p><b>Definition:</b></p> <p>Quantitative indicator is measured at the BTO level. It aims to measure the sales per year of the BTO that are being generated, both in value and volume. If possible, the sales can be classified according to native and non-native species, and to its destination (domestic or international). As native species can be sold individually or are part of different final products, the information is requested requires is per product or product range.</p> <p>Once the baseline is established with the first measurement, the growth per year can be established by comparing it to the previous year information. The higher the rate, the higher the sales that are being obtained by the BTO.</p>
<p><b>Interpretation:</b></p> <p>This indicator is chiefly measuring the sales of the BTO, disaggregated - depending on the information available - by product or product range and if they are sold at the domestic or international markets.</p> <p>By comparing it to the previous year, growth or decrease rates are obtained of the volumes and values of BioTrade products sold. The first measurement is used as the baseline and only growth and decrease rates are obtained from the second year onward.</p> <p>This indicator is closely related to other social indicators.</p>
<p><b>Indicator scale:</b></p> <p>Data for this indicator is generated for each BioTrade organization at the production area, hence the first stage of the value chain (production).</p> <p>The compilation of data will allow a national, regional and global assessment of the implementation of practices that contributes to the conservation of biodiversity.</p>
<p><b>Information source &amp; type:</b></p> <p>BioTrade organization's records showing products, volume and value of annual trade of its products and the species used.</p>
<p><b>Measurement level:</b></p> <p>Open response, and the figure on value and volume sourced will be compared to the data of previous years after the baseline is established (first measurement).</p>

Product <sup>1</sup> or product range <sup>2</sup>	Scientific name of species included, being native <sup>3</sup> or non-native <sup>4</sup>	Volume sold (kg)			Value sold (USD)		
		Domestic	Exports	Total	Domestic	Exports	Total

Notes: <sup>1</sup> = product; <sup>2</sup> = product range; <sup>3</sup> = native species; and <sup>4</sup> = non-native species

**Social Indicator 2.4: BioTrade organizations have established partnerships between its suppliers that comply with BioTrade requirements of traceability, inclusion, transparency and fair pricing.**

**Reason for the indicator:**

A fair and equitable sharing of benefits derived from the use of biological resources is what this indicator aims to assess. 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 BioTrade. (UNCTAD, 2007). 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 resources (Macarena, *et al*, 2008).

Particularly for BioTrade Principle 3, benefit-sharing entails informed, transparent and inclusive interaction among all actors involved in the production, processing and commercialization of BioTrade products. These activities should not be considered as a "one-time" transaction between the BioTrade organization and its suppliers (producers), but rather a continued and mutually beneficial commercial relationships and partnerships. Benefit-sharing also goes beyond the direct suppliers (producers) of the organization and involves also the local communities that are associated with the resource and/or the traditional knowledge used. (UNCTAD, 2007)

Consequently, this indicator assesses the partnerships established in relation to *traceability* of the product; *transparency* throughout all the chain actors; *inclusion* and *participation* of suppliers (producers) and other actors involved the negotiation and implementation of BioTrade activities; and a *fair price* paid to the suppliers/local communities. However, these issues are interlinked; for instance the inclusion and transparency among the value chain actors identified (through traceability) allow the flow of information between value chain actors and thus, the definition of a fair pricing. These issues also contribute in fulfilling market requirements (e.g. traceability), transmission of information related to product quality & sustainable management of the species, contribute to increasing the confidence throughout all value chain actors from producers to final consumers, among others.

Finally, this indicator assumes that cooperation or (commercial) partnership agreements with local communities are critical for BioTrade activities, as the sustainable use of biodiversity is only effectively advanced in the context of wider local sustainable development (UNCTAD, 2007).

**Definition:**

Qualitative indicator applied at the organization, its suppliers (producers, harvesters, breeders, etc.) and local communities at the production and/or wild collection site. If traditional knowledge is used, then it should also include the owners of that knowledge that are identified.

For this indicator, the following definitions are considered:

**Traceability** of a product throughout all the chain allows, *inter alia*, the identification and mapping of the actors involved in the activity - meaning the groups directly and indirectly involved in the collection/harvesting, production, transformation and commercialization of the BioTrade product. It is the basis to ensure the inclusion, participation and sharing of information and derived benefits of all relevant stakeholders in the negotiation and implementation of BioTrade activities.

**Inclusion** refers to how the producers/suppliers are being included and are participating in the decision making and implementation of activities. For instance, it assesses if meetings between

the organization and the suppliers are taking place in price negotiations, product quality and the definition of their needs on capacity-building activities or establishment of social funds or similar.

**Transparency** aims to determine how the exchange of information (information flow) takes place between the organization and the producers/suppliers in order to promote trust, efficiency, traceability and clarity regarding costs and benefits that are being generated. The sharing of information on market, costs, profit margins are some of the issues that are being considered within *Transparency*.

**Fair pricing** aims to assess if the organization tries to include as much as possible all the associated costs and benefits in the purchasing price and also if additional economic and non-economic benefits are being considered. Based on experiences within some BioTrade companies, the purchasing price includes the price paid for the raw material or ingredient; a percentage of sales of the final product (e.g. royalties), the establishment of social or community-based fund; capacity-building activities, technology transfer, among others. Furthermore, the establishment of medium to long term partnerships (3< years) between companies and its producers enhances the additional benefits that can be obtained through certain price stability.

**Interpretation:**

This indicator assesses the degree upon which the BioTrade organization promotes benefit-sharing considering and implementing traceability, transparency, inclusion and fair pricing into its relationships with its suppliers (producers) and other relevant actors. A higher score would mean that these issues are being addressed into the organization's philosophy and activities, and therefore its suppliers (producers) are receiving monetary and non-monetary benefits from the BioTrade organization. On the contrary, a lower value would mean that the organization does not know who are its suppliers nor is being able to identify/address their needs and share the benefits generated by the activity.

It is difficult to assess benefit-sharing as there are no worldwide recognized guidelines, particularly as BioTrade refers to biological resources. One limitation is that in order to assess ABS, the indicator only assesses the four elements mentioned which refer to the BioTrade Principles and Criteria; however if the BioTrade activities fall under the scope of national access and benefit-sharing, biodiversity or other regulations, these regulations will have precedence over BioTrade and will be measured by indicator 3.1.

Also, this indicator assumes that a partnership is established because it is mutually beneficial for the parties involved. Finally, the information that is needed might be confidential and therefore the possibility to have an overall picture of the four issues considered might be partially addressed.

This indicator is closely related to the indicators 2.2., 2.3 and 3.1.

All these indicators aim to assess monetary and non-monetary benefits that are being exchanged within actors involved in the activity, hence allowing an overall idea of how ABS is being assessed by the organization and if there is concentration of the benefits generated.

**Indicator scale:**

Data for this indicator is generated for each BioTrade organization (e.g. company, project) at the site (area of influence) and is mainly applied for the actors involved in the first stage of the value chain (production and/or wild collection of *in-situ* and *ex-situ* flora and fauna).

The compilation of data will allow a national, regional and global assessment of how traceability, transparency, inclusion and fair pricing is being assessed and included with in the practices and

philosophy of the BioTrade organization.

**Information source & type:**

Information needed for this indicator is obtained at:

- the suppliers level: interviews with leaders and if possible through community meetings, registries of the products/ingredients sold to the organization, agreements established with the organization, meeting proceedings, etc.
- the organization level: interviews with managers and other staff from the purchasing and communities relationship divisions, registries of suppliers and the payments made to them, balance sheets, income and cash-flow statements, agreements established with suppliers & organization, meeting and training reports, supplier purchasing guidelines, etc.

Furthermore, the mapping of direct and indirect stakeholders varies according to the organization and should be identified on a case-by-case basis, allowing for the interpretation of the assessor.

**Measurement level:**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Very Low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
There is no evidence that the BTO knows its suppliers / producers.	The BTO has identified its suppliers. Its producers / suppliers know that the BTO buys its product on a sporadic manner.	The producers/ suppliers have obtained information from the BTO on product quality, costs, market and others issues relevant to the activities. The producers / suppliers and the BTO have informal relationships.	There are formal agreements established and benefit only the BTO and its producers / suppliers in relation to the raw material bought and its purchasing schedule, the costs and prices established.  There is constant flow of information on costs, benefits/profit margins, markets, purchasing schedule and product quality between the suppliers / producers and the BTO.	There are formal agreements established between the BTO and its producers / suppliers, and it benefits both direct actors and indirect actors (e.g. local community from where the resource and traditional knowledge are obtained).

Sources:

UNCTAD, 2007.

PNBSE, 2008. Macarena Bustamante, *et al.* 2008. Distribución Justa y Equitativa de beneficios de la cadena de valor de cacao - Caso Kallari y sistematización de iniciativas ABS. Programa Nacional de Biocomercio Sostenible Ecuador and German Technical Cooperation (GTZ). Ecuador

Pi Environmental Consulting 2008.

**Governance Indicator 3.1: Level of compliance with legal requirements and adoption of additional social and environmental responsibility activities**

**Reason for the indicator:**

This indicator aims to assess the level of commitment and compliance of a BioTrade organization with legal requirements needed for the operation of its business activity. Afterwards, it assesses if the organization is committed to implementing additional social and environmental responsibility issues that aimed for the conservation of biodiversity and the respect for the rights of all actors involved, including indigenous communities.

Particularly, the compliance with national, regional and international legislation related to the operation of the business is basic for its existence, however compliance with environmental and socio-economic aspects are also a key issue for the fulfillment of BioTrade Principles and Criteria. For instance, if there is no compliance with a specific environmental and social legislation, the business is not socially, environmentally and economically feasible as there are associated risks that will not only impact its long-term existence but also that of its employees and surrounding environment.

This indicator is related to Principle 5: Compliance with national and international legislation, but it also transversally addresses the majority of BioTrade Principles and Criteria: 1, 2, 3, 5 and 6.

**Definitions:**

Is a qualitative indicator.

When assessing the BioTrade organization, the evaluator should consider the following definitions, *inter alia*:

- **Mercantile/commercial registration/permits** - it addresses if an organization is formally constituted and has all the permits to implement its activities.
- **Social legislation** - Respect for customary rights of local communities and indigenous peoples, ILO Declaration on Fundamental Principles and Rights at Work and Universal Declaration of Human Rights.
- **Environmental legislation** - CITES - permits or no-use considering if it the species is on the CITES Appendices I, II, or III; Use and mobilization permits associated to ex-situ flora and fauna (not included in CITES); Management plans for wild flora and fauna species
- **Other additional issues to consider that go beyond the traditional legislation** - Organization has policies, guidelines and action plans to implement social and environmental responsibility issues such as those promoted by BioTrade in relation to, *inter alia*, the inclusion and involvement of all actors involved in the organization value chain, transparency and flow of information between the organization and its suppliers, development of production or management plans for agricultural practices, programmes to generate knowledge and/or capacity-building in environmental and social issues, among others.

However, and depending on the knowledge of the evaluator, additional legislation specific to the national context and/or sector could also be considered for the assessment. These additional legislations should be listed in the sheet to gather the information in the field.

**Interpretation:**

This indicator aims to measure the compliance of the BioTrade organization with national, regional and international legislation related to its activity and their commitment to additional environmental and social issues related to the conservation & sustainable use of biodiversity and the fair and equitable distribution of benefits. As it is a qualitative indicator, the higher value will mean that the organization it is not only understanding, but also implementing practices to fulfilling legal requirements needed to implement its activity, but also that its commitment goes beyond with the aim to comply with additional social and environmental issues. On the contrary, the lower value would mean that the organization is not complying with the legal requirements needed for its activity.

A limitation for this indicator is that it is difficult to identify all the legislation needed for a specific activity, particularly if the organization works in different countries. Considering the experience that has been obtained by the BioTrade programmes and practitioners, it is not always clear what are the legal requirements needed for a specific economic activity because of the duplication of or gaps in existing legislation or even the lack of knowledge of the companies and even government officials. Thus, the assessor will be able to address it depending on its knowledge of the sector and the country.

**Indicator scale:**

The data is obtained for each BioTrade organization that is being supported.

**Information source & type:**

To obtain information, the assessor must interview and/or have meetings with business employees, government officials and suppliers (e.g. leaders of producers associations for instance on issues related to prior-informed consent and ABS). Also, the evaluator should review companies registries and informations, as well as all permits for the implementation of the organization's activities.

To measure the indicator, the evaluator considers the legal requirements as well as additional social and environmental issues relevant for the activity being developed by the organization, as well as its own expertise in the subject.

<b>Measurement level:</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>No compliance</b>	<b>Compliance with legal requirements</b>	<b>Legal compliance with management plans to implement social and environmental issues</b>	<b>Legal compliance with additional social and environmental responsibility issues</b>	<b>Legal compliance and formal integration of social and environmental issues within the organization and its suppliers</b>
It is an informal business	The BTO has mercantile / commercial registration / permits according to its business activity	The BTO has developed business policies and guidelines for complying with social and environmental requirements (e.g. other additional issues as stated before)	The BTO has implemented the corporate business policies and guidelines established	The BTO and its suppliers (raw material producers / suppliers of flora and/or fauna) have formally integrated additional social and environmental issues into its business charter / policies and practices
<p><b>List legal requirements and issues assessed</b></p> <p style="margin-left: 40px;">1. 2.</p> <p><b>Other comments:</b></p>				

*Annex 2: Data collection sheet for the BT IAS*

**BT IAS Data Gathering Sheet**

- Confidential information -

**AUTOMATIC ID NUMBER: (Country code + Nb.)**

<p><b>CONTACT DETAILS OF BioTrade ORGANIZATION (BTO):</b></p> <p>BTO Name: Name and position of contact:</p> <p>Address: <b>If applicable, location of production/transformation facilities (GPS data):</b></p> <p>Tel: Fax: e-mail:</p> <p>Year it was created:</p> <p>Established as: (select one): producer/collector; processor, wholesalers, retailers</p>	<p><b>CONTACT DETAILS OF EVALUATOR:</b></p> <p>Name evaluator: Organization: Address: Tel: Fax: e-mail:</p> <p>Relationship between assessor and this BTO:</p>
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<p><b>Type of activity:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Sustainable agriculture</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Non-timber forest product</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Sustainable forestry</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Sustainable aquaculture</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Sustainable leather (farming)</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>..other</td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table> <p><b>Type of Industry</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Food</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Cosmetic</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Pharmaceutical</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Textiles and natural fibers</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Sustainable leather (fauna)</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Ornamental flora and fauna</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Handicrafts</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Construction</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>..other</td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>	Sustainable agriculture	<input type="checkbox"/>	Non-timber forest product	<input type="checkbox"/>	Sustainable forestry	<input type="checkbox"/>	Sustainable aquaculture	<input type="checkbox"/>	Sustainable leather (farming)	<input type="checkbox"/>	..other	<input type="checkbox"/>	Food	<input type="checkbox"/>	Cosmetic	<input type="checkbox"/>	Pharmaceutical	<input type="checkbox"/>	Textiles and natural fibers	<input type="checkbox"/>	Sustainable leather (fauna)	<input type="checkbox"/>	Ornamental flora and fauna	<input type="checkbox"/>	Handicrafts	<input type="checkbox"/>	Construction	<input type="checkbox"/>	..other	<input type="checkbox"/>	<p><b>Type of specie used:</b></p> <p><b>Flora:</b> <input type="checkbox"/> <i>in-situ</i>      <input type="checkbox"/> <i>ex-situ (e.g. cultivated)</i></p> <p><b>Fauna:</b> <input type="checkbox"/> <i>in-situ</i>      <input type="checkbox"/> <i>ex-situ</i></p> <p><b>Name of species used (Common name, scientific name)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Specie 1:</td> <td style="width: 25%;">Common name</td> <td style="width: 25%;">Scientific name</td> <td style="width: 35%;"><input type="checkbox"/> CITES<sup>4</sup> <input type="checkbox"/> non-CITES</td> </tr> <tr> <td>Specie..</td> <td>Common name</td> <td>Scientific name</td> <td><input type="checkbox"/> CITES <input type="checkbox"/> non-CITES</td> </tr> <tr> <td>Specie n:</td> <td>Common name</td> <td>Scientific name</td> <td><input type="checkbox"/> CITES <input type="checkbox"/> non-CITES</td> </tr> </table>	Specie 1:	Common name	Scientific name	<input type="checkbox"/> CITES <sup>4</sup> <input type="checkbox"/> non-CITES	Specie..	Common name	Scientific name	<input type="checkbox"/> CITES <input type="checkbox"/> non-CITES	Specie n:	Common name	Scientific name	<input type="checkbox"/> CITES <input type="checkbox"/> non-CITES
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<p><b>Area of influence (in hectares: ha) of the producers/collectors of the BioTrade company</b></p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• <b>Privately owned:</b>      total area (ha) _____</li> <li>• <b>Communitarian area:</b>      total area (ha) _____</li> <li>• <b>State-controlled area:</b>      total area (ha) _____</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• <b>No-harvest area (conservation zone) (ha) _____</b></li> <li>• <b>Other, specify:</b> _____ total area (ha) _____</li> </ul> </td> </tr> </table>		<ul style="list-style-type: none"> <li>• <b>Privately owned:</b>      total area (ha) _____</li> <li>• <b>Communitarian area:</b>      total area (ha) _____</li> <li>• <b>State-controlled area:</b>      total area (ha) _____</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No-harvest area (conservation zone) (ha) _____</b></li> <li>• <b>Other, specify:</b> _____ total area (ha) _____</li> </ul>																																								
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<p><b>Type of Impact Evaluator:</b>    First party <input type="checkbox"/>      Second party <input type="checkbox"/>      Independent third party <input type="checkbox"/></p>																																											
<p><b>Date of evaluation:</b></p>	<p><b>Period covered in the evaluation:</b></p>																																										

<sup>4</sup> For the list of CITES species, please visit [www.cites.org/eng/resources/species.html](http://www.cites.org/eng/resources/species.html)

**BT Impact Indicators: please put an "x" in the box "☒" according to the results of the assessment, hence on the score from 1 to 5, or enter the information accordingly.**

INDICATOR	SCORE FOR EVALUATION				
<b>Environment indicators</b>					
1.1 Conservation area under the management of BioTrade organizations	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	<0 to 0%	0 to 5%	5 to 10%	10 to 15%	> 15%.
	Comments/observations:				
1.2 Conservation and sustainable use of <i>in-situ</i> biodiversity (wild species)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	There is no evidence that the BTO has identified its conservation and/or influence areas, nor the ecosystems upon which its activities are being developed	There is evidence that the BTO has defined its influence and conservation areas, ecosystems and species, and knows about their characteristics	There is evidence that the BTO has defined clear and measurable conservation and sustainable use practices for their influence area	There is evidence that the BTO has defined and implemented good practices for the collection and transformation of the species utilized	There is evidence that the BTO has a monitoring system which includes harvest, regeneration and efficiency rates of the species used, as well as tendencies on the harvest effort and the yields
	<b>List and describe the conservation and sustainable practices, in particular if any achievement has been obtained in terms of the species and ecosystems managed:</b> 1. 2.				

INDICATOR	SCORE FOR EVALUATION				
1.3 Usage or harvest rates of resources are defined according to the species characteristics (wild species)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	>120% or not available	120 to 105%	100%	95 to 80%	<80%
	<b>How was the usage or harvest rated calculated considering the species characteristics</b> (traditional knowledge and/or scientific knowledge, etc.)				
1.4 Environmental sustainability of the <i>ex-situ</i> production systems	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	There is no evidence that the BTO has identified its ecosystems and species upon which its activities are being developed. However there is evidence that the BTO is converting natural habitats by its production activity.	The BTO has identified sustainable practices / measures to conserve the soil and water sources within its area of influence.	The BTO has implemented sustainable measures / practices according to the species and ecosystems. The suppliers/producers of the BTO are not awareness of these measures / practices.	The BTO implements sustainable measures / practices identified. There is evidence that its suppliers/producers are aware of them, but no indication if they are being implemented by these actors	The BTO and its suppliers/producers are implementing the sustainable measures / practices identified. These measures/practices are compiled in a managerial document (e.g. production plans, producers` guidelines, other).
	<b>List and describe the conservation and sustainable practices, in particular if any achievement has been obtained in terms of the species and ecosystems managed:</b> 1. 2. 3.				

INDICATOR	SCORE FOR EVALUATION				
1.5: Level of use of toxic or dangerous substances in agricultural practices	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	<b>Very high</b>	<b>High</b>	<b>Within the legal limits</b>	<b>Low</b>	<b>Very low</b>
	Evidence of a significant usage of these substances in the area of influence. No awareness by local actors about the danger of the substances.	Evidence of usage above legal limits. A beginning of awareness about dangers identified within the area of influence.	Despite the international ban on these substances, the local legislation authorizes them. The use is documented and control happen. The BTO has developed and implemented an IPM.	General awareness of the danger within the area of influence. There is however suspicion that other actors nearby (neighbors) are using them, therefore polluting the area of influence of the BTO.	Actors in the area of influence are completely sensitized about the use of these substances. No indication that anybody uses the substances. Ideally this is controlled by the authorities or independent evaluators (UEBT verification, National Programmes, BioTrade partners)

INDICATOR	SCORE FOR EVALUATION				
<b>Social indicators</b>					
2.1: Changes (increase/decrease) in the average annual income for actors at the first stage of the value chain that are involved in BioTrade		<b>Women</b>	<b>Men</b>	<b>Total</b>	<b>Comment/feedback (e.g. why a decrease happened)</b>
	(A) Total payments made by the BTO to their producers/suppliers (first stage of the value chain)				
	(B) Total number of suppliers (first stage of the value chain)				
	Annual income for actors at the first stage of the value chain = (A)/(B)				
2.2: Employment generated by the BioTrade organization at the producer's level		<b>Men</b>	<b>Women</b>	<b>Total</b>	
	Number of employments generated at the first stage of the value chain (suppliers/producers)*				
	<b>Comment/feedback (e.g. why a decrease happened)</b>				

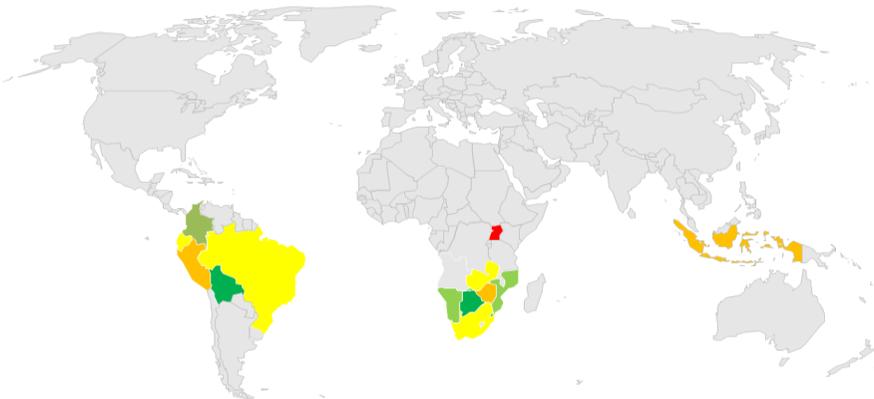
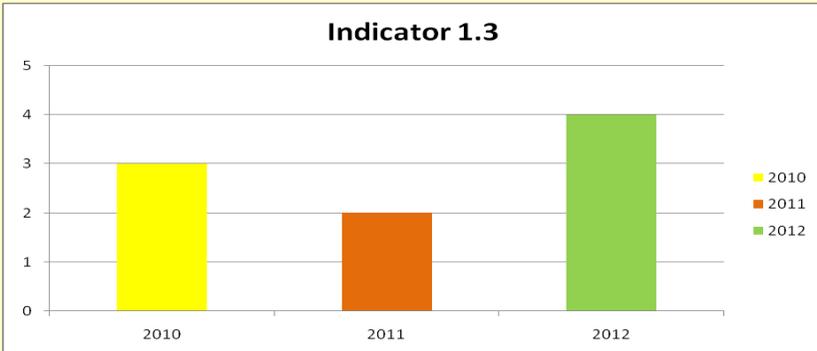
INDICATOR	SCORE FOR EVALUATION				
<b>Social indicators</b>					
2.1: Changes (increase/decrease) in the average annual income for actors at the first stage of the value chain that are involved in BioTrade		<b>Women</b>	<b>Men</b>	<b>Total</b>	<b>Comment/feedback (e.g. why a decrease happened)</b>
	(A) Total payments made by the BTO to their producers/suppliers (first stage of the value chain)				
	(B) Total number of suppliers (first stage of the value chain)				
	Annual income for actors at the first stage of the value chain = (A)/(B)				
2.2: Employment generated by the BioTrade organization at the producer's level		<b>Men</b>	<b>Women</b>	<b>Total</b>	
	Number of employments generated at the first stage of the value chain (suppliers/producers)*				
	<b>Comment/feedback (e.g. why a decrease happened)</b>				

2.3: (changes in) Volume and value of annual sales of the BioTrade organization (BTO)	Enter figures for the columns below:							
	Product <sup>1</sup> or product range <sup>2</sup>	Scientific name of species included, being native <sup>3</sup> or non-native <sup>4</sup>	Volume sold (kg)			Value sold (USD)		
			Domestic	Exports	Total	Domestic	Exports	Total
Notes: 1 = product; 2 = product range; 3 = native species; and 4 = non-native species								
Comment/feedback:								

<p>2.4: BioTrade organizations have established partnerships between its suppliers that comply with BioTrade requirements of traceability, inclusion, transparency and fair pricing</p>	<b>1</b> <input type="checkbox"/>	<b>2</b> <input type="checkbox"/>	<b>3</b> <input type="checkbox"/>	<b>4</b> <input type="checkbox"/>	<b>5</b> <input type="checkbox"/>
	<b>Very Low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Very high</b>
	<p>There is no evidence that the BTO knows its suppliers / producers.</p>	<p>The BTO has identified its suppliers. Its producers / suppliers know that the BTO buys its product on a sporadic manner.</p>	<p>The producers/ suppliers have obtained information from the BTO on product quality, costs, market and others issues relevant to the activities. The producers / suppliers and the BTO have informal relationships.</p>	<p>There are formal agreements established and benefit only the BTO and its producers / suppliers in relation to the raw material bought and its purchasing schedule, the costs and prices established.</p> <p>There is constant flow of information on costs, benefits/profit margins, markets, purchasing schedule and product quality between the suppliers / producers and the BTO.</p>	<p>There are formal agreements established between the BTO and its producers / suppliers, and it benefits both direct actors and indirect actors (e.g. local community from where the resource and traditional knowledge are obtained).</p>

INDICATOR	SCORE FOR EVALUATION				
<b>Governance indicator</b>					
3.1: Level of compliance with legal requirements and adoption of additional social and environmental responsibility activities	<b>1 <input type="checkbox"/></b>	<b>2 <input type="checkbox"/></b>	<b>3 <input type="checkbox"/></b>	<b>4 <input type="checkbox"/></b>	<b>5 <input type="checkbox"/></b>
	<b>No compliance</b>	<b>Compliance with legal requirements</b>	<b>Legal compliance with management plans to implement social and environmental issues</b>	<b>Legal compliance with additional social and environmental responsibility issues</b>	<b>Legal compliance and formal integration of social and environmental issues within the organization and its suppliers</b>
	It is an informal business	The BTO has mercantile / commercial registration/permits according to its business activity	The BTO has also developed business policies and guidelines for complying with social and environmental requirements (e.g. other additional issues as stated before)	The BTO has implemented the corporate business policies and guidelines established	The BTO and its suppliers (raw material suppliers of flora and/or fauna) have formally integrated additional social and environmental issues into its business charter/policies and practices
	<p><b>List legal requirements and issues assessed</b></p> <p>1. 2. 3.</p> <p><b>Other comments:</b></p>				

Annex 3. Sample report of the BT IAS (Please note that it does not include real data and it is used as just as an example of the information system)

1.3 Usage or harvest rates of resources are defined according to the species characteristics													
<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #008000; margin-right: 5px;"></span> 5: Very low (&lt;80%)</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #90EE90; margin-right: 5px;"></span> 4: Low (90 to &lt;80%)</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #FFFF00; margin-right: 5px;"></span> 3: Medium (100%)</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #FFA500; margin-right: 5px;"></span> 2: High (120 to 105%)</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #FF0000; margin-right: 5px;"></span> 1: Very high (&gt;120% or not available)</li> </ul>	<p><b>Year: 2012      Activity: All      Industry: All</b></p> 												
<b>Country: Colombia</b>		<b>Region: Latin America</b>		<b>Activity: All      Industry: All      Total area: 2,566 (ha)</b>									
<p><b>Interpretation (year 2012)</b> <b>Score 4:</b> For wild species, both of flora and fauna, these <b>are being used sustainable by respecting their natural reproduction rate</b>. Furthermore, the species are being recovered as their harvest rate is in the range of <b>90 to &lt;80%</b>.</p>	<p><b>Indicator 1.3</b></p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Indicator 1.3 Data</caption> <thead> <tr> <th>Year</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>3</td> </tr> <tr> <td>2011</td> <td>2</td> </tr> <tr> <td>2012</td> <td>4</td> </tr> </tbody> </table>					Year	Score	2010	3	2011	2	2012	4
Year	Score												
2010	3												
2011	2												
2012	4												

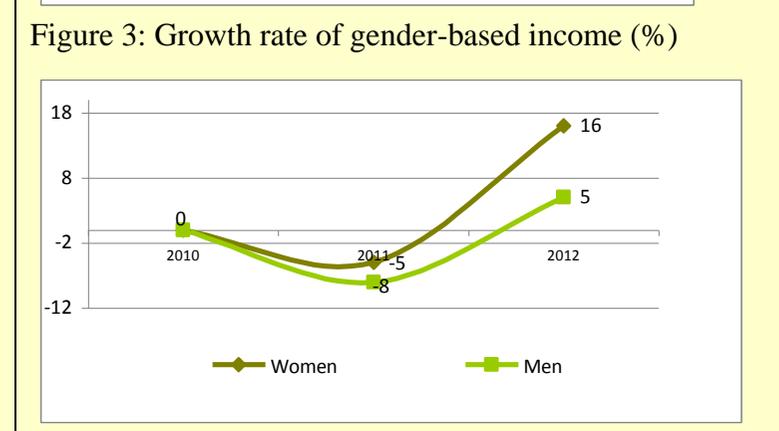
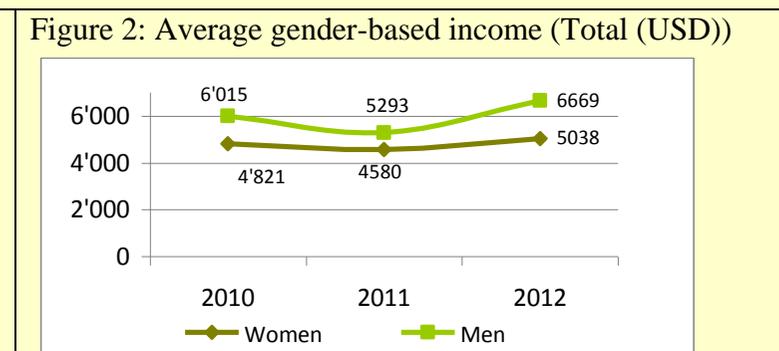
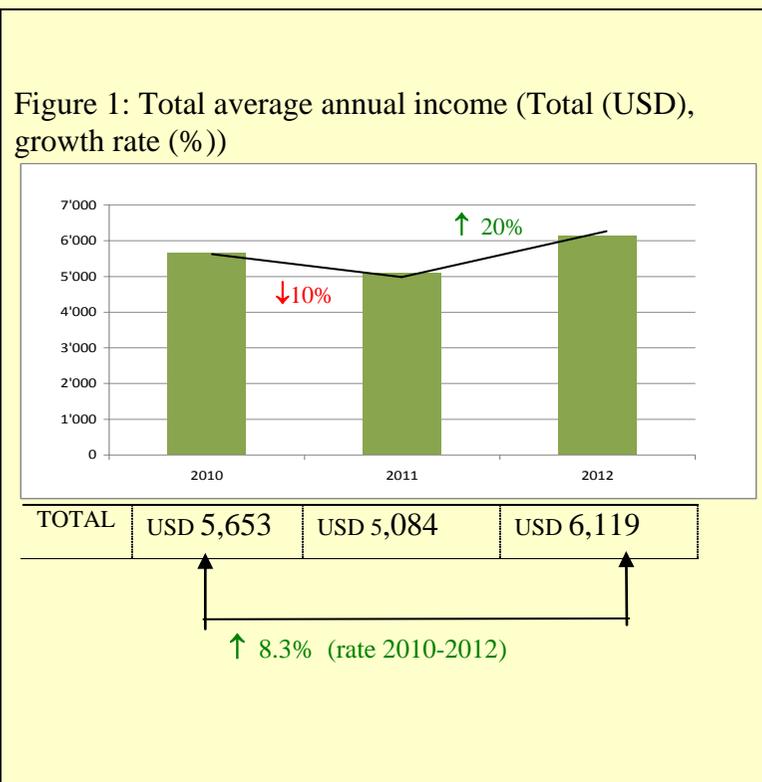
Source: BT IAS Colombia, 2013

## 2.1 Change in the average annual income for actors at the first stage of the value chain that are involved in BioTrade

Year: 2012	Activity: All	Industry: All		
GLOBAL AVERAGE ANNUAL INCOME:		Total: USD 7,300	Men: USD 8,400	Women: USD 6,200
TOTAL NUMBER OF BENEFICIARIES:		1'650,000		

Country: Colombia	Region: Latin America	Activity: All	Industry: All	Total area: 2,566 (ha)	Total beneficiaries: 3,400
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**Interpretation (year 2012)**  
**Value: USD6,119**  
 The average annual income for **Colombia** is **USD 6,119**. Compared to the baseline (2010), there is an **increase of 8.3%**. There is an **increase of 20%** from the previous year (2011). (Figure 1)  
 In general, the annual income received by men is **higher** than women for **2012**. (Figure 2)  
 In 2012, the growth rate of the average annual income for men **increased by 5%**, and for women it **increased by 16%** from **2011**. (Figure 3)



Source: BT IAS Colombia, 2013

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