



**PEER REVIEW ON THE
IMPLEMENTATION OF THE NAGOYA PROTOCOL
AND ITS IMPACT OVER
CERTAIN ASPECTS OF BIOTRADE**

Geneva, 25 November 2015

**CHALLENGES ON THE
IMPLEMENTATION OF BIOTRADE AND
ACCESS AND BENEFIT SHARING**

**V. Vijay (Independent Researcher)
V. Lavannya (FLEDGE)
B. Pisupati (UNEP)**

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*Expert contribution by Vijay V (independent researcher), Lavannya V S (FLEDGE)¹ and Balakrishna Pisupati (UNEP²)³ to the UNCTAD Peer Review on “The implementation of the Nagoya Protocol and its impact over certain aspects of BioTrade”
24 of November 2015*

1. Overview

The purpose of this note is to support the dialogue on the linkages and conflicts between two dynamic concepts in the biodiversity regime namely, the BioTrade⁴ and Access and Benefit Sharing (ABS) regimes. The document analyses the two concepts from a policy and a legal perspective and elucidates how the misinterpretation of subtle yet significant differences between the two concepts have resulted, in certain cases, in implementation hiccups. The document seeks to serve as a key text for policy makers and various stakeholders involved in the transactions involving biological resources. The document draws from national experiences such as South Africa, Brazil and India.

2. Introduction

BioTrade and ABS are amongst the most unexplored and legally complex areas of conservation and sustainable use of biological resources. The paramount international instruments on biological diversity namely, the Convention on Biological Diversity (CBD) and the Nagoya Protocol on Access and Benefit sharing (NP)⁵ do not provide any explicit guidance regarding the possible interface and potential conflicts between these two concepts. Therefore, it is left to the individual countries to decide on how to better regulate BioTrade activities and manage access and benefit sharing within their own national programmes. Potential difficulties and complexities have arisen between BioTrade and access and benefit sharing, and it is a good time to explore them further.

3. What is BioTrade?

BioTrade refers to the collection, production, transformation and commercialization of goods and services derived from local biodiversity biodiversity in environmentally, socially and economically sustainable ways. The sustainability of BioTrade is guaranteed

¹ Corresponding Author – ecprog@fledge.in

² The views and opinions expressed in this paper are personal.

³ The authors would like to thank the inputs and comments by David Vivas Eugui, Legal Officer UNCTAD and Mariona Cusi, Technical Advisor.

⁴ See <http://www.biotrade.org/index.asp>

⁵ The Nagoya Protocol entered in to force the 12 of October 2014. See ee <https://www.cbd.int/abs/>

by adherence to principles and the working approach focusing on three areas: value chain, ecosystem and adaptive management as defined by UNCTAD⁶. The definition of what constitutes BioTrade alludes to goods and services *derived* from biodiversity. However, the term 'derived' is used in this context in a general sense, meaning 'resulting from' or 'based on'. It does not indicate that *all* BioTrade relates to 'derivatives' in the sense specified and defined by the Nagoya Protocol, since some products are directly obtained from biodiversity and may be traded without any value addition or derivation.

4. Features of BioTrade

- BioTrade is characterized both by its reliance on biodiversity as well as by the particular framework under which such trade takes place.
- BioTrade, with its unique approach to developing value chains of natural ingredients and products that are derived from the sustainable use of biodiversity, provides a concrete means of valuing and protecting biodiversity resources and improving livelihoods in the process.
- Within the BioTrade sector there are several market groups. These include, among others, native wildlife (flora and fauna), crops and vegetables, fisheries and marine resources, natural ingredients, biodiversity-based products (i.e. essential oils), , handicrafts, textiles and eco-tourism.
- BioTrade can contribute to reducing direct pressures on biodiversity and ecosystem services worldwide, as well as to maintaining and improving human well-being, which contributes directly to the Aichi Targets 4, 13, 14, 16 and 18. BioTrade is being recognized as an incentive to conserve biodiversity while at the same time addressing poverty alleviation and supporting sustainable livelihoods in developing countries by generating income opportunities as well as supporting effective implementation of the ABS provisions of the CBD. This evidenced by CBD COP decisions such as X/21 (paragraph 1 c), XII/6 (paragraph 18) and XII/10 (paragraph 2 f).
- BioTrade aims at advancing Sustainable Development Goals 14 and 15 on marine and terrestrial biodiversity by enhancing the sustainable use and trade of biodiversity-derived products and services.
- There is an increasing demand for BioTrade-related products (the turnover of BioTrade companies and organizations reached USD 5.2 billion in 2012), since they follow a set of Principles and Criteria⁷ that include ethical and sustainable principles and that often fall into the natural, organic or fair trade category that consumers are increasingly interested in.

⁶ UNCTAD (2007) BioTrade principles and Criteria. See http://unctad.org/en/Docs/ditcted20074_en.pdf

⁷ UNCTAD (2007)

It has to be clarified, however, that BioTrade is not commodities trade as BioTrade implies the application of a set of environmental, economic and social principles and criteria that are subject to verification. This is the understanding and principle that is used in this note.

5. *What is ABS?*

The Convention on Biological Diversity (CBD) defines ABS as the sharing of benefits arising from the utilization of genetic resources in a fair and equitable way⁸. Article 15 of the (CBD) is being implemented now with the entry into force of the Protocol in October 2014. As per the provisions of CBD, benefit sharing obligations are applicable in all those cases where access is provided for “*commercial and other utilization of genetic resources*”.⁹ Thus, the access to genetic resources, if carried out with an intention to exploit its genetic and biochemical value, will attract benefit sharing obligations. This encompasses activities including bioprospecting, pre-screening, applied research, product development and testing, pre-marketing, commercialization and other activities related to the genetic resources and their biochemicals.

However, the applicability and scope of benefit sharing has remained controversial and the term utilization of *genetic resources* has been susceptible to different interpretations. After the entry into force of the NP, whose primary objective is limited to a single purpose: implementing the benefit sharing provision under the CBD¹⁰, significant legal clarity has come with respect to interpretation of benefit sharing obligations. The NP makes the concept of utilization of genetic resources clearer by defining it and by providing definitions for other important terms such as biotechnology, derivative, etc¹¹.

In principle it could be interpreted that when the properties of a biochemical compound contained in a biological material are already known, access to the relevant materials for subsequent processing (drying, extraction, purification, etc.) and commercialization of the compound would not be, in principle, subject to the ABS mechanism under the NP.

6. *ABS vis-a vis BioTrade: Potential areas of conflict and confusion*

The ABS mechanism elaborated under the Protocol specifically deals with *genetic resources, their biochemicals and associated knowledge*, whereas the subject matter for

⁸ Article 15.7 read with Article 2 of the CBD.

⁹ Genetic resources’ are defined under Article 2 of the CBD as any material of plant, animal, microbial or other origin containing functional units of heredity, functional units of heredity, their utilization is not necessarily limited to research on or manipulation of the genetic information, or the use of the materials for reproductive purposes.

¹⁰ Article 5 & 6 of the Nagoya Protocol elaborate on the ABS provisions contained in the CBD.

¹¹ “Utilization of genetic resources” means to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology as defined in Article 2 of the Convention.

BioTrade is usually biological resources and species that are used for/in trade as well as ecosystems. In some cases, biochemical contained in biological resources can be used for several industrial purposes triggering ABS regulations. Associated Traditional knowledge may also have an important role in BioTrade for example in the form of better selection and harvesting, sustainable agriculture practices, biocontrol, and preservation, among others.

The value addition in ABS is done by the accessor/user employing scientific and technological methods on genetic resources to discover new molecules, biochemical composition and compounds¹², functions or develop new products. The value addition in BioTrade is done by local community actors at various stages of trade employing good agricultural or harvesting or manufacturing processes, on biological resources. It can also be done by BioTrade businesses at a later stage based on raw materials, natural ingredients (e.g. powders and extracts) or some form of derivatives (e.g. essential oils).

In legal terms, BioTrade's access and benefit sharing principle¹³ and ABS are two different concepts although they might be mistakenly understood to mean the same. This may be due to the fact that both of them involve a variety of value chain¹⁴ actors, such as producers, hunters, collectors, intermediaries, processors, distributors and traders. Also, the multitudinous activities involved in the utilization of genetic resources and the products derived there from are bound to cause confusion on the applicability of ABS, particularly with respect to BioTrade activities. It is important to note that there could also be many businesses working and adding value to genetic or biological resources that are not aware that they might be applying BioTrade principles or subject to ABS regimes.

In some countries, for instance in India, where multifarious BioTrade activities are carried out and the ABS mechanism is in place, access of biological resources for any commercial purposes, irrespective of whether it is intended to exploit the genetic value contained in

¹² See Article 2 on definitions of the Nagoya Protocol.

¹³ Principle 3 of BioTrade "responds to a fundamental facet of the conservation and sustainable use of biodiversity under the CBD, of which the third objective is the fair and equitable sharing of benefits arising from the utilization of genetic resources. Article 15 thus requires access to and the distribution of the benefits related to genetic resources to be based on prior informed consent and mutually agreed terms. When BioTrade activities involve the commercialization of genetic resources, this principle supports these objectives and requirements. Equitable benefit sharing also arises in the context of the second objective of the Convention: the sustainable use of biodiversity. Benefit-sharing is therefore also important in activities dealing with biological resources, which form the vast majority of BioTrade activities. In this context, however, principle 3 requires that suitable methodologies be defined that can support the actors involved in the implementation (...)".

¹⁴ Value chain refers to the fundamental processes whereby the primary resources are received as inputs, value addition is made by way of defined processes and the finished products and/or service is sold to the customer.

the biological resources, have been brought within the ambit of ABS leading to conflicts and implementation difficulties¹⁵.

Following are few illustrations of some situations wherein ABS is extrapolated with BioTrade activities:

Scenario 1: Value addition to raw biological resources

Crushing of soybean seeds to produce soya oil is a process up the value chain to a point of a greater value addition and subsequent returns. When the manufacturer sells the refined soya oil after processing it to another manufacturer for making paints or emulsifiers or sells it in the market for human consumption, the manufacturer is merely involved in a BioTrade activity and should normally fall outside the ambit of ABS. But in India under the Biological Diversity Act, 2002 (BD Act)¹⁶, the process of extracting soya oil from soya seeds is construed as commercial utilization¹⁷ where ABS is applicable. Here a BioTrade activity has been subject to ABS and that may result in implementation difficulties at national and regional levels.

However, it is to be noted that in the same scenario if the access of soya seeds is sought for undertaking a R&D to eventually extract and commercialize natural ingredients or products containing them, ABS will be applicable. However in countries like India, this distinction is not made and all BioTrade activities have been construed as activities that are subject to ABS.

Scenario 2: Export of raw biological resources

In India, export of biological resources is construed as commercial utilization¹⁸ and, therefore, is brought within the ambit of ABS, barring few exceptions¹⁹. This would mean any export of biological resources such as seaweed by a trading company for human consumption outside India would be subject to ABS, although it is a clear case where the price is paid for the value of the traded materials and involves pure commerce. It is important to also note than BioTrade, price is really important and closer to benefit

¹⁵ Biological Diversity Act (2002) and Rules (2004), India

¹⁶ Under Indian law there is not a differentiation between native and non-native species for the purposes of ABS. Non-native domesticated species may be covered by ABS law.

¹⁷ As per the Biological Diversity Act, 2002 (BD Act), commercial utilization means end uses of biological resources for commercial utilization such as drugs, industrial enzymes, food, flavours, fragrance, cosmetics, emulsifiers, oleoresins, colours, extracts and genes used for improving crops and livestock through genetic intervention, but does not include conventional breeding or traditional practices in use in any agriculture, horticulture, poultry, dairy farming, animal husbandry or bee keeping;

¹⁸ Section 40 of the Biological Diversity Act, India.

¹⁹ The trade with respect to items and biological resources normally traded as commodities are exempted from the applicability of the provisions of the BD Act provided the Central Government in consultation with the National Biodiversity Authority declares so in the official gazette notification. (section 40 of the BD Act).

sharing as it implies that a fair price has been agreed and that stakeholders are involved and participating in the value chain.

This kind of confusion in the application of ABS is fundamentally due to the wide interpretation of the words used in the legislation, thereby leaving less scope for exclusions of activities that are not intended to be within the ambit of ABS such as normal processing and trade of biological resources.

Thus, what needs to be understood by the policy makers and implementation agencies is that any supply of raw materials, for example to prepare powders or essential oils, among others, would normally be outside the scope of ABS unless the derivatives are used in addition to results from research and development (R&D). However, if such use of powders and essential oils is based on specific traditional knowledge, then the principles of ABS would apply. It is only when those BioTrade activities involve commercialization of genetic resources that benefit sharing obligations will be triggered. For instance when the activities involve new R&D on genetic resources aimed at identifying and commercially exploiting biochemical compounds of interest for industrial use or when developing new processes (e.g. when developing a new chemical composition for a cosmetic cream based on natural a synthetization process based on a natural molecule), such BioTrade activities will be in principle subject to ABS rules.

The following table is an illustration of when an activity related to biological resources would be considered as BioTrade and ABS. However, this may vary depending of the definitions and coverage of national ABS regulations.

S. No	Products from biological resources	BioTrade	ABS
1.	Extracts, natural dyes, production of soaps, cream and butters, moisturizers, infusions from medicinal plants.	Supply of raw materials and natural ingredients to prepare such products employing fair trade practices	In case when access is sought to undertake R&D to eventually extract and commercialize natural ingredients or products containing them
2.	Live organisms such as butterflies, snakes, honey bees	Supply for pet and livestock feed, wildlife as pets, sanctuaries, zoos, ecotourism, sericulture, food products, adornments and displays,	Human therapy, bio-prospecting, pharmacology

		ecotourism, behavioral studies, crop pollination, conservation pursuits, secretion and dyes	
3.	Plants, flowers and foliage	Decoration, agriculture, floriculture.	Extracts, essential oils, natural dyes, soaps, cream and butters, moisturizers, infusions from flowers, medicinal plants,
4.	Fruits, cereals, grains, tuberous, nuts, cocoa, jams, sweets and snacks, jellies, pulps and juices, spices and sauces, teas and infusions, food supplements.	Supply of raw materials to prepare such products	In case when such access is sought to undertake R&D to eventually extract and commercialize natural ingredients or products containing them
5.	Essential oils and natural medicines (e.g. capsules)	Production under existing or known methods employing fair trade practices	R&D based on essential oils and natural ingredients It depends on the national legislation. They could be defined as derivatives and depending on the national law subject to ABS under national law.
6.	Associated traditional knowledge (ATK)	As a valuable inputs in harvesting, extraction or production. It could be even incorporated as a best practice in the value chain.	R&D using ATK will be probably covered by ABS or national TK laws. Examples may include use of ATK to orient research, reduce pre-screening costs, or develop new uses or applications.

7. Conclusions

The conflicts and confusion prevalent in ABS and BioTrade implementation as discussed above can be overcome by adopting a fresh perspective to implementation methods. Confluence of ABS and BioTrade will mutually benefit the other in terms of strengthening implementation in ABS, and in terms of enabling and promoting BioTrade as a means of livelihoods. BioTrade promotes sustainable sourcing and use of local biological resources for trade, seeks to derive fair and equitable share in benefits to the communities and actors involved in the value chain, as well as promote the conservation of local biological diversity. The BioTrade Principles and Criteria are in line with the objectives and principles of the CBD and the Commission on Sustainable Development. They also relate to other Multilateral Environmental Agreements, such as CITES, the Ramsar Convention on Wetlands, the United Nations Convention to Combat Desertification, as well as to the elements of the 2030 Agenda for Sustainable Development.

ABS is a strong international policy framework with much potential, especially when all Parties to the CBD and the Nagoya Protocol comply with their obligation to enact national legislations. BioTrade is a working model on engaging with local communities to ensure sustainable socio-economic development.

Attempting to cover any commercial use of genetic resources under national ABS frameworks will not only create serious conflicts between the trade policies of countries and implementation of the Nagoya Protocol, but also will undermine the objective of ABS as elaborated under the CBD and the Nagoya Protocol.

In countries where ABS mechanism is in place by way of national legislation, ABS could be used to achieve BioTrade as a means of livelihood to local communities to ensure sustainability, conservation and socio-economic development. Technology transfer, enterprise establishment and capacity development in this regard could be considered non-monetary benefits derived under ABS principles, which could, in turn, be used by the local communities to establish a sustainable and perennial livelihood through BioTrade.

While applying the NP ABS obligations, businesses should also look into fulfilling the other principles of BioTrade and thus promote BioTrade implementation in the value chains. Thus, one can achieve the dual objectives of BioTrade and ABS if proper mutually supportive regulations, administrative practice and technical assistance programmes are put in place.

In other countries, BioTrade programs could develop local communities' capacities to engage with market and commercial stakeholders in trade processes. This capacity development coupled with sensitization of rights under ABS could prove enabling for the communities' stakeholders to engage with accessors/users of genetic resources and associated knowledge through prior informed consent and mutually agreed terms.

In this regard international, national and regional working group on ABS and BioTrade could develop more precise guidelines to suit specific trade sector needs. An example of this could be those relating to agro biodiversity or traditional medicines. This would seek

to provide the needed clarity for policy and regulatory purposes when people access and use genetic and/or biological resources for various uses and purposes. International organizations such as CBD, UNCTAD, and CITES, and UNEP as well as non-governmental organisations such as the UEBT, Phytotrade Africa, FLEDGE, GIZ, SPDA and Helvetas, have an important role to play in providing such guidance.