

Towards a mutually supportive relationship between the Convention on Biological Diversity and the World Trade Organization

An Action Guide

Richard G. Tarasofsky



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Table of contents

- 1 Background. 1
- 2 CBD obligations relating to trade 3
- 3 WTO obligations relating to biodiversity 5
- 4 Forests 9
 - 4.1 Context 9
 - 4.2 Specific trade issues affecting forest biodiversity. 10
 - 4.3 Relevant CBD provisions and decisions 10
 - 4.4 Relevant WTO provisions. 10
 - 4.5 Other relevant institutions. 11
 - 4.6 Recommendations. 11
 - 4.6.1 Specific recommendations aimed at the WTO 11
 - 4.6.2 Specific recommendations aimed at the CBD. 11
- 5 Fisheries. 13
 - 5.1 Context 13
 - 5.2 Specific trade issues affecting fisheries 13
 - 5.3 Relevant CBD provisions 14
 - 5.4 Relevant WTO provisions. 15
 - 5.5 Other relevant institutions. 15
 - 5.6 Recommendations. 16
 - 5.6.1 Specific recommendations aimed at the CBD 16
 - 5.6.2 Specific recommendations aimed at the WTO 16
- 6 Intellectual Property Rights 17
 - 6.1 Context 17
 - 6.2 CBD provisions on IPRs 17
 - 6.3 Relevant TRIPS provisions 18
 - 6.4 Other relevant institutions and instruments 18
 - 6.5 Specific problems raised by the interaction of the CBD and TRIPS Agreement . 19
 - 6.6 Recommendations. 20
 - 6.6.1 Specific recommendations aimed at the WTO 20
 - 6.6.2 Specific recommendations aimed at the CBD. 21
 - 6.6.3 Specific recommendations aimed at national governments 21
- 7 General recommendations 23
- Select bibliography 25
- List of acronyms 26

1 Background

This action guide is the culmination of a four-year IUCN project on the Convention on Biological Diversity (CBD) and the international trade regime. The point of departure for the project was the assumption that both the CBD and the World Trade Organization (WTO) represent regimes whose successful implementation is necessary in order to achieve sustainable development. It was on the basis that further action should be taken to ensure their co-existence, that the project focuses on how the two treaty systems can best work with each other. The recommendations emanating from the project are aimed either at reforming the respective regimes or in support of their implementation, so that they reinforce, rather than contradict, each other.

Under the right conditions, liberalised trade can trigger development that supports the conservation of biological diversity, in particular the sustainable use of biological resources. However, it is not yet clear how best to ensure that the necessary conditions are in place, let alone a consensus on the terms of these conditions. What is evident is that both the CBD and WTO regimes are constantly under development, and that their impacts on the ground are largely shaped by member States' decisions on the actions needed to implement them. The success of both regimes, individually and jointly, depends ultimately on how well the feedback loops between the global and national level function, so that the overall rule-making at the global level is properly informed by experiences at the national level, and vice versa. Thus, activities undertaken within this project explored how the two regimes can interact at both global and national levels.

The methodology of the project involved selecting three themes relating to the core of the CBD: forests, fisheries and intellectual property rights (IPRs). Expert workshops were held to examine these themes in two developing countries and one regional arrangement of developing countries – forests were examined in Chile,¹ IPRs in India,² and fisheries in West Africa.³ In addition to the many papers that were developed in the context of these workshops, four publications were produced: *Integrating Implementation of the Convention on Biological Diversity and the Rules of the World Trade Organization* by David Downes, *Intellectual Property Rights, Trade and Biodiversity* by Graham Dutfield, *Intellectual Property Rights: A Battleground for Trade and Biodiversity?* by Nick Middleton, and *The TRIPS Agreement, Sustainable Development and the Public Interest: A Discussion Paper* by Simon Walker.

The project yielded a rich set of recommendations on each theme and these formed the basis of this action guide. This guide is limited to those recommendations specifically relating to the trade aspects of the CBD, and the biodiversity aspects of the WTO regime. They will be aimed, in the first instance, at governments but may also identify how members of civil society can/should contribute. The recommendations are aimed at action primarily within the CBD and WTO frameworks, however, in specific instances, proposals are also directed toward other relevant fora.

¹ Workshop in Pucon, Chile, December 1998.

² Workshop in Delhi, India, January 1999.

³ Workshop in Praia, Cap Verde, 1999.

2 CBD obligations relating to trade

The text of the CBD does not contain the word “trade”, however full implementation of a number of its obligations, and of Conference of the Parties (COP) decisions, requires actions related to trade policy. This is due to the Convention’s holistic approach toward achieving its three objectives of conserving biological diversity, sustainably using the components of biological diversity, and equitably sharing the benefits arising out of access to genetic resources. Thus, decisions from the perspective of the CBD should lead to enhancing those aspects of trade policy that support achieving the Convention’s objectives, and address those impacts that hinder them. At the same time, regardless of whether trade is a specific target of action taken under the Convention, implementing the Convention will increasingly have consequences for trade policy, considering that the scope of trade policy has expanded tremendously as a result of the Uruguay Round.

The following provisions of the Convention relate to trade:⁴

- The **Preamble** calls on Parties to adopt a precautionary approach, in that “where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimise such a threat”.
- **Article 6(b)** calls on Parties to integrate “the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes, and policies.”
- **Article 8(h)** calls on Parties to prevent the introduction of, and control or eradication of, alien species that threaten ecosystems, habitats or species.
- **Article 8(l)** calls upon Parties to regulate or manage processes and activities that have or are likely to have significant adverse effects on the conservation and sustainable use of biological diversity, which are to be identified under **Article 7(c)**.
- **Article 10(b)** calls upon Parties to adopt “measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity”.
- **Article 10(d)** calls for protecting customary use of biological resources compatible with conservation or sustainable use.
- **Article 11** call on Parties to “adopt economically and socially sound measures that act as incentives for conservation and sustainable use of components of biological diversity”.
- **Article 14** calls on Parties to establish environmental impact assessment procedures for projects likely to have significant adverse effects on biological diversity and to take account of the environmental consequences of programmes and policies likely to have significant adverse effects on biological diversity.

⁴ A number of provisions concerning biosafety (e.g. Articles 8(g) and 19, as well as the entire Biosafety Protocol) relate to trade, but are not examined here because this theme was not included as part of this project.

- **Article 15** establishes rules on access to genetic resources and the equitable sharing of benefits arising out of their use.
- **Article 16** calls for the transfer of technology, taking account of intellectual property rights.

The CBD Conference of the Parties has also taken a number of decisions that relate to trade. Some of the more specific decisions are discussed below. Decision V/6 on applying the ecosystem approach is of general significance. Principle 4 of that decision provides that "... there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem-management programme should:

- (a) Reduce those market distortions that adversely affect biological diversity;
- (b) Align incentives to promote biodiversity conservation and sustainable use;
- (c) Internalize costs and benefits in the given ecosystem to the extent feasible."

Other decisions of general significance are: V/7, which provides for activities to be taken to develop indicators of biodiversity; V/15, which establishes a work programme on incentive measures, drawing on the thematic work programmes, and V/24, which calls for case studies on understanding sustainable use as a cross-cutting issue.

3 WTO obligations relating to biodiversity

The WTO Agreements do not specifically address “biodiversity”, but parts of them do relate to the environment in general. In addition, provisions in various Agreements impact biodiversity both directly and indirectly.

The WTO system is premised on two basic principles aimed at enhancing liberal trade: equal treatment of Members in matters covered by the Agreements and non-discrimination between domestic and imported “like” products.⁵ This latter point has been a subject of considerable controversy among environmentalists, in that “likeness” has been interpreted only in relation to the end product and not the production and processing methods (PPMs) of the product. This interpretation means that no distinctions can be made in the economic treatment of a product on the basis of how it was produced; a view which does not always accord with the holistic approach of the CBD and other environmental norms. However, the distinction between the product and its production process is not always possible to maintain – the recent *EC-Asbestos* decision identified consumers’ tastes and habits in respect of products as one criterion for determining likeness, which in some cases may be influenced by PPMs. Another provision that has a bearing on environmental issues is **Article XI** of the General Agreement on Tariffs and Trade (GATT), which prohibits, within certain exceptions, quantitative restrictions on the import and export of products. This provision removes the possibility of using import or export controls for environmental purposes. However, GATT **Article XX** contains general exceptions to the aforementioned rules, allowing Parties to take certain measures inconsistent with other GATT obligations if

they are not applied in a manner, which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade ...

Among the types of measures for which this exception can apply are those that are:

- necessary to protect human, animal or plant life or health;
- relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

These provisions have been the subjects of a growing jurisprudence created by the WTO dispute settlement mechanism, although none of the cases have directly involved a conflict between a multilateral environmental agreement and the WTO.

The conclusion of the 1994 Uruguay Round not only created the WTO, but also expanded the scope of the international trade regime. The **Preamble to the Agreement Establishing the WTO** expresses a commitment to sustainable development and to protect and preserve the environment. Provisions in several subsidiary Agreements are relevant to the environment:

- **Agreement on Agriculture** derogates from many WTO trade-liberalising principles, but creates a negotiating process to move toward a market-oriented agricultural trading

⁵ Article III of the GATT 1994, which expresses the “national treatment” principle.

system. However, it currently allows for some government subsidy of agricultural activities, which may include practices harmful to agricultural or other biodiversity. As such, this scheme may run counter to Article 11 of the CBD. **Article 6** provides the framework for reducing subsidies, but exempts certain environmental activities (see **Article 12 of Annex 2**). **Article 20** requires negotiation on the reform of the Agreement, mainly towards liberalisation (i.e. progressive reductions to agriculture support), but also with a view to taking account of “non-trade concerns”, which includes environmental protection.

- **Agreement on Sanitary and Phytosanitary Measures** (SPS Agreement) affirms the right of Members to take SPS measures, subject to certain disciplines aimed at preventing protectionism and minimising negative effects on trade. These disciplines are based on science and notions of risk assessment, which may not be entirely consistent with the precautionary approach advocated in the CBD. Specifically, it is unclear whether the SPS Agreement hinders the full application of the CBD on regulating the entry of alien species that can carry diseases or be pests, based on the precautionary approach. The SPS Agreement requires that SPS measures only be applied to the extent necessary and that they ought not to be applied without sufficient scientific evidence (**Article 2**). **Article 3** expresses a presumption of consistency for international standards; Members are afforded some scope in adopting more stringent standards than those at the international level “if there is a scientific justification, or as a consequence of the level of sanitary or phytosanitary protection a Member determines to be appropriate” pursuant to risk assessment procedures (**Article 3.3**). **Article 5** sets out the requirements for the risk assessment procedures and disciplines the way in which Members determine the appropriate level of protection. Provisional measures are permitted when scientific evidence is not sufficient, but they must be reviewed by the Member issuing the measures within a reasonable period of time (**Article 5.7**).
- **Agreement on Technical Barriers to Trade** (TBT Agreement) provides rules for setting and enforcing technical standards, including those relating to biodiversity, with a view to reducing barriers to international trade. Unlike most other WTO Agreements, the TBT Agreement does cover PPMs, although it remains disputed whether this applies to “non-product” PPMs or just “product-related” PPMs. An example of a non-product-related PPM is a policy not to use timber from non-sustainable sources; an example of a product-related PPM is a requirement that recycled goods be incorporated in the making of a product. Excluding non-product-related PPMs from the disciplines of the TBT Agreement could, in some circumstances, help further the objectives of the CBD. The TBT Agreement favours international standards by requiring Members who adopt technical regulations to participate in efforts to set international standards for the product concerned (**Article 2.6**). Members are required to use international standards where they exist, except if doing so would be ineffective or an inappropriate means of fulfilling legitimate objectives, which includes protection of human health or safety, animal or plant life or health, or the environment (**Article 2.2** and **2.4**). A rebuttable presumption is created that a technical regulation based on international standards, and for a legitimate purpose, is not an unnecessary obstacle to international trade (**Article 2.5**). Should Members choose not to follow international standards, the Agreement imposes procedural and substantive requirements. Procedurally, **Articles 2.9, 2.11, 5.6, 5.8** and **10** seek to enhance transparency in the establishment of the standards. At the substantive level,

Articles 2.1, 2.2 and 5.1 require compliance with most favoured nation (MFN) and national treatment obligations and seek to ensure that standards are to be no more trade restrictive than necessary. The TBT Agreement applies to central governments, but governments are to take measures to ensure that non-governmental bodies under their jurisdiction comply with the annexed **Code of Good Practice**. This requirement may adversely impact on the implementation of environmentally-beneficial voluntary certification and labelling schemes based on life-cycle approaches that take account of non-product-related PPMs.

- **Agreement on Subsidies and Countervailing Measures** establishes limits on the use of subsidies. Depending on their nature, subsidies can either enhance or hinder biodiversity conservation. Thus, this Agreement's relevance to biodiversity lies in the extent to which it allows subsidies for environmental purposes and the extent to which it supports the elimination of subsidies harmful to biodiversity. **Article 3.1** prohibits subsidies if they rely on export performance, or are contingent on the use of domestic rather than imported goods. **Article 5** provides that some subsidies, which are otherwise permissible, are actionable if they cause adverse effects on other Members, defined as injury to domestic industry, nullification or impairment of benefits under GATT 1994, or serious prejudice to the interests of another Member. **Article 6** defines criteria for assessing "serious prejudice", which are all economic in nature. The final category of subsidies are those which are non-actionable. These include **Article 8.2(c)** which allows for assistance to existing facilities to promote adaptation to new environmental requirements in specific circumstances; however this provision is time limited and was not renewed in 1999.
- **Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)** aims to create an internationally agreed minimum, but strong, standard set of rules for the protection and enforcement of intellectual property rights (IPRs). The IPRs covered under the TRIPS Agreement include patents, copyright, trade secrets, and geographic indications. The rules are grounded on the MFN and national treatment requirements and include procedural rules relating to transparency and notification. **Article 27(2)** requires that patents be available for all inventions, but adds that,

Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect ordre public or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

Of particular importance to biodiversity is **Article 27.3 (b)**, which states that Members may also exclude from patentability "plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof." The criteria for determining what is meant by "effective" in this context have not yet been defined, so it is unclear the extent to which the conservation of agricultural biodiversity and the protection of related indigenous knowledge are relevant to the admissibility of such *sui generis* systems. **Article 66.2** calls on developed countries to provide incentives to their enterprises and institutions to encourage them to transfer technology to developing countries.

In November 2001, the WTO adopted the Doha Ministerial Declaration, which launches a new Round of negotiations. Much of the Declaration has implications for the environment, and biodiversity, in particular. In addition to specific items relating to the themes that appear below (which are addressed subsequently in the chapters themselves), the Declaration contains a set of general provisions that relate to the environment, although their potential impact is difficult to gauge:

- Negotiations are to begin on “the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs), “but are not to prejudice the WTO rights of any Member that is not a party to an MEA. The Declaration also states, however, that the outcome of the negotiations on trade and environment are not to “add to or diminish the rights and obligations of Members under existing WTO agreements... nor alter the balance of these rights and obligations.” Thus, it is unclear whether these negotiations will make significant inroads in achieving legal certainty in the relationship between MEAs and WTO rules. Furthermore, by limiting the negotiations to “specific” trade obligations set out in MEAs, the “non-specific” measures, such as those that may arise through implementing the CBD, may remain in legal limbo.
- The WTO Committee on Trade and Environment (CTE) is to give particular attention to the topic of labelling requirements for environmental purposes. However, no guidance on this topic is provided, which may mean that the stalemates and uncertainties that characterised previous discussions on this topic in the CTE continue.
- The negotiations are to lead to the reduction or elimination of tariff and non-tariff barriers for environmental goods and services. While this may ultimately prove to be an incentive to sustainably use biological resources, there is still no consensus on the scope of the terms “environmental goods and services”.
- The Declaration affirms that “non-trade concerns” are to be accounted for in the negotiations on agriculture liberalisation, as provided for under the Agreement on Agriculture.

The Declaration also contains provisions that are not specifically directed at the environment, but which may impact on it. It mandates work to begin on investment liberalisation in anticipation of negotiations on this theme that are to begin after the 5th WTO Ministerial Conference. Environmental issues are not listed among the investment-related matters that are to be examined at present, despite the increasing concern about the impacts of investment liberalisation on achieving sustainable development. The Declaration stipulates that the commitments to liberalise the services sector should be extended – but again there is no reference to the environmental implications, even though some services, such as tourism or energy, can adversely affect biodiversity. The Declaration calls for tariff and non-tariff barriers of non-agricultural goods to be reduced, without any *a priori* exclusion from coverage. It remains to be seen the extent to which measures taken to implement the CBD will be considered non-tariff barriers.

4 Forests

4.1 Context

Forest biodiversity – including wood and non-wood products – is mainly used for domestic consumption. This is due to the importance of locally used fuelwood, which accounts for about half of global roundwood output. The proportion of traded wood products is only about 6–8% of overall wood production. However, the value of international trade is significant for some forest-based products and for certain species. Approximately one third of industrial roundwood production enters international trade. World exports of wood and primary processed wood products were USD 114 billion in 1996, representing almost a 75% increase in real terms since 1970 (FAO, 1997). Trade in further processed wood products in countries of the Organisation for Economic Cooperation and Development (OECD) has been estimated at USD 27.9 billion (ITC, 1998). Valuation of the trade in non-wood products is difficult, however it has been estimated by the Food and Agriculture Organisation (FAO) at USD 11 billion per year (Iqbal, 1995).

The increase in the amount of trade in forest products is due to several factors: population growth, economic development, export-led production, and the economic and political conditions that channel private investment flows. Traditionally, the biggest importers have been Japan, the United States and the European Union. However, the importance of developing country markets is increasing, to the extent that some traditional exporters have become net importers of forest products. A shift has also taken place among the source of forest products, with an emphasis now being placed on plantations, rather than on natural forests.

The precise role trade plays in contributing to deforestation and forest degradation is difficult to gauge, although in some developing countries it is apparent that export-oriented production has impacted adversely on some environments. These impacts are both direct and indirect, such as opening up forest areas for encroachment. Indirect impacts are linked to other underlying causes of deforestation, such as changing production and consumption patterns (e.g. intensified management in production forests and conversion of land to cash crops), expansion of subsistence agriculture, large demand for fuelwood and charcoal, as well as inequitable land tenure patterns.

On the other hand, trade based on sustainably managed forests brings socio-economic benefits, which creates an incentive for conservation of forest resources. To the extent that removing trade distortions can help alleviate poverty that drives deforestation, a case can be made for liberal trade. In particular, increased market access for sustainably produced non-timber forest products can bring important incentives for local communities to conserve forest biodiversity.

Removing trade barriers on forest products, however, can also increase pressure towards agricultural extension onto marginal lands, which is often covered by forest vegetation. Thus, recent proposals taken by the Asia Pacific Economic Cooperation (APEC) to eliminate tariffs on all forest products have raised concerns that complementary regulatory frameworks are not yet in place to ensure that tariff elimination does not lead to excessive exploitation.

4.2 Specific trade issues affecting forest biodiversity

There are several issues relating to trade in forest products:

- Impacts of trade liberalisation on forest biodiversity,
- Unilateral import and export bans on forest products,
- Certification and labelling of forest products,
- Traditional forest-related knowledge,
- Invasive forest species, and
- Subsidies for forest-related activities.

4.3 Relevant CBD provisions and decisions

- Article 7 on monitoring and identification
- Article 8(a) on protected areas
- Article 8(h) on controlling endangered species
- Article 8(j) on traditional knowledge
- Article 10 (b) using biological resources to avoid adverse impacts on biodiversity
- Article 11 on incentive measures
- Article 14 on impact assessment
- Work Programme on Forests, which was agreed in 1998, calls for research on a whole range of issues, including on further understanding the economic causes of forest biodiversity loss. Decision V/4 provides that at COP-6 of the CBD, the Work Programme is to be made more “action oriented”, the Subsidiary Body on Scientific, Technical and Technological Advice (SBSSTA) has made specific recommendations on achieving this.

4.4 Relevant WTO provisions

- GATT Articles I, III, XI, and XX, setting out the basic principles of trade in goods, including forest products, and exceptions
- SPS Agreement, which covers the regulation of invasive species
- TBT Agreement, which covers standards and possibly labelling of forest products
- Subsidies Agreement, which governs the application of subsidies of, *inter alia*, forest activities
- TRIPS Agreement, which relates to traditional forest-related knowledge

4.5 Other relevant institutions

United Nations Forum on Forests (UNFF) had its first substantive session in June 2001, and decided a multiyear programme of work. After a contentious debate, trade issues will not be as prominent as some delegations had hoped – however, they will arise in the context of discussions on combating deforestation, forest conservation, the economic aspects of forests, and traditional forest-related knowledge.

The International Tropical Timber Organization (ITTO) administers the International Tropical Timber Agreement, a commodity agreement. The ITTO has an ongoing Year 2000 objective to have tropical timber exported from only sustainably managed forests, and is working towards this objective through country-level projects and analytic work on select themes, such as forest certification.

4.6 Recommendations

4.6.1 Specific recommendations aimed at the WTO:

- WTO Members should clarify the TBT Agreement so as to be sure not to undermine legitimate incentive measures for sustainable forest management, voluntary or otherwise, that address product and non-product PPM issues (e.g. labelling on a life-cycle basis).
- WTO Members should not agree to further tariff reductions for forest products without the CBD providing guidance aimed at ensuring that at a national level an adequate regulatory framework is in place for fully implementing the CBD in relation to forests.
- WTO Members should seek to provide increased market access to non-timber forest products from sustainable sources.

4.6.2 Specific recommendations aimed at the CBD:

- CBD should develop guidance for national efforts to comprehensively monitor the status of forest biodiversity, in cooperation with other relevant agencies, such as FAO, IUCN, ITTO, UNEP-WCMC.
- The next iteration of the CBD Work Programme on Forests should include provision for increasing knowledge and awareness of the impacts of trade on forests and a structure for developing guidance on addressing any adverse impacts. It should, in cooperation with FAO, IUCN, ITTO and the World Conservation Monitoring Centre (UNEP-WCMC), address the issue of subsidies adversely affecting biodiversity. It should provide guidance to countries seeking to incorporate trade policy concerns into national biodiversity plans and strategies, so as to regulate those trade-related activities that have an adverse effect on forest biodiversity.
- The CBD should continue furthering consensus on the entitlements of traditional and local people arising from their biodiversity-related knowledge, with the aim of ensuring appropriate control and revenues from this knowledge so as to ensure sustainable use of forest biodiversity.

5 Fisheries

5.1 Context

Fish are a crucial, but increasingly threatened, resource. In addition to the number of people who depend on fish for dietary reasons,⁶ a significant number of people are dependent on the fisheries sector for their livelihoods.⁷ However, fisheries are now in crisis, driven by overcapacity (i.e. too many boats catching too few fish), which is characterised by the following:

- Overfishing and stock depletion,
- Destruction of marine species, habitats and ecosystems,
- Taking of endangered species, as well as high rates of incidental and by-catch.

Some of this crisis is trade-related.⁸ Japan, the US and the EU account for roughly 75% of fish imports. At the same time, there are some 25 (developing) countries where fisheries exports account for more than 10% of total exports. Trade in fish has expanded the potential markets for fish products, thereby putting greater pressure on the resource.

Other factors contributing to the crisis are also related to globalisation: newer, more destructive, technology, pressures from population growth, more movement of invasive alien species, and an increase in distant water fishing nations. For example, the EU now enters into agreements with many developing countries to obtain access to their fisheries; these access agreements bring needed funds to developing countries, but have been criticised for not providing for sustainable catches.

The main challenge is to enhance sustainable fisheries management, in a manner that internalises all environmental costs. This development would provide a solid basis for sustainable fisheries trade.

5.2 Specific trade issues affecting fisheries

Some of the following trade issues are similar to those relating to forests, but two key differences are the mobile nature of fish and the complexity of legal jurisdictions over marine living resources:

- Subsidisation of fleets and acquisition of rights of access to foreign waters, which contribute to the overcapacity problem;
- Significant tariff escalation for some processed fish products;

⁶ E.g. it is estimated that in West Africa, the fishery sector provides on average 20% of the region's protein intake, FAO Fisheries Circ. No. 992 FIPP/C922.

⁷ This number has more than doubled since 1970, with most of the growth occurring in Asia, Ibid.

⁸ Fish products are among the most highly traded goods in the world, with the total amount being traded increasing in recent years.

- Trade restrictions on landing, processing or imports of fish;
- Ecolabelling of fish products (e.g. the Marine Stewardship Council);
- Standards and import restrictions aimed at controlling the introduction of invasive species.

5.3 Relevant CBD provisions

- Article 4 on jurisdiction, which provides that the CBD is applicable to areas under a party's national jurisdiction and to its processes and activities in areas beyond national jurisdiction
- Article 5 on international cooperation on conservation and sustainable use of biological diversity, including through competent international organizations, in respect of areas beyond national jurisdiction
- Article 6 on national biodiversity strategies, plans and programmes would include marine biodiversity and integration of conservation of marine biodiversity into fisheries plans, programmes and policies
- Article 7 on identification and monitoring, so as to better understand the impacts of trade on fisheries
- Article 8(h) requiring the control of alien species
- Article 11 on incentive measures, especially in relation to eliminating perverse subsidies and promoting voluntary independent certification and labelling
- Article 8(f) and (k) calling for recovery of threatened species and protection of endangered species and populations
- Article 14 (a) and (b) on impact assessment on projects that relate to fisheries and ensuring that the environmental consequences of programmes and policies are taken into account
- Article 14(c) calling for the exchange of information and consultation, through bilateral, regional or multilateral arrangements, on activities that are likely to affect biological diversity of other States or areas beyond national jurisdiction
- Article 22 (2) states that the CBD provisions relating to the marine environment are to be implemented consistently with the law of the sea
- Decision II/10 and IV/5 on the "Jakarta mandate" on marine and coastal biodiversity: guidelines and indicators for assessing marine and coastal ecosystems, and Decision V/3 calling for SBSTTA to consider unsustainable fishing practices and the economic value of marine and coastal living resources
- COP-6 will consider adopting guiding principles or guidelines on the introduction of alien species

5.4 Relevant WTO provisions

- GATT Articles I, III, XI, and XX setting out the basic principles of trade in goods (including fish products) and exceptions
- TBT Agreement on standards and labelling, which covers fish products
- SPS Agreement on controlling invasive species, including those that could harm fish species
- Subsidies Agreement on what types of subsidisation of fishing activities is allowed
- Discussions in the WTO CTE have focussed on subsidies for fishing activities, but so far without any conclusion. The new programme for negotiations under the WTO will also seek to clarify and improve WTO disciplines on fisheries subsidies
- Several WTO Dispute Settlement Body (DSB) decisions have dealt with fish species since the 1980s. These decisions have shed light on how the GATT articles are to be interpreted and applied in the fisheries context.

5.5 Other relevant institutions

A plethora of international legal agreements and international institutions relate directly to fisheries:

- The United Nations Convention on the Law of the Sea (UNCLOS) sets the overall legal framework for the oceans, which establishes jurisdiction over different zones of sea and the conservation rules for living resources in each of these zones.
- Straddling Stocks Agreement, once in force, will set forth rules for the conservation of fish that move in and out of national and international jurisdiction. In addition to specifying that a precautionary approach is to be taken, the Convention calls for the prevention or elimination of excess fishing capacity. It also authorises port States to prohibit landings and transit shipments of catch that has been taken in a manner that undermines the effectiveness of regional and global conservation and management measures on the high seas.
- Numerous regional fishing and marine living conventions establish legal rules on the conservation and management of fish and other living resources. Some of them, such as the Convention on Atlantic Tunas, the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, and the Convention on the Conservation of Antarctic Marine Living Resources rely partly on trade restrictions to enforce conservation standards.
- The FAO International Plan of Action for the Management of Fishing Capacity calls for assessing all factors, including subsidies, that contribute to overcapacity, and for eliminating all factors, including subsidies and economic incentives, that build up capacity and thereby undermine the sustainability of living marine resources.
- The International Maritime Organization plans to develop its 1997 guidelines on ballast water management – which will also address the environmental damage caused by the introduction of harmful aquatic organisms in ballast water – into a convention to be adopted in 2002.

5.6 Recommendations

The following are general recommendations:

- All countries should assess impacts of low tariffs for primary products combined with tariff escalation on their fisheries.
- Developing countries should assess the prospects of developing joint selling agencies (e.g. the Forum Fisheries Agency FFA) to bargain with developed countries, such as the EU, and other distant water fishing nations interested in their fish, to ensure fair prices with sustainable quotas.

5.6.1 Specific recommendations aimed at the CBD

- Parties should consider, under the Jakarta Mandate, how to enhance fish conservation through stock enhancement and protection measures, including controlling trade to the extent necessary to achieve these objectives.
- Parties should increase monitoring of trade impacts on fish stocks as part of their implementation of Article 7 of the CBD.
- Parties should develop and implement legislation on Article 8(h) to control the introduction of alien species harmful to their fisheries. This legislation should be based on appropriate risk assessments and the international guidance provided by the CBD.
- Parties should apply Article 8(k) on endangered species to regulate direct and indirect catches of fish, and should control any adverse impacts on these species from trade.
- Parties should monitor impacts of fisheries subsidies on marine biodiversity and assess these impacts under the CBD work programme on incentive measures.
- National biodiversity strategies should include fisheries and impacts on conservation and opportunities for enhancing sustainable use provided by trade.
- Parties to access agreements for fish resources should conduct an environmental and social assessment of the impacts of those agreements on achieving the objectives of the CBD.

5.6.2 Specific recommendations aimed at the WTO

- Members should develop rules under the SPS Committee on measures importing countries can take to prevent the introduction of invasive species in the absence of full scientific evidence, but in a manner that does not arbitrarily discriminate against exporting countries, especially developing countries. They should also consider providing guidance on the implementation of Article 5.7 of the SPS Agreement in this context.
- Members should consider expanding the scope of Article 6 of the Agreement on Subsidies to include environmental damage in the concept of “serious prejudice”, thereby providing adversely affected Members with a cause of action in a manner that includes realistic thresholds.
- Members should consider revising the definition of subsidy under the Agreement on Subsidies to take account of all forms of indirect and infrastructure support programmes in the fisheries sector.

6 Intellectual Property Rights

6.1 Context

At their core, IPRs are an inherent compromise between private and public interests. They provide an incentive to private inventors to innovate, while at the same time seeking to ensure that the result of the innovation is disseminated. The TRIPS Agreement was the result of initiatives developed countries took in the 1970s and 1980s to address the growing trade impacts of counterfeit trademarks. The TRIPS Agreement was resisted by many developing countries, but as part of the multilateral trade agreements, it had to be accepted as part of the overall Uruguay Round package. As noted above, it sets forth a set of minimum standards for IPRs, which countries can expand upon.

Its inclusion in the Uruguay Round implies that along with all other WTO Agreements, the TRIPS Agreement must also support the objective of sustainable development and a high level of environmental protection (as expressed in the preamble to the Agreement Establishing the WTO). However, intellectual property rights raise a series of issues related to biodiversity conservation:

- Conventional (Western) intellectual property rights may not be adequate to fully protect the knowledge of indigenous and local people, who are often the custodians of biodiversity, thereby possibly depriving them of a potentially powerful incentive to conserve the biodiversity around them;
- Intellectual property rights can influence the negotiations of agreements on access to genetic resources, as well as the possibilities to share benefits equitably;
- Patent processes may not sufficiently safeguard against misappropriation of traditional and local knowledge;
- Implementation of intellectual property rights over improved plant varieties can lead to practices that displace traditional systems of informal innovation that may well have previously fostered agricultural biological diversity;
- Intellectual property rights might interfere with effective transfer of technology to developing countries.

6.2 CBD provisions on IPRs

- Article 8(j) on traditional knowledge
- Article 10(c) on customary use in accordance with traditional cultural practices
- Article 15 on access to genetic resources
- Articles 16 and 19 on transfer of technology
- Decision III/17 on intellectual property rights calling for case studies on the impacts of intellectual property rights on achieving the CBD's objectives, including the development

of *sui generis* systems or alternative forms of protection that promote achievement of the CBD's objectives.

- Decision on V/26 on establishing an Ad Hoc Working Group on Access and Benefit Sharing. That Working Group has produced a draft set of Guidelines on Access and Benefit Sharing and a Recommendation on IPRs and Genetic Resources, which will be on the agenda at CBD COP 6. The Recommendation on IPRs seeks to have WIPO clarify specific aspects of the role of IPRs in access to genetic resources and benefit sharing.
- Decision V/16 on Article 8(j) and related measures, which establishes a work programme, including for the assessment of the impacts of IPRs on Article 8(j), with a view to establishing synergies between the instruments
- Decision V/5 on Agricultural biodiversity, which calls for case studies on policy and incentive measures that enhance the positive and mitigate the negative impacts of agriculture on biodiversity, including promotion of local and indigenous knowledge and intellectual property issues

6.3 Relevant TRIPS provisions

- Article 7, setting out the objectives of the Agreement, including contribution to technology transfer and a balance of rights and obligations
- Article 8 on the need for appropriate measures to prevent the abuse of IPRs adversely interfering with the transfer of technology
- Part II, setting out provisions for copyright, trademarks, geographic indications, trade secrets, and patents. Of particular importance are Article 27, discussed above, Article 30, which allows Members to provide limited exceptions to the exclusive rights conferred by a patent and Article 31 allowing for "compulsory licensing" (i.e. use without authorisation of patent holder) of patented products under certain circumstances.
- Article 65 on delayed implementation for developing countries
- According to the WTO's built-in agenda, a review of TRIPS Article 27.3(b) was to have begun in 1999. It is still ongoing, without any prospect of consensus. However, the Doha Declaration instructs the review to specifically examine the relationship between the TRIPS Agreement and the CBD and the protection of traditional knowledge and folklore. This work is to be "guided by the objectives and principles set out in Articles 7 and 8 of the TRIPS Agreement and shall take fully into account the development dimension."

6.4 Other relevant institutions and instruments

- World Intellectual Property Organization (WIPO) has established an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, which has not yet determined its agenda. It has also conducted a survey of traditional knowledge, which is to provide the basis for furthering understanding of how adequate existing IPRs are in protecting traditional knowledge and the possible development of new IPR instruments. WIPO, together with United Nations Educational,

Scientific and Cultural Organization (UNESCO), has prepared Guidelines for the Protection of Folklore. WIPO also administers the Convention of the International Union for the Protection of New Varieties of Plants (UPOV), as well as several other IPR treaties, such as the Paris Convention for the Protection of Industrial Property and the Patent Law Treaty.

- A Treaty on Plant Genetic Resources for Food and Agriculture was adopted in November 2001 under the auspices of FAO. The negotiations took over seven years, with the debate over intellectual property rights, and “Farmers’ Rights”, being among the most contentious. The Treaty recognises the enormous contribution of farmers to the conservation of genetic resources for food and agriculture, and calls on national governments to implement “Farmers’ Rights” to include protection of traditional knowledge and equitable sharing of benefits. The Treaty also makes provision for “facilitated access” of genetic resources listed in its Annex under a “Multilateral System of Access and Benefit Sharing”. Recipients cannot claim IPRs to genetic resources received from the Multilateral System, while existing IPRs on genetic resources are to be protected.
- Some regional arrangements deal with the intersection between biodiversity conservation and IPRs, most notably in the Andean Pact. Its recent Decision 486 on a Common Industrial Property Regime states that the acquisition of IPRs must not be done in a manner that harms a country’s biodiversity or its traditional knowledge. It recognises the rights of indigenous and local communities to decide on their collective knowledge. Prior informed consent of the holders of traditional knowledge must be proven in patent applications through written licenses or authorisations. Decision 486 also explicitly provides that it shall be applied consistently with its earlier Decision 391 on the Common System of Access to Genetic Resources.
- Some key legal instruments on human rights, such as the Universal Declaration on Human Rights (see Article 27) and the International Covenant on Economic, Social and Cultural Rights (see Article 15), provide for balancing private rights, including IPRs, against the public interest, including the protection of *all* human rights. In addition, some instruments on indigenous people, such as the International Labour Organisation (ILO) Convention No. 169 and the United Nations Draft Declaration on the Rights of Indigenous Peoples contain provisions on the protection of indigenous knowledge.

6.5 Specific problems raised by the interaction between the CBD and TRIPS Agreement

Several problems arise in attempting to implement both the TRIPS Agreement and the Convention on Biological Diversity:

- TRIPS Agreement fails to clearly protect traditional knowledge and therefore does not sit well with Article 8(j) of the CBD.
- TRIPS Agreement provisions fail to clearly ensure that environmental protection considerations are taken account of in granting patents.

- Some in the environmental community have expressed concern that the provisions potentially allowing for patenting life forms may interfere with the full implementation of the CBD by increasing the risk of modified organisms.
- There is a lack of clarity about the scope WTO Members have in creating *sui generis* systems of protection of plant varieties under Article 27.3(b), as possible alternatives to the UPOV system. The UPOV system creates a robust set of plant breeders' rights, thereby restricting pre-existing "farmers' privileges" to re-use seeds, providing industrial biotechnology concerns with greater economic clout.
- The impact of IPRs on Article 15 of the CBD is unclear, particularly in relation to the requirement of equitable benefit sharing arising out of access to genetic resources. This lack of clarity also contributes to high transaction costs in the negotiation of agreements on access to genetic resources.

There is much about the linkages between IPRs and biodiversity conservation that is not yet known. Some further issues which may be problematic:

- It is unclear, or even doubtful, whether IPRs really stimulate the investment necessary to promote innovation in developing countries.
- IPRs in some cases may block innovation, where broad patents lead to monopoly over research and development over a whole field.
- IPRs may increase prices of technology, because of the market advantage of the IPR holder or impose strict licensing conditions, thereby hindering technology transfer.
- IPRs may inadvertently promote monocultures in agriculture, contributing to biodiversity loss.

6.6 Recommendations

6.6.1 Specific recommendations aimed at the WTO

The WTO, in cooperation with the CBD and WIPO should develop mechanisms to cooperate to achieve the following:

- Provide guidance on the application of TRIPS Article 27(2), so the scope of this exception from patentability is clarified.
- Clarify the scope of TRIPS Article 27(3)(b), so as to complement efforts to protect traditional knowledge and national investment policies in biotechnology, as well as guaranteeing the right to food.
- Explore the potential of existing IPRs to protect indigenous knowledge, in particular geographic indications, copyright, trade secrets, and trademarks. In addition, the potential of using "know how" licenses should be explored.
- Explore the linkages between IPRs and technology transfer, including obstacles to effective technology transfer and means in which IPRs can facilitate this transfer. In this regard, the CBD should provide input into any WTO examination of the effectiveness of Article 66.2 of the TRIPS Agreement.

6.6.2 Specific recommendations aimed at the CBD

The CBD bodies addressing access to genetic resources, in cooperation with the WTO and WIPO, as well as the future Permanent Forum on Indigenous Peoples, should consider:

- The options available to require patent applicants to disclose genetic resources and knowledge used to develop their inventions (e.g. through a certificate demonstrating prior informed consent of the holder of traditional knowledge, as in the Andean Pact system).

6.6.3 Specific recommendations aimed at national governments

Parties to the WTO and CBD, in cooperation with civil society, should:

- provide assistance and training for holders of traditional knowledge in the negotiation, drafting, implementation, and enforcement of contracts involving use of their knowledge, as well as evaluating the impacts of those contracts on the protection of traditional knowledge.
- apply Article 30 of the TRIPS Agreement (exceptions to rights conferred) to ensure that patent information can be used by third parties for research into technologies relevant to biodiversity conservation.
- exclude from patentability existing traditional/indigenous knowledge and essentially derived products and processes from such knowledge, unless the affected community explicitly consents.
- establish traditional knowledge databases or registers to prevent piracy of this knowledge.
- ensure that domestic law clearly elaborates requirements for awarding patents (e.g. novelty) and also disclosure requirements.
- create opportunities for dialogue and contact between holders of traditional knowledge, the private sector, governments, non-governmental organisations (NGOs) and other stakeholders to enhance cooperation between these actors, at community, national, regional and international levels.

In particular, developing countries should:

- develop legislation to develop or maintain any *sui generis* systems for plant genetic resources.
- develop plant variety legislation that explicitly protects farmers' rights, including their rights to save, propagate, use and share varieties.
- in cases where the terms and conditions being offered by the patent holder are not reasonable, consider providing for compulsory licencing (under TRIPS Article 31 and Article 5a of the Paris Convention for the Protection of Industrial Property) for patented technologies that contribute to the conservation and sustainable use of biodiversity. Such legislation should provide for the right holder to be paid adequate remuneration, based on the circumstances of the case.
- further develop patent and plant variety legislation in accordance with the precautionary principle, including assessments of the impacts on the environment and food security.

- proceed with caution in developing IPR legislation that is stronger than what the TRIPS Agreement requires (“TRIPS Plus”), until the full impact of such measures on biodiversity conservation can be assessed.

7 General recommendations

Further development of the CBD takes place through the Conference of the Parties, mainly through its agendas and the work programmes it establishes. Several of these work programmes (e.g. agriculture, indigenous and local knowledge, incentive measures, forests, and marine and coastal biodiversity) provide opportunities to address trade issues. The WTO regime develops in accordance with its “built-in agenda” (i.e. the agenda set out in the treaty), as well as through new negotiating rounds, such as the one established in Doha. The development of WTO rules is informed by the policy discussions in various committees (e.g. the Committee on trade and environment, the SPS Committee, the TBT Committee) and Councils. The dispute settlement mechanism clarifies the provisions of the Agreements, including giving meaning to ambiguous or unclear provisions. These venues also provide opportunities to address issues relevant to the CBD. In addition, events such as the 2002 World Summit on Sustainable Development present opportunities to assess the relationship between treaties from a cross-sectoral perspective, rather than from the narrower policy perspective of one particular regime.

A number of general recommendations can be derived from the experience gathered under this project, which relate to the global and national level:

- Enhanced cooperation between secretariats of the CBD and WTO on matters of mutual concern is vital. Regular information exchange, beyond the current annual information sessions in the CTE for all MEAs, should take place. More intensive and meaningful exchanges can be facilitated by the CBD secretariat receiving observer status in the WTO Agriculture Committee, TBT Committee, SPS Committee and TRIPS Council. Similarly, the WTO should regularly observe relevant sessions of CBD bodies.
- Establishment of substantive cooperation between substantive bodies of the CBD and WTO would be useful in reconciling the policy agendas of each institution. For example, the discussions and findings in CBD bodies addressing issues such as agro-biodiversity, intellectual property rights, and traditional knowledge, could provide input to discussions in relevant WTO bodies (e.g. CTE, Agriculture Committee, TRIPS Council, as well as committees established under a negotiation round).
- So far, the CBD has not addressed the full gamut of trade-related issues under its mandate, many of which are raised above. Until many of these issues under its mandate are clarified, the relationship between CBD obligations and WTO rules will remain ambiguous. The COP should consider establishing a mechanism, e.g. an expert advisory group, to recommend how the COP could deal with trade issues in a comprehensive manner, e.g. through existing work programmes or the establishment of a new work programme on trade. Parties should incorporate the trade-related aspects of biodiversity conservation in developing strategies, plans and policies to implement the CBD, so as to ensure that the development of trade policy takes place in tandem with conservation policy.
- The WTO will continue to further develop many of the provisions indicated above, through reviews, negotiating rounds, dispute settlement decisions, and committee recommendations. Further steps must be taken to ensure full transparency and participation of

stakeholders into all these processes. NGOs need to further develop their networks so as to be as proactive as possible in influencing this agenda.

- National governments need to take a comprehensive approach to their policy development on trade and biodiversity, based on consultation of all stakeholders. This entails carrying out a full evaluation of how the WTO and CBD obligations should be implemented in their contexts to achieve the full objectives of each regime, for example in the context of developing comprehensive legal and institutional profiles relevant to each instrument. On the basis of this evaluation, appropriate measures should be taken to eliminate conflicts and enhance synergies between the two. Focused and sustained capacity building is crucial to ensuring that this takes place successfully. Information about conflicts and solutions should be transmitted to the appropriate bodies in the WTO and/or CBD with a view to possibly reforming the legal rules.
- States should carry out sustainability impact assessments of proposed trade related agreements in a comprehensive and open fashion. Recent developments in this area, such as the United States Executive Order on environmental reviews of trade agreements, should be promoted. The OECD and the EC, as well as some NGOs are currently carrying out important work on developing methodologies for these assessments. One component of these assessments should be the impact of such proposals on efforts to meet the objectives of the CBD. The results of these assessments should feed back into the formulation of their trade policy.
- The 2002 “Rio+10” World Summit on Sustainable Development should create a process to address the interaction between WTO rules and MEAs. This process, which should involve United Nations Environment Programme (UNEP), the MEA Secretariats, the WTO and civil society, should provide input into the WTO negotiations on MEAs, while also expanding upon them. So far, the policy discussions have focused on the collective interaction between MEAs as a group and the WTO – a more intensive examination on specific MEAs, including the CBD, would take the analysis done so far to a more practical level.

A crucial theme that recurred throughout this project in all its activities was the lack of full knowledge about the actual linkages between trade liberalisation and biodiversity conservation. Both further analytic work and the establishment of relevant databases are needed. The knowledge base needs to be strengthened by governments, intergovernmental organizations, and civil society, including research institutes, and then widely disseminated. Vehicles such as the CBD Clearinghouse Mechanism should be further developed with this in mind. However, it must be emphasised that addressing this effectively will require a stronger political and financial commitment than exists at present.

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List of acronyms

APEC	Asia Pacific Economic Cooperation
DSB	Dispute Settlement Body
CBD	Convention on Biological Diversity
COP	Conference of the Parties
CTE	Committee on Trade and Environment
FAO	United Nations Food and Agriculture Organization
FFA	Forum Fisheries Agency
GATT	General Agreement on Tariffs and Trade
IPR	Intellectual Property Rights
ILO	International Labour Organisation
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources (The World Conservation Union)
MEA	Multilateral Environmental Agreements
MFN	most favoured nation
NGO	non-governmental organisation
OECD	Organisation for Economic Cooperation and Development
PPM	production and processing method
SBSSTA	Subsidiary Body on Scientific, Technical and Technological Advice
SPS Agreement	Agreement on Sanitary and Phytosanitary Measures
TBT Agreement	Agreement on Technical Barriers to Trade
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP-World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFF	United Nations Forum on Forests
UPOV	International Union for the Protection of New Varieties of Plants
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

IUCN – The World Conservation Union

Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organizations in a unique world partnership: over 980 members in all, spread across some 140 countries.

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