

BioTrade Initiative and the BioTrade Facilitation Programme (BTFP), selection processes of value chains that foster the involvement of productive practices supporting such objectives have been undertaken.

This issue presents the BioTrade product groups that have been selected by the BTFP beneficiary countries and analyses the contribution of the strengthening of these value chains to the conservation and sustainable use of biodiversity.

Product groups supported by BTFP: impact on conservation and sustainable use of biodiversity

According to the BTFP objectives, each beneficiary country has selected value chains of BioTrade products that are being supported based on the development of strategies constructed jointly by the actors involved. The selection process for these product groups was developed at national level on the basis of a methodology defined by BTFP.

The selection of products was initiated with a list of potential BioTrade products elaborated in each country. This list was analysed and products were pre-selected according to compliance of basic BioTrade criteria such as the promotion of native species, existence of potential markets, positive impacts on conservation and sustainable use of biodiversity, and generation of benefits to communities and other actors at local level.

Based on the pre-selected product groups, a selection process was carried out with the participation of experts and relevant actors of the value chains. The selection was developed based on the analysis of environmental, social, technological and economic criteria, as defined in the BTFP methodology.

Some of the most relevant criteria to select product groups were:

- Capacity of the productive sector: production and management;
- Possibilities to raise funds for the implementation of strategies;
- Existence of entrepreneurial initiatives showing interest in being supported by the programme;
- Market information and experience in existing markets;
- Critical mass of the private sector;
- Interest among actors to collaborate;
- Existence of service providers (funding, research, technical advice and other services);
- Existing ongoing initiatives;
- Leaders showing interest in heading the process.

Currently the selected product groups to be supported by BTFP are:

Group of products	Countries
Biodiversity friendly cocoa, variety "Arriba"	Ecuador
Crocodile (<i>Caiman yacare</i>): leather and meat	Bolivia
Ecotourism	Uganda
Tropical flowers and foliages	Colombia
Natural ingredients for cosmetic, pharmaceutical and food industries	Bolivia, Colombia, Ecuador, Peru, Vietnam, Uganda and PhytoTrade Africa (Southern Africa)
Wildlife products	Uganda
Ornamental and edible fish	Peru

The following is a description of selected product groups and a brief analysis of their contribution to the conservation and sustainable use of biodiversity.

Cocoa

The cocoa bean is a traditional product in Ecuador. The Arriba variety in particular, which is recognised for its quality and aroma, represents 4% of the international cocoa market. This variety is under threat due to the spread of a modified variety.

The production of cocoa in the country involves hundreds of small producers, which implement traditional production practices and cultivate the product in areas of high biodiversity. In brief, the main opportunities for the implementation of conservation and sustainable use practices offered by this product are:

- Promotion of a native variety that is being threatened by an artificially modified variety
- Provide habitat and shelter to other species of plants and animals
- Productive systems can be used as a landscape tool, which means that these kind of plantations offer possibilities to connect forest fragments and recover degraded lands
- Promotion of diversification of farms with native species used for self-consumption or access to other markets

In the context of BTFP, production areas are being identified and characterised in order to define a market strategy based on the promotion of good agricultural practices that will allow the differentiation of this product at international markets. In this way, the implementation of mechanisms of organic certification, fair trade, sustainable agriculture (rainforest alliance) and others are considered a strategy for accessing markets and an incentive for the implementation of the above-mentioned practices.

Crocodile leather and meat (*Caiman yacare*)

Caiman yacare is a species of crocodile native of Bolivia, distributed in the Amazon region. Given the existing pressure on the wild populations, this species is listed in Appendix II¹ of the Convention on International Trade of Endangered Species (CITES).

Although leather is the most renowned product in international markets, a potential to penetrate meat markets was identified. This is also with the objective of using other sub-products derived from the same animal and improving the economic benefits generated by the value chain.

At national level, a programme for the crocodile management was established. A legal and normative framework that is based on experiences implemented by other countries such as Venezuela, and more recently Brazil, supports this programme. Since its implementation in 1999, there have been five harvests and between 30,000 and 50,000 individuals harvested per year. Though the established programme has seen a significant progress, further adaptations to the regulatory norms are required in order to consolidate its implementation.

Currently, the BioTrade National Programme of Bolivia is supporting the crocodile value chain in the implementation of the management programme and the strengthening of the value chain, in close collaboration with the Ministry of Sustainable Development. In terms of conservation, these activities imply the development and implementation of management plans according to the conservation status of wild populations and the production capacity of the country per year.

The identified contributions to the promotion of conservation and sustainable use practices of the species and its habitats are:

- Implementation of a legal framework that regulates the species' management, in the context of the CITES convention;
- Development of strategic alliances among actors to implement the national regulation and species management plans for each eco-region of the country;
- Implementation of monitoring methodologies adapted to the conditions of Bolivia, which will support the definition and distribution of quotas;
- Definition of good management practices and guidelines targeting the different actors of the value chain, involving national experiences in a complementary way to those of other countries;
- Generation of a national proposal for the management of wildlife that could be implemented at regional level in collaboration with countries such as Paraguay and Brazil, which include part of the distribution area of the species.

Ecotourism

The development of the sustainable tourism sector in Uganda is part of a national strategy to maximise the tourist potential of the country. A strategy for sustainable tourism was developed to guide actions to be undertaken at national level. The wildlife

¹ Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilisation incompatible with their survival (www.cites.org).

associated to the variety of Uganda landscapes was identified as a stronger point of the strategy. In this context, the tourism in protected areas and other activities, such as bird watching and mammals tracking, are prioritised in the strategy; activities that are currently being promoted by the Uganda Wildlife Authority (UWA) as a conservation strategy.

The BioTrade programme of Uganda and the BTFP, in collaboration with ITC, are supporting the development of a sector strategy for the eco-tourism niche. The expected impact on biodiversity conservation of such activities is:



- Promotion of existing attractions such as bird watching, primate tracking and safari
- Improvement of benefits for the conservation of protected areas at local level
- Identification of new areas with potential for the ecotourism that complement the efforts developed in national parks by national authorities
- Strengthening of actors along the value chain to implement practices of ecotourism accordingly
- Open up new opportunities of income generation to local communities located in areas of high biodiversity

Tropical flowers and foliage

The value chain of flowers and foliage is a growing export sector in Colombia, taking into account that the diversity of species provides the country with a competitive advantage in international markets. At national level, the production of flowers and foliage was initiated in response to the need to diversify within the coffee-based economy. Today, this production represents a high-potential sector as well as providing opportunities of involving good practices to promote conservation and sustainable use of biodiversity. The following are some of the practices that can be involved in these production systems:

- Promotion of native species;
- Good management of soils and habitats;
- Low or non-production of waste;
- Contribution to the improvement of landscape composition;
- Diversification of cultivated areas;
- Conservation of water sources and prevention against soil erosion.



Source: Biocomercio Sostenible Colombia - Instituto Humboldt

BTFP, in coordination with the National BioTrade Programme of Colombia and other national partners, is supporting the development of guidelines for the management of farms cultivating tropical flowers and foliage, taking into account the BioTrade principles and criteria. Furthermore, the actors involved in the value chain have identified as priority the need to formulate a research and development strategy to foster the identification of new species and markets.

Wildlife for pet trade

The Uganda Wildlife Authority (UWA) initiated the wildlife trade in 2000 as a pilot activity to promote conservation and generate incomes at local levels through the sustainable use of biological resources. UWA regulates the trade activity in accordance with the National Environment Act 2000 and specific articles of the CITES Convention.

The control of wildlife trade is based on the quota setting system. These quotas are defined based on resource assessments that provide biological information, such as abundance and density of wild populations and extension of their natural habitats. To date, UWA has defined quotas for approximately 150 species of birds and reptiles, including several species listed in Appendix II and III of CITES.

BTFP, in collaboration with the National BioTrade Programme of Uganda, is supporting the development of a sector strategy to facilitate the trade of these products and the improvement of management practices. This strategy is based on the strengthening of alliances between wildlife and trade authorities and the private sector.

Specifically, the contribution of the support of this value chain to the sustainable use and conservation of the species is:

- Strengthening of the legal framework that regulates the quotas of management
- Development of strategic alliances among actors to implement management practices according to the biological and

ecological characteristics of the species

- Opportunities for adding value to forest areas (both management privately and by the National Forest Authority), currently used for the extraction of timber
- Implementation of monitoring methodologies based on information generated by the private sector and local authorities. This information could contribute to strengthening the system of quotas
- Strengthening of the implementation of CITES at national level
- Facilitate skills development of environmental authorities in the trade of fauna
- Encourage links between tourism promotion and protection and the promotion of species and ecosystems of national importance

Natural ingredients for the cosmetic, pharmaceutical and food industries

Based on national assessments and product lists, all the BTFP beneficiary countries selected the groups of medicinal, aromatic and other edible plants as sectors of high potential and interest. The importance of this product group is due to the variety of associated traditional uses, the existing experience in national and international markets, and the existence of an interested group of companies showing interest in exported product derived from these species, such as essential oils, fatty oils, extracts and other natural ingredients.

The expected impacts of the promotion of this product group on conservation and sustainable use of biodiversity are:



- Promotion of sustainable use of native species with international trade potential
- Implementation of practices that contribute to the sustainable use of wild species along the value chain
- Value added to the natural ecosystems from where species originated
- In the case of cultivated species, implementation of good agricultural practices that contribute to the management of native species, promotion of diversification and conservation of natural habitats
- Good management of soil and other natural resources

Currently, BTFP is supporting the implementation of management plans for wild collected species and good agriculture practices through quality improvement programmes, as a strategy to raise companies' commitment to the involvement of specific practices that support biodiversity conservation.

Ornamental and edible fish

Ornamental fish

Ornamental fish are a star product of the pet markets in the US, Europe and Japan. According to WTO statistics, global trade for these products has reached 4.5 million dollars and is growing at a rate of 8% per year. In the case of Peru, one of the most important exporters of ornamental fish, 108 species are exported out of the 150 that have been identified for their trade potential. The most part of identified species are harvested in the Amazon region.

Issues such as traceability, sustainable management along the supply chain and innovation, as well as transportation practices, are the most important for accessing markets and improving the economic feasibility of this biodiversity-based business.

In support of the ornamental fish value chain of ornamental fish, BTFP is promoting strategic alliances with international private sector associations (e.g. Ornamental Fish International) that can collaborate in the implementation of good practices along the value chain. This is taking into account that the involvement of specific business practices by members of these associations could have a direct impact on the reduction of fish mortality and the control of harvest rates – two key factors in the quality of the product, the management of populations and the survival of the species.

Moreover, actors involved in the value chain are developing a sector strategy that defines specific objectives for promoting the ornamental fish diversity in Peru and fostering the sustainable



Source: Jocelyn Ostolaza, BTFP Consultant, PROMPEX.

development of this activity. The execution of these activities is based on sustainable use systems that include monitoring and control systems that assure the sustainability in the long term. In this context the expected impacts of supporting this value chain are:

- Promotion of good practices and techniques that reduce ornamental fish mortality;
- Implementation of monitoring systems based on an adaptive management approach;
- Promotion of new native species.

Paiche

Paiche (*Arapaima gigas*) is one of the most preferred fish in the Amazon region because of the excellent texture of its meat. This species was selected as a priority to promote tropical edible fish in international markets. Populations of this species have been overexploited and nowadays this species is listed in Appendix II of the CITES.



Source: Jocelyn Ostolaza, BTFP Consultant, PROMPEX.

Though the most part of the production of Paiche comes from the wild populations growing in riparian ecosystems of the Amazon region, the breeding on controlled environments is increasing as a strategy to assure the supply to international markets and contribute to the conservation of wild populations.

The main contributions of the activities of the strengthening of this value chain to conservation and sustainable use of biodiversity are:

- Implementation of combined strategies of fish and breeding in captivity to assure the conservation of populations of paiche in its natural habitat;
- Implementation of monitoring systems that allow the definition of harvest rates and the generation of information related to the management of the species;
- Opportunity to explore alternatives of sustainable management and provide inputs to other initiatives of wildlife management and initiate the implementation of mechanisms of sustainable trade promotion.

In the case of Paiche, BTFP, in collaboration with SIPPO and national partners, is exploring possibilities of certification as a strategy to access markets that promote the implementation of good management practices. Furthermore, BTFP is collaborating with the CITES Secretariat to strengthen the capacity of the country to implement the convention through the collaboration between national authorities and the private sector.

Conclusions

The general conclusions on the contribution of the value chains selected in the context of BTFP are the following:

- Management of native species and identification of new markets
- Support in the implementation on the CITES Convention through the management of listed species, as well as the generation of capacity at national level
- Sustainable use of wild populations through the implementation of an adaptive management approach (e.g. medicinal plants, wildlife, fish)
- Promotion of agricultural activities with potential to include specific practices that benefit the conservation of natural habitats, such as connection of forest fragments and provision of habitat to other species among others (e.g. cocoa, flowers and foliage)
- Promotion of conservation activities in protected areas (e.g. ecotourism)
- Strengthening of alliances between the private sector and environmental authorities
- Generation of information through the implementation of monitoring systems implemented jointly by environmental authorities and the private sector
- Concrete experiences in the implementation of management plans and good agricultural practices along the value chain that could be replicated by national partners

As a general conclusion, the development of this kind of activities in close coordination with national authorities and the private sector provides concrete experiences for the implementation of regional and national biodiversity strategies and other relevant national legislation. Furthermore, these activities contribute to the achievement of the very aim of BioTrade, the promotion of trade in line with the three objectives of the Convention on Biological Diversity (CBD).



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