The Biosafety Protocol: Regulatory Innovation and Emerging Trends

by

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Summary

I. Introduction*

The adoption of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Biosafety Protocol)[1] in January 2000 represents a historical achievement for the development of international law. This Protocol is situated at the center of a legal domain which has seen a great deal of effervescence over the past ten years, namely the interface between multilateral environmental regulation and trade law. The conclusion of this agreement has been possible thanks to a delicate compromise which was achieved by the representatives of countries with widely divergent concerns and objectives: countries exporting genetically engineered crops (especially the US, Argentina and Canada), countries where food safety concerns are a sensitive and high political priority (especially Western Europe), developing countries which are very dependent on agriculture, and transitional economies caught in the middle of these and many other pressures.

The conclusion of the negotiations on the Biosafety Protocol has had four main results:

– A so-called Advance Informed Agreement (AIA) will be compulsory for exporters of those Living Modified Organisms (LMOs [the more common term GMOs is not used in the Protocol]) which are to be intentionally introduced into the environment, such as seeds or live fish.

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1 International Legal Materials 39, 2000, pp. 1027–1046.

– The Biosafety Protocol and the WTO are to be «mutually supportive» (Preamble).
– The precautionary approach has been given an importance which is almost unprecedented in an international convention because it is mentioned in the preamble as well as implicitly in two operational articles (10.6 and 11.8).
– The parties have agreed to reach a decision regarding identification or labelling requirements of food, feed and processed food products within two years after entry into force of the Biosafety Protocol.

The negotiations which led to the conclusion of this protocol have been exceptionally arduous, mainly because of the importance and immediacy of the economic stakes involved, and because of the scientific uncertainty surrounding their use. After six meetings of a Biosafety Working Group between 1996 and 1999, negotiations broke down at the subsequent Extraordinary meeting of the Conference of the Parties in February 1999 in Cartagena, Columbia. After this setback, three Informal meetings (Montréal, Vienna, Montréal) and a subsequent «resumed» Extraordinary meeting (Montréal) were necessary until a compromise solution was achieved in the early hours of January 29, 2000.

The compromise consists basically in the fact that the relationship between the Biosafety Protocol and the WTO has been left undecided in the preamble, except that the two agreements need to take into consideration each other's mandate; environment and health proponents are satisfied to see that the precautionary approach has been included, while at the same time the group of countries most interested in exporting LMO food, feed and processing products (the so-called Miami group consisting of the US, Canada, Argentina, Uruguay, Chile and Australia) managed to avoid for the time being a requirement for distinctive LMO labelling and segregated marketing channels.

The five contributions making up this agora-type overview of the Biosafety Protocol each cover a distinct dimension of this complex legal conundrum. They emanate from a round table on the Biosafety Protocol which was organized by and held at the Law Faculty of the University of Geneva on May 2, 2000; it was directed by Professor Laurence Boisson de Chazournes and benefited from the support of the Faculty's ‹Centre de gravité du droit de l'environnement› under the direction of Professor Anne Petitpierre. The participants were experts from international organizations, Federal Offices, academia, and NGOs.

Franz Xaver Perrez, head of the Swiss delegation at the WTO's Committee on Trade and Environment, situates the Protocol in the wider context of multilateral environmental agreements (MEAs), with a particular focus on their relationship to the WTO. He concludes that the Protocol is open to challenge like other MEAs, because the relationship between MEAs and the WTO has not yet been entirely clarified within the WTO. In particular, it is not clear presently whether a trade-restricting measure established under an MEA would have to demonstrate that it is the least trade restrictive measure available to realize the environmental objective. He concludes that in spite of some uncertainties the two agreements are compatible because under international law they should pay deference to each other's core competence. The Protocol's preamble specifies that trade and environment agreements should be «mutually supportive» in their objective of achieving sustainable development.

François Pythoud, Switzerland's chief negotiator for the Protocol, analyzes the biggest stakes and obstacles which had to be dealt with: the scope of the Protocol, the treatment of scientific uncertainty through a precautionary approach, the differential treatment of LMOs depending on whether they are destined for consumption or for release into nature, as well as the institutional mechanisms which were developed for both cases, and which represent important innovations at the interface of trade law and multilateral environmental law. Some issues have been largely left open for future negotiations, such as labelling, liability, and the relationship between the WTO and the Protocol. He concludes that the negotiation of the Protocol turned out to be a success in spite of the fact that five years ago the starting positions of the main negotiating delegations were diametrically opposed and deemed irreconcilable.

Sabrina Shaw and Risa Schwartz of the WTO's Trade and Environment Division explain how the WTO agreements and UN conventions deal with the precautionary principle. They point out that the WTO's Appellate Body has reasoned that invoking the precautionary principle does not justify inconsistencies with the Agreement on Sanitary and Phytosanitary Measures. This contributes to the present uncertainty of the principle's status at the WTO. Furthermore, it is also not clear under which agreement a potential GMO dispute would be judged. It is becoming urgent to clarify these uncertainties because the trade system's Dispute Settlement mechanism is increasingly being used for non-trade issues. Its strength derives from the fact that it represents an automatic and binding enforcement mechanism with the possibility of imposing sanctions; furthermore, it features a predictable legal process and strict time limits, which may make it more appealing than other international courts in many instances.

Simonetta Zarrilli from the UN Conference on Trade and Development explains the particular challenges faced by the developing countries with regards to genetically engineered crops. These countries face a particular conundrum with regards to GMOs: First of all, they tend to be far more dependent on agriculture than the industrialized countries, and often they are forced for competitive reasons to specialize on a small number of crops. Secondly, they need to evaluate the impact of GMOs on imported as well as on exported crops. Thirdly, they often lack the scientific, technical and legal wherewithal to deal with these new technologies and with related domestic and international legal issues. Fourthly, they are concerned that the investments in this technology favor the richer countries, among other reasons because they increase their dependence on private sector R&D and patents located in industrialized countries. Genetically modified crops tend to require expensive infrastructures; this limits their use to the larger, wealthier farmers in developing countries, which may cause social instability. As a consequence, developing countries need increased technical support and independent scientific advice to prevent a further widening of the North-South gap.

Urs P. Thomas analyzes the increasingly important role of civil society in the development of international law from an academic perspective. In spite of the complexities of the trade-environment-biotechnology interface, civil society is becoming more and more educated in the international regulation of this domain. The NGO community has responded to this challenge by creating a small number of innovative NGOs which specialize in these issues. These international environmental NGOs provide technical briefings and comments on many of these negotiations, background information, and policy analysis. Most of these exchanges occur over the Internet, which made this recent trend possible at relatively modest costs. Intergovernmental organizations including the WTO are generally supportive of this need for information and transparency and cooperate through elaborate Web sites. The various actors in this intergovernmental legal and decision-making process have very different standing and financial resources, but they interact on numerous occasions in their efforts at reconciling economic globalization with the constraints imposed by the ecosystem. Civil society's need for information on the development of international law is mirrored by its request for GMO food labelling, which is particularly strong in Western Europe, and which remains to be included in the Protocol through further negotiations.

II. The Cartagena Protocol on Biosafety and the relationship between the multilateral trading system and multilateral environmental agreements (MEAs)*

A. Introduction

The adoption of the Cartagena Protocol on Biosafety in Montreal on 29 January 2000 is generally considered a «landmark achievement» for the international community, welcomed by developed and developing countries and by environmental groups and industry alike. However, the six major exporting countries of living genetically modified organisms (LMOs) known as the «Miami Group» (USA, Canada, Argentina, Uruguay, Australia and Chile) have for a long time strongly opposed the Protocol on the grounds that it constrained free trade and conflicted with the rules and principles as established by WTO. Thus, on the one side, according to the rules and principles established by the WTO agreements, trade may only be limited to the extent necessary to realize a legitimate goal such as the protection of the environment. Moreover, the WTO regime generally requires that such trade limitation must be justified by sound science, leaving thereby only limited possibilities for precautionary measures.[1] On the other side, the Biosafety Protocol establishes an advanced informed agreement procedure for imports of LMOs,[2] incorporates the precautionary principle[3] and provides for handling, packaging, identification and documentation requirements for transboundary shipments of LMOs.[4] The

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* by Franz Xaver Perrez, J.S.D., LL. M, attorney at law, Legal Advisor in the WTO Division of the Swiss State Secretariat for Economic Affairs, Berne – This discussion paper served later (after the Round-Table of 2 May 2000 [*supra*, p. 515]) as a basis for the Swiss submission to the WTO Committee on Trade and Environment of 8 of June 2000 contained in Document WT/CTE/W/139. However, the ideas formulated in this contribution are not those of the Swiss government but reflect the views and ideas of the author.

1 *See generally:* Daniel C. Esty, *Greening the GATT: Trade, Environment and the Future*, Washington 1994, pp. 46–52; Gabrielle Marceau, *A Call for Coherence in International Law*, Journal of World Trade 5/33, October 1999, pp. 87, 89 et seq.; Franz Xaver Perrez, *Taking Consumers Seriously: The Swiss Regulatory Approach to GM Food*, N.Y.U. Journal of Environmental Law 2000, pp. 585, 600–601; Richard Senti, *WTO: System und Funktionsweise der Welthandelsordnung*, Zürich 2000, pp. 437–439, 492, 536.

2 Art. 7–10 of the Cartagena Protocol on Biosafety.

3 Preamble, para. 4, Art. 10.6 and 11.8 of the Cartagena Protocol on Biosafety.

4 Art. 18 of the Cartagena Protocol on Biosafety.

members of the «Miami Group» feared that these provisions might become the bases for unnecessary and unjustifiable limitations on international trade. Hence, from this perspective, the conflict is to be evident: free trade here, trade ban there; sound science here, unsound precaution there.

While the conflict between the Biosafety Protocol and the WTO seems to be evident, this relationship may not be looked at in isolation, but it must be seen in a wider context. Therefore, this paper will first address the question whether a potential of conflict does exist generally between the WTO and multilateral environmental agreements (MEAs) (Part B). Then, it will examine whether the WTO has adopted rules and principles clarifying the WTO-MEA relationship (Part C) and which rules and principles would normally resolve a conflict between the WTO and MEAs (Part D). Finally, Part E will address the specific relationship between the WTO and the recently adopted Biosafety Protocol. Thereby, throughout this paper, a «WTO-perspective» will be pursued which argues on the base of the existing trade regime. The main conclusions will be that a potential of conflict between the WTO and MEAs does indeed exist; that the relationship between the WTO and MEAs has not yet been entirely clarified but that according to an approach of mutual supportiveness, conflicts between the WTO and MEAs can generally be avoided; and finally, with regard to the relationship between WTO and the Biosafety Protocol, that there is no hierarchy in favor of the WTO and that the specific provisions of the Biosafety Protocol are to be held as WTO-compatible.

B. The potential of conflict between WTO and MEAs

The first treaties concerning environmental issues were adopted already in the nineteenth century.[5] Since then, the number of multilateral environmental agreements (MEAs) has strongly increased. While the early international environmental treaties were limited in terms

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5 Franz Xaver PERREZ, *Cooperative Sovereignty: From Independence to Interdependence in the Structure of International Environmental Law,* The Hague 2000, p. 272; Philippe SANDS, *Principles of International Environmental Law,* Manchester 1994, pp. 26 et seq. See also Astrid EPINEY/Martin SCHEYLI, *Strukturprinzipien des Umweltvölkerrechts,* Baden-Baden 1998, p. 20 (indicating that international treaties dealt already in the 18th century with issues which would today be considered as part of international environmental law).

of the subject matters they addressed, in terms of the regions they covered, and in terms of the measures they provided for, the subsequent evolution has enlarged the reach of international environmental treaty law and provided for new tools and measures.[6] Namely, the development of international environmental law has involved a move from traditional rules of «command and control» towards an increasing use of economic instruments and trade measures.[7] In fact, as MEAs typically do not have effective dispute settlement or enforcement mechanisms, trade relevant measures seem to be often the best way to ensure realization of environmental goals.

The increasing number of trade relevant measures in MEAs[8] has energized the debate whether there is a problem of incompatibility between MEAs containing such trade measures and the international trade regime as established by the GATT and deepened and institutionalized by the WTO. Within the WTO, a first extensive discussion in the Committee on Trade and Environment (CTE) took place in the two years leading up to the Singapore Ministerial Conference of 1996, but the WTO members were not able to reach conclusions within this discussion.[9] The WTO-MEA debate seems now to have been revitalized recently by a submission of Switzerland on the relationship between the provisions of the multilateral trading system and multilateral environmental agreements.[10]

As until now, no real conflict with MEAs has arisen, the relationship between the WTO and MEAs does at first glance not seem to be problematic. However, during the negotiations of the Biosafety Protocol,

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6 See generally: Epiney/Scheyli, *supra* (note 5), pp. 19–34; Perrez, *supra* (note 5), pp. 272–277; Sands, *supra* (note 5), pp. 29–61.

7 Lamont C. Hempel, *Environmental Governance: The Global Challenge*, Washington 1996, pp. 194–202; Shinya Murase, *Perspectives from International Economic Law on Transnational Environmental Issues*, Recueil des Cours, The Hague 1995, pp. 253, 283, 401–498.

8 For a list of MEAs and other international instruments containing explicit provisions concerning international trade, see: Guido F. S. Soares, *Confrontation between the WTO/GATT and Environmental Protection Norms*, in: P. Könz et al. (ed.), Trade, Environment and Sustainable Development: views from Sub-Saharan Africa and Latin America, Tokyo 2000, pp. 21, 29–31.

9 For a description of the different views taken by the WTO-members in the 1996 Ministerial Conference, see Ana Karina Gonzalez-Lutzenkirchen, *Trade and Environment: Emerging Regimes*, in: P. Könz et al. (ed.), *supra* (note 8), pp. 37, 44. See also Thomas J. Schoenbaum, *International Trade and Protection of the Environment: The Continuing Search for Reconciliation*, American Journal of International Law (AJIL) 91/1997, pp. 268, 269–279; and more recently: Hector Torres, *The Trade and Environment Interaction in the WTO*, Journal of World Trade 33/1999, pp. 153, 162–165.

10 WTO Document WT/CTE/W/139 of 8 June, 2000.

the unresolved relationship between the trade regime as established by the WTO on the one side and MEAs and the Biosafety Protocol on the other side has been one of the most contentious issues and a major reason why the «Miami Group» opposed the adoption of the draft Protocol one year earlier in February 1999 in Cartagena.[11] This made clear that the lack of agreement regarding the WTO-MEA relationship makes MEA-negotiations more difficult and may even threaten the conclusion of future MEAs. Moreover, while until now the relationship between the WTO and MEAs has not yet led to a concrete conflict within the WTO, the consistency of existing trade measures under MEAs with obligations under WTO remains open to challenge. And, because trade measures in MEAs have proven to be very effective, it seems probable that new MEAs will also include trade measures or that new trade measures might be added to existing MEAs. This increases the risk of inconsistencies or even conflicts between the trade and the environmental regime. Finally, the potential for conflict concerns not only the possibility of conflicting rules but also the risk that dispute settlement procedures in different regimes will result in different, contradictory results.[12]

C. The existing rule governing the relationship between the WTO and MEAs as established by WTO

As indicated above, the discussions within the WTO have not yet led to an agreement concerning the relationship between the WTO and trade relevant measures of MEAs.[13] As long as there is no other formalized agreement by the WTO-members concerning the relation-

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11 Convention on Biological Diversity, Press Release: *Global treaty adopted on genetically modified organisms* (29 January, 2000), available at: www.biodiv.org/press/pr-2000-01-28-biosaftey.html; *GMO Protocol offers compromise on crops, WTO relationship*, Inside U.S. Trade, February 4, 2000, p. 25; Peter Hardstaff, *The Biosafety Protocol: An Analysis*, Publication by the Royal Society for the Protection of Birds, March 2000, p. 3 (on file with the author).

12 *See also*: Philippe Sands, *International Environmental Litigation: What Future*, Review of European Community and International Law (RECIEL) 1/7, 1998.

13 Gonzalez-Lutzenkirchen, *supra* (note 9), p. 45, concludes that «here is no common understanding ... even on the contours and implications of the trade/environment issue-area.» For an illustration of the disagreement among the WTO-members, see e.g. the minutes of the CTE meeting of July 2000, WTO document WT/CTE/M/24, paragraphs 6–36.

ship between the WTO and MEAs, a conflict between an MEA and the WTO-regime would – from a purely WTO-perspective – have to be solved by applying the existing WTO rules. Therefore, reference is generally made to Art. XX GATT 1994 and to the specific provisions in the multilateral agreements on Trade in Goods, the General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). According to these provisions, measures to protect the environment having a trade-limiting effect are generally admissible if they are necessary – meaning the least trade restrictive necessary to realize the environmental goal,[14] not arbitrarily or unjustifiably discriminatory and do not constitute a disguised restriction on international trade, i.e. are not protectionist.[15] Moreover, non-discriminatory and non-protectionist measures relating to the conservation of exhaustible natural resources are possible, if such measures are made effective in conjunction with restrictions on domestic production or consumption.[16]

While there seems to be little risk that MEAs would adopt arbitrarily or unjustifiably discriminatory or protectionist measures, the »*necessity-requirement*« bears a real potential of conflict: The determination, whether a specific measure is the least trade restrictive necessary to realize a specific goal involves an assessment of complex interdependencies, hypothetical causalities and several probabilities. Therefore, there is a substantial risk that different institutions reach different conclusions concerning the necessity of specific measures. Especially, a WTO-Panel assessing the WTO-compatibility of a specific MEA-measure may easily find that there is a less trade restrictive measure, thereby declaring the trade measure of the MEA as incompatible with WTO-law. Thus, by requiring that environmentally motivated trade measures must be «necessary», the actual WTO-rules create a substantial potential of conflict with MEAs with trade measures.

It is sometimes argued that the WTO Appellate Body in its recent decision concerning *Shrimp/Turtle* has clarified the relationship bet-

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14 SENTI, *supra* (note 1), pp. 392, 437–439, 536. It is the jurisdiction of the WTO-Panels which has concluded that necessary means «least trade restrictive». See e.g.: *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes*, adopted on 7 November 1990, WT/DS10/R, §§ 73–81.

15 Art. XX(b) GATT 1994; Art. 2.2 Agreement on the Application of Sanitary and Phytosanitary Measures (SPS); Art. 2.2 Agreement on Technical Barriers to Trade (TBT); Art. 3 Agreement on Trade-Related Investment Measures (TRIMS); Art. 14(b) General Agreement on Trade in Services (GATS); Art. 27.2 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

16 Art. XX(g) GATT 1994.

ween WTO and MEAs.[17] The Appellate Body explained in that decision the sequence of steps in the analysis of a claim of justification under Article XX GATT 1994[18] and it made clear that – in the light of contemporary international law – living natural resources such as turtles can be «exhaustible natural resources» according to Art. XX(g).[19] This decision did, however, not deal with measures or rules established by an MEA but with national measures adopted unilaterally by a single state, it did therefore not deal with the relationship between the WTO and MEAs, and it did not state to what extent MEAs would be taken into account by WTO adjudicating bodies.[20]

Moreover, according to the *Shrimp/Turtle* decision of the WTO Appellate Body, even a trade-measure established by an MEA has to be *necessary* to protect human, animal or plant life. But precisely this requirement may lead to incompatibilities between the trade and the environmental regimes. One therefore has to conclude that the relationship between WTO and MEAs has not yet been entirely clarified within WTO. Especially, it is not yet clear whether a trade measure established by MEAs would have to meet the necessity-requirement as applied so far by the WTO-Panels.[21]

D. General approach of mutual supportiveness and deference

Nevertheless, despite this lack of clarity related to the relationship between the WTO and trade measures pursuant to MEAs, there does not need to be a conflict between the international trade regime as established by the WTO and the environmental regimes as established by MEAs. In fact, both, environmental and trade regimes, pursue the

17 *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, adopted 6 November, 1998, WT/DS58/AB/R (Shrimp/Turtle decision).

18 *Shrimp/Turtle*, *supra* (note 17), § 114–122.

19 *Shrimp/Turtle*, *supra* (note 17), § 128–131. See on this also: Marceau, *supra* (note 1), pp. 100–101; Petros C. Mavroidis, *Trade and Environment after the Shrimps-Turtle Litigation*, Journal of World Trade 34/2000, pp. 73, 85–86.

20 See also Mavroidis, *supra* (note 19), p. 77.

21 Switzerland therefore suggested in its recent submissions to the WTO Committee on Trade and Development, that there should be a non-rebuttable assumption that trade measures provided for by MEAs are necessary. *See:* WT/CTE/W/139 and WT/CTE/W/168.

same overall goal, namely the promotion of well-being.[22] However, while they pursue the same overall goals, WTO and MEAs are concerned with different policy-fields and have different competencies: WTO promotes well-being all over the world by establishing rules and principles for an open and non-discriminatory international trade regime;[23] on the other hand, MEAs contribute to the well-being by establishing rules, principles, institutions and mechanisms for the protection of the environment. By focusing on their proper tasks and competencies, the trade and environmental regimes are mutually supportive. In order to maintain this mutual supportiveness rather than being construed as contradictory, each framework should remain responsible and competent for the issues falling within its primary competence.

Nevertheless, because of the interdependencies between trade and environment, rules and principles on international trade will have an effect on the environment, and environmental regulation will have an effect on trade. Therefore, while each regime should focus on its primary competence, it is not prevented from adopting measures having an effect on the other regime. However, it should take into account the concerns and interests of the other regime, and it should pay deference to the competence of the other regime. This deference requires that each regime does not judge the legitimacy or the necessity of measures adopted by the other regime. Hence, WTO should not try to decide whether an environmental goal pursued by an MEA is legitimate or whether a measures adopted by MEAs for the realization of such goal is necessary. The determination of the environmental objectives and of the means, instruments, mechanisms and measures necessary to realize these objectives fall clearly within the competence of MEAs.

In fact, the deference used by the WTO Appellate Body in its *Shrimp/Turtle* case towards MEAs concerning the question whether turtles are exhaustible natural resources[24] acknowledges the willingness of the Appellate Body to take into account and respect decisions which the international community has taken within the context of MEAs. This

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22 See preamble of the WTO-Agreement, para. 1. The Appellate Body gave in its *Shrimp/Turtle*-decision important weight to this environmental reference in the preamble of the Marrakech Agreement (*Shrimp/Turtle, supra* [note 17], §§ 129, 131 and 152–153). See also Frank Altemöller, *Handel und Umwelt im Recht der Welthandelsorganisation WTO,* Frankfurt a. M. 1998, pp. 34–35; Astrid Epiney, *Welthandel und Umwelt: Ein Beitrag zur Dogmatik der Art. III, IV, XX GATT*, Deutsches Verwaltungsblatt 115/2000, pp. 77, 78.

23 See also: *Bericht des Schweizerischen Bundesrates zur Aussenwirtschaftspolitik* 99/1+2, Bundesblatt 2000 I 1369, 1373.

24 *Shrimp/Turtle, supra* (note 17), § 132.

seems to indicate that deference will also be used in other situations where decisions have been taken within MEAs, namely concerning the question whether a specific measure is necessary to realize an environmental goal. Moreover, the general rules of international law similarly favor such an approach of mutual supportiveness: According to the general principle *«pacta sunt servanda»*, states should try to fulfill their obligations resulting from one treaty without violating their other obligations, hence, treaties should generally be construed so as not to create a conflict with other rules of international treaty law.[25] Thus, if in a specific situation both rules, those of WTO and those of an MEA, apply, the provisions of each instrument should be construed – if possible – in a manner not creating conflicts with the applicable rules and principles of the other instruments. This implies an approach according to which a measure adopted by an MEA should be held as WTO-compatible. Especially, this implies that in the context of the WTO, the word «necessary» should not receive a meaning making the fulfillment of obligations under an MEA impossible. In other words: WTO should not adjudicate the necessity of a measure prescribed by an MEA but use deference with regard to this issue.

E. The relationship between WTO and the Biosafety Protocol

If the Biosafety Protocol would not say anything on its relationship towards other international agreements, it would be reasonable to conclude that according to the approach of mutual supportiveness and deference described above, the principles, rules and measures as established by the Protocol do not create an inconsistency with the principle and rules of the WTO-regime: i) their goal is the protection of the biodiversity and thus arguably the protection of an exhaustible natural resource[26] – at least, they are held to be necessary for the protection of the environment; and ii) they are neither constituting

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25 Alfred Verdross/Bruno Simma, *Universelles Völkerrecht: Theorie und Praxis*, 3rd ed., Berlin 1984, § 678 (ambiguous treaty provisions should be construed to be compatible with international law); Rudolf Bernhardt, *Interpretation in International Law*, in: R. Bernhardt (ed.), Encyclopedia of Public International Law, Volume II, Amsterdam 1992, pp. 1416, 1421 (treaties should be construed to be compatible with customary law).

26 In order to determine whether sea turtles are «exhaustible natural resources», the Appellate Body referred to the Convention on International Trade in Endangered Species (CITES) and held that in the light of the development in international envi-

an arbitrary or unjustifiable discrimination between countries where the same conditions prevail nor establishing a disguised and protectionist restriction on international trade. By adopting the Biosafety Protocol, the international community has indicated that it considers the measures established by this Protocol as necessary for the protection of the biodiversity from the risks involved with LMOs. Therefore, the WTO should pay deference, accept this decision by the international community and not assess again whether the measures as established by the Biosafety Protocol are necessary.[27] Moreover, between the parties of the Biosafety Protocol, its provisions would prevail over those of WTO because it is the later treaty.[28]

However, the preamble of the Biosafety Protocol includes three seemingly contradictory formulations concerning its relationship towards other international agreements: On the one side, paragraphs 9 and 11 indicate that there is no hierarchy in favor of other agreements but that according to an approach of mutual supportiveness, the measures established by the Protocol are to be seen as fully compatible with the WTO rules and principles. On the other side, paragraph 10 might be interpreted as subordinating the provisions of the Biosafety Protocol to those of the WTO-agreements.[29] This preambular language creates some ambiguity.

In order to solve this ambiguity, one has to take a closer look at paragraph 10. As any treaty provision, paragraph 10 of the preamble of the Biosafety Protocol has to be interpreted in good faith in accordance with the ordinary meaning to be given to its terms and in their context.[30] Thus, the ordinary meaning of the formulation that the

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ronmental law, also renewable resources are to be covered by the term «exhaustible natural resources» *(Shrimp/Turtle, supra* [note 17], § 132). Today, one could certainly try to argue that not only each single plant and animal species but also the biodiversity as a whole has to be understood as a threatened natural resource and that the adoption of the Convention on Biological Diversity (CBD) underlines the commitment of the international community to protect this exhaustible natural resource.

27 This, however, does not say anything about how such a measure is implemented. In fact, a state can still implement a measure in an arbitrary, unjustifiably discriminatory or protectionist manner. Therefore, while the measure as such is to be held as WTO-compatible, its implementation could still be challenged. In this case, however, the plaintiff and not the defendant should bear the burden of proof with regard to the arbitrary, unjustifiably discriminatory or protectionist implementation. See on this also the Swiss communication to the WTO Committee on Trade and Environment (CTE) of 19 October 2000, WT/CTE/W/168.

28 See Art. 30.4(a) of the Vienna Convention on the Law of Treaties.

29 Art. 30.2 of the Vienna Convention on the Law of Treaties. *See also:* VERDROSS/SIMMA, *supra* (note 25), § 641.

30 Art. 31 of the Vienna Convention of the Law of Treaties.

Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreement does not say that the rights and obligations as established by WTO prevail over those of the Protocol. It rather indicates that the provisions of the Protocol as such do not create a conflict with other international agreements, that they are seen in fact as compatible with the rights and obligations under other existing international agreements, but that they shall not be interpreted or implemented in a way which would be contradictory to already existing obligations under international law. This is fully in line with the approach of mutual supportiveness and deference outlined above, which accepts that the provisions of the Biosafety Protocol are to be seen as relating to and necessary for the protection of the global biodiversity and therefore as covered by Art. XX.b) and eventually Art. XX.g) GATT 1994. Thus, the provisions of the Biosafety Protocol as such are to be seen as WTO-compatible. Paragraph 10 of the preamble of the Biosafety Protocol merely highlights that these provisions shall be interpreted and thus implemented in a WTO-consistent way, i.e. without constituting a means of arbitrary or unjustifiable discrimination or a disguised and protectionist restriction on international trade. This understanding of paragraph 10 is supported by its context: The preceding paragraph underlines that trade and environmental regimes are not contradictory but mutually supportive, moreover, the following paragraph states explicitly that paragraph 10 does not subordinate the Protocol to other international agreements.

F. Conclusions

Therefore, it has to be concluded that there is no hierarchy between the Biosafety Protocol and the WTO agreements, both have to be seen as being of equal standing, and the specific provisions, principles, rules and mechanisms established by the Biosafety Protocol are to be held as compatible with the rules and principles of WTO. This result is supported not only by a proper reading of the preamble of the Biosafety Protocol, but also by the fact that according to the rules and principles of WTO – as understood under a mutual supportiveness approach – environmentally motivated trade measures of MEAs which are neither unjustifiably or arbitrarily discriminating nor protectionist – and this paper assumes that the measures adopted by the Biosafety Protocol do meet this requirements – are fully compatible with the rights and obligations of WTO.

III. Le protocole de Cartagena sur la prévention des risques biotechnologiques : Les enjeux principaux des négociations*

A. Introduction

Le Protocole de Cartagena sur la prévention des risques biotechnologiques, adopté à Montréal le 29 janvier 2000, est le premier accord international s'appliquant spécifiquement à la biotechnologie moderne et au génie génétique. Il représente à ce titre une étape cruciale pour le développement et l'application environnementale de ces nouvelles technologies. Le Protocole a comme objectif d'assurer le transfert, la manipulation et l'utilisation en toute sécurité des organismes vivants modifiés[1] (OVM) à l'aide de la biotechnologie moderne, susceptibles de présenter un danger pour la conservation et l'utilisation durable de la diversité biologique. Le Protocole n'est pas un instrument-cadre global couvrant toutes les applications du génie génétique. Il se concentre en priorité sur les aspects de sécurité environnementale liés aux mouvements transfrontaliers des OVM, aspects qui ne sont généralement pas couverts par les réglementations nationales existantes.

Lorsque, en 1995, la deuxième Conférence des Parties contractantes à la Convention sur la diversité biologique (CoP) a décidé de débuter les travaux d'élaboration du Protocole international en matière de prévention des risques biotechnologiques, les attentes des pays étaient quelque peu différentes en fonction du niveau de développement de la technologie sur leur territoire et de l'existence ou non d'un cadre réglementaire national pertinent. Certains pays industrialisés avaient accepté de s'engager dans le processus du bout des lèvres en insistant sur une interprétation stricte du mandat fixé par l'article 19.3 de la Convention sur la diversité biologique se limitant exclusivement aux aspects de sécurité spécifiques liés aux mouvements transfrontières des OVM. Au contraire, les pays en développement ne dispo-

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1 Le Protocole de Cartagena (Protocole) utilise le terme « Organismes vivants modifiés (OVM) » alors que dans la plupart des législations existantes et dans le langage courant, le terme « Organismes génétiquement modifiés (OGM) » est utilisé. Ces deux termes sont équivalents.

sant d'aucune réglementation dans le domaine du génie génétique espéraient pouvoir, grâce au Protocole, disposer d'un instrument-cadre fixant également les règles en matière d'évaluation et de gestion des risques au niveau national afin de leur permettre notamment de remplir les dispositions de l'article 8g de la Convention sur la diversité biologique.

B. Les enjeux principaux des négociations

Les enjeux principaux des négociations ont été les suivants : la détermination du champ d'application du Protocole et de la procédure d'accord préalable en connaissance de cause ; le traitement des produits agricoles contenant des OVM destinés à l'alimentation et à la transformation ; la concrétisation de l'approche de précaution ; la relation entre le Protocole et les autres instruments internationaux notamment ceux traitant des questions de commerce ; la prise en compte des questions de responsabilité civile et des aspects socio-économiques ; la mise sur pied d'un système opérationnel d'échanges d'informations ainsi que le renforcement des capacités techniques et institutionnelles dans les pays en développement et les pays à économie en transition. L'approche de précaution et la relation entre le Protocole et les autres instruments internationaux faisant l'objet de contributions spécifiques[2] dans cet ensemble, ils ne seront pas abordés en détail dans cette analyse.

1. Le champ d'application du Protocole

Le champ d'application du Protocole[3] est défini sur la base de trois critères principaux : le type d'organisme, le type d'opération et le type de risque.

Le Protocole s'applique à tous les OVM à une seule exception : les OVM qui sont des produits pharmaceutiques utilisés en médecine humaine comme par exemple les vaccins vivants. Ces organismes sont exclus du Protocole uniquement si les questions de sécurité environne-

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2 Voir Franz Xaver Perrez, *The Cartagena Protocol on Biosafety and the relationship between the multilateral trading system and multilateral environmental agreements, supra*, pp. 518–527; Sabrina Shaw/Risa Schwartz, *The Cartagena Protocol and the WTO: Reflections on the Precautionary Principle, infra,* pp. 536–542.

3 Articles 4 à 6 du Protocole de Cartagena.

mentale liées à leur utilisation sont traitées dans le cadre d'autres accords multilatéraux ou par d'autres organisations internationales comme par exemple l'Organisation mondial de la santé. La définition[4] même des OVM a fait l'objet de longues négociations. Le texte final est totalement compatible avec les définitions des OGM utilisées dans les réglementations déjà existantes y compris dans le droit communautaire et le droit suisse. Le Protocole s'applique uniquement aux organismes vivants. Les produits dérivés, comme par exemple les aliments, ne contenant plus d'OVM sont donc exclus du champ d'application. A ce sujet il est important de relever que, tout au long des négociations, un nombre important de pays en développement avaient insisté pour étendre le champ d'application du Protocole à tous les produits dérivés.

2. La procédure d'accord préalable donné en connaissance de cause

La procédure d'accord préalable en connaissance de cause[5] représente l'élément opérationnel central du Protocole dans le domaine du mouvement transfrontière. Cette procédure doit, comme son nom l'indique, garantir que toutes les informations nécessaires à l'évaluation des risques sont fournies à l'autorité nationale compétente du pays importateur avant l'envoi de l'OVM, de manière à ce que cette autorité puisse prendre une décision concernant son importation.

La détermination du champ d'application de la procédure d'accord préalable en connaissance de cause a été un des principaux enjeux des négociations. Deux visions diamétralement opposées se sont confrontées. Les pays en développement défendaient une approche globale sans aucune différentiation entre champ d'application du protocole et champ d'application de la procédure. De ce fait la procédure se serait appliquée à tous les mouvements transfrontières. Les pays industrialisés de leur côté soutenait une approche ciblée sur les mouvements transfrontières d'OVM réellement susceptibles d'affecter la diversité biologique donc destinés à être utilisés dans l'environnement. La procédure devait avoir comme fonction principale d'établir la connexion entre les acteurs et les autorités impliqués dans la transaction, en évitant dans la mesure du possible de lourdes procédures administratives. C'est cette seconde approche qui l'a finalement emportée.

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4 Article 3 du Protocole de Cartagena.

5 Articles 7 à 10 et 12 du Protocole de Cartagena.

La procédure d'accord préalable s'applique ainsi uniquement au premier mouvement transfrontière de tout OVM destiné à être introduit intentionnellement dans l'environnement de la Partie importatrice. A titre d'illustration elle s'appliquera ainsi au premier mouvement transfrontière vers un pays de semences d'une variété de plantes transgéniques destinée à des expérimentations en champ ou à être commercialisée à des fins agricoles.

Le Protocole définit de manière très détaillée les différentes étapes de la procédure d'accord préalable en connaissance de cause : la notification des informations spécifiques à l'autorité nationale compétente de la Partie importatrice, l'accusé de réception, la procédure de décision proprement dite et les conditions de réévaluation de cette décision. Il spécifie que la décision devra être basée sur une évaluation de risque entreprise selon des méthodes scientifiques éprouvées conformément aux critères fixés par le Protocole.[6] Elle devra être motivée sauf dans le cas d'un consentement inconditionnel. En l'absence de certitude scientifique due à l'insuffisance des informations et connaissances scientifiques pertinentes sur les effets défavorables potentiels d'un OVM, les autorités du pays importateur pourront faire référence dans leur décision à l'approche de précaution afin d'éviter ou réduire au minimum ces effets défavorables potentiels.

3. La procédure pour les produits agricoles contenant des OVM destinés à l'alimentation ou à la transformation

Dans la législation européenne et suisse l'importation d'un OVM destiné à l'alimentation humaine ou animale ou à la transformation est assimilée à une dissémination dans l'environnement. Il est en effet difficile d'exclure toute possibilité de dissémination accidentelle durant le transport, le stockage et la manipulation. La situation est encore plus critique dans certains pays en développement où ce genre de matériel est souvent utilisé comme semences par les agriculteurs, notamment en situation de crise. Dans ces conditions la large majorité des États ne voyait aucune raison d'exclure le premier mouvement transfrontière de ce type d'OVM de la procédure d'accord préalable en connaissance de cause.

Cette approche était toutefois inacceptable pour les grands exportateurs de produits agricoles réunis au sein du groupe de Miami.[7]

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6 Article 12 et Annexe II du Protocole de Cartagena.

7 Le groupe de Miami était composé de l'Argentine, de l'Australie, du Canada, du Chili, de l'Uruguay et des USA. Il a été formé en 1998.

L'impossibilité d'arriver à un consensus sur cette question a été la principale cause de l'échec de la Conférence de Cartagena en février 1999. Il devenait de ce fait évident que l'adoption du Protocole allait nécessiter la mise sur pied d'une procédure alternative pour couvrir le mouvement transfrontalier de ce groupe d'OVM qui avait reçu entre temps l'appellation suivante : « OVM destiné à l'alimentation humaine ou animale ou à être transformé ». C'est ce qui a été obtenu à Montréal une année plus tard. Le Protocole prévoit donc une procédure particulière pour ce type d'OVM.[8] Cette procédure remplit trois conditions : elle assure l'échange d'informations par un mécanisme de notification préalable ; elle reconnait le droit des États à décider de l'importation de ce type d'OVM sur la base de leur règlementation nationale spécifique[9] si celle-ci est conforme aux objectifs du Protocole ; elle fournit un outil décisionnel aux États ne disposant pas de règlementation en leur donnant la possibilité de prendre une décision sur la base d'une évaluation de risques effectuée conformément aux dispositions du Protocole. Plus surprenant, le Protocole reconnaît également la possibilité de se référer à l'approche de précaution lors de la décision.

4. La documentation et l'identification des OVM

L'identification du matériel contenant des organismes vivants modifiés est un élément essentiel pour la mise en œuvre du Protocole et le contrôle des procédures. Le Protocole contient donc des dispositions sur l'identification des OVM dans la documentation accompagnant le mouvement transfrontière.[10] Ces dispositions sont différentiées en fonction du type d'utilisation. Le matériel destiné à être utilisé en milieu confiné doit être clairement identifié comme contenant des OVM de même que le matériel destiné à être introduit intentionnellement dans l'environnement. De plus dans ce dernier cas, l'identité ainsi que les traits et caractéristiques pertinents des OVM doivent être spécifiés. A l'opposé les cargaisons destinées à l'alimentation et à la transformation doivent au minimum être identifiées comme « pouvant contenir des organismes vivants modifiés ». Ce point précis a représenté l'ultime pierre d'achoppement des négociations. La solution

8 Article 11 du Protocole de Cartagena.

9 A titre d'illustration, en Suisse, l'importation d'OVM destinés à l'alimentation humaine est soumise à la réglementation sur les denrées alimentaires qui requiert une évaluation environnementale.

10 Article 18 du Protocole de Cartagena.

adoptée n'était pas satisfaisante pour la majorité des États y compris la Suisse. En effet l'identification « peut contenir des organismes vivants modifiés » n'est pas conforme aux dispositions d'application de la législation suisse sur les denrées alimentaires et sur la protection de l'environnement. Celles-ci requièrent une identification du type « contient des organismes vivants modifiés ». La solution fixée par le Protocole traduit néanmoins le consensus international actuel minimal sur la question de l'identification des OVM. Par rapport à la situation prévalant encore quelques mois avant la fin des négociations, elle représente un pas en avant significatif puisque le principe même de l'identification est reconnue. Les États l'ont finalement accepté dans un esprit de compromis compte tenu qu'il s'agit d'une solution minimale et limitée dans le temps. En effet le Protocole reconnaît aux Parties le droit de prendre des mesures plus rigoureuses et il prévoit que la Réunion des Parties revienne sur cette question au plus tard deux ans après l'entrée en vigueur du Protocole.

5. Responsabilité civile et considérations socio-économiques

A l'initiative des pays en développement, la question de la responsabilité civile concernant les dégâts causés à la conservation et à l'utilisation durable de la diversité biologique par l'utilisation d'OVM a également fait l'objet de longues négociations. Compte tenu de la difficulté de la question et de l'étroite interconnexion avec la manière dont ce sujet est traité dans le cadre d'autres accords internationaux environnementaux, le Protocole contient uniquement une norme de compétence[11]. Celle-ci demande à la première Réunion des Parties au Protocole d'engager un processus afin d'élaborer des règles et des procédures internationales appropriées dans un délai de 4 ans en tenant compte des travaux en cours en la matière en droit international.

Les pays en développement ont également insisté pour que le Protocole reconnaisse la prise en compte des considérations socio-économiques dans les processus de décision concernant les OVM. Cette exigence a été partiellement reconnue puisque, eu égard à la valeur de la diversité biologique pour les communautés autochtones et locales, les Parties peuvent, lorsqu'elles prennent une décision, tenir compte des incidences socio-économiques mais uniquement celles

11 Article 27 du Protocole de Cartagena.

liées à l'impact des OVM sur la conservation et l'utilisation durable de la diversité biologique. La signification et la portée de cette disposition devront à l'évidence être précisées dans le futur.

6. Echanges d'information et renforcement des capacités

Le Centre d'échanges d'information sur la prévention des risques biotechnologiques représente la clef de fonctionnement du Protocole. Le Centre d'échanges a trois fonctions principales : faciliter l'échange des informations relatives aux organismes vivants modifiés ; aider les Parties à remplir leurs obligations envers le Protocole ; renforcer la transparence vis-à-vis du public et des consommateurs. Le Protocole fixe aux Parties toute une série d'obligations en matière de communication d'informations scientifiques, techniques, écologiques et juridiques.[12] Les Parties doivent notamment mettre à disposition les textes réglementaires domestiques pertinents pour l'application du Protocole, les données sur l'évaluation de risque et les études écologiques réalisées dans le cadre des décisions relatives à l'utilisation des organismes vivants modifiés ainsi qu'une copie des décisions.

Les États industrialisés disposent déjà d'un cadre réglementaire applicable à l'évaluation des impacts environnementaux des organismes vivants modifiés. Ceci n'est bien évidemment pas le cas pour la majorité des pays en développement. Le Protocole met donc l'accent sur la coopération au développement et au renforcement des ressources humaines et des capacités techniques et institutionnelles. Il prévoit à cet effet toute une série de mesures.[13]

C. La mise en œuvre du Protocole

Le Protocole de Cartagena entrera en vigueur 90 jours après la 50ème ratification. La première réunion des Parties au Protocole (MoP) devra se tenir lors de la première conférence des Parties à la Convention sur la diversité biologique (CoP) suivant l'entrée en vigueur. Le scénario actuel, quelque peu optimiste, prévoit 50 ratifications d'ici à la fin 2001 avec la première réunion des Parties en avril 2002 lors de la CoP 6. Afin de préparer la MoP 1 et faciliter le processus de ratifica-

12 Article 17 du Protocole de Cartagena.
13 Article 12 du Protocole de Cartagena.

tion, la CoP a mis sur pied le Comité intergouvernemental pour le Protocole de Cartagena (CICP). Le CICP, qui est avant tout un groupe technique, concentrera en priorité ces travaux sur les thèmes suivants : les mécanismes qui devront être opérationnels lors de l'entrée en vigueur du Protocole comme le Centre d'échanges d'information sur la prévention des risques biotechnologiques ; le renforcement des capacités, condition sine qua non pour permettre notamment aux pays en développement, de ratifier et de mettre en œuvre les dispositions du Protocole ; les travaux préparatoires afin de permettre à la MoP 1 de prendre les décisions prévues par le Protocole. Celles-ci concernent le fonctionnement du Protocole et la suite des travaux sur les questions qui n'ont pas été totalement réglées par le Protocole comme l'identification des OVM destinés à l'alimentation et à la transformation ou la responsabilité civile.

D. Conclusion

Les négociations sur le Protocole ont été un réel succès. Elles ont permis d'apporter des solutions à des problèmes considérés encore il y 5 ans comme insolvables avec des États défendant des positions diamétralement opposées et ce dans un domaine particulièrement sensible sur le plan social, politique et économique. Après l'échec de Seattle, le Protocole, en concrétisant l'approche de précaution et en fixant des règles précises dans un secteur considéré comme vital pour le commerce international, a relancé une dynamique qui, espérons-le, permettra également dans un proche futur de débloquer les négociations dans d'autres accords multilatéraux touchant à l'environnement et au développement durable. Tout en reconnaissant l'apport potentiel que la biotechnologie et le génie génétique peuvent apporter au développement durable dans les domaines de la santé humaine, de l'agriculture et de l'environnement, le Protocole fixe un certain nombre de règles afin d'assurer une utilisation sûre et respectueuse de l'environnement de ces nouvelles technologies. Il fixe ainsi un cadre réglementaire général de référence et encourage une politique basée sur la transparence. A ce titre le Protocole de Cartagena sur la prévention des risques biotechnologique va certainement jouer un rôle important dans le développement de ces nouvelles technologies et dans l'amélioration de leur acceptabilité par le public.

IV. The Cartagena Protocol and the WTO: Reflections on the precautionary principle*

A. Introduction

This part looks at the concept of precaution in the context of the Cartagena Protocol on Biosafety and the WTO, and it examines some of the emerging issues in the debate on trade and environment, identifying areas of potential complementarity and controversy.

The relationship between multilateral environmental agreements (MEAs) and the WTO has been an issue of intense discussion in the WTO Committee on Trade and Environment, established in 1995 by a ministerial decision at the end of the Uruguay Round with a two-fold mandate to identify the relationship between trade measures and environmental measures to promote sustainable development, and to make recommendations on whether any modifications to WTO provisions are required. Following an EC proposal at the WTO ministerial conference in Seattle in December 1999 to examine more closely the WTO-MEA relationship, the Swiss called for an interpretative understanding to clarify this relationship at a recent meeting of the Committee on Trade and Environment (CTE). This proposal served to reinvigorate the debate and heighten expectations with respect to the vexed issue of, in essence, which forum prevails in the event of a dispute between provisions in a MEA *vis-à-vis* WTO rules.

In the CTE, some members have proposed that a legal framework be developed to clarify the relationship between the WTO and MEAs, with specific reference to the exceptions provisions in Article XX. Other WTO members would like to see different agreements clarified with respect to the environment, such as the Agreement on Technical Barriers to Trade (TBT), the Agreement on Sanitary and Phytosanitary Measures (SPS), the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs) and the Agriculture Agreement. In this respect, the issue of living or genetically modified organisms (LMOs or GMOs) may potentially fall within the remit of the TBT Agreement (labelling), the SPS Agreement (spread of pests), the TRIPs

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Agreement (patents on living organisms), and the CTE (linkages between MEAs and the WTO in general).

B. Precautionary principle

The precautionary principle is a concept that the CTE has just begun to discuss in detail, following a contribution from the EC[1] and discussions surrounding the Cartagena Protocol. Although precaution is a element in the preamble and working articles of several environmental agreements, it is an essential part of the Cartagena Protocol. Whilst the text of the Protocol does not refer specifically to the precautionary principle, but refers to the precautionary approach, this principle is clearly incorporated in Articles 10 and 11. In fact, the wording in these articles corresponds to Principle 15 of the Rio Declaration.[2]

Recently the precautionary principle has been the focus of extensive debate in the area of food safety and GMOs, and this debate has reached the CTE. Discussion of the use of precaution as a basis for decision making, particularly in light of its inclusion in the Cartagena Protocol, would be worthwhile, especially as this concept overlaps with several items which are already under discussion in the CTE, such as MEA trade measures and eco-labelling. A greater understanding of the usefulness of the principle is needed in the Multilateral Trading System in order to avoid that precaution is confused with protectionism by developing countries, especially when the biodiversity of these countries may be the beneficiary of its inclusion in the Cartagena Protocol. The compatibility between the WTO Agreements and MEAs has figured prominently in CTE discussions to date, which have been reinvigorated recently following the Cartagena Protocol's successful conclusion in January 2000. At a MEA information session in the CTE in July 2000, the secretariat of the Convention on Biological Diversity briefed WTO members on its work, particularly with respect to implementing the Cartagena Protocol.[3]

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1 See *Communication from the EC on the Precautionary Principle,* WT/CTE/W/147-G/TBT/W/137 27 June 2000, and G/SPS/GEN/168 14 March 2000 (www.wto.org).

2 Aaron Cosbey/Stas Burgiel, *The Cartagena Protocol on Biosafety: An analysis of results,* International Institute for Sustainable Development, Winnipeg (Canada) 2000, http://iisd1.iisd.ca/pdf/biosafety.pdf.

3 See the background paper prepared by the Convention on Biological Diversity (CBD) Secretariat for the MEA information session in the Committee on Trade and

It is argued that precautionary measures should be taken when there is insufficient scientific proof of a danger, yet when inaction could lead to irreversible damage or risks to human health or the environment. One controversial issue surrounding the use of the precautionary principle concerns the determination of when the threshold shifts the burden of proof towards protection of the environment, or health and safety. This threshold can be high, when it involves «serious or irreversible harm to the environment», or lower, when it «may cause harm to the environment.»[4]

Many environmental lawyers will argue that the precautionary principle is already a principle of customary international law.[5] Principles are found in preambles to international law treaties, and also appear in the operational articles of conventions. They are seen as general legal commitments, rather than specific obligations of states.[6] Principles can form the basis of customary international law if they are consistently defined and applied in international treaties, decisions of international tribunals, and the International Court of Justice. The importance of customary law is that it can establish binding obligations for states. Therefore, the attempt of the European Community to establish the precautionary principle as customary law in *European Communities – Measures Concerning Meat and Meat Products (Hormones* – adopted 13 February 1998 [WT/DS 26]) could lead to future use of precaution in WTO panels and the Appellate Body.

The flexibility of the precautionary principle is its strength as well as its weakness. It has been applied to many different environmental issues and is subject to varying interpretations; it has over 12 different definitions in international agreements.[7] The principle has been incorporated into a number of MEAs, including the preamble of the 1985 Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol. It is reflected in the articles of agreements and instruments, such as the UN Framework Convention on Climate Change, the London Dumping Convention, and the Rio Declaration.

Environment (CTE), WT/CTE/W/149, and the discussions at the 5–6 July 2000 meeting of the CTE (WT/CTE/M/24); WTO Trade and Environment Bulletin No. 033.

4 Stephen Tromans, *High Talk and Low Cunning: Putting the Environmental Principles into Legal Practice*, Journal of Public Law (JPL) 2/1995, pp. 779, 781.

5 Phillipe Sands, *Principles of International Environmental Law*, Vol. 1, Manchester 1995, p. 213.

6 Phillipe Sands, *International Law in the Field of Sustainable Development: Emerging Legal Principles*, in: Wilfred Lang (ed.), Sustainable Development, The Hague 1995, pp. 53–67.

7 David VanderZwaag, *The implications of the precautionary principle for the ‹Canadian Environmental Protection Act›*, Environment Canada, at >www.ec.gc.ca/cepa/ip18/e18%5F01.html<.

The Convention on Biological Diversity does not mention this principle by name, but it defines its properties within the agreement. The definitions differ on the threshold that triggers the application of the principle. Clearly, there is a danger of overuse of this principle without an adequate definition.[8]

At the WTO High Level Symposium on Trade and Environment in March 1999, Sir Leon Brittan, vice-president of the European Commission, called for a well-defined precautionary principle that would not be abused and stated that:

> «I accept the legitimacy of the concept of precaution in the field of environment and health. [...] The best way forward, in my opinion, is to ensure the right balance between prompt action where justified and the avoidance of overkill. The precautionary principle has already been recognized in international agreements but not explicitly in the WTO, although several key provisions explicitly allow for precautionary action. We should, together, reflect on how to give the precautionary principle greater definition, while also preventing it from being invoked in an abusive way.»[9]

In the same speech, Sir Leon also stated that using the precautionary principle to reduce risks to zero would be unjustified. The principle has been developed as a response to scientific uncertainty, but it is a different approach to the problem than a risk assessment.[10] Risk assessment tries to address scientific uncertainty with a procedural method. The precautionary principle begins with scientific uncertainty, and with a concern for the risk to the environment. As explained by von Moltke, «once the reality of scientific uncertainty has been recognized and the need for appropriate policy action accepted, the precautionary principle seeks to maximize the responses from the legal and economic structures.»[11] The precautionary principle advocates action in light of scientific uncertainty, for example, to control greenhouse gas emissions while the science of climate change continues to be debated. Its end goal is not to reduce risk to zero, but to develop policies and action plans to come to a result that is environmentally desirable.[12]

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8 See the report of the CTE discussions on 5–6 July 2000 (WT/CTE/M/24), WTO Trade and Environment Bulletin No. 033.

9 Sir Leon Brittan, Speech at the WTO High Level Symposium on Trade and Environment, 15 March 1999, Geneva, in: WTO (eds), Trade, Development and Environment, London 2000, pp. 14 ff.

10 Konrad von Moltke, *The Relationship between Policy, Science, Technology, Economics and Law in the Implementation of the Precautionary Principle,* in: D. Freestone/E. Hey (eds), The Precautionary Principle and International Law, The Hague 1996, p. 100.

11 *Ibid.,* p. 110.

12 *Ibid.*

The concept of precaution is incorporated in the WTO rules in the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). Precaution is reflected in Article 5.7 of the SPS Agreement, as well as the preamble and Article 3.3. The concept of precaution allows members to adopt provisional measures when scientific evidence is insufficient or in the process of being established, but these measures must be reviewed, as more objective information becomes available.[13] Therefore, the use of precaution is limited in the WTO, as the SPS Agreement finds its foundation in science and risk assessment.

The use of the precautionary principle in international legal agreements, in international court cases, such as *Hormones* and the Nuclear tests (New Zealand v. France) case at the International Court of Justice (ICJ),[14] and in scholarly legal writing adds power to the argument that precaution is emerging as a principle of customary international law. According to Article 38 of the Statute of the ICJ, the Court can take account of «international custom, as evidence of a general practice accepted as law.»

In *Hormones,* the Appellate Body concluded that the precautionary principle, outside the field of international environmental law, awaits confirmation as a customary legal principle. The Appellate Body noted that the principle had not been incorporated into the SPS Agreement as a ground for justifying inconsistencies with the provisions in the Agreement. The insecure status of the precautionary principle in the WTO Agreement and the ruling in the *Hormones* dispute raise interesting questions for the CTE in the new area of trade-related issues involving GMOs and food safety.

It will be interesting to follow the implementation of the *Hormones* case to see if the solution to disputed food safety products lies in labelling. The GMO issue may not be an SPS dispute, as GMOs do not fall neatly under the definition of a sanitary or phytosanitary measure, and therefore it is more likely that the labelling issue will be brought under the TBT Agreement, unless compromise can be reached prior to a dispute arising. If labeling for hormones in American beef can be agreed to, a similar solution may be proposed for GMOs.

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13 In *Japan-Measures Affecting Agricultural Products,* the WTO Appellate Body decided that the second sentence of Article 5.7 of the SPS Agreement dealing with provisional SPS measures should be reviewed in a reasonable period of time, based on a case-by-case basis, depending on the circumstances and the difficulty in obtaining necessary information for the review, Appellate Body Report, 22 February 1999 (WT/DS 76).

14 The principle was discussed in dissenting opinions, but the case, which was a request to open the Nuclear test case of 1974, was not granted and therefore no substantive decision was reached.

However, even if WTO member states agree to label GMOs, the concern for developing countries related to the potential loss of biodiversity from genetically modified plants remains. Much of the original genetic material for modified plants has derived and will derive from developing countries. Therefore, there is greater concern for native species in developing countries, as the genetic material will be passed on more readily to «wild cousins» of GMOs. The Cartagena Protocol on Biosafety addresses these concerns in Articles 8, 9, 10 and 12 concerning LMOs which are imported for intentional introduction into the environment and specifies their traits and characteristics, as well as details regarding safe handling, storage and use.

The Cartagena Protocol has had a rocky start, as the issue of compatibility with WTO rules was one of the key reasons which explain why initial negotiations did not lead to the establishment of a Protocol within the expected time frame. The Protocol addresses its relationship with other international agreements in preamble. The preamble is discussed in more detail elsewhere in this series.[15] Let us just point out here that the language of the preamble would appear to be ambiguous in that it does not specify which body of law (the Protocol or «any existing international agreement», i. e. the WTO) would prevail in the event of a conflict. It has been argued that any inconsistency between the WTO Agreements and the Protocol would be avoided through an interpretation of the WTO Agreements that is consistent with the principles of public international law. Article 3.2 of the WTO Dispute Settlement Understanding (DSU) provides that WTO provisions be interpreted using customary rules of public international law, including those set out in the Vienna Convention on the Law of Treaties. The WTO Appellate Body has noted (in *US – Gasoline*, adopted 20 May 1996 [WT/DS 2]) that GATT provisions cannot be interpreted in «clinical isolation» from these principles.[16] Nevertheless, it has also been pointed out that international law may not help courts decide which agreement prevails due to the ambiguity of the preamble.

Although the CTE report to the Singapore ministerial conference in 1996 called for strengthened MEAs that could solve their own disputes,[17] the reality is that the WTO is becoming the international dis-

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15 Franz Xaver Perrez, *The Cartagena Protocol on Biosafety and the relationship between the multilateral trading system and multilateral environmental agreements (MEAs), supra*, pp. 518–527.

16 Gabrielle Marceau, *A Call for Coherence in International Law,* Journal of World Trade vol. 33, No. 5, October 1999, pp. 87–152.

17 See WT/CTE/1, 12 November 1996.

pute settlement body of choice for a plethora of non-trade issues. This is the case principally because the WTO has an automatic and binding enforcement mechanism, with the threat of trade sanctions, as well as a short turnaround time, in comparison to the ICJ and MEA dispute resolution systems. Despite constant tests to its credibility, the WTO dispute settlement mechanism is being called upon to resolve conflicts in areas that go beyond traditional trade policy matters. The point is that «forum shopping» between the WTO and MEAs in particular brings with it a great degree of legal uncertainty; moreover, continuous resort to the WTO may have a «chilling» effect on the negotiation and implementation of MEAs.

C. Conclusion

There are two main routes to addressing the issues raised by the trade and environment debate in the WTO, including those surrounding the Cartagena Protocol. The first, which many caution against, is through recourse to dispute settlement procedures in the WTO. The other is a political route involving negotiation and consensus outcomes.[18] Recognizing that the common objectives of trade and environment can only be achieved through consensus and negotiations puts an emphasis on maintaining a rigorous yet balanced discussion in the WTO. In the final analysis, the manner in which environmental concerns such as MEAs and policies, such as the precautionary principle, are taken into account is an issue which member governments will have to decide in future trade negotiations. These negotiations have already begun in the agriculture and services sectors, and may lead to a full round of negotiations. Whether members wish to clarify the relationship between the WTO and MEAs will invariably be based on forging a consensus through negotiations or through a broader interpretation of existing WTO provisions. Either way, the necessity of building consensus with the broader WTO membership, including developing countries, will be an essential aspect of attaining an outcome in this increasingly important area of policy-making.

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18 See Sylvia Ostry, discussant paper prepared for the WTO High Level Symposium on Trade and Environment, 15–16 March 1999, Geneva, in: WTO (eds), Trade, Development and Environment, London 2000, pp. 45–46.

V. International trade in genetically modified organisms: Developing country concerns and possible options*

A. Introduction

Developing countries are facing at present a new phenomenon that may have important impacts on their trade and development perspectives: trade in genetically modified organisms (GMOs) and products derived from them. GMOs are organisms in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination.[1] GMOs can be released into the environment – as it is the case for seeds for planting – or they can be used as food or feed or for processing, as is the case for bio-engineered commodities. Biotech crops have been commercialized since the mid-1990s, and biotech components can be found nowadays in hundreds of processed foods.[2]

The global market for transgenic crop products grew rapidly during the period from 1995 to 1999[3], however, a proliferation of initiatives at the national and international levels are causing an inversion of the industry's growth trend in several countries.

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* by Simonetta Zarrilli, LL. M, Economic Affairs Officer, UN Conference on Trade and Development, Geneva – The views expressed in this article are strictly personal. This contribution draws on a previous and more detailed study written by the author on a similar subject intitled *International trade in genetically modified organisms and multilateral negotiations – A new dilemma for developing countries*, UNCTAD/DITC/TNCD/1, 20 October 2000. The cut-off date for this article is 30 November 2000.

1 This definition is included in the EEC Directive 90/220, 23 April 1990, O. J. L 117, 8 May 1990, pp. 15 ff.

2 The global area planted with transgenic crops was 1.7 million hectares in 1996; it reached 39.9 million hectares in 1999, with a twentyfold increase between 1996 and 1999. The seven genetically modified crops grown commercially in 1999 were soybean, corn/maize, cotton, canola/rapeseed, potato, squash and papaya. In 1999, almost 99 per cent of the global area planted with genetically modified crops was accounted for by the United States (72 per cent), Argentina (17 per cent) and Canada (10 per cent), while the remaining 1 per cent was accounted for by China, Australia and South Africa. Production started in Mexico, Spain, France, Portugal, Romania and Ukraine, see C. James, *Preview. Global Review of Commercialized Transgenic Crops: 1999*, International Service for the Acquisition of Agri-biotech Applications (ISAAA), ISAAA Briefs, No 12, 1999, p. 6–8.

3 Global sales of transgenic crops were estimated at US$ 75 million in 1995. In 1999, they reached an estimated US$ 2.2 billion (a thirtyfold increase). The global market for transgenic crops is projected to reach approximately US$ 3 billion in 2000, US$ 8 billion in 2005 and US$ 25 billion in 2010 (*supra* note 2, p. 4).

B. Developing country specific difficulties in the sector

Developing countries may face difficulties in the field of biotechnology applied to agriculture as importers, as exporters and as producers. As *importers*, developing countries have, on the one hand, to comply with their trade obligations, mainly those deriving from the WTO Agreements; on the other hand, they have to make sure that the products they import do not have actual or potential harmful effects on human, animal and plant life or health or on the environment. As *exporters*, developing countries have to make sure that their existing export opportunities are preserved and possibly enhanced. As actual or potential *producers* of GMOs and products derived from them, developing countries have to assess whether the production of these goods would be beneficial to them in terms of alleviating problems such as malnutrition and food shortage, or in terms of enhancing their agricultural exports and contributing to a more sustainable agricultural production.

Policy-makers in several developing countries have started approving legislation in the field of biotechnology and biosafety. Legislation may include trade-restrictive measures for biotechnology products: These provisions may or may not be consistent with WTO obligations (see section below). Furthermore, some developing countries heavily rely on the imports of agricultural and food products, and a number of them also depend on food aid. Trade-restrictive measures affecting bio-engineered goods could jeopardize the existing trade flows of agricultural and food products. Moreover, developing countries are not very well placed at the moment to prove, through a risk assessment, that the products they are keeping out of their markets are harmful to human or animal health or to the environment. On the other hand, if developing countries allow into their markets products that may prove to damage human and animal health or the environment, they are exposing themselves to a risk that may have serious repercussions on their development perspectives.

While some developing countries are importers of agricultural and food products, others are exporters of these products, and their hard currency incomes may depend mainly on the exports of a limited number of agricultural products. In case very strict requirements would apply in the agricultural sector to deal with biotechnology-related risks, the possibility exists that the same strict rules would be extended to cover all kinds of agricultural products, including the conventional ones. This situation would jeopardize existing market-access opportunities for all countries. However, developing countries would be in a particularly vulnerable situation because of their difficulties to adapt

to new and stricter requirements, and because of the dependence of many of them on a small number of exportable agricultural products.

Developing countries could benefit from biotechnology applied to agriculture under a number of conditions. Obviously the first one is that biotechnology products do not have negative impacts on health or on the environment. The second one is that the results of biotechnology research are available at reasonable prices. The third is that biotechnology needs to be appropriate for the geographical and environmental conditions of developing countries, and that it helps them to address problems such as food shortage, malnutrition, dependence on imports of agricultural and food products, etc. For these pre-conditions to materialize, it would be necessary that research and development (R & D) take place in areas of interest to developing countries. Private sector research in agricultural biotechnology has dramatically increased, driven in part by the possibility of profits made possible by intellectual property rights on living organisms. A large number of patents have been issued in this sector. If the results of plant research continue to be patented, there is a risk that they may become too expensive for poor farmers, especially in developing countries. Moreover, the private sector invests in areas where there are hopes of a financial return; as a consequence, private research may focus on crops and innovations that are of interest to rich markets and ignore those of interest to poor countries.

C. The existing multilateral rules

At present, international trade in GMOs and products made from them has to take place according to the rules agreed to at the end of the Uruguay Round, in particular those spelt out in the Sanitary and Phytosanitary (SPS), and Technical Barriers to Trade (TBT) Agreements and in GATT 1994. A country which bans imports of GMOs or GM products may be infringing its trade obligations; it can, however, invoke a number of provisions to justify its trade-restrictive measures. It may invoke the SPS Agreement. In this case, it has to prove that the measure is necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence. If the measure is applied on a provisional basis, it must seek to obtain the additional information necessary for a more objective assessment of risk and review the measure accordingly within a reasonable period of time. There are some difficulties at present in invoking the SPS Agreement to justify a trade-restrictive measu-

re with respect to GMOs. GMO-related measures come within the spirit but not the letter of the Agreement. There is no scientific evidence that clearly identifies the level of risk that GMOs create for human, animal or plant life or health.

A second option is to justify a GM trade-restrictive measure under the TBT Agreement. Some difficulties also arise in this case. First of all, it is unclear whether an import ban can be regarded as a technical regulation. Recent WTO jurisprudence indicates that pure and simple import bans without any reference to the characteristics of a given product are not technical regulations.[4] Secondly, it is unclear whether GMOs can be considered different from conventional products or whether they are «like products». Uncertainties exist about the scope for applying the SPS and TBT Agreements to international trade in GMOs, but the multilateral rules that undoubtedly apply to it are Articles III, XI, and XX of GATT 1994[5].

The national treatment principle which is incorporated into Article III implies non-discrimination between domestic and imported goods. In the context of Article III as well, the determination of what constitutes «like products» is a crucial issue since the national treatment obligations apply only if two products are «like». The general elimination of quantitative restrictions is embodied in Article XI. The obligations of Articles III and XI can be derogated from by using the exceptions set out in Article XX. This Article gives countries the legal means to balance their trade obligations with important non-trade objectives, such as health protection or the preservation of the environment, which form part of their overall national policies.

Disciplines regarding trade in GMOs are also emerging from multilateral agreements being negotiated outside the trade context in a strict sense – such as the Cartagena Protocol on Biosafety – or may be developed in the future by ad-hoc groups, such as the proposed WTO Working Party on Biotechnology.

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4 WTO, Report of the Panel, *European Communities – Measures affecting asbestos and asbestos containing products*, WT/DS135/R, 18 September 2000.

5 General Agreement on Tariffs and Trade, The Results of the Uruguay Round of Multilateral Trade Negotiations – the Legal Texts, Geneva 1995.

D. Fora for discussion

Because of a certain lack of clarity and consistency of the existing legal instruments[6], because of the huge economic interests involved in the biotechnology sector, and because of the rather different perceptions among countries of the risks and benefits that GMOs may entail, some countries may be willing to continue negotiations in this area. Other countries may try to use this sector as a tool to achieve those modifications of the existing multilateral trade rules that they have been pursuing during the last years without success. This could be the case, for example, of those countries that have an interest in broadening Article XX of GATT to better accommodate their non-trade concerns.

There are several fora within the WTO where issues related to trade in biotechnology products, and more specifically, GMOs could be addressed or have already been addressed, directly or indirectly: the TBT and SPS Committees, the Committee on Trade and Environment, and the Committee on Agriculture. Each forum has its own characteristics and discussions may reach different results according to where they take place.

There are also fora outside the WTO where GMO-related issues have been addressed and could be addressed further, such as the Convention on Biological Diversity (CBD)/Biosafety Protocol or the Food and Agriculture Organisation (FAO). Scientific, legal and tactical considerations would justify the choice of holding discussions on GMOs in these forums. Countries are represented in these fora by delegates with specific expertise in the sector. The Biosafety Protocol is targeted at GMOs, whereas WTO Agreements apply across the board. Developing countries are usually more able to make their voice heard in the CBD or FAO context than in the WTO. Discussions held in these fora can be very productive, but the conclusions reached may be challenged on the basis of their WTO-consistency.

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6 The Preamble of the Biosafety Protocol, for example, states that it shall not be interpreted as implying a change in the rights and obligations of the Parties under existing international agreements and that the above clause is not intended to subordinate the Protocol to other international agreements. These provisions may prove not to be very helpful if a conflict arises between countries having divergent interests in the area of biotechnology.

E. Possible options

Since some powerful trading partners strongly support changes in the WTO system in order to better accommodate their non-trade-related concerns, and in view of the pressure put on the system by very vocal consumer and environmental groups, the multilateral trading system may become more flexible in the future by allowing countries to make further use of restrictive trade measures to protect their markets from products which may have detrimental effects on human, animal or plant life and health or on the environment. Negotiations may, therefore, start in the WTO to modify Article XX of GATT and, possibly, Article 5.7 of the SPS Agreement[7] which incorporates the precautionary principle.

A wholesale change to the SPS Agreement and to Article XX of GATT affecting not only trade in GMOs but also trade in conventional crops and food products would be a risky option for developing countries since it could jeopardize their existing market access opportunities. On the other hand, it would be unnecessary for them when seeking to protect domestic health and safety in the field of GMOs, since they can use the Biosafety Protocol for this purpose.

Nevertheless, if trade rules are changed in the way described above, the developing countries' position could be that technical and financial assistance needs to be provided to them to ensure that they will be able to comply with the new and stricter requirements which will likely be implemented by the importing countries. Full implementation by developed countries of the provisions on technical cooperation and special and differential treatment (S&D) contained in the SPS and TBT Agreements should be encouraged.[8] The market access opportunities of developing countries should be preserved and the balance of rights and obligations emerging from the Uruguay Round should not be changed in a way that diminish the acquired rights of developing countries. This option may be risky: strict requirements will be implemented, but technical and financial cooperation may not follow, as the experience with «best endeavor» clauses has shown. However, developing countries have also to keep in mind that retailers and consumers may refuse products which do not comply with strict standards. An enhancement of the capacities to produce high

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7 *Supra* (note 5).

8 It is worth noting that developing countries are working on a new and more dynamic definition of S&D, considering the limited impact that the existing S&D provisions included in several WTO Agreements have had in practice.

quality and safe products is therefore, in the long run, the most promising alternative.

Legal uncertainty is already affecting international trade flows in GMOs and products derived from them, and the economic interests of GMO-exporting countries are being affected. Transnational corporations which have made significant investments in biotechnology are already putting pressure on their Governments to ensure that the multilateral trading system includes as few limitations as possible to the transborder movement of biotechnology products. As a result, the existing Uruguay Round agreements could remain unchanged.

The attitude of developing countries could be that the present trade scenario presents difficulties for them, since they have to cope with new phenomena, such as biotechnology, and they lack the expertise to do so. Therefore, they need technical and financial cooperation to build policy and technical capacities in the new fields. An international fund, sponsored by public and private contributions and run under the auspices of the CBD Secretariat, the FAO, or the Codex Alimentarius Commission, could be set up to finance technical training in biotechnology applied to agriculture and make it possible for developing countries to assess the risks and benefits of biotechnology products. South-south cooperation could also be explored.

The *status quo* option is less risky than the alternative scenario sketched out above from a trade point of view, however, it may be more risky from the point of view of domestic health and environmental protection, if the competent international organizations and the developed countries do not provide the cooperation requested. The Biosafety Protocol contains specific provisions related to technical cooperation, and these should also be fully implemented.

VI. Civil society and its role in the negotiation of the Biosafety Protocol*

A. Introduction

The term ‹civil society› does not always have the same meaning; for the purpose of this contribution it is meant to include non-governmental organizations (NGOs) other than firms, banks, and industry associations, but it does include more or less clearly circumscribed organisms such as the media, universities, loosely structured grassroot organizations, and also the public at large to the extent that it expresses an opinion, e.g. through polls, demonstrations, or letters to the authorities and the media. Firms, banks and industry associations are not included here among NGOs because in the negotiations over the Biosafety Protocol they have generally been associated with the «Miami group», i.e. the contries which defended the interests of geneticall modified (GM) crop exporters (especially the U.S., Argentina and Canada). Thus the term civil society is used here in a broader sense than the very common term NGOs, but we shall not adopt the terminology of the Codex Alimentarius Commission, whose list of international NGOs with observer status consists mostly of industry associations. This use of the term civil society is justified by the fact that the purpose here is to assess the impact of non-governmental and non-commercial stakeholders on the negotiations of the Biosafety Protocol.

Public opinion in this domain is not only difficult to evaluate, it is also changing, unpredictable, and it can be influenced, especially since the high economic stakes generate well-funded campaigns in favor of modern biotechnologies: «Societal and market forces will decide the future of the agribiotech market, leaving open the possibility of a continuing expansion of international GMO trade.»[1]

Switzerland's peculiar legislative process based on direct democracy is interesting in this context. A first referendum against genetic engineering in June 1998 seemed originally to favor the opponents of

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* by Urs P. THOMAS, Ph. D., research associate, Departement of Public International Law, Faculty of Law, University of Geneva – The contribution has been improved thanks to comments by Doaa Abdel Motaal and Steve Charnovitz; all errors, however, are the author's responsibility.

1 Robert FALKNER, *Regulating biotech trade: the Cartagena Protocol on Biosafety,* International Affairs (Royal Institute of International Affairs) 2/76, April 2000, pp. 299–313 (p. 312).

these technologies, but in the end the industrial and research interests managed to overcome this resistance, albeit at the cost of the most expensive referendum campaign ever conducted in this country. This does not yet represent a final victory for GM foodstuffs, however, because the first referendum originated from the animal liberation movement and included medical applications, which the majority of the people according to polls in Switzerland as well as in the rest of Europe generally support. GM food, on the other hand, presently meets stiff resistance, and the outcome of a planned second referendum limited to GM food is uncertain at this time.[2]

With regards to the negotiation of the Biosafety Protocol, the media were much less important than in this domestic political showdown over a new law. The NGOs, however, played a very prominent role, they were more or less aligned with the «Like-minded Group» that included most developing countries and pushed for a relatively strict regulation of GM seeds and crops.[3] We shall therefore focus our analyis of civil society in the rest of this discussion mostly on NGOs. This focus is further justified by the fact that the biosafety negotiations have led to a strengthening of the collaboration between Northern and Southern NGOs. The decentralized network of Greenpeace, for instance, is supporting actions against GM seeds and food in countries like India, Mexico or Brazil.[4]

B. The contribution of the NGOs to the development of multilateral environmental agreements

The NGOs have emerged from the 1992 Rio Conference as a major force to be reckoned with in multilateral negotiations on environmental agreements.[5] In order to understand their impact on the development of international biotechnology regulation, the Biosafety Proto-

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2 Jean-Claude Péclet, *S'adapter au marché? Les paysans prennent au mot les partisans du génie génétique,* Le Temps, Daily Newspaper, Geneva, 28 April 2000, p. 11.

3 Lavanya Rajamani, *The Cartagena Protocol – a battle over trade or biosafety?* Third World Resurgence, 104–105, April/May 1999, pp. 12–14 (www.twnside.org.sg/title/lavanya-cn.htm).

4 Special section OGM: *Les industriels s'attaquent aux pays du Sud,* Le Monde Economie, 17. October 2000, pp. 1–3.

5 Thomas Princen/Mathias Finger, *Environmental NGOs in World Politics,* New York 1994.

col needs to be placed into the wider context of the Multilateral Environmental Agreements (MEAs). This domain has been characterized by an extraordinary effervescence and growth throughout the 1990s, and by an increasing interaction with trade law. These developments led to innovative legal concepts and interpretations, such as the WTO Appellate Body's acceptance of «evolutive interpretation,»[6] or the notion that trade and environment agreements should be «mutually supportive,» as specified in the Biosafety Protocol's preamble.

A particularly sensitive, complex, and largely unresolved question in the MEA discussion is the WTO's interpretation of the so-called ‹like products› concept, e.g. in this case the question whether traditional and GM crops are to be considered as equal products with regards to an importing country's right to take restrictive trade measures for purported human health or environmental reasons, and with regards to labelling in international trade. Under the Protocol's Article 11.8 a country may refuse the import of unprocessed GM food products under certain conditions as a precautionary measure. The WTO's Dispute Settlement panel has added a new twist to the debate with its recent decision on asbestos fibres by giving a very expansive interpretation to the «like product»-concept, which might present a problem for MEAs.[7]

As far as labelling is concerned, NGOs tend to consider the fact that this issue has not been resolved as the biggest price to be paid for the final compromise, together with the exclusion of processed food products from the Biosafety Protocol's provisions. However, at least in Western Europe, market forces are likely to impose the practice of labelling independently of legal requirements.

It should be noted in this context that at the WTO Dispute Settlement Body rulings are not bound by the precedent of earlier decisions if new elements of interpretation merit to be taken into consideration, which means that the like product issue is likely to remain contentious and legally extremely complex for quite a while. This

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6 Gabrielle Marceau, *A Call for Coherence in International Law,* Journal of World Trade 5/33, 1999, pp. 87–152.

7 This ruling makes it more difficult if not impossible to differentiate products under GATT Article III:4 based on their human health and environmental characteristics such as toxicity. Such a differentiation can under this judgement only be made through GATT article XX, which is subject to a «necessity test» and may therefore be more strenuous. This may be a concern for future disputes, but in the Asbestos case it was not a problem, the «likeliness» obstacle was overcome quite quickly through Article XX – that was key to the ruling. See Kevin Gray, *Asbestos Ruling Raises More Questions than Answers,* Bridges, 7/4, September 2000, pp. 9–10.

unpredictable situation is further reflected in the fact that the Codex Alimenarius Commission, which is the WTO's standard-setting body for questions related to food safety, has so far not managed to come to a decision on the ‹substantial equivalence› of products[8]. As far as civil society is concerned, one may conclude that the complexity and difficulty of the WTO's law, not to mention its very often unnecessarily convoluted language, and the legal uncertainty caused by the possibility of using different agreements or articles for a dispute strategy, contribute to its distant and alienating image – even when the Panel or Appelate Body provide a judgement or a justifying reasoning which should find sympathy and support.

The increased legal, scientific and political complexity brought about by this interaction of multilateral agreements in the areas of trade and the environment has resulted in an interesting development at the NGO front: The last few years have seen the emergence of a few highly specialized international environmental NGOs (IENGOs).[9] They can be considered as service organizations fulfilling a very important and ongoing need for up-to-date information and analyses on trade and environment issues[10] arising from the effervescence in this sector of international law. Their clientele are not only less specialized NGOs, but also academia, the media, and even government ministries and intergovernmental organizations. In fact, some of these services are only possible thanks to voluntary financial contributions of government ministries wishing to support and develop the knowledge about

8 Judson O. Berkey, *Implications of Codex Standards for the Regulation of GM Food,* Insight/American Society for International Law, Sept. 2000, (www.asil.org/insigh51.htm).

9 The International Center for Trade and Sustainable Development (www.ictsd.org) publishes monthly and weekly editions of *Bridges* which provide updated syntheses and analyses of negotiations;

the International Institute for Sustainable Development (www.iisd.ca) publishes the *Environmental Negotiation Bulletin* which covers the negotiations of most of the major conventions on a day-by-day basis with concluding summaries;

the Global Environment and Trade Study (www.gets.org) provides interdisciplinary analyses and pragmatic proposals thanks to the cooperation of a wide group of experts;

the Center of International Environmental Law (www.ciel.org) has a specialized staff which provides *amicus curiae* briefs to the WTO Dispute Settlement Body and other environmental legal services;

the Foundation for International Environmental Law and Development (www.field.org.uk/) provides advice and assistance to governments, non-governmental organizations, inter-governmental organizations, and industry.

10 The author is suggesting the use of the term *‹ecolomics›* for the ecology-economics interface.

these negotiations.[11] All these IENGOs rely much more on the Internet than on printed support, in fact it was the Internet which made their emergence possible.

It should be noted that the Biosafety Protocol reflects the tensions between trade and environment concerns arguably more forcefully than any other MEA because the financial stakes are not only very large, but they are also much more immediate than the more long-term economic pressures which are underpinning other negotiations, especially those on climate. The complexities of the relationship between the Protocol and some of the WTO agreements may explain why civil society on the whole has so far shown relatively little interest in these negotiations in spite of its above-mentioned strong interest in domestic GM food issues. The same observation applies to other MEA negotiations. One has to conclude that these IENGOs, in spite of their excellent work, have not been very successful in bringing their expertise to a larger public as much as one might expect. One has to conclude that civil society is much more interested in domestic issues than in international ones, especially if they are complex and ongoing.

The more activist and less specialized NGOs on the other hand have had a different role and impact on the Biosafety Protocol, their activities are much more action-oriented and focused on specific events, which contrasts with the ongoing consultative role far away from the media lime light of the IENGOs. These generalist NGOs, however, who had brought the stalemate of the last WTO ministerial conference to the attention of the media, were again active in Montréal at the final negotiations of the Biosafety Protocol in January 2000, and they were successful in exerting pressure on the negotiators to conclude this agreement. After the first breakdown in Cartagena in 1999 – not to mention the shadow of the Seattle conference less than two months earlier – some of the important governments «clearly had no desire to undermine progress on a treaty that so directly aimed to protect the environment and build capacity in developing countries.»[12]

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11 Daniel C. Esty, *Non-governmental organizations at the WTO: Cooperation, Competition, or Exclusion,* Journal of International Economic Law 1, 1998, pp. 123–147.

12 Aaron Cosbey/Stas Burgiel, *The Cartagena Protocol on Biosafety,* Briefing Note, International Institute for Sustainable Development, Winnipeg 2000.

C. Biosafety negotiations, NGO participation, and transparency

NGOs have also contributed their efforts to the defeat of a joint US-Canada-Japan attempt to create a Working Party on Biosafety at the Seattle Conference. They formed a common front to strongly oppose this initiative, together with most of the developing countries, because they feared that under this arrangement the Protocol would be paralyzed by trade interests,[13] and because the Convention on Biological Diversity (CBD), of which the Biosafety Protocol will be an essential element once it enters into force, provides far easier access to NGOs than the WTO (CBD Article 23.5). Now that the Biosafety Protocol has been adopted, there seems to be less opposition to discussions of biosafety issues at the WTO.

The WTO's relations with NGOs is complicated by the fact that some governments, especially from the developing world, are opposed to transparency because of their (partially justified) fear that some NGOs may exert pressures on industrialized countries to restrict their market access for protectionist reasons under environmental and social covers. The WTO has therefore developed a set of guidelines regarding NGO relations, which provides the Secretariat in a sense with the function of a «buffer» between member countries and NGOs.[14] The Secretariat enjoys a considerable amount of freedom in carrying out its task of interacting with NGOs, it is becoming increasingly proactive – for instance by organizing much appreciated briefing sessions with Geneva-based IENGOs – and the guidelines given by the General Council are constantly reinterpreted. On the whole the WTO has undoubtedly become considerably more transparent over the past few years. It should also be mentioned that the WTO Web site is in a state of ongoing construction and expansion, and it represents, on the whole, a very useful information tool, even though further progress needs to be made in order to strengthen the WTO's legitimacy by making available much more internal data and documents.[15]

The argument is made sometimes that NGOs should not have the opportunity to influence both domestic governments and multilateral organizations (the «two bites at the same apple» objection). There

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13 Chee Yoke Ling, *Delayed, but better, Biosafety Protocol,* Third World Resurgence, 114–115, Feb.–March 2000, pp. 11–12 (www.twnside.org.sg/title/delay.htm).

14 Gabrielle Marceau/Peter N. Pedersen, *Is the WTO Open and Transparent?* Journal of World Trade, 1/33, February 1999, pp. 5–49.

15 Bernard H. Heckman/Petros C. Mavroidis, *WTO Dispute Settlement, Transparence and Surveillance,* The World Economy, 4/23, April 2000, pp. 527–542.

is little doubt, however, that on the whole the influence of transnational corporations easily outweighs the NGOs' by far. An interesting case study in this regard has shown in a different domain how Kodak and Fuji have made very strenuous efforts at high costs to both corporations in order to have maximum input into both US domestic as well as WTO processes in a dispute opposing the two competitors.[16] Clearly, NGOs can never hope to compete with this kind of intense lobbying efforts.

Civil society gives strong support to a different but related kind of transparency, namely for the consumers' right to be informed about the goods they buy. In spite of the fact that a small number of countries which export GM crops vigorously oppose labelling of GM products, European consumers and increasingly also North American ones insist on their right to be informed, i.e. to have labels on GM food. It would seem that the WTO has enough problems on its hands with the preparation of future negotiations without provoking civil society's animosity by supporting these special interests: «... it is hard to see how the WTO can call factual food labeling unnecessary when the WTO permits governments to require labels disclosing the country of origin. The WTO would put itself in peril by attempting to restrict factual labeling.»[17] Indeed, industry's resistance against information on food products needs to be seen in the wider context as a rear-guard battle in which consumer and environmental organizations have long ago been successful in obtaining quite detailed information printed on food packaging.

In conclusion, what are the prospects for transparency and civil society participation with regards to the regulation of biotechnology and to MEAs more generally? The WTO would be well advised to be sensitive to these issues which can at any time break through public indifference and be pushed by the NGOs to the media's center stage, as has been demonstrated in Seattle. In fact, the WTO is in a somewhat precarious situation because different constituencies in its member countries are pulling it into different directions. It would seem to be advisable to work towards constitutional reforms in future Rounds and provide for better civil society participation for instance through the creation of a parliamentary or NGO advisory body, and through a more proactive interpretation of the «public interest clauses» of WTO

16 Jeffy L. Dunoff, *The Misguided Debate over NGO Participation at the WTO,* Journal of International Economic Law 1998, pp. 433–456.

17 Steve Charnovitz, *The Supervision of Health and Biosafety Regulation by World Trade Rules,* Thulane Environmental Law Journal 2/13, 2000, pp. 271–302.

law (e.g. GATT Article XX) in conformity with universally agreed human rights or MEAs.[18] At the same time, however, the WTO also needs to worry about resistance from developing countries, which will always suspect that this reform effort, including the trade-environment linkage, «gives cover to protectionist mischief.»[19] This resistance can only be overcome by much more generous technical assistance and capacity building efforts.

18 Ernst-Ulrich Petersmann, *The WTO Constitution and Human Rights,* Journal of International Economic Law 2000, p. 19–25.

19 Daniel C. Esty, *An Environmental Perspective on Seattle,* Journal of International Economic Law 2000, pp. 176–178.