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International trade and biodiversity: complementarity or conflict?

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INDEX

ACRONYMS

CAFTA-DR	Dominican Republic-Central America-United States Free Trade Agreement
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna
FTA	Free Trade Agreement
GMOs	Genetically Modified Organisms
ICTSD	International Centre for Trade and Sustainable Development
IMF	International Monetary Fund
IP	Intellectual Property
LMOs	Living Modified Organisms
MAT	Mutually Agreed Terms
MEAs	Multilateral Environmental Agreements
NAFTA	North American Free Trade Agreement
SDGs	Sustainable Development Goals
SERFOR	Forestry Service
SPDA	Peruvian Society for Environmental Law
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
UEBT	Union for Ethical BioATrade
UNCED	United National Conference on Environment and Development
UNCTAD	United National Conference on Trade and Development
WB	World Bank
WTO	World Trade Organization

INSTITUTIONS

The Regional Programme Energy Security and Climate Change in Latin America (EKLA) of the Konrad Adenauer Foundation (KAS) aims to provide both traditional and new (digital) platforms to initiate a supra-regional dialogue on climate change, energy and environmental policies. We focus on geostrategic analysis, debates and perspectives, emphasizing the close cooperation with German and European actors.

The Peruvian Society of Environmental Law (SPDA) is a non-profit civil association that since its foundation in 1986, has worked continuously in the promotion of environmental policies and legislation and in the design and implementation of instruments that favor sustainable development under the principles of governability, equity and justice.

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INTRODUCTION

Debate on the connection between trade and biodiversity is not new. The issues and related controversies persist and, to some extent, have had a certain "revival" since the first debates in the World Trade Organization (WTO) during the 1990s. The question for analysis should be refined and focus on how international trade is linked -through its principles and frameworks- with efforts aimed towards the conservation and sustainable use of biodiversity and its components. Is there "mutual supportiveness" among international trade and conservation of biodiversity? This remains an open question and depends on a wide range of variables such as location, actors involved, legal frameworks, institutional safeguards, type of value chains, etc. Trade may be supportive, but also disruptive.

An article in the prestigious Nature, argues that human activities have become the greatest threat to biodiversity, and in a context of an expanding globalization process, international trade is accelerating habitat degradation and the loss of species and biodiversity in general.[1] This is particularly the case in developing countries, which inevitably have become part of the international trade circuit and have historically relied on the export of their renewable (e.g. biodiversity) and non-renewable resources (e.g. minerals), often in raw form, in order to integrate international trade value chains. But this need not be necessarily so if trade is balanced with good sustainability practices and strong institutional safeguards. In this context, instruments such as the Sustainable Development Goals (SDGs) and Aichi Biodiversity Targets seek to streamline sustainability into different analyses and commetrcial practices.

This second publication of the Policy Brief on Trade and Environment presented by the Konrad Adenauer-Stiftung Foundation and Peruvian Society for Enviromental Law (SPDA), addresses some of the most prominent and current issues of the international trade and biodiversity debate. Given the complexity and scale of the matter, the description and analysis of important historical background information presented is being limited; the paper focuses on central issues that have been highlighted in the trade debate over time. It also addresses how they've been discussed and negotiated in different forums and how different blocks and interests of countries envision their own sustainable development as their main goals within the globalization process. These issues include the loss of biodiversity as a result of (unsustainable) trade practices, the international flows of genetically modified organisms, technology transfer, access to genetic resources, the relationship between multilateral environmental agreements and the WTO, and biodiversity protection standards in regional/bilateral trade agreements..[2]

1 Lenzen, M., Moran, D., Kanemoto, K., Foran, B.,Lobefaro, L., Gesche, A. International trade drives biodiversity threats in developing countries. *Nature*, Volume 486, pages 109-112 (07 June 2012) doi: 10.1038/nature11145. Available at: https://www.researchgate.net/publication/225283261_International_Trade_Drives_Biodiversity_Threats_in_Developing_Nations

2 A very relevant issue in the trade-biodiversity debate, which will be fully explored in a following number of this series of policy briefs, is the relationship between intellectual property, mainly the norms of the Agreement of Trade Related Aspects of Intellectual Property Rights (TRIPS), and biodiversity and its components. For a preliminary and introductory review, see, Ruiz, M. *Biodiversidad y los Derechos de Propiedad Intelectual: Elementos para una Agenda de Negociación Regional*. Diálogo sobre Propiedad Intelectual y Desarrollo Sostenible, ICTSD-UNCTAD, CEIDIE, SPDA, March 22-23, 2004. Available at: https://www.iprsonline.org/unctadictsd/dialogue/docs/Ruiz_2004-03-22.pdf

Background to the debate: the WTO and the CBD

The negotiation of the Convention on Biological Diversity (CBD) was undertaken alongside the final negotiation process of the General Agreement on Tariffs and Trade (GATT), ultimately reflected in the WTO. Although the CBD was not a "response" to the GATT, several issues that began to permeate the CBD debate had to do with the way in which industrialized countries where designing the substantive content of the GATT, mainly in terms of intellectual property, agriculture, foreign investment policy among, others. The GATT negotiation and CBD itself drew a clear division between two blocks: industrialized countries and developing countries.[3] During the 1990s, a third block of "emerging" countries began to surface, including Brazil, China, India, Mexico, some countries from Southeast Asia and subsequently Russia.

The WTO was created as a means to liberalize international trade and provide a final tool to consolidate a long and protracted process for the standardization of economic, financial, commercial and monetary policies emanating from the Bretton-Woods Agreement (1944) that gave rise to the World Bank (WB) and the International Monetary Fund (IMF). The subsequent Washington Consensus (1989) and recommendations of the WB and IMF on Structural Adjustment, further emphasized trade openness, state reforms and the free market. With the addition of the technological revolution, these elements laid the foundation for globalization as it stands today. For developing countries, this meant significant reforms in public administration structures, labor regimes, property of state run companies, entitlement, and a preference for competitive advantages mainly found in the exploitation of natural resources and export of raw materials. The technological revolution was slow to penetrate developing countries, mainly in Latin America, Africa and the Caribbean. Only a number of developing countries were able to set out and benefit a little more intensively from this true technological revolution.[4]

These parallel processes, initially independent from one another, began to converge, especially in certain negotiation spaces, forums and multilateral institutions. There were several reasons for this convergence. First, social movements, the position of non-governmental organizations and research from "think tanks" and the academic sector, started to identify and make visible critical policy, economic and social connections between international trade and the environment. Some of these connections offered the potential to stimulate sustainabiity practices through international trade. Some were more questionable, giving the increasing pressures on ecosystems and resources placed by trade. Second, the negotiators who participated in the WTO process also began to participate in policy processes related to the environment, and so "natural" synergies where created. Third, the WTOs Committee on Trade and Environment was created, and began to identify issues that from a commercial/trade standpoint, could affect environmental dimensions. Finally, as international trade has broadened and globalization become an almost unavoidable process (with obvious differences and preferences among countries and continents), academic research has noted both the positive effects of international trade and many of the adverse effects that have gradually been accumulating and becoming more evident.[5]

3 Mindreau, M. (2005) *Del GATT a la OMC: la Economía Política Internacional del Sistema Multilateral de Comercio*. Universidad del Pacífico. Lima, Peru.

4 Many emerging countries of today and "newly" developed countries such as South Korea and Singapore, benefitted from their national low standards on intellectual property and their delay to adjust to TRIPS; they began to, literally, copy technologies and perform "reverse engineering" in order to develop their own industries. India invested in training of its experts at an early stage, many in universities the United States, to later develop their own technological industry. Despite their late entrance to the WTO, China imposed a number of barriers to access their markets and conditions that require investors to share their technologies with local companies, often state run. This kind of practice in China has been called into question by the US new administration, which calculates an unfair use of their intellectual property in the order of more than 50,000 million dollars during the last two decades. Blair, D., Alexander, K. China´s *Intellectual Property Theft Must Stop*. The New York Times. August 15, 2017. https://www.nytimes.com/2017/08/15/opinion/china-us-intellectual-property-trump.html

5 Some of these effects include, for example: devastation of primary forests in the tropical rainforests of Indonesia, Malaysia and the Amazon, due to promotion intensive cultivation of oil palm and soybean, international commodities increasingly in demand in China; increases in intensive farming in the Amazon and effects of methane production and its substantial contribution to global warming; urban expansion and its influence on vulnerable areas; or social inequality that has intensified in all countries integrated to an export and accumulation model of wealth creation. Stiglitz, J. (2006) *Making Globalization Work*. Norton & Company, New York, London.

The factual connection between international trade and loss of biodiversity and its components

A simple question in it's wording, but with a complex answer is: What is the effect of international trade on biodiversity? First, international trade in its highly intensified version since the 1990s and internationally institutionalized through the WTO and several bilateral and regional trade agreements, must be understood as a historic milestone, as part of a tendency and clear ideological affirmation that derives from Western democracies and economic liberalism.[6] Within this context, international trade has become the cornerstone of national development options and progress (to some extent) measured according to trade surpluses or deficits.[7] Almost a "trade, or die" rule.

Although international trade has had as an overall positive result in creation of wealth, employment and well-being, when disaggregated by sector, country or region, and in terms of environmental and social effects, multiple problems surface including in regards to biodiversity conservation sustainability practices, and inequities in wealth distribution.

Although the effects of international trade over biodiversity is poorly understood, and requires further research, there is evidence that in a growing integrated global economy, value chains in certain products, especially in large scale enterprises, including trade in fisheries and derived products, seem to accelerate the loss of habitat in areas far from the centers of consumption.[8] The demand of products (i.e. food, raw materials, timber, "commodities" in general) by an insatiable and growing urban population, has been producing continuous pressure on biodiversity and particularly on vulnerable areas including tropical forests and the oceans. Human dependence on fossil energy and the effects on the climate from its consumption also have an effect on the loss of biodiversity, as temperatures rise and climate events intensify and impact diverse ecosystems.

Finally, mega-infrastructure (i.e. highways, reservoirs, for hydroelectric plants, cities) also result from pressures and demands of the population = consumers, many times disconnected from and even unaware of the effects on the ground of their consumption decisions. The most serious reports coincide on the state of biodiversity: despite the efforts, global biodiversity, including its products and services, continue to be lost at accelerated rates.[9] That said, to consider international trade as the only root or underlying cause of the increasing loss of biodiversity would be highly simplistic and a mistake. At the same time, there is a relationship between forces of demand, and the spaces and ecosystems that need to provide goods and services to satisfy consumers.

6 "International" trade has its origins 3,000 AC among the peoples of Mesopotamia; the Silk Routes more than 2.500 years after, marked a more sophisticated version of international trade; during the 16th Century, the first international trade corporations began to appear led by Holland and England, with the "new worlds" fully "discovered" and integrated to the first global trading routes. To view the history of international trade, see, Bernstein, W. (2008) *A Splendid Exchange. How Trade Shaped the World*. Atlantic Books, London.

7 Paradoxically, international trade is beginning to be strongly contested in certain quarters, including by the US, whose current administration has started to demand much more visible *free* and *fair* trade from many countries. In other words, trade which is free of barriers and exempt of protectionism. The reality is that most experts coincide that international trade may be a critical factor for development at all levels, provided that a number of essential conditions are complied with, as, for example, caring for the environment and social vulnerabilities.

8 Lenzen, M. *Ibid*. p. 2.

9 Three notable statistics stand out: 80% of the most important fisheries, on which there is existing information, are fully exploited or overexploited; since the 1990s, the loss of primary tropical forests has increased by 25% - 80,000 hectares of these forests are lost -the principal centers of biodiversity- *daily*: more than 50% of the worlds coral reefs have been affected and lost. These situations can be attributed to several factors, most of which can be linked to consumption consumptive and non-consumptive patterns and to some extent, pressures of international value chains in particular. See for example, Shau, A. *Loss of Biodiversity and Extinctions*. Global Issues, 2014. http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions and Scientific American. *Measuring the Daily Destruction of the Rainforest*. https://www.scientificamerican.com/article/earth-talks-daily-destruction/#

From commercial agreements to MEAs: synergies and compatibilities

There are several different types of "connections" between international trade and biodiversity and its components. First, almost without exception, major free trade agreements FTAs include specific provisions on biodiversity and its components. For example, the Trade Promotion Agreement between the US and Peru (2006), includes a Memorandum of Understanding on Biodiversity where, in general and programmatic terms, several important issues for the Peruvian agenda are addressed. These issues are also of importance to countries similar to Peru in terms of their biological and cultural wealth. For instance, biodiversity and genetic resources are recognized and the need regulate access to generic resources, protect traditional knowledge and improve patent search mechanisms within the patent systems expressly acknowledged.[10] The FTA also incorporates a specific section on biodiversity that describes general principles regarding respect for participation of civil society in decision making processes and public consultation, recognition of traditional knowledge and its value, and the need to protect biodiversity in general. The U.S. for its part has placed considerable attention on forestry matters, with a Forestry Annex included in the agreement with Peru. This includes an institutional structure to verify compliance with substantive provisions in the Agreement regarding forest conservation and management.[11] Pressures from the US in this regard have helped to strengthen forest competences and institutions (e.g. Forestry Service – SERFOR), resulting in an overall improvement of forest management in a trade context.

The Free Trade Agreement between Dominican Republic, Central America and U.S.A. (CAFTA-RD) of 2004, one of the "post" WTO commercial agreements, dedicates an entire chapter to environmental protection, including references to pollution prevention, the elimination of contaminant emissions and flora and wild fauna (biodiversity) protection and conservation, particularly critical for the Central American region. The North American Free Trade Agreement (NAFTA) of 1988 for its part, was the first truly comprehensive trade agreement, even before GATT negotiations were concluded and the WTO created. NAFTA does not include substantive biodiversity provisions, but some general references are made in its preamble in terms of the need to undertake market liberalization in Canada, Mexico and the United States with due consideration of the environment and sustainable development principles.[12] The sole reference to biodiversity or the environment in these different agreements implies, nearly by default, the recognition that there *is* a relationship between the effects of these trade agreements and the environment and biodiversity in particular. If this was not the case, they would not be explicit recognixed and included therein.

Second, many trade agreements signed by sub-regions and Latin American countries with the US , Europe and Asian countries,[13] include specific obligations for the signing, ratification and/or implementation of MEAs, most of them with a direct or indirect incidence in terms of biodiversity. For example, the FTAs of the US with Colombia and Peru include provisions that determine the different MEAs which are under the scope of these FTAs, including agreements of particular interest for the US such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1974), the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (RAMSAR, 1974), and the Convention for the Conservation of Antarctic Marine Living Resources (1980), that are particularly important to guarantee the protection of certain biodiversity components – species and ecosystems. Likewise,

10 See, Carta de Entendimiento sobre Biodiversidad, http://www.acuerdoscomerciales.gob.pe/images/stories/eeuu/espanol/Entendimiento_Biodiversidad.pdf

11 Puentes (BRIDGES). *Cumplimiento del anexo forestal de TLC EE.UU. - Perú a Revisión*. ICTSD. April, 2011. See, https://www.ictsd.org/bridges-news/puentes/news/cumplimiento-del-anexo-forestal-de-tlc-eeuu-perú-a-revisión

12 See NAFTA text at https://www.nafta-sec-alena.org/Inicio/Textos-jurídicos/Tratado-de-Libre-Comercio-de-América-del-Norte

13 To review the list of some thirty trade agreements celebrated between sub regions and countries in Latin America see, Buenrostro, P., Ruiz, M. *International Trade, Development and the Environment: A Review of Instruments, Negotiations, Processes and Actors Relevant for Latin America.* Policy Brief on Trade and Environmental Policy, No. 1, March 2018. KAS, SPDA. No.1, March 2018, pg. 9, Available at: http://www.kas.de/energie-klima-lateinamerika/en/publications/51984/

FTAs refer to the need of approving or acceding to different agreements, including in regards to intellectual property (an unavoidable and central matter in FTAs and international negotiations), including the International Convention for the Protection of New Varieties of Plants (UPOV Convention, 1961, in the current version of the 1991 Act). These provisions show a practical connectivity between strictly trade issues and environmental matters, including conservation and the sustainable use of biodiversity and its components.[14]

Finally, at least in theory, the international order is built on the assumption that different agreements in all areas -commercial, environmental cooperation, human rights, etc.- must be compatible and complementary with one another. However, this is far from being a reality, and there are multiple conflicts and tensions. For example, conflicts may occur when national measures undertaken to implement MEAs such as the Cartagena Protocol on Biosafety or the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits, end up becoming non-tariff barriers to trade due to excessive burdens and unjustified controls. This may lead to conflicts that would need to be resolved through dispute settlement mechanisms of the WTO, for example, or mediation and less confrontational tools under MEAs..[15]

Issues of interest in the debate on trade and biodiversity

There are several issues where the relationships between international trade and biodiversity are very evident. A first issue which permeates the discussion and debate is the role of the Precautionary Principle[16] in international environmental law, and its possible implications in terms of trade restrictions or trade promotion. This principle indicates that the absence of definite scientific evidence is not a reason for countries to delay the adoption of a cautious position in the face of activities that might generate significant environmental impacts related to biodiversity and its components. This is the core, underlying principle in different MEAs and a large part of biodiversity and environmental regulations and legislation.

The central question is whether the Precautionary Principle may -under certain circumstances- imply or act as a trade barrier that could affect the interests and rights recognized in trade agreements. Jurisprudence has been developed to this effect in the European Union (in cases on imports of cigarettes, asbestos use, growth of hormones in cattle), where precaution has prevailed over free trade based on health reasons and justifications.[17] At the international level, the WTO Sanitary

14 One interesting aspect of the FTA between the US and Peru and Colombia are the references to biodiversity and concepts of the CBD, an agreement that has not been ratified by the US. Reviewing the wording of FTAs, including the Memorandum of Understanding on Biodiversity, concepts are used that the US would never accept as part of their own negotiations within the CBD and its related spaces. This is considered a kind of victory in the case of Colombia and Peru, regardless of the generalities in the wording and limitations of the substantive content of the provisions. See, Ruiz, M. (2007) *The Not-So-Bad US Peru Side Letter on Biodiversity*. ICTSD Integration. Available at: http://www.iprsonline.org/resources/docs/Pages%20from%20BRIDGES10-1%202.pdf

15 Najam, A., Halle, M., Melendez, R. (2007) *Trade and Environment. A Resource Book*. ICTSD, IISD, The RING. Available at: http://www.iisd.org/pdf/2007/trade_and_env.pdf

16 The precautionary principle has its origins in the Stockholm Conference on the Human Environment (1972), but was developed more specifically in the Declaration of Principles of the United Nations Conference on Environment and Development (1992). Principle 15 establishes that "*in order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*". For further details on its meaning and implementation see, Gehring, M., Cordonier Segger, M.C. *Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization*. Research Paper, 2002. Available at: http://cisdl.org/public/docs/news/brief_precaution_trade.pdf

17 The Court of Justice of the European Union ruled during the 1990s, that the import of beef and derived products (commodities) from the United Kingdom would be banned in order to protect human health. This means that the European Commission may take protective measures without having to wait until the reality and seriousness of those risks [from BSE] become fully apparent and are fully understood. See, Case C-157/96 National Farmers' Union and Others [1998] ECR I-2211, *at* para 63.

and Phytosanitary Agreement is particularly relevant as its implementation is justified as a measure to guarantee that the consumption and use of biodiversity products (e.g. seeds or foods) do not have an adverse effect on the health of humans, animals and plants. Furthermore, many legal texts in Latin American countries either refer specifically to the concept or reflect its *raison d'etre* throughout their text.

A second issue of interest in debates on the relationship between international trade and biodiversity has been intellectual property and its application on biotechnological inventions derived from biodiversity components, within the framework of the CBD and Doha process for the review of TRIPS. The relationship is not evident and has become subject of tensions only insofar as intellectual property has become an inseparable part of the international trade agenda. In summary, -as this will be the topic of a next issue of the Policy Brief on Trade and Environment Policy- patent inventions applied to innovations derived from biodiversity components (i.e. genes, sequences, genomes, and biotechnology in its widest sense) have generated a reaction from Southern countries rich in biodiversity, with limited transformative and technological capacities to turn biodiversity into valuable goods and services.[18] This reaction was in part reflected in the CBD principles on access to genetic resources and benefit-sharing, intended to achieve a balance and equilibrium between the flow (trade) of genetic resources used in biotechnological inventions and inventors rights.[19]

A third issue that strongly highlights the relationship between international trade and biodiversity are Living Modified Organisms (LMOs) or Genetically Modified Organisms (GMOs). Early on during CBD negotiations, many countries drew attention on the possible impacts from releasing LMOs into the environment and particularly on biodiversity.[20] Gene flow and its effects on agriculture, native crops and agroecosystems was highlighted, mainly due to the situation of centers of origin and crop diversification, such as many Latin America countries.[21] While from the commercial side, sanitary and physosanitary norms regulated the movement of food products and their safety for humans, animals and plants, from the environmental movement, there was a special focus on the impacts LMOs might generate on ecosystems, and a *ad hoc* international regulatory system (the Cartagena Protocol on Biosafety, 2000)[22] was designed, that in reality is a system of trade and safe movement of goods (LMOs) among countries. Given the nature and volume of trade/flow of these LMOs, questions have not been raised on whether the Protocol and norms established at the national level imply excessive restrictions to this type of trade. Considering the WTOs[23] exceptions and the Precautionary Principle, it is estimated

18 There is extensive and comprehensive literature on this issue. A good, classic text that synthesizes this debate is, Pistorious, R. (1997) *Scientists, Plants, and Politics: the History of the Plant Genetic Resources Movement*. IPGRI, Rome. Available at: https://www.bioversityinternational.org/e-library/publications/detail/scientists-plants-and-politics/

19 A text that allows an immediate understanding of ABS is the introductory section of Glowka, L., Burhenne-Guilmin, F. y Synge, H. (1994) *A Guide to the Convention on Biological Diversity*. Gland y Cambridge: UICN.

20 To learn about the history and background of the debate, see introductory part of Mackenzie, R., Burhenne-Guilmin, F., La Viña, A., Werksman, J. (2003) *An Explanatory Guide to the Cartagena Protocol on Biosafety*. IUCN Environmental Policy and Law Paper No. 46. IUCN Environmental Law Centre. Gland, Switzerland. Available at: https://www.iucn.org/content/explanatory-guide-cartagena-protocol-biosafety

21 Lapeña, I. (2007) *Semillas Transgénicas en Centros de Origen y Diversidad*. SPDA. Lima, Peru. Available at: http://spda.org.pe/?wpfb_dl=66

22 The Kuala Lumpur Supplementary Protocol (to the Cartagena Protocol) on Liability and Redress (2010), establishes principles to compensate countries in the event damages resulting from the accidental release of living modified organisms (LMOs) during their trading or international movement. See, https://bch.cbd.int/protocol/supplementary/

23 GATT Article XX (on General Exceptions) provides that as long as measures are not applied in a manner which would constitute arbitrary or unjustifiable discrimination, or a disguised restriction on trade, any contracting party may adopt measures "(b) *necessary to protect human, animal or plant life or health, […]* and (g) *relating to the conservation of exhaustible natural resources (biodiversity), if such measures are made effective in conjunction with restrictions on domestic production or consumption*". This is the basis for countries to apply, for example, biosafety restrictions under the framework of the Cartagena Protocol.

that these norms and principles are compatible with those of international trade.

A fourth issue where there is a relationship (at present a fluid one) between international trade principles and biodiversity, is ABS and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (2010). The Protocol is in essence, an international trade system of genetic resources and derived products. A number of principles have been established such as prior informed consent (PIC) and mutually agreed terms (MAT) in order to regulate how these resources "exit" one country and enter others, to later distribute the benefits from their use, mainly through the application of modern technology. As in the case of the Cartagena Protocol, it is estimated that regulations of the Nagoya Protocol are fully compatible with general principles of international trade. However, in the case of implementing national norms and regulations, it has been argued for some time whether the excessive restrictions for access are compatible with free trade principles under WTO.

A fifth issue of interest, that has shown clear signs of complementarity between the regulations of international trade and biodiversity conservation actions, are the efforts to regulate international trade in endangered and threatened species based on the CITES Convention regulations. The Convention is an instrument to regulate trade, based on conservation concerns. The "simplicity" of its operation, its adherence to market regulations (supply-demand), its wide acceptance and successes in practical implementation during the last four decades has made it a powerful conservation instrument.[24] In summary: contracting parties define by consensus the group of "goods" (wildlife) that may be commercialized, under restrictions according their conservation status. Countries' export and import verification points and standardized formats, help to control the flow of goods (i.e. specimens, parts or derivatives). The most interesting evidence of this mutual complementarity is the lack of conflicts to date, and CITES norms and principles not being questioned at the WTO panels.

Finally, BioTrade is a particularly interesting issue in terms of trade/biodiversity. There is not a universally accepted definition for BioTrade, although it basically refers to activities based on the use of biodiversity and its components along value chains. The United Nations Conference on Trade and Development (UNCTAD) began work during the 1990s on a BioTrade Initiative. This is simply trade in biodiversity subject to a number of conservation and sustainability principles and criteria derived from the CBD.[25] This Initiative has been quite successful in the context of several national BioTrade programs (i.e. Colombia, Ecuador, Peru, Vietnam) and various value chain businesses created and strengthened around the world, working to comply with BioTrade Principles and Criteria.[26]

24 The complementarity and mutual supportiveness between CITES regulations and free trade principles have been extensively documented. There is a close relationship between the CITES Secretariat and WTO itself. See for example, CITES Secretariat and the WTO. *La CITES y la OMC: Promoviendo la Cooperación para el Desarrollo Sostenible* (2015), Available at: https://www.wto.org/spanish/res_s/booksp_s/citesandwto15_s.pdf

25 See, UNCTAD. *BioTrade Initiative. Principles and Criteria*. Available at: http://unctad.org/es/docs/ditcted20074_sp.pdf

26 BioTrade in the context of UNCTAD has evolved substantially over the years. The Union for Ethical BioTrade (UEBT) is in practice a "certifying" organization for BioTrade activities –The UEBT is not exactly a certification body but an association of businesses that comply to implement UNCTAD Principles and Criteria, and submit to a UEBT evaluations from time to time. See, http://ethicalbiotrade.org/

Sustainable development on the horizon: Aichi BiodiversityTargets and the SDGs

The Stockholm Conference on the Human Environment (1972), the Brundtland Report (Our Common Future) (1989), the United Nations Conference on Environment and Development (UNCED) (1992), the World Summit on Sustainable Development in Johannesburg (2003), and the Rio+20 Conference (2012), have emphasized at different times, the need to increase efforts to reverse and mitigate the loss of biodiversity around the globe. This is a survival problem for humanity. A complex international architecture has been constructed regarding all kinds of instruments based on these milestones (i.e. agreements, declarations, plans, goals), focused on pressuring and directing (to the full extent permissible by international public law), and "measuring" the advances in sustainable development.

The Strategic Plan for Biodiversity 2011-2020, the Aichi Targets "Living in Harmony with Nature" (2010)[27] and the Sustainable Development Goals (SDGs) (2015)[28] are particularly relevant in their relationship with international trade.

The Aichi Biodiversity Targets do not include references to international trade, but several these targets and their objectives are conditioned to an "environmentally friendly" operation of market forces and the economic activity. On the contrary, the SDGs have several specific references to the role of international trade and efforts of sustainable development, which, in turn integrate conservation and sustainability in the use of biodiversity and its components, as a material basis for a considerable proportion of international trade (e.g. fisheries, agricultural products).

The SDGs do make specific references to international trade. These refer to lifting trade barriers and the restrictions in global agricultural markets and ensure the proper functioning of agricultural "commodities" markets, as well as preferential treatment for developing countries (SDGs 2 on ending hunger, achieving food security and improved nutrition). The most specific references include a subsection explicitly proposing that developing countries increase their exports in order to participate in the global commercial market. They also address the need to conclude the Doha Round and generate a more equitable and transparent international trade system with possibilities to access markets in developing countries (SDGs 17). The SDGs recognize that international trade is a de facto variable, as it *may* or may not contribute to sustainable development and the compliance of SDGs. It is in that area of tension between the pressures exercised by international trade on ecosystem and biodiversity regeneration capacities, and efforts from a conservationist perspective to avoid adverse effects from extractive activities (i.e. timber extraction, agricultural expansion at the expense of primary forests), value chains, intensive agriculture, etc., that a complex and very challenging emerges. As an additional factor, technology continues to be visualized as a tool that will help to reverse the loss and pressures of biodiversity.[29]

27 The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets are a referential framework of action of ten years, for all countries and relevant parties to save the biological diversity and improve its benefits for people. They were adopted under Decision X/2 of the Tenth Conference of the Parties to the CBD held in Nagoya, Japan.

28 They were adopted by the United Nations General Assembly under Resolution A/RES/70/1 of September 2015. They are part of the document Transforming Our World: the 2030 Agenda for Sustainable Development.

29 It is interesting to note that during different moments in history, technology has been hailed as the ultimate "problem-solving" factor. Although there is some truth in this, it is also true that at present, the most technologically developed in history (Fourth Industrial Revolution), with dramatic increases in per capita income of the global population, the loss of biodiversity continues rapidly with the danger of exceeding the threshold that would put human survival at a risk. The scientific consensus is overwhelming in this regard: there are no signs that this loss process is slowing down. See, *Biodiversidad: El Consenso Científico: Resumen del Informe de la Evaluación de los Ecosistemas del Milenio*. Available at: https://www.greenfacts.org/es/biodiversidad/biodiversidad-foldout.pdf

CONCLUSIONS AND FINAL COMMENTS

1. The relationship between international trade and biodiversity is complex. On the one hand, international trade of biodiversity components (i.e. various "commodities", food, fish products, wood), undeniably puts pressure on ecosystems and the individual reproduction capacity of many species. Conservation efforts at the national and international level face significant pressures, and consumption trends generally intensify the stress on biodiversity at its three levels: ecosystems, species and genetic resources. On the other hand, both environmental and development sustainability are firmly embedded in all international environmental, development and trade agreements and seek to counterbalance these tendencies. The Aichi Targets for biodiversity, and more importantly the Sustainable Development Goals (SDGs) are probably the most important standard to which countries are adhering to and measuring their development advances in relation to biodiversity/environmental protection, including their relation to trade. It is important that countries continue their assessments on advances towards their realization.

2. International trade instruments (mainly the WTO and bilateral agreements or FTAs) explicitly and implicitly acknowledge the possible risks for the environment and biodiversity due to trade and its related trends. These agreements and FTAs recognize the need for and faculty countries have to protect their natural patrimony, the environment and biodiversity in general with safeguards – under certain conditions, and so long as free trade principles recognized by the WTO and its agreements are not infringed upon. Flexibilities under the WTO could be much more actively used and implemented to secure conservation and sustainability, and defended, if need, be from complaints and actions for infringement of WTO principles.

3. The "world" of international trade has several considerable advantages with regards to the "world" of conservation and concerns over biodiversity and the environment. First, the high internal demands for development and economic growth of many countries in Latin America (and the world), tends to place environmental considerations and biodiversity protection way below the priorities ladder. Second, environmental agencies or ministries also tend to have far less specific political weight than, for example, the trade/industrial and finances ministries within governments themselves. Third, trade agreements, including WTO, rely on strong sanctioning or enforcement mechanisms that unlike other areas of international relations, have a considerable deterrence effect. Finally, in practice,

there is a sort of underlying international practice that determines that trade agreements are more important than, say, environmental or biodiversity agreements. The latter is an international reflection of what usually occurs at the national level and has to do, again, with idea of the specific political weight certain issues (trade) have in relation to others (biodiversity and the environment). Nevertheless, countries need to continue consolidating the process initiated in the 1990's of strengthening environmental sectors, empowering civil society to participate actively in decision making processes and streamlining biodiversity and biodiversity into other sectors including trade, industry and others.

4. Often, it is not the absence of discussion spaces on trade/biodiversity that generates concern. Rather, it is the absence of genuine political determination to undertake the challenges head on given overwhelming evidence of the risks and threats of endangering the planet over a non-return threshold. What is happening with the Paris Agreement is a case in point. On one side, countries like France, the UK and Germany fully committed to its implementation. On the other side, a North American new administration that refutes the scientific fundamentals of climate change and decides to withdraw and emerging countries like China, India, Brazil and Russia that reluctantly declare the intentions of complying with their objectives to reduce emissions. Policy decisions tend to put environmental/biodiversity in the background when countries "development" and economics interests are in conflict with these variables. And at the center of this policy and economic interaction, a large world population that suffers the dramatic consequences from changes in climate patterns. It is essential that civil society and wide range of advocacy groups continue placing pressure on countries' representatives to ensure the national and global common good are accounted for with regards to sustainability and environmental interests.

5. Spaces such as the DAVOS World Economic Forum Annual Meeting and the G-20 start to have a dominant role, in different ways, in the orientation of economic and commercial agendas. These agendas are not immune to the concerns of the environment and biodiversity loss. The interest of G-20, with the exception of the US, to implement the Paris Agreement has been explicit in different occasions. A next number of this series will address trade, climate change and G-20 linkages and connections. The World Economic Forum incorporated the environmental agenda in its institutional structure long ago. In terms of biodiversity, the Forum has various initiatives and projects that, from the private sector, NGOs and government agencies, are aimed towards protecting and maintaining biodiversity. Although it is not a "formal" governmental or trade forum *per se*, its influence is undeniable, mainly at moments when multilateralism in the WTO is under suspense. The private sector is taking the lead in stimulating good practices and sustainability standards of its own companies and commercial value chains.

30 See, https://www.ambientum.com/boletino/noticias/El-G20-aisla-a-Trump.asp
31 See, https://www.weforum.org/system-initiatives/shaping-the-future-of-environment-and-natural-resource-security
32 Tropical Forest Alliance 2020. See, https://www.weforum.org/system-initiatives/shaping-the-future-of-environment-and-natural-resource-security

REFERENCES

Blair, D., Alexander, K. China's *Intellectual Property Theft Must Stop*. The New York Times. August 15, 2017. https://www.nytimes.com/2017/08/15/opinion/china-us-intellectual-property-trump.html

Gehring, M., Cordonier Segger, M.C. *Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization*. Research Paper, 2002. Disponible, http://cisdl.org/public/docs/news/brief_precaution_trade.pdf

Glowka, L., Burhenne-Guilmin, F. y Synge, H. (1994) *Guía del Convenio sobre la Diversidad Biológica*. Gland y Cambridge: UICN.

Lapeña, I. (2007) *Semillas Transgénicas en Centros de Origen y Diversidad*. SPDA. Lima, Peru. Available at: http://spda.org.pe/?wpfb_dl=66

Lenzen, M., Moran, D., Kanemoto, K., Foran, B.,Lobefaro, L., Gesche, A. International trade drives biodiversity threats in developing countries. *Nature*, Volume 486, pages 109-112 (07 June 2012) doi: 10.1038/nature11145 Available at: https://www.researchgate.net/publication/225283261_International_Trade_Drives_Biodiversity_Threats_in_Developing_Nations

Mackenzie, R., Burhenne-Guilmin, F., La Viña, A., Werksman, J. (2003) *An Explanatory Guide to the Cartagena Protocol on Biosafety*. IUCN Environmental Policy and Law Paper No. 46. IUCN Environmental Law Centre. Gland, Switzerland. Available at: https://www.iucn.org/content/explanatory-guide-cartagena-protocol-biosafety

Najam, A., Halle, M., Melendez, R. (2007) *Trade and Environment. A Resource Book*. ICTSD, IISD, The RING. Available at: http://www.iisd.org/pdf/2007/trade_and_env.pdf

Pistorious, R. (1997) *Scientists, Plants, and Politics: The History of the Plant Genetic Resources Movement*. IPGRI, Rome. Available at: https://www.bioversityinternational.org/e-library/publications/detail/scientists-plants-and-politics/

Ruiz, M. (2007) *The Not-So-Bad US Peru Side Letter on Biodiversity*. ICTSD Integration. Available at: http://www.iprsonline.org/resources/docs/Pages%20from%20BRIDGES10-1%202.pdf

Ruiz, M. *Biodiversidad y los Derechos de Propiedad Intelectual: Elementos para una Agenda de Negociación Regional*. Diálogo sobre Propiedad Intelectual y Desarrollo Sostenible, ICTSD-UNCTAD, CEIDIE, SPDA, March 22-23, 2004. Available at: https://www.iprsonline.org/unctadictsd/dialogue/docs/Ruiz_2004-03-22.pdf

CITES y de la OMC. *La CITES y la OMC: Promoviendo la Cooperación para el Desarrollo Sostenible* (2015), Available at: https://www.wto.org/spanish/res_s/booksp_s/citesandwto15_s.pdf

Scientific American. *Measuring the Daily Destruction of the Rainforest*. https://www.scientificamerican.com/article/earth-talks-daily-destruction/#

Shau, A. *Loss of Biodiversity and Extinctions*. Global Issues, 2014. http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions

UNCTAD. *Iniciativa de BioComercio. Principios y Criterios*. Available at: http://unctad.org/es/docs/ditcted20074_sp.pdf

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