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### **COMMENTARIES**



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## COMMENTARIES

# 1. COMMENTARIES ON ARTICLE 1: THE RELATIONSHIP BETWEEN MEAs AND WTO RULES

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The UNCTAD report clearly lays out the issues that need to be addressed when considering the problem of conflict between the provisions of the World Trade Organization (WTO) and multilateral environment agreements (MEAs).

Nobody disagrees that the conflict is undesirable. The question is what to do about it. No successful solution to any problem can be addressed unless the nature of the problem is clear and the cause is understood.

### *What is the cause of the conflict?*

The conflict exists because when governments negotiate MEAs they include measures which sanction trade coercion and create unqualified rights to restrict trade. This generates problems because the WTO, to which the same Governments subscribe, does not permit such use of trade measures.

The issue is fundamental. The WTO agreements respect the principle of national sovereignty. Members of WTO agreements can suspend trade privileges among themselves, but only on terms which all Parties have accepted.

This problem has arisen not because of changes in WTO rules, but because of the introduction into MEAs of measures which conflict with WTO provisions.

Some MEAs oblige members not to trade with countries that are not Party to the Agreement (or permit trade if non-Parties adopt measures similar to those in the Agreement). This is coercion. The right of countries not to adhere to international agreements is transgressed: their national sovereignty is disregarded. One agreement also provides unqualified rights to restrict trade. The WTO generally does not permit that.

It is a relatively new development to make coercion against non-Parties to conventions a norm. Countries have negotiated such agreements in the past. They plainly contravene the broad principle in the UN Charter that national sovereignty should be respected and in that respect serve as exceptions to the preferred norms in international law.

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## Chapter

In the last two decades, a strong case has been made that trade coercion for environmental purposes should not be treated as an exception but as a new norm. The European Union has made clear that it would like a broad right to leverage access to markets, on condition that environmental standards, to be created in the WTO, are adopted.

A narrow right was implicitly established at the 1992 Rio Earth Summit, which set out principles on trade and environment. It stipulated that provisions of MEAs and trade agreements should be mutually supportive, national sovereignty should be respected and trade sanctions should be avoided, but when they were to be used, they should be last resort and subject to conditions that restrict damage to trade.

The fact that the principles were adopted evidently reflected recognition that there was a problem of conflict between provisions of MEAs and multilateral trade rules. It is likely in retrospect that negotiation of the Convention on International Trade in Endangered Species (CITES) and the Basel Convention (BC), both of which have trade coercive measures, drew attention to the problem.

While Governments adopted these principles at Rio, their environment officials subsequently disregarded them, negotiating a Protocol to the BC banning trade among Parties (which has still not been ratified — so perhaps Governments have had second thoughts), negotiating discriminatory trade measures in the Persistent Organic Pollutants (POPs) Convention and including measures in the Cartagena Protocol, which were decidedly unresponsive of the WTO (it has measures stipulating that Parties have the right to restrict imports in the absence of scientific justification). This prospectively undermines the operation of provisions that enable Parties to restrict imports, which are deemed a threat to health and safety or which fail to comply with technical standards: WTO Members are generally required to base such measures on scientific principles and processes of risk assessment.

None of the proponents have justified the trade provisions in these MEAs as “last resort” measures or have assessed their consistency against the Rio test of “mutual supportiveness”.<sup>1</sup>

Whereas the negotiators may have unwittingly created provisions in MEAs that conflicted with the General Agreement on Tariffs and Trade (GATT)/WTO provisions before Rio (and it is widely conceded that lack of coordination between trade and environment ministries has been a problem in most Governments), it cannot be said that negotiation of further provisions, which conflicted with the WTO after Rio, was unwittingly.<sup>2</sup>

### *Why has the conflict arisen?*

Why has this happened? It is important to understand this question if we want a solution which will be effective. Environment officials evidently want to use the trade tools that these agreements create. They want the right to use the threat of trade sanctions to coerce other countries to change environment policies. And they want the right to have broad executive discretion to restrict trade rather than be bound to demonstrating scientific justification for restrictions to protect health and safety.

The interest in using these tools is part of a broader desire to use trade leverage to force other countries to change environment policies. The European Union has made clear it wants to leverage compliance with internal EU environment standards against access to its markets. Unless it has that right it can not impose eco-labels, which verify

that importing countries have done so, without breaching WTO rules. It will also have trouble implementing intra-EU environmental regulations, which will make many industries in the European Union less competitive.

### *Does the WTO inhibit protection of the environment?*

Are there deficiencies in WTO regimes which inhibit action by States and international action to protect the environment? The WTO permits members to restrict imports if they threaten the health and safety of people or flora and fauna. There are conditions on those rights. In general terms, they should reflect recognized international standards or be based on science and underpinned with processes of risk assessment. The WTO also permits technical standards to be imposed to protect the environment, with similar conditions.

The WTO only inhibits efforts to protect the environment if the measures do not respect national sovereignty or if they expressly authorize trade restrictions in the absence of scientific justification. The WTO itself does not rule them out of order, but members would have rights to challenge such measures under WTO disputes procedures. That is why the European Union wants MEAs exempted from such challenges.

### *Are trade coercion and unlimited discretion to restrict trade desirable?*

Since trade coercion and unlimited discretion to restrict trade (in the absence of scientific justification) are undesirable, the onus must surely be on those who propose them to justify their use.

There are long-standing and mainstream alternatives to using such trade measures. The first and most straightforward is to use multilateral agreements to set agreed standards and measures and oblige each Party to implement them in national law. In this way Governments act consensually and collaboratively to advance the collective good by taking common action within their own jurisdictions. No coercion is used. This is how most international conventions work.

It is by no means clear-cut that trade coercion is an effective tool for improving the environment. There is significant evidence that it is ineffective. The most effective controls on environmental pollution are those that apply directly to the source of pollution. National restraints on pollution are far more effective than the indirect threat of a disruption to trade.

Some may argue that protection of the environment is sufficiently important that the rights to trade should be conditioned by obligations to meet environmental standards. Two very fundamental judgements are implicit. First, the importing country has the right to determine the environmental standard that the exporting country should be applying. Second, the balance of interests between environmental impacts and impact on trade is in favour of the environment.

There are potentially grave consequences of legitimizing use of trade sanctions to advance non-trade goals, especially for smaller economies. The multilateral trading system has demonstrated unequivocally its effectiveness in supporting growth. It does this because it prevents Governments from playing politics with trade. This creates a

very basic protection for small economies. Large economies are restricted in how they can use their economic might to pressure small countries through trade.

The multilateral trading system also protects the capacity of members to utilize their comparative economic advantage for national development. Giving large economies the right to restrict trade, unless Parties comply with their preferred non-trade policies, diminishes the freedom of WTO Members to utilize their comparative advantage. The effect of large economies having the right to impose their labour standards on developing economies is obvious. The economic impact of allowing a comparable right with environment policies could be similar.

### *Addressing the problem*

Most of the solutions to the problem of conflict between provisions of MEAs and the WTO focus on how to manage conflicts of obligation. Most are solutions to address the consequence of the conflict, not the cause of the conflict. No effective solution to the problem can be found until the cause is addressed.

If all Governments agreed with the European Union and the sorts of rights it wanted to restrict trade were what they also wanted, the problem would disappear. But they do not. The overwhelming majority of WTO members do not favour legitimization of trade coercion to protect the environment.

There are alternative means to take international action to address environmental problems and these are as available to the European Union as to anyone else. It would seem obvious that these alternatives should be assessed before Governments commit themselves to using coercion.

### *An assessment mechanism*

When new measures for trade coercion or new rights to restrict trade are proposed for MEAs in UNEP or in Conferences of Parties, three fundamental and formal assessments should be made before they are adopted.

- The mutual respect assessment

Provisions to use trade coercion should be assessed against the availability of alternative multilateral approaches, which respect national sovereignty.

- The environmental effectiveness assessment

The environmental effectiveness of using trade coercion or creating unlimited discretion to address specific environmental measures should be assessed against the environmental effectiveness of alternative measures, which mandate national action.

- The economic impact assessment

The economic impact of proposals to use trade measures in environmental agreements should be assessed, first for the specific impact on the trade and economic interests of Parties and second for the impact on the effectiveness of the WTO. Finally, each Government should undertake a national assessment of the overall balance of benefit of the options before deciding to support inclusion of trade measures in MEAs.

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### *Preamble*

The world's most successful companies have in common profitability, the highest return on assets and the largest increases in profits. Countries' economic and corporate development reports provide a clear intelligence service and review to fulfil the reader's expectations; they provide full economic coverage and financial analysis, a company profile and market data. Anyone in business can understand. From school to business activity, the path is well laid out, in an orderly and understandable manner. Usually, a company executive will understand another company executive. Contrary to this, there are many voices on environmental issues because of their diverse characteristics and the existence of several MEAs covering specific domains.

Globalization of economy and finance is meant to provide society with those things needed or desired. However, euphoria over globalization is being challenged by its consequences; environmental degradation continues and is aggravated by the way we produce and consume. It is in this context that one needs to reflect on the relationship between the multilateral and environmental trade systems.

### *Different logics*

The article on trade measures in MEAs is coherent, logical, well documented and articulate. It is difficult not to share some of the concluding remarks, unless one sets aside the doctrine underlying the paper. Without defining what a trade measure is, in the context of WTO, one argues that the BC uses such measures. De facto and derived from this basic principle, the MEA in question needs to ascertain the appropriateness of its trade measures with regard to international rules governing trade.

The following two examples show that different logic could be considered. Measuring impacts of the implementation of the BC on trade requires the development of methodologies that can make sense of complexity. Indeed, the BC interacts with all sectors of society; it encompasses a social, economic and environmental dimension. No one is immune from the potential danger posed by hazardous or other wastes and everyone generates wastes. A typology of defined specific trade obligations (STOs) (from the point of view of WTO) in the BC and an analysis of their impacts on trade would be reductive. Also, if one wants to increase the compatibility of an MEA with WTO rules, then these WTO rules should contribute to environmental protection, otherwise the MEA may fail to achieve its purpose. In addition, one can argue that a distortion in trade flows may be the result of macro-economic choices rather than originating in the so-called trade measures of an MEA. What the implementation of the MEA may do is to reveal or intensify an existing trade tension. Furthermore, in the case of the BC, the uncertainties the article refers to are due to the complexity of the materials covered by the Convention and not because Parties are not capable of clarity. In addition, the diversity of national legislations implementing the BC and national waste management policies adds to this complexity.

The BC was negotiated in the 1980s, adopted in 1989 and entered into force in 1992. It represents a solid foundation for environmental protection, a stronghold for those concerned by or vulnerable to hazardous and other wastes; it is like an island amidst an

ocean of dangers, insecurity and uncertainties. Ironically, the BC exists because of unacceptable trade and business practices in hazardous wastes, known at one time as “imperialistic garbage”. These publicized unscrupulous practices prompted Governments to share their common commitment to bring a halt to this trend and control in a transparent way the export and import of hazardous wastes worldwide. Today, questions are being posed as to whether this architecture is trade-compatible. The primary purpose of the BC was to make available a universal instrument with which to forge international cooperation for a shared set of long-term environmental objectives for the benefit of all countries.

In the BC, the control of the transboundary movement of hazardous and other waste is organized to protect the environment. Parties have obligations to take all the necessary steps to ensure that the wastes subject to transboundary movements are managed in a way that does not endanger the life of people or harm the environment. Therefore, the overall and primary objective of the control system is the protection of human health and the environment. In pursuing such cardinal objectives, the rules of the control system also apply to the trade regime.

### *A changing world*

Seeking mutual understanding is essential. What we want is to be mutually intelligible. You need strong MEAs to face up to the undesirable effects of consumer societies dominated by materialism. MEAs are vivid examples of shared responsibility for the safeguard of the environment worldwide. Today, 158 Parties have accepted this shared responsibility in the BC. The BC calls for continuous improvement in the management of hazardous and other wastes and for the effective minimization of their generation nationally and globally. The Convention is prepared to face changing patterns of development; it is designed to do this. Once again, discussion on trade measures in MEAs should be seen in this evolving context, leaving to one side a theoretical dialectic and focus on how MEAs are applied in practice. Critical to this approach in regard to the BC is the gradual shift in policy from a strong focus on regulation to more market-driven opportunities where certain wastes are perceived as potential resources and where the creation of new markets for wastes is taking place; words such as moving to a recycling economy or recycling society are being used by some Governments. In this regard the BC should provide a framework to guide or accompany such a shift in policy in a way that protects human health and the environment.

### *Developing country perspective*

The spirit, intent and purpose of the BC is to protect, in particular, the State of import from wastes it does not want. The reason behind this is illustrated by the fact that developing countries are still the most vulnerable to dumping of hazardous or other wastes. Concurrently, the same countries are moving towards industrialization, which basically has two effects. On the one hand, the need for secondary raw materials is growing, sometimes rapidly; and, on the other hand, the domestic generation of hazardous and other wastes is increasing, putting more burden on their capacity to manage these wastes in an environmentally sound way.

The toxic heritage that has gradually been uncovered in developed countries over the last two decades should serve as a strong warning to those countries currently building such heritage. Indeed, the costs of cleaning up contaminated sites, for instance, are

colossal and may impact negatively on socio-economic development, whereby improper management of wastes generated can affect health and the environment. Dangerous chemicals in wastes can find their way into the feed and food chain. Such a situation is particularly dramatic when contaminated sites are located near or in poor community areas. At the same time, waste generation is increasing worldwide and every year new complex chemical molecules are being introduced into the market without any knowledge about how best to dispose of them. In short, the current trends in production and consumption may aggravate an already critical situation in regard to the world capacity to manage wastes, whether hazardous or not, in such a way as to protect human health and the environment in the short to long term. As one can see, it is both a matter of priority and a societal choice.

### *Concluding remarks*

It is legitimate and necessary to monitor the implementation of the environmental and multilateral trade systems and review, as required, the rules that govern them. This would guarantee the possibility for both systems to keep pace with development or scientific and technological changes, while being capable of achieving their respective aims. Such exploration would require an analysis, based on experience, for the social, health, environmental and economic implications of policy choices over the short- to long-term period. And, in this regard, one should not lose sight of the fact that the time frame for harvesting the fruits of environmental protection may often differ substantially from the benefits to be gained from trade. The challenge is to anticipate such implications and prevent undesirable effects and their replication from occurring. To do this, a predictable, dynamic or evolving international legal system for the protection of the environment and for trade that contains as few contradictions as possible is crucial. Can this be achieved? The current process of interaction launched by the WTO with MEAs is not satisfactory and leaves progress for mutual supportiveness of the two regimes at a distance.

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According to paragraph 31(i) of the WTO's Doha Ministerial Declaration (DMD) adopted in 2001, WTO Members have been negotiating to clarify the relationship between STOs in MEAs and WTO rules. Dr. Hoffmann's paper sets out to facilitate the negotiation required in paragraph 31(i) of the Declaration. Since he is with the UNCTAD secretariat, his paper accordingly has a particular perspective for developing countries.

Dr. Hoffmann's paper sketches out the specific objectives of developing countries in this negotiation and also analyses three MEAs with STOs. These are the Montreal Protocol (MP), CITES and the BC. The reason why these three MEAs are particularly analysed is that they have a range of STOs and that they are accordingly key MEAs for the negotiation. Several WTO Members of the Committee on Trade and Environment (CTE) happened to propose that STOs in these MEAs should be further analyzed during the negotiations in 2003.

The current DMD-mandated negotiations are being held within the WTO, and thus the focus is on the innovations to accommodate environmental objectives or legitimacies within it. Most WTO Members and the experts concerned are concentrating on how and what to do in the WTO. However, one of the novel and practical approaches in Dr. Hoffmann's paper focuses primarily on international cooperation not within the WTO but within the framework of MEAs. His paper is ambitious to propose *an initiative within the framework of MEAs* for developing countries.

Why does Dr. Hoffmann look at the MEAs rather than the WTO? As was clearly mentioned, certain MEAs with trade measures have multiple objectives. And these objectives may not be best met by trade measures only. For example, even the BC has objectives not only to minimize transboundary movements of hazardous wastes but also to avoid and reduce waste at the point of generation. The former objective relating to trade may certainly be met by trade measures, but the latter may not be. Thus, the problems of MEAs, whose primary objective may not be trade-related, should be resolved mainly within the framework of MEAs.

In the course of finding an initiative within the framework of MEAs, one of the main concerns raised in Dr. Hoffmann's paper was the economic and social difficulty of developing countries in meeting the objectives of MEAs. The reason why developing countries do not comply with MEAs is said to be a lack of compliance capacity, not a lack of political will. The capacity would include an institutional, technical and financial one. It was rightly pointed out that due to the limited adjustment capacities of developing countries they might not be able to afford the costs. Accordingly, developing countries are bound to fail to comply with MEAs.

Again trade measures are only part of the measures to meet the objectives of MEAs. In addition, there are supportive measures such as technical and financial assistance as well as non-trade measures such as information requirements. Dr. Hoffmann's paper seems to emphasize the importance of supportive or positive measures from a developing country perspective. Positive measures, though often subject to misinterpretations, may include technical assistance and capacity building, and financial assistance to help meet the costs in achieving the goals set out in MEAs. The discussion and negotiation of trade measures only may not be a proper approach, especially for developing countries. In other words, there should be a balance between trade measures and positive measures within the framework of MEAs.

In practice, most positive measures cannot be used as required owing to a lack of funding and their voluntary nature, except for the Multilateral Fund of the MP. Inadequate funding certainly prevents the implementation of MEAs, including the implementation-related support for developing countries. Dr. Hoffmann suggests negotiated agreement for the principle of reciprocity between developing countries and developed countries in the framework of MEAs. Thus, while developing countries should comply with MEAs, developed countries should comply with commitments on positive measures. In this respect, the MP, the Convention on Biodiversity and UNFCCC have strict reciprocity so that developing countries are required to implement obligations in return for financial cooperation and technology transfer by developed countries. Among them, however, the MP is the only MEA with trade measures which fixes firmly the reciprocity principle.

Recognizing that positive measures have not always been effectively implemented, Dr. Hoffmann argues that innovative approaches to positive measures may be politically attractive in the light of their potential to reduce the costs of achieving the environmen-

tal objectives of an MEA. Innovative approaches are said to focus on instruments or mechanisms addressing specific interests and concerns of Parties or stakeholders, making creative use of market-based policy tools and harnessing new sources of financing for positive measures. They would include such measures as partnership arrangements for funding and technology transfer, multi-stakeholder and integrated approaches, or tradable emission permits to promote the involvement of the private sector and civil society in achieving the objectives of MEAs.

As a matter of fact, several MEAs with trade measures recognize the existence of compliance problems and costs for developing countries. Certain positive measures have been incorporated to reduce such costs. Dr. Hoffmann suggests that developing countries should understand their needs and capacities for the negotiation of conditions including positive measures, which enable them to fully participate in MEAs and agree to the use of trade measures. This should be clearly understood by developing countries in MEA and WTO negotiations.

Another difficulty with positive measures is that compliance costs may differ widely among developing countries. Thus, the effects and adjustment costs of trade measures would depend on the stage of development, trade intensities of countries and the relative weight of relevant sectors in their economy. The resulting issues to resolve are how to share the burden and achieve equity among developing countries. According to Dr. Hoffmann, distributional issues are the fundamental origin of most conflicts in defining the burden sharing of MEA obligations. This is why they should be further deliberated.

The WTO and the frameworks of MEAs are international regimes established and driven by member countries. As a matter of fact, the WTO General Council should make appropriate arrangements for effective cooperation with other intergovernmental organizations that have responsibilities related to those of the WTO. Certain MEAs must be related to such intergovernmental organizations. If any differences or conflicts arise between those international agreements on trade and environment, they should and could be settled only by the Member countries. But international cooperation is not enough. In this sense, as Dr. Hoffmann indicates, the coordination of policies between trade and environment officials at the national level should be encouraged. These officials often speak with different voices, depending on their positions. Trade officials attending WTO meetings see the world from a trade perspective.

On the other hand, environmental officials attending MEA meetings see the world from an environmental perspective. The wider the gap between trade and environmental officials in a country, the wider the gap between the WTO and the MEAs. In other words, there is a need for cooperative thinking and acting on the part of various national-level agencies and departments, as a prerequisite for more coherent international policy-making. Those different officials working for different departments in the same country should make appropriate arrangements for their effective cooperation before the country conducts negotiations with other countries.

On the other hand, as Dr. Hoffmann indicates, multilateral measures within an MEA may, from an economic perspective, reduce unnecessary trade effects by harmonizing the basket of instruments, thus preventing a proliferation of different national rules. This is true, but another concern is a proliferation of different international rules. Those rules of MEAs, concerning various aspects of the environment, could overlap with each other in certain areas. Thus, multilateral measures within the framework of MEAs should also reduce unnecessary trade effects. If the global protection of the environment is one of the prime objectives of the world in this century, new MEAs are expected to be negoti-

ated and concluded. Then, it is probable that different MEAs will govern the same or similar activities relating to a specific environmental area. Even before conflicts between WTO Agreements and MEAs or between trade problems and environmental ones arise, there might be those between such MEAs. As a matter of fact, this kind of situation was not new in the WTO/GATT system. After the Tokyo Round, there were some side agreements such as the Anti-dumping Code, which were different from the rules in the GATT. Thus there were at least three different systems of rules among GATT contracting Parties — between GATT contracting Parties, which were Parties to a side agreement (applying the side agreement), between GATT contracting Parties, which did not adopt a side agreement (applying the GATT), and between GATT contracting Parties, which were Parties to a side agreement and not (applying the GATT). This kind of compartmentalization of a system of rules was regarded as ill-conceived from a legal perspective. Thus, the Uruguay Round succeeded in making the WTO system unified for all the Members with a few exceptions of plurilateral trade agreements. It would be the same with MEAs. In this respect, Dr. Hoffmann's main theme of an initiative within the frameworks of MEAs is clearly to be noted and worth pursuing.

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At the last minute of a lengthy and complicated negotiating process that took place at Qatar, trade ministers decided to launch negotiations aimed at clarifying the relationship between existing WTO rules and MEAs with trade measures as part of the so-called Doha Development Agenda. It is said that paragraph 31 was the price that the *demandeurs* of the agricultural negotiations, namely the United States and the Cairns Group members, chose to pay in exchange for acceptance by the European Communities of the specific text launching the agricultural negotiations in paragraph 13 of the DMD. It is therefore not a coincidence that both paragraphs 13 and 31 of the DMD are the only places of such Declaration where the phrase “without prejudging their outcome” appears, whatever that may mean in the context of a single undertaking.

Nevertheless, it should be noted that the link between the environment and trade in agricultural products seems to extend far beyond this trade-off at Doha. Indeed, one of the underlying risks that many WTO Members perceive, and particularly those exporting agricultural goods, is the potential misuse of the MEAs either to undermine trade concessions or to justify disguised forms of protectionism. In this regard, justifiably or not, the erosion of the principles contained in the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) appears high on the list of concerns. This concern is even explicitly addressed under paragraph 32 of the DMD, where it is mandated that these negotiations “*shall not add to or diminish the rights and obligations of Members under existing WTO agreements, in particular the Agreement on the Application of Sanitary and Phytosanitary Measures*”. The Cartagena Protocol on Biosafety and its precautionary approach are the main cause of these fears.

It is interesting to note that the issue does not seem to be whether the MEAs are more important than the multilateral trading rules, or environmental agreements can impose trade-restrictive measures in a WTO-consistent manner. Rather, at issue is whether the MEAs could constitute the new generation of unjustified trade barriers of the future and, as a consequence, a potential obstacle to the sustainable development of many countries. This is particularly important for those MEAs that have multiple objectives that go far

beyond the protection of the environment, such as consumer protection and human, animal or plant health, and which are currently regulated under WTO rules.

The cryptic language setting up the mandate of the Special Session of the Committee on Trade and Environment (CTESS) is another by-product of the Doha bargaining process, and it is nowhere more obscure than in paragraph 31 (i) where trade ministers agreed on negotiations on “*the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs)*”. Negotiators have spent several meetings at Geneva trying to sort through this collection of vague terms, which seems to be further convoluted by the lack of expertise of many Members on the subject. Although the importance of an adequate multilateral answer to this issue is self-evident, many developing countries are still struggling to identify their objectives in these negotiations. Indeed, there are many questions and very few answers.

In this context, it is refreshing to read the paper on “Specific trade obligations in multilateral agreements and their relationship with the rules of the multilateral trading system — A developing country perspective”. The author addresses some of the relevant questions arising from the discussions that have taken place in the CTESS. Although there are many undefined issues in this negotiation, including the definition of the MEAs themselves, there seem to be five relevant questions that constitute the backbone of this discussion, many of which are addressed in the above-mentioned article.

The first and most obvious question is the definition of a “specific trade obligation” (STO). As the author clearly explains in his article, this has been one of the controversial issues in the discussions to date, particularly owing to the practice in some MEAs of including a palette of measures. Is there a “specific trade obligation” when the MEA sets a palette of measures from which the Member can choose? How specific does the measure need to be to fall under the mandate? These questions seem particularly difficult in those MEAs where an objective is set, but not the means to achieve it. The exchange of experiences concerning implementation of the provisions of the MEAs amongst the Members has been particularly useful in highlighting some of these issues.

The second question has to do with the definition of “as set out in MEAs”. Some members argue that all decisions taken by the Conference of the Parties (COP) constitute binding obligations, whereas others argue that only the obligations specifically set out in the treaty language of the MEA, its annexes or its ratified amendments impose legally binding obligations. The importance of this question is not obvious at first glance. Given the existing structural disparities, accepting that all COP decisions could possibly establish binding STOs could be tantamount to accepting de facto that the decision-making process of the MEAs can be driven by very few — and usually developed — countries. Given the large number of MEAs and COP meetings that take place every year, and given that usually these decisions are taken by the majority of countries present at the meeting, it could be argued that the second interpretation better fits the needs of those countries that do not have the capacity to adequately participate and follow such processes. As the author explains in his article, it is widely accepted that an ideal preparation to participate in this type of meeting should include national policy coordination amongst all the relevant agencies, including the ministry of environment and the ministry of trade, where appropriate. However, experience has shown in other international forums where the meetings are held in a very dispersed manner, such as the Codex Alimentarius, that developing countries are rarely prepared, and sometimes not even capable of being physically present, to defend their interests in these meetings. The lack of resources and technical capacity are the usual causes for this situation.

The third relevant question has to do with the “relationship” issue. One can imagine a typology of at least three types of relationships between the MEAs and the WTO rules that could be described as follows:

The first type of relationship could be one mutually supportive, where the STO as set out in the MEA supports and reinforces a WTO rule. Not only is this hypothetical situation the ideal one, but also the type of relationship that should be encouraged by Members while negotiating new STOs in the context of the MEAs.

The second type of relationship could occur when the MEA sets a STO that, although partially addressing an issue governed by a WTO rule, allows for a Member to comply at the same time with both the multilateral trading system and the STO set out in the MEA — that is, a non-contradictory overlapping of obligations. For example, this could be the case when a MEA sets an obligation to perform some sort of “risk assessment” of a measure aimed at preserving the life of plants or animals, and it is possible for that Member to perform such an assessment, taking into account the applicable WTO rules and standards in that regard (most notably the SPS and/or Technical Barriers to Trade agreements). Logically speaking, there can be no contradiction when a Member can comply with both obligations at the same time.

Finally, there is a third hypothetical type of relationship where a Member cannot fulfil a STO as set out in a MEA without failing to comply with a WTO rule. It is this hypothetical contradictory relationship that is relevant in the context of the negotiations of paragraph 31 (i), because it is the only one that could generate tension between the multilateral trading system and the MEAs and undermine its mutual supportiveness.

The author does a good job in identifying potential sources of conflict in three specific MEAs (namely CITES, the MP and the BC), and highlights the positive role that “supportive measures” may play in alleviating the potential tension between both obligations. However, it is clear that much work remains to be done, particularly in the analysis of other MEAs.

After the theoretical and definitional aspects have been dealt with, the issues relating to the legal effects arise. This is, arguably, the most important part of the negotiations. It is precisely in these situations of contradiction and tension where the fourth relevant question arises. It has become widely accepted that GATT Article XX (General Exceptions), and particularly paragraphs (b) and (g), provides WTO Members with considerable leeway to protect the environment. However, any Member imposing a WTO-incompatible measure has the burden of proving that it does not constitute a “*disguised restriction on international trade*”. Thus, the issue seems to be whether a STO as set out in an MEA that is in contradiction with a WTO rule should be presumed to be consistent with GATT Article XX and presumed not to constitute a disguised restriction on trade. Additionally, in the case of contradictory measures undertaken under paragraph (b) of GATT Article XX, it should also be determined whether it could be presumed to be “necessary” in the WTO dispute settlement sense. In legalistic terms, the issue is whether the burden of proof should be inverted. As trivial as it may seem, this is a critical element that could easily determine the outcome of a dispute.

One cannot ignore the fact that the issue of the burden of proof under Article XX has been the target of criticism amongst the environmental community, but it is also true that it is a highly sensitive issue amongst the trading community. It is therefore not surprising that some Members argue that the presumption should apply and that there should be an inversion of the burden of proof in these cases, a proposal that faces stiff opposition.

The proposing Members aim at having a common understanding or general agreement on this issue, which they consider to be of utmost importance for systemic reasons. On the other hand, other Members appear to prefer a case-by-case appraisal of the identified STOs, where some sort of list of “approved” STOs could be the end result (the so-called bottom-up approach). It is obvious that the expected final outcome has largely influenced the different procedural proposals by the Members, as described by the author in the section on post-Doha proposals.

It must be noted that the language of the Doha Declaration does not provide a clear-cut answer to the issue of whether an “authoritative interpretation” could fall under the mandate of the CTESS. In this regard, it is particularly important to recall paragraph 32, which states that “[t]he outcome of this work ... shall not add to or diminish the rights and obligations of Members under existing WTO agreements”. Whether there can be an inversion of the burden of proof without changing the balance of rights and obligations under Article XX has yet to be demonstrated by the *demandeurs* of this issue.

Finally, it is to be noted that paragraph 31(i) also states that the “*negotiations shall be limited in scope to the applicability of such existing WTO rules as among Parties to the MEA in question*” and that the “*negotiations shall not prejudice the WTO rights of any Member that is not a Party to the MEA in question*”. The Party to non-Party nexus, as the author calls it in his article, is the fifth relevant question. In this regard, it should be noted that other elements of the *chapeau* of GATT Article XX could be important to this discussion, most notably the obligation of the Members not to impose a measure that could constitute an “*arbitrary or unjustifiable discrimination between countries where the same conditions prevail*”. Although the author downplays the importance of this question owing to the increased participation of Members in the MEAs, one should not underestimate the influence that this question could exert in the future participation of countries in MEAs yet to be negotiated. One could even argue that the current state of play provides an incentive not to ratify any new MEAs, at least not until this relationship has been clarified. Finally, as mentioned before, the issue of STOs assumed under COP decisions could also be largely influenced by this factor. This is an issue that will probably arise only at a very late stage in the negotiations.

The importance of achieving an adequate and balanced result in this negotiation cannot be overemphasized. At stake is not only the maintenance of necessary international tools to protect the environment, but also the means to stop the potential misuse of the MEAs to create unjustified barriers to trade.

## 5 Duncan Brack

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Ulrich Hoffmann’s paper is a very welcome contribution to the ongoing debate on the appropriate relationship between MEAs with trade measures and the multilateral trading system overseen by the WTO. Many of its conclusions about the appropriate design of trade measures (in particular, the need for clarity and flexibility) and about their value in the context of other supportive measures in MEAs, including financial and technological support, should be widely accepted.

The paper does, however, underplay a number of important factors that help us understand why trade measures exist in so many important MEAs<sup>5</sup> and why in practice there is little alternative to them.

### *Political will*

The paper takes the general approach that non-compliance by MEA Parties is generally the result of “lack of compliance capacity (i.e. weak institutional, technical and managerial capacities) rather than lack of political will”. Similarly, “one can argue that concerned developing countries are hardly ever failing to comply with the Convention [CITES] because of unwillingness. Rather a lack of capacity and resources is often the pivotal cause”. In many, perhaps most, cases I believe that this is the correct conclusion, underlining the need for adequate capacity-building mechanisms in MEAs, such as the MP’s Multilateral Fund. However, an analysis of the record indicates that failure of political will *is* an important component in several cases of non-compliance, and the paper does not suggest a means to deal with it.

If one looks at examples of the enforcement of CITES, for instance, it can be seen that at the very minimum in the cases of Bolivia, Paraguay, Japan, United Arab Emirates (on two occasions), Thailand, Italy, Greece, Indonesia, the Democratic Republic of the Congo and Singapore, the problems have stemmed mainly or entirely from an unwillingness to implement CITES controls, not a lack of capacity.<sup>6</sup>

In Bolivia and Paraguay in the late 1970s, for example, the military was involved in smuggling of endangered species, often combining it with cocaine, and an individual in the Bolivian CITES Management Authority collaborated with traders to print blank export permits; action was finally taken under CITES after complaints by other South American countries about the impact of the illegal trade on their own wildlife populations. In the Democratic Republic of the Congo in the late 1990s, export permits were being altered on a systematic basis to inflate substantially the volume of trade authorized (in one case, permits for two birds were altered and used to export 1000 birds). In Italy in 1989, officials from the ministry responsible for issuing import permits failed to attend a training seminar organized by the CITES Secretariat, and on one occasion four chimpanzees (listed in Appendix I of CITES) were exported from the country in full view of customs officials, despite border posts having been informed that the animals should not be allowed to leave the country.

In all of the countries listed above, trade measures were applied successfully to bring the country back into compliance. In no case did the country concerned claim that lack of capacity was the reason for non-compliance — indeed, in many cases, offers of assistance with training, regulatory reform or implementation (e.g. in the printing of tamper-proof certificates) were not taken up, and in other cases, for example Japan, Italy and Greece, lack of capacity could clearly not have been a justification. It is difficult to see what mechanism other than trade measures could have had this result.

In the case of the MP, trade measures were designed primarily for use against non-Parties, as an incentive for membership and a barrier against industrial migration to escape the controls. Again the record shows that a few countries contemplated staying outside the Protocol, manufacturing their own CFCs and other ozone-depleting substances (and therefore contributing to the transboundary impacts of ozone depletion) and exporting products containing them into countries which were part of the regime; the Republic of Korea is the most often cited example.<sup>7</sup> Once again it is difficult to think

of any alternative to trade measures; the Republic of Korea, as a significant consumer of CFCs, would not have been eligible for Multilateral Fund assistance in any case (and has not received any, since it finally acceded in 1992).

In dealing with cases of non-compliance in recent years — mainly amongst transition economies and, more recently, in some developing countries — decisions of the meetings of the Parties to the MP setting out agreed compliance action plans for the countries in question have almost invariably included the threat of trade measures<sup>8</sup> should the countries not meet their agreed benchmarks for returning to compliance.

In citing these examples at some length, I am not trying to imply that MEAs such as CITES and the MP suffer from repeated and deliberate attempts at non-compliance — I would accept, as Ulrich Hoffmann's paper argues, that *most* cases probably derive from a genuine lack of capacity. But self-evidently this is not true in *all* cases, and the paper does not suggest a solution for instances where offers of assistance with capacity building are either inappropriate or ineffective. The use, or at least the threat of use, of trade measures — ideally in combination with the provision of capacity-building assistance — is a necessary component of an effective non-compliance procedure for MEAs.

### *Countries are not single actors*

The second factor to which the paper fails to pay adequate attention is the fact that countries are rarely single actors in international negotiations, or even in implementing domestic regulations.<sup>9</sup> The case of Italy's non-compliance with CITES illustrates what is probably a common problem: "In June 1992, following a mission to Italy, the Secretariat reported little progress, and recommended a suspension of trade in CITES specimens with Italy. Interestingly, this was supported by Italian civil servants, who had stated that the government would do nothing without trade restrictions being imposed".<sup>10</sup> A similar observation was made in a MP Implementation Committee meeting in 2002, when one developing country member observed that the identification of that country as being in non-compliance (with the accompanying potential for applying trade measures) would be valuable in attracting the attention of more senior colleagues at home.

It is unfortunately still the case that many countries, developed and developing alike, do not pay as much attention to environmental issues — including their obligations under MEAs they have signed — as one would like. Trade measures, or the threat of them, may often serve to raise the profile of the issue and ensure that the country fulfils its international obligations. The other aspect of this argument is the familiar problem of a lack of policy coherence, again widespread amongst developed and developing countries alike. It is a common observation that in the cases of the BC and the Cartagena Protocol much of the pressure for the adoption of trade controls stemmed not from developed but from developing countries, many of which lacked an adequate regulatory or institutional capacity to handle imports of hazardous waste or genetically-modified products effectively. This represents a co-option of developed-country institutional capacity for developing country purposes — using trade controls at the point of export to exclude undesirable products from import.

This point is frequently overlooked, however, by many trade negotiators, who often seem to argue that any interference with trade is always unwelcome to developing countries. Given the complexity of the issues handled by modern Governments, and their inevitable tendency to overstretch, it is probably not surprising that different perspectives tend to be put forward by environment negotiators and by trade negotiators, but it is

not all that helpful to the debate at the international level, particularly where it is conducted without sufficient connection between the different communities concerned.

### *The value of trade measures*

The paper's thorough analysis of the three MEAs most often the subject of discussions on trade measures — CITES, the MP and the BC — if anything supports the case that well-designed trade measures have a highly positive role to play in such agreements. All three regimes have displayed considerable flexibility in the design and implementation of trade measures, and the MP in particular illustrates the value of trade measures alongside effective capacity-building mechanisms. There is no question that CITES and the BC would benefit from much better financial mechanisms. Much of the paper's criticism focuses on the BC, probably rightly, although, in common with all MEAs, the Convention possesses the ability to evolve and modify its provisions in response to changing circumstances.

What the paper does not do is to explore whether there are any alternatives, reasonably available, to the trade measures. In our recent paper on the WTO–MEA relationship,<sup>11</sup> Kevin Gray and I analyse the reasons behind the adoption of trade measures, their effectiveness and the availability of alternatives. Our conclusions are that:

Trade measures in MEAs have become more common, and seem likely to continue to be so, as a logical reaction to the transboundary nature of environmental issues and patterns of economic activity. The increasing attention being paid to the problem of illegal trade provides another reason for employing trade measures.

In many instances, trade measures are the only realistic enforcement measure available to MEAs. They can bear a real cost (particularly where trade bans are used against non-Parties or non-complying Parties), and should not in general be adopted in isolation from other compliance instruments, such as financial and capacity-building assistance. Nevertheless, trade measures in MEAs can be an effective tool and should always be considered when the MEA is designed.

Our conclusions are supported by the OECD study published in 1999, which concluded that:<sup>12</sup> “in general, trade measures can be an appropriate policy measure to use ... *inter alia*: (a) when the international community agrees to collectively tackle and manage international trade as a part of the environmental problem; (b) when trade controls are required to make regulatory systems comprehensive in their coverage; (c) to discourage free-riding which can often be a barrier to effective international cooperations; and (d) to ensure compliance with the MEA”.<sup>13</sup>

### *The need for dialogue*

The paper correctly identifies the need for real dialogue between trade and environmental regimes, a process which seems surprisingly difficult to achieve in any meaningful way, given the problems of national policy coherence mentioned above, the limited freedom of MEA and WTO secretariats, and institutional failure on the WTO side (granting observer status to MEA secretariats, even if it is achieved, is hardly a real dialogue).

I have my doubts whether the paper's suggestion about the CTE drawing up a list of problem MEA trade measures, and then bringing them to the attention of the MEAs

concerned, is quite right — a bilateral dialogue between CTE and MEA designed to discuss potential problems in the WTO agreements just as much as in the MEA would be more helpful — but the concept of shared discussion is clearly what is needed. UNCTAD, along with UNEP, should have an important and valuable role to play in this process, and also in designing capacity-building initiatives that can help national Governments to implement MEAs and the WTO agreements in a mutually supportive manner.

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Ulrich Hoffmann's paper presents a strong agenda for developing countries to pursue both in the context of the Doha Work Programme within the WTO and in future MEA negotiations. In this comment, I propose to address two key contextual elements: the current state of WTO law as it relates to MEAs and the new dynamic in MEA negotiations that sees developing countries play a strong role as "demandeurs" of global environmental management rules, including trade rules that help protect their environment. This will be followed by some thoughts on Dr. Hoffmann's proposed way forward in the Doha Work Programme.

### *Setting the legal context: The existing state of law on MEAs in WTO rules*

There is often the impression of a battleground between trade agreements and MEAs, a battleground with no existing rules or defined approaches for resolving potential disputes between the obligations that States may take on. Neither of these impressions would, however, be true or accurate.

The basic presumption that States understand their international law obligations and do not take on further obligations that are in conflict with existing ones underlies the rules of international law relating to treaties.<sup>14</sup> In the event that this presumption cannot be maintained, the Vienna Convention on the Law of Treaties, a Convention which the Appellate Body (AB) of the WTO has referred to on too many occasions to mention, sets out additional rules to follow.

First, the Vienna Convention allows States to identify which obligations should prevail over others in the event of conflicts with other obligations that may arise from the text of an agreement they are negotiating.<sup>15</sup> This was not done in the WTO Agreements,<sup>16</sup> but it is an increasingly common feature of MEAs. MEA clauses that either require the primacy of trade law in the event of conflicts or that require mutually supportive interpretations aimed at preventing conflicting interpretations can be found in most recent conventions.<sup>17</sup> These provisions allow the Parties to establish their own hierarchy of obligations should a conflict arise. The WTO negotiators did not do so. In the absence of such a provision in an agreement, reliance shifts back to a number of technical rules in the Vienna Convention in an effort to determine which treaty obligations should prevail over another in the case of a potential conflict.

It is worth noting that to date, no trade law case that has directly or indirectly involved the substance of an MEA as part of the analysis has had to go this route. Indeed, what the AB has done when there is a potential relationship between an MEA and WTO law is establish a process for looking at the content of an MEA as an aid to analysing the interpretation and application of trade rules.<sup>18</sup> In doing so, the AB has made it clear that it is not per se bound by an MEA, but rather that the contents of an MEA gives a sound basis for examining whether trade disciplines may or may not be complied with in any given dispute. In short, the AB has responded to the WTO Singapore Ministerial Conference's call for trade and environment regimes be developed in a mutually supportive manner by acting in a pragmatic and rationally based fashion, beginning with the presumption of non-conflict in the Vienna Convention on the Law of Treaties.

The best-known instance of this approach is the so-called Shrimp-Turtle case, between India, Malaysia, Thailand and the Philippines as claimants and the United States as the defendant. The case, or rather series of cases,<sup>19</sup> involved a US prohibition on shrimp imports into the United States that were not certified as complying with US shrimp fishing standards. The details of the case are beyond the scope of this analysis. What is important here is that the AB used a regional agreement on preservation of sea turtles for the Atlantic and Caribbean basin countries as one basis for interpreting and applying the rules found in Article XX of the GATT, 1994.<sup>20</sup> Indeed, it went so far as to rule that it was appropriate to do so in the face of the objections of Malaysia.<sup>21</sup>

In essence, the AB used the regional MEA in a manner that is analogous to the role of an international standard.<sup>22</sup> When a WTO Member follows an international standard in its domestic measures, it is presumed to be consistent with its trade obligations. While the AB did not give the regional MEA such a legal presumption, it did suggest that following an MEA's terms was important evidence that a WTO Member would not be in breach of its trade rules. Whether a global MEA could be further analogized to an international standard in terms of receiving a presumption of trade law consistency when a specific measure is adopted pursuant to it has never been tested in the dispute settlement process.

Moreover, the AB took this approach without any apprehension that the complaining Members of the WTO were not Party to the treaty. In fact, the treaty in question had been negotiated and signed at that time, but was not even ratified by its signatory Parties. It also looked, in the course of its analysis, not just at what may be termed specific trade measures, but at a range of measures that Dr. Hoffmann would describe as positive measures, designed to improve the compliance potential of the developing countries that had negotiated the treaty. By using the regional convention, the AB gave itself a touchstone that assisted it in defining the appropriate balance in the dispute before it, between unilateral measures impacting on the trade of the developing countries in question, and the protection of the environment.

In short, the AB used the regional Convention to help develop its view of a mutually supportive trade and environment concept in the case before it. It went beyond the mandate now found in the Doha Work Programme in that it did so in the context of a Party and non-Party to the Convention, and beyond any STOs in the Convention. The Doha mandate is therefore but a small carve-out of the relationship between trade and environment agreements that the WTO has already found a constructive approach for dealing with.

As part of the legal context, it should also be understood that all environmental measures taken to implement an MEA today are fully subject to trade law. The fact that they

are taken to implement an MEA does not remove them from this trade law coverage. Thus, the recommendation of Dr. Hoffmann that developing countries advocate the introduction of some discipline for discretionary measures taken pursuant to an MEA may be redundant: such disciplines already in fact exist under the GATT, TBT Agreement, and so on. What else might be added to these just because the measure might be associated with an MEA? Should the rules be more “liberal” or more “constraining” because of this connection? In any event, this issue is outside the current mandate of paragraph 31(i) of Doha.

### *The changing policy context: Changing pressures to protect a fragile planet*

The protection of the environment is often seen, especially in the trade policy community, as a developed country objective, which usually by design, has the developing world paying the economic price.<sup>23</sup> In some past circumstances, this has been the case: we are all aware that environmental protection has acted as a smokescreen in some cases for a national measure that is really intended as trade protectionism. The trade law system has a role to play in preventing such an abuse, while at the same time ensuring that legitimate measures to protect the environment are not struck down.

The negotiation of MEAs is different, however, from the enactment of domestic environmental measures that impact on trade. Several checks and balances exist in a multilateral negotiation that limit the role of protectionist interests in any one country, and promote a balance of benefits and costs. In this context, Dr. Hoffmann’s call for improved analysis in the negotiation of trade measures in MEAs — and, one might add, in the negotiation of all environmental measures impacting on trade or other economic activity — is most appropriate. The better the analysis, the less the risk of intended or unintended negative impacts being visited disproportionately on developing countries, which may share little by way of contribution to the causes of the environmental problem. Developing appropriate criteria (science-based in so far as economic analysis can support a rigorous analysis) and processes to assist in this regard would be welcome. Equally, developing better tools and processes for the ongoing analysis of the effectiveness and implementation of existing agreements would be worthwhile. But such an effort cannot be undertaken by the WTO alone: only the agencies responsible for MEA negotiations can appropriately initiate such a process at the international organization level, as only they are responsible for their agreements and negotiations.

Significant agreement with Dr. Hoffmann on many of these points should not, however, create an assumption that the present author believes there are legal conflicts between trade law and trade measures (or measures with a trade impact) in MEAs. Indeed, Dr. Hoffmann highlights the likelihood that only the BC raises serious risks today of such a conclusion, a view that itself suggests that the need for more extensive reviews of this by the CTE during the present negotiations may be unnecessary. For my part, I would debate even that risk with him in a most vigorous way, more space permitting. The point here, however, is that the development of better tools to help negotiators and those charged with implementing MEAs to understand the impacts of their decisions and efforts is, in its own right, a good thing. It simply works to maximize benefits while minimizing the costs. To the extent that trade disciplines can help inform such tools, it is hard to find any principled grounds for denying such a role.

Where more context is required in order to grapple with the WTO/MEA relationship, however, is at the starting point: the demand for MEA negotiations in the first place. Here, the three or so decades since the start of modern international environmental law

have seen a very significant growth in the diversity of demands to address global environmental issues. While the ozone layer may have been a cause championed by developed countries, the impacts of a failure to respond would certainly have been felt by all countries. Climate change and the protection of biodiversity have also been defined by some as emanating from demands of the north, although certainly the impacts of climate change spawned a whole set of demands from the small island developing countries during the original climate negotiations from 1989 to 1992, and the Kyoto Protocol negotiations from 1995 to 1997. And climate-change-related impacts will fall most heavily on those with the least ability to adapt: the poor in developing countries.

Other MEA negotiations have unquestionably been at the demand of developing countries. The BC, and the ban amendment that may or may not enter into force in its current form, have been the result of demands from the developing countries that, quite rightly, felt abused by the dumping of hazardous wastes from developed countries in their territories. The measures adopted sought to end this practice and have largely done so. Other objectives, including the development of higher standards for waste treatment and reduced waste generation, remain work in progress. Similarly, the Rotterdam Convention on the trade of hazardous chemicals and pesticides was a long-standing demand of developing countries concerned that hazardous chemicals banned in their country of manufacture were being used and dumped in developing countries that did not have the internal capacity to regulate them properly. Perhaps most notoriously, and potentially of great economic relevance over the next decade, the Cartagena Protocol on Biosafety was negotiated as a demand of the south that was left unaddressed in the Biodiversity Convention negotiations of 1992 — to protect the biodiversity of the developing countries from imported genetically altered species. Although the Cartagena Protocol is often described as resulting from the “frankenfoods” concerns of European consumers, it is in fact a demand of the developing countries based on broader environmental and human economic and social concerns.<sup>24</sup> Not only does the Protocol set out a specific risk assessment process to be completed before any trade in genetically modified organisms, but it also includes a number of other positive, capacity-building measures in Dr. Hoffmann’s terms, and sets out a specific rule for exporting countries or exporters to pay the costs of the risk assessment, which trade law otherwise requires importing states to absorb.

The main point here is that the historical conception of MEAs as bulwarks of developed country objectives is past history, if it was ever in fact accurate. In practical terms, this recognition means that tools must be conceived of today by developing countries in much the same way as developed countries — as tools that can help balance the achievement of environmental objectives with equity in the costs for achieving those benefits. Associated positive measures are undoubtedly one element here. But, fundamentally, the understanding that there is a developing country requirement for the pursuit of a balanced MEA/WTO relationship also needs to be clearly recognized.

### *The way forward under the Doha mandate*

If these two broader issues add to the contextual underpinning for Dr. Hoffmann’s paper, what relationship may they have in defining the way forward, the ultimate point of the main paper? The following comments and suggestions are offered.

One overall critique of Dr. Hoffmann’s paper might be an overstated confluence of the WTO Doha mandate and his view of how to do a better job in MEA negotiations to ensure that trade and other measures are demonstrably effective without unduly compro-

mising the development interests of developing countries. In broad terms, the present author would agree with almost all of the propositions put forward by Dr. Hoffmann for a better articulation of MEA provisions, and a process for an effective review of them from time to time once they enter into force. Where I would respectfully disagree with the proposal in the paper, however, is on the role of the CTE/WTO in moving to that point.

The question, in essence, is whether the CTE, and by extension the WTO, should place itself in a position to police or review existing MEAs under the guise of the Doha mandate, or should make itself responsible for setting negotiating parameters or processes for future MEAs. Should the CTE be an agency that is made responsible for looking for potential legal conflicts between MEAs and WTO Agreements, or even more poignantly, for policy errors from a trade perspective in MEAs when these are not leading to actual conflicts with trade rules?

The appropriate response to concerns with certain elements of any given Convention, after it has been drafted or once it has entered into force, must be carefully considered before this becomes a basis for creating a broad policing or policy review role for the WTO. Nothing in international law, and certainly nothing in the WTO Agreements, has given the WTO a mandate to undertake any form of oversight role over other agreements. Moreover, nothing in the WTO Agreements requires that, in the event of conflict, the rules within these Agreements must prevail. The approach of the main paper, as I understand it, could essentially create this as a *de facto* state of affairs, taking the WTO beyond its legal mandate. Concerns in this regard are not alleviated by the idea of the MEA body then taking charge of developing a response, given the additional trade-based conditions Dr. Hoffmann then suggests for the response parameters.<sup>25</sup>

The scenario envisaged in the main paper also has an extended logical flow: the WTO pursues a review, recommends changes, the MEA body rejects these, and a basis for promoting trade litigation against an MEA has been created. While increasing the risk of a challenge does not mean it will succeed — and a reconfirmation by an MEA of the importance of a measure would be important in this context — the potential for generating such litigation should be carefully considered.

What alternatives might be considered? First, the conduct of the Doha negotiations should be understood as taking place within the absence of any supremacy clause in the WTO Agreements, the legal approach set up by the AB in the *Shrimp-Turtle* case and the fact that all environmental measures by a WTO Member with a trade impact are covered today by the WTO Agreements. It is important to understand this because the Doha negotiating mandate creates risks that the current state of affairs, which is principled, rational and potentially effective for a longer-term vision of promoting a mutually supportive context that reflects the absence of any supremacy clause in the WTO Agreements, can be significantly altered. In particular, care should be taken to ensure that no implications are developed for addressing the Party/non-Party and non-specific trade measure issues left out of the Doha mandate — issues that the AB has already established are not a bar to effective analysis of the obligations found in an MEA. Also, care has to be taken not to address the issues in such a way as to create a disincentive for States to join an MEA: a legal suggestion that non-Parties to an MEA may have greater trade rights and remedies than a Party could, create just such a disincentive.

Second, look at more cooperation between agencies, not policing. Here, the inability of the WTO to even make a simple decision to allow intergovernmental MEA bodies

into the negotiating room as observers during MEA-related negotiations continues to detract from the declared intent of the WTO to pursue a mutually supportive agenda.

Third, the focus should be on the MEAs and a process for negotiating trade-impacting measures in a more analytically appropriate way, including the bottom-up concerns expressed by Dr. Hoffmann. This would help prevent unintended negative impacts (not itself a ground for a measure to be found inconsistent with trade law), and allow for more deliberate distinctions between different developing countries. This second aspect would help facilitate additional positive measures, or at least a better targeting of them. There may well be a constructive role for the WTO to play in this process, but giving itself the mandate to take a lead role is not it.

Fourth, look for more effective review processes within the MEAs. Review processes in fact exist under specific provisions or under the general powers of the body responsible for the Convention. It is generally how they are used, rather than the absence of an available process, that is of concern. But this again is not a specific matter for the WTO to lead on.

Finally, in cases of disputes, the WTO can address the issue of who can interpret agreements. The WTO's Singapore Ministerial Conference already recommended that if there is a direct conflict between trade law and a measure to implement an MEA, this should be resolved first by recourse to the MEA dispute resolution process. Should a matter go to the WTO process, however, who should interpret the MEA? This issue arises directly from a decision of the AB that any WTO panel or the AB may interpret the provisions of an outside agreement on its own. While, ultimately, a panel or the AB itself must establish the law they will apply in a given case, it seems inherently reasonable that outside expertise be sought when areas outside the WTO Agreements are involved. This is already available under the WTO's Dispute Settlement Understanding and has been utilized on many occasions. Promoting this is something that the WTO can do under the Doha mandate as it helps address the issues it is based upon, while not altering the rights and obligations of the WTO Parties.

## 7 Youfu Xia

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The paper of Dr. Hoffmann is very well written and gives an in-depth overview of the subject. A few observations should, however, be made.

First, it is very important to mention that STOs mean trade measures that are explicitly provided for and mandatory under MEAs. They must not be arbitrarily interpreted or substituted for other measures. These measures are designed to achieve the objective of MEAs — that is, to protect and improve the global environment and/or natural resource management. STOs set out in the provisions and annexes of MEAs are the least disputable, because it is reasonable to regard amendments of MEAs and related decisions by the COPs as constituent parts of MEAs. However, given the various situations in which amendments and decisions were made, it is preferable that STOs contained therein be identified on a case-by-case basis. Also, developing countries should insist on clear defi-

nitions of STOs alongside the use of objective, science-based criteria for their application. This will be important for ensuring the effectiveness of the STOs in MEAs and avoiding the risk of such measures being regarded as arbitrary and/or unjustifiably discriminatory or as a disguised form of protectionism. The appropriate level of protection of the environment should be clearly defined, even when applying a precautionary approach, which should only be used in very special and well-defined situations.

Second, due attention should be paid in the further WTO negotiations to the definition of MEAs covered under paragraph 31(i) of the DMD. MEAs should have been negotiated under the auspices of the United Nations system. An MEA should have a substantial number of contracting parties, which also account for a majority of WTO Members. The agreement should be open for accession by relevant parties on the basis of terms applied to the original contracting parties of the agreement. These MEAs should also contain explicit trade measures, whose implementation has a significant trade impact.

Third, after establishing criteria for identifying MEAs and STOs, a “bottom-up” approach, as outlined in Dr. Hoffmann’s article, should be followed.

Fourth, with reference to paragraph 31(i), paragraph 32 of the DMD highlights that negotiations “shall not add to or diminish the rights and obligations of Members under existing WTO agreements, in particular the SPS Agreement, nor alter the balance of these rights and obligations”. Since the WTO and MEAs have equal international legal status, it is very important, but at the same time difficult, to deal with the Party to non-Party nexus, and to solve the conflicts between STOs stipulated in MEAs and WTO rules. The negotiations should aim at developing guidelines for dealing with the relationship between STOs in MEAs and WTO rules. These guidelines should be followed when the WTO or MEAs make amendments to their rules in the future and when the dispute settlement bodies of both WTO and MEAs deal with cases of related disputes. As outlined in the report of the CTE to the first Ministerial Conference of the WTO in Singapore in 1996, WTO members should attempt to resolve conflicts concerning the use of trade measures for environmental purposes through the dispute settlement mechanisms provided by the MEAs. The improvement of effective compliance and dispute settlement provisions in MEAs would encourage the settlement of these disputes in the context of the MEAs.

Finally, implementation of special and differential treatment for developing countries is also very important for this subject. Developing countries need to stress that trade measures are generally an integral part of a package of measures. Supportive measures to be provided by developed countries should be made a mandatory requirement.

## 2. COMMENTARIES ON ARTICLES 2 AND 3: ENVIRONMENTAL GOODS AND SERVICES

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Those helping to inform the current WTO negotiations on environmental goods and services could probably recite paragraph 31 (iii) Doha Development Agenda (DDA) from memory. But what WTO ministers had in mind when they agreed to its inclusion in the DDA is not self-evident from the text, and several interpretations are possible. Indeed, it is quite probable that the ministers wanted to leave open not only the scope but also the modalities and outcome of the negotiations. Alexey Vikhlyaev amply illuminates the entrance to most of the possible paths the negotiators may take; in this brief commentary I would like to explore one of those paths in detail.

The paragraph 31 (iii) instruction could be satisfied if, at the end of the market access discussions, some progress had been made in reducing tariffs on all non-agricultural goods and if environmental goods (however defined) faced tariff or non-tariff barriers that were *no higher* than those applied to other goods. Most readers of paragraph 31 (iii) assume, however, that the WTO ministers wanted barriers to trade in environmental goods to be lower than the average for other goods, and perhaps eliminated completely. Let us assume, for the sake of argument, that this was the intent of WTO ministers.

The question then arises: did they envisage simply giving a temporary boost to environmental goods, or establishing more permanent tariff margins? Surely they meant the former, since to think that they had in mind establishing permanent tariff margins for a particular sector, especially one as fuzzily defined as environmental goods, would imply a fundamental change in the objectives and principles of the WTO, and of the multilateral trading system. It would mean abandoning the (albeit elusive) goal of progressively reducing, *with a view to eventually eliminating*, tariffs on *all* goods. And it would engage WTO members in an unending process of deciding whether particular goods qualified as suitably “environmental” or not — a process that would involve much higher stakes if the designation of “environmental” made a permanent 5-10 per cent difference in the tariffs applied to a new type of good.

Of course, given the normal interval between multilateral trade talks, even “temporary” tariff margins could last for a decade or more. During that time, at least some of the goods that made it onto the agreed list, or lists, would become technologically obsolete, and some new goods would appear. WTO Members could decide to treat an agreed list of environmental goods as unchangeable, but that would be against precedent. Moreover, the pressure to revise the list can be expected to increase over time. As Alexey Vikhlyaev notes in his paper, probably half of the environmental goods that will be in use 10 to 15 years from now are not yet on the market, or may not even have yet been invented (OECD, 1996<sup>27</sup>). Bringing such goods into a sectoral initiative is not in itself difficult — it is being done under the Information Technology Agreement (ITA), for example — but it does require delegating that responsibility to an institution with the requisite technical expertise, or establishing a new one to do the job.

Obsolescence is certainly an issue for goods defined by their relative environmental performance, such as energy-efficient refrigerators. But it could also apply to some very specific goods that might initially be included on an agreed list because the technology itself was deemed to be environmentally preferable at the time. It is likely — in fact, virtually certain — that some of these “environmental” technologies may be found later to have some undesirable side effects.

Catalytic converters attached to automobile tail pipes, for example, were once described as a miracle technology. True, they proved highly effective in reducing the amount of volatile hydrocarbons, carbon monoxide and nitrogen oxides in automobile exhaust. But they also imposed a small energy penalty, decreasing fuel efficiency and thus increasing emissions of carbon dioxide. It was not until more than a decade after they were first introduced that researchers found that they also contribute to other forms of pollution, such as the dispersion of metals along roadways (Ely, Neal, Kulpa, Schneegurt, Seidler and Jain, 2001),<sup>28</sup> and emissions of nitrous oxide (N<sub>2</sub>O), a potent greenhouse gas (Commission of the European Communities, 1998;<sup>29</sup> Wald, 1998).<sup>30</sup> Moreover, catalytic converters require specialized handling when they are disposed of, if their catalysts — platinum, palladium and rhodium — are to be recycled and not dispersed to the environment.

That is certainly not to say that catalytic converters, especially advanced three-way catalytic converters, do not remain, on balance, a class of technologies that can continue to help control pollution. But it does suggest, as one US EPA official is reported to have quipped, “[y]ou’ve got people trying to solve one problem and, as is not uncommon, they’ve created another” (Wald, 1998) and that therefore a technology considered “environmental” today may be regarded as less so in the future.

Does that mean that some goods may have to be “de-listed”? Probably not. Dropping a good from the product coverage of a tariff-reduction or elimination agreement would presumably be done in most cases for symbolic reasons only: once a tariff is bound, it cannot be raised to an earlier, higher value, except through procedures specified under Article XXVIII of the GATT. What we may very well end up with, then, is an ever-expanding list of environmental goods. That may be no bad thing, inasmuch as it reduces trade barriers on more and more industrial products.

Alexey Vikhlyaev makes an important related point connected with this problem in respect of developing countries, in observing that “second- and third-best solutions are often not an efficient and effective way of overcoming resource-management problems”. While environmentalists in developed countries may hope that newly industrializing countries will leap over their developed country counterparts, and embrace the latest, cleanest, most energy-efficient goods, the reality is that in many, if not most cases, the industries and consumers in these countries will opt for goods that simply perform better environmentally than the goods they were using before: in a choice between cheap and cleaner and expensive and cleanest, cheap and cleaner is likely to win out.

That is what is so attractive about the notion of increasing the number of “entire plants” or systems covered by unique customs codes. As a recent OECD<sup>31</sup> study points out, creating product descriptors for entire plants or systems would keep the focus on function and circumvent the “limited shelf life” problem of environmental technologies, while reducing the uncertainty over classification and customs duties associated with constant technological change. It has been argued this would ensure that plants incorporating the latest technologies are not at risk of losing their tariff advantage. But, equally,

it would help ensure that “tried and true” technologies would also continue to benefit from any paragraph 31 (iii) initiative.

What all the above leads to is a conclusion that if the current round of WTO negotiations eventually leads to a separate deal on environmental goods and services, discussions about coverage and classification are likely to continue beyond the end of the round. That suggests that some institutional structure would need to be put in place to periodically review and update the list, and to deal with a host of highly technical issues. The time to start thinking of what that institutional structure might look like is sooner rather than later.

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Paragraph 15 of the DMD has established an indicative time table that marks a starting point in the negotiations on market access in services through the request-and-offer process. Since then, classification issues have gained in importance and have become a crucial issue in the negotiations. This is understandable. A classification of services sectors is used as a basis for national schedules of specific commitments. And although the General Agreement on Trade in Services (GATS) does not oblige Members to use any specific classification, which means that governments are free to choose any reference they prefer — the CPC, W/120 or any other — at the end of the negotiations any classification included in the schedule of commitments becomes legally binding.

Since the beginning of the negotiations, Members with commercial interest in particular sectors started meeting informally, in parallel with the bilateral and multilateral negotiations, with a view to having in-depth discussions on sector-specific classification proposals. The idea was that the discussions, and their results, would facilitate the negotiations on market access. The European Communities (EC), which have a strong commercial interest in environmental services, have played a leading role in the discussions, promoting their own classification proposal. These informal discussions have been a good opportunity for Members to explain in detail their positions, clarify and understand interpretations and express their concerns regarding this sensitive sector. In general, Members have reiterated their positions regarding the liberalization of environmental services.

The proposal of the EC is certainly the most ambitious one. It suggests the creation of seven environmental sub-sectors, instead of the current four, based on the various environmental media. The most controversial point is the section called “Water for human use and wastewater management”, which includes two sub-sectors. The first one is a new sub-sector called “water collection, purification and distribution services, through mains, except steam and hot water”. The second one is consistent with the current “sewage services” included in the W/120 classification.

Some other developed Members have made concrete requests regarding environmental services to a large number of countries, suggesting the use of their own classification proposals. Since the exchange of initial offers, a group of Members, mostly developed countries, have included in their offers new commitments on an environmen-

tal services sector, while others decided to reclassify the old ones using their own classification proposals.

These developments need to be analysed very carefully because of their possible implications for the legal certainty of the commitments made during the Uruguay Round. A large number of the Members, some developed and many developing countries, still have concerns about the positive and negative effects of liberalizing this sector. One way to help developing countries in this matter is to establish a framework that would pin the classification issues to concrete market access opportunities and existing trade barriers.

As far as developing countries are concerned, it is not clear how and under what conditions they could benefit from the liberalization of trade in environmental services under the GATS negotiations. It is well known that the sectors and sub-sectors of environmental services included in the W/120 or in the various classification proposals require a high level of investment and expertise. These are services that are provided mainly by developed countries. Some developing countries are interested in the sector because they have developed expertise in activities *related* to environmental services. It is therefore necessary for other Members to participate in the classification discussions and provide examples or ideas of areas and services of actual or potential export interest to them. Some Members argue for the development of a model list that could include some new services and activities specific to the environmental sector and could be used in market access negotiations. This is an interesting idea that needs to be considered in more detail.

Until now, discussion on classification has maintained a spotlight on “core” environmental services, leaving out the so-called conceptual services. However it is with the latter that developing countries could have export interests. Incidentally, in these sectors, services are generally provided through the temporary movement of natural persons.

There are other important issues that await further analysis. Developed and developing countries have doubts about the liberalization of some of the sub-sectors because of the legal complexities surrounding the concept of a public service. This is reflected in the uncertainties, grey zones and different interpretations that still exist regarding some provisions and definitions of the GATS, for example Articles I:3(c), VI:4, VIII and XIII. A thorough analysis of these complexities should precede, rather than follow, any further liberalization commitments.

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The Doha mandate covering environmental goods and services offers an opportunity to expand the availability and profile of green goods and services in global markets. As tariffs and other barriers to trade come down, so too do the relative prices of such goods and services. Net environmental benefits result from the offsetting of environmental benefits that green goods and services yield, compared with their non-green counter-

parts. The extent of those environmental benefits depends on the environmental product or service in question. It also hinges on two additional considerations, the first of which is the level of pre-existing tariffs and non-tariff barriers prior to liberalization. The deeper the price decrease (including action to change price raising subsidies), the higher the demand response, assuming quality, reliability and availability of environmental goods and services is addressed. The second consideration is the timing of the implementation of this agenda, compared with across-the-board liberalization and market access commitments identified throughout the Doha Development agenda.

The Doha agenda implies that liberalization of environmental goods and services should precede across-the-board liberalization. If that is not the case, why then bother drawing special attention to green goods and services in the first place? Soon after the Doha ministerial meeting, many experts predicted an “early harvest” of action under this item. Early action is pivotal if the agenda is to yield meaningful environmental benefits, since early liberalization would reduce the price gap between environmental and non-environmental goods and services. Typically, the price premium for many environmental goods and services is 10 per cent. As price differences decline because of action by the WTO, consumer demand will increase, assuming that other factors that determine consumer preference — quality, availability and reliability of supply — are addressed elsewhere by suppliers.

After almost two years of discussions, some WTO Members now propose to flip the sequence of this agenda item. Rather than early action, they now suggest that Members should proceed with across-the-board liberalization, and then tackle any residual trade barriers that linger around green goods and services. Not only is such an approach minimalist, it also neutralizes the promise of price benefits in support of green markets inherent in the Doha agenda.

One of the reasons this agenda has made little headway is the nature of environmental policy. For over 30 years, the main focus of environmental action has been to identify, measure and mitigate environmental damage. Most environmental policy focuses on what could be termed environmental “bads” — galvanizing action to lower incidences of toxic and hazardous wastes, greenhouse gas emissions, acid rain or persistent organic pollutants. Given the sweep and depth of environmental risks facing countries, particularly developing countries, much less attention is spent on identifying positive environmental goods or services.

This gap between environmental goods and bads has spilled over into how best to classify environmental goods and services in a way that makes sense for the WTO. As Alexey Vikhlyaev correctly explains in his comprehensive and well-argued paper, the most clearly delineated group of environmental goods and services includes pollution management, such as end-of-pipe pollution abatement equipment like scrubbers, catalytic converters, hazardous waste and wastewater treatment technologies, and sanitation services. From a tariff classification point of view, most of these goods are produced and used exclusively for environmental purposes, and thus avoid thorny classification problems associated with end-use or dual-use classification problems. Moreover, these goods and services comprise the bulk of the roughly US\$ 550 billion per annum environmental market.

Action by the WTO to reduce the cost of pollution abatement, wastewater treatment and sanitation services where they are needed most — in developing countries — should be welcomed. While tariffs and tariff barriers affecting pollution equipment is low or zero in most industrialized countries, they are higher in some developing countries. For

example, Argentina, Brazil, China, Chile, Malaysia, Indonesia and Thailand all apply most-favoured-nation (MFN) tariff rates for environmental technologies that exceed 20 per cent. Action by the WTO that could lower the cost would contribute — albeit modestly — to the achievement of the Millennium Development Goals.

However, for the WTO to settle for liberalizing pollution control technologies is a mistake, for several reasons. First, it bifurcates the actual characteristics of environmental markets into end-of-pipe technologies and services on the one hand, and the most dynamic and fastest growing segment of environmental markets — consumer-oriented goods and services — on the other. In that bifurcation, the WTO risks distorting 30 years of environmental policy, which has moved from tackling pollution and other environmental damage after they occur, to preventing them before they are generated. Second, action on pollution control alone sends a signal that only industrialized countries have a comparative advantage in environmental goods and services, a notion that is grossly incorrect and divisive. Mr. Vikhlyaev notes that roughly 90 per cent of all trade in pollution control technologies originates from industrialized countries, and rightly argues that a reduction in their final price through WTO action would deliver general welfare gains to developing countries by way of cleaner air and water. Of course, he is right, but one could argue that any action towards import liberalization brings with it general welfare gains.

However, the WTO agenda needs to recognize equally the export interests of developing countries. This would help reduce the north-south divide that has crippled the work of the Committee on Trade and Environment since its inception, and reflect the actual characteristics of environmental markets.

Today, environmental goods and services include hundreds of items, from energy efficiency appliances to renewable energy, from a wide range of consumer goods such as recycled paper and plastics, to sustainable forestry products and zero emission or hybrid automobiles. Consumer interest in market niches for which developing countries have a very strong comparative advantage are growing. Examples range from Mexican “shade” and sustainable coffee to very strong projected demand for environmental or sustainable tourism.

Clearly, the WTO has neither the mandate nor expertise to sort through hundreds of possible goods and services, and then consider if they ought to be given special attention under preferential or accelerated liberalization. Hence the need for WTO Members to work closely and purposefully with their environmental and developmental counterparts in order to identify goods and services on a product-by-product basis.

The best way to begin this cooperative effort is to align the work of the WTO with priorities established in MEAs. The information exchange mechanisms between the CTE and MEA Conventions have already been set by the Doha agenda. Potential action could begin on three fronts.

First, goods and services supportive of the Convention on Desertification and ongoing work of the United Nations on sustainable forestry should be identified. Second, specific products and services which support targets and timetables identified in the UN Framework Convention on Climate Change and the Kyoto Protocol should be identified. For example, a wide range of energy-efficient household and office electrical goods are now produced and increasingly consumed in developed and developing countries. Energy efficiency has a proven record in offsetting not only greenhouse gas emissions, but also other air pollution emissions. For example, the US Energy Star programme

estimates that in the past decade, energy-efficient appliances have offset almost 40 million metric tons of greenhouse gas emissions, as well as substantial amounts of NO<sub>x</sub>, SO<sub>x</sub> and other pollutants. Action by the WTO to reduce the relative price of energy-efficient appliances relative to their non-efficient counterparts could therefore yield substantial environmental benefits.

Third, goods and services that would support the goals of the Convention on Biological Diversity should be identified. Science shows that one of the leading causes of biological diversity loss is land-use change, and the loss of habitats and fragile ecosystems such as forests. One reason for such losses is the lack of markets for non-timber forestry products such as sustainable coffee, cocoa or other goods to access global markets. The ecological crisis associated with devastating rates of loss of biological diversity coincides directly with the deepening rates of poverty for small-scale farmers throughout developing countries. Indeed, in all megadiverse countries, poverty and quickening rates of income divergence between the rich and poor are also the leading cause of environmental destruction.

Clearly, the WTO alone cannot solve these urgent problems. Moreover, tariff and other barriers are hardly the main impediment to environmental markets in developing countries. However, action by the WTO in identifying environmental goods and services of export interest to developing country farmers would resonate far beyond any modest price effects that arise from decreased tariffs. Indeed, action by the WTO would command policy attention — as it does in a wide range of non-trade areas — and thus act as a powerful magnet for action, including tapping into desperately needed working capital from global investors and consumer groups in support of the poorest, most marginalized farmers in the global south.

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The title of the paper, “Defining negotiations or negotiating definitions”, poses the two key questions for the negotiations on environmental services. However, these two questions are not mutually exclusive — in fact both have to be addressed and answered to ensure that the negotiations on environmental services lead to an outcome that meets the commitment in paragraph 31 (iii) of the Doha Declaration and is supportive of sustainable development.

I. *Defining negotiations in environmental services* is crucial. Environmental services fall roughly in to two groups — the environmental infrastructure services,<sup>33</sup> and other environmental services such as air pollution control, remediation and clean-up services, support services such as consulting, analysis, monitoring and testing, and more generally eco-system protection services. While this latter group of services, and their provision, representing new, “ecological” approaches to resource use, and in general greater environmental awareness and standards in societies, are very important, they pose fewer challenges in terms of defining the scope and limits of negotiations on trade liberalization. It is in the area of environmental infrastructure services, such as water-related serv-

ices or waste management, that WTO Members need to reflect on the scope and extent of trade liberalization negotiations.

II. *Negotiating, and agreeing, definitions of what constitute environmental services* is important to ensure that (a) negotiators have a common view of the scope of their negotiations, and ultimately commitments, and (b) that these commitments are expressed in a classification which reflects the way in which the sector, and business, is organized. Many, if not most, WTO members agree that the classification, which is currently used in GATS for this particular sector, does not fulfil these criteria.

While the paper addresses environmental services negotiations in a much more comprehensive way, I will restrict my comments to these two issues.

### *Defining negotiations - the case of environmental infrastructure services*

Owing to their nature as network services, the existence of externalities and partly public goods characteristics, environmental infrastructure services such as water-related services and waste management are often provided either by the public sector directly or in various other forms of public-private partnerships (PPPs). These structures and arrangements are important determinants for the scope of negotiations and potential commitments on environmental infrastructure services under the GATS.

Historically, these environmental infrastructure services have been provided mainly by the public sector. In addition, they often are, or are close to, natural monopolies, or are provided through monopolies for public policy reasons. Even when the provision of these services is handed over to, or shared with, the private sector, it will often happen under monopolistic or oligopolistic structures. Therefore, competition will mainly take place *for* markets, not *in* markets.<sup>34</sup> This should be kept in mind when discussing liberalization of trade in environmental infrastructure services.

Nevertheless, trade in environmental infrastructure services has increased, following changes in the provision of these services leading to stronger presence of the private sector, in particular in developing countries (but not only), where the need to establish or improve water and waste management services is greatest. For Governments the underlying “driver” of decisions to permit private participation is often the compelling nature of the problems faced — for example, rapid population growth; migration to cities already under environmental stress and budgetary constraints; lack of know-how, expertise and proper management; and control systems. Private participation in environmental services provision, particularly water and waste management services, is seen as a way to ease the financial burden on Governments and at the same time “import” technical capacity, know-how, and expertise. When developing country Governments decide to open these services to private participation, this usually includes a decision to encourage foreign participation, owing to lack of domestic capacity.<sup>35</sup>

The opening of water and waste management service provision to private participation may take several forms: full privatization of existing government-owned utilities, granting of “exclusive rights” to private sector providers (e.g. concessions), leasing government-owned utilities to the private sector to operate, and the letting of public contracts to private companies to provide start-up services on a build-operate-transfer (to public ownership) basis.

PPPs, such as concessions or build-operate-(own)-transfer, leasing and management contracts, are more frequently chosen to provide infrastructure services. Full privatization, that is the purchase of existing (or building *and* owning new) infrastructure, as well as the provision of the service by the private operator, is rather rare. Service providers themselves are often somewhat reluctant to enter into full privatization, not least because the cost of upgrading, extending or building infrastructure (the reason why the Government often chooses to privatize is because it is itself not able to undertake the required investments), in order to be recovered, would have to be passed on to the cost of the service, and this would inevitably lead to higher rates paid by consumers. In short, full privatization of essential infrastructure services is not very widespread.

There is general recognition that government should retain a role in the regulation and provision of these services. Although even full privatization does not mean that Governments cannot regulate the provision of these services,<sup>36</sup> regulation of PPP arrangements is often seen as “easier” given that the government is still more involved in the provision of the services. For these reasons, PPPs are often seen as the more appropriate solutions for the provision of environmental infrastructure services.

Why is this relevant to the question of how to define the scope of negotiations? The scope of the GATS is defined by Article I, which states that the Agreement covers all services. Therefore, the GATS covers all environmental services. There is an exclusion of “services supplied in the exercise of governmental authority” but this exception is very narrow, as it is strictly limited to services that are supplied neither on a commercial basis nor in competition with one or more service suppliers.<sup>37</sup> There have been debates about the exact scope of this exception, and this contribution does not intend to give an answer to the question. In any case, given that the formulation of Article I.3 (b) and (c) defines governmental services through the *structure* of their provision than *by sector*, it can safely be said that the services which fall under the exception will differ among WTO Members. In any case, the fact that for a specific service activity there may be a public (or private) monopoly, does not in any way suffice for this service activity to be excluded from the scope of application of the GATS. The second condition would indeed have to be met as well — that is, the service should not be supplied on a commercial basis.

A second question with regard to these services might arise from Article XIII. Article XIII.1 excludes public procurement of services from Article II (MFN obligation), and Articles XVI and XVII (market access and national treatment provisions). However, certain conditions have to be met in this case as well: the service has to be procured by a public authority, *not* with a view to commercial resale, and *not* with a view to use in the supply of services for commercial sale. Some Members have raised the question whether services, which are provided under exclusive rights or concessions, or similar forms of PPPs, should not be considered to fall under public procurement as defined in Article XIII.1 of the GATS. However, this will again depend on whether the way a service is provided would meet the conditions set, and this can vary among Members.

However, many services provided under exclusive rights awarded to private companies or under other forms of PPP contracts do not fall under government procurement, which is subject to certain exemptions in the GATS. But even if some BOTs or some contracts may involve partly government procurement, they can be opened to a certain extent through the GATS. In cases of government procurement, as defined in GATS Article XIII, the GATS enables WTO Members to take additional commitments for government procurement contracts, as was done by many countries already in financial services.

What is most relevant however, and will need to be answered by WTO Members is how to negotiate and ultimately schedule meaningful commitments for the bulk of environmental services which do fall under the scope of the GATS, but for which specific regulatory structures exist, and which are provided through various, partly new, forms of cooperation between the public and the private sector.<sup>38</sup>

WTO Members will need to understand better the way in which PPPs function in the provision of services, and what regulation specific to these partnerships is relevant under the GATS. They then need to clarify how these specific forms of provision of environmental infrastructure services could be scheduled to provide for clear and predictable market access for foreign service providers, without “undermining” the specific regulatory set-up they have chosen for the provision (e.g. concessions, exclusive rights, etc). They will need to find solutions to how scheduling of commitments in these sectors can reflect, and “preserve”, the specific nature and provision, as well as role of the public sector, in the provision of these services, while at the same time allowing international trade in these services to develop within the legal framework of the GATS. Answering these questions, and entering into clear and meaningful commitments in these sectors, will give legal certainty to international firms for market access under certain conditions and for national treatment, which will attract private investment and also foster the development of PPPs.

### *Negotiating definitions-classification of environmental services*

The existing classification of environmental services used in the GATS is based on the Central Product Classification of the UN. While nothing in this classification is wrong, it is a very traditional and no longer comprehensive way to classify this sector. Many WTO Members agree that the classification of the sector needs an overhaul to reflect the way the sector is structured in reality.

The European Union, and other Members such as the United States, Australia, Canada, Switzerland and Colombia, have made proposals to revise, or update, the classification of environmental services contained in the W/120. Some of these proposals, including the EU's, were based on work done in the OECD and the Statistical Office of the European Communities (Eurostat) in the 1990s on a new (statistical) classification of the environment industry, in order to reflect the changes that the industry had been undergoing. Environmental services had developed beyond traditional pollution control and remediation/clean-up activities towards pollution management, installation of cleaner technologies and resource and risk management activities. In these proposals, services are classified according to the environmental media (i.e. air, water, solid and hazardous waste, noise etc.).

The EU's proposal for a revised classification would comprise the following sub-sectors:

- Water supply services and wastewater treatment services (water collection, purification and distribution, wastewater services);
- Solid/hazardous waste management (refuse disposal services, sanitation and similar services);
- Protection of ambient air and climate (services to reduce exhaust gases and other emissions and to improve air quality);
- Remediation and clean-up of soil and water (treatment, remediation of contaminated, polluted, soil and water);
- Noise and vibration abatement;

- Protection of biodiversity and landscape; and
- Other environmental services.

While one could argue that all, or almost all, of this is implicitly covered by the current classification, it would be preferable to mention explicitly services for remediation and clean up of polluted soil and water, and services for the protection of biodiversity. Also, there is clearly more to solid waste management than just refuse disposal services – it involves the collection, storage, treatment and disposal (incineration, composting, landfill) of both non-hazardous and hazardous waste. There is more to water management, water purification, wastewater treatment and water recycling than just “sewage services”. In addition, there is no obvious “home” in the existing classification for services such as ecological research and consultancy, environmental impact assessment and biodiversity-related services, except under “other”.

The EU’s proposal basically aims at “updating” the current classification by modernizing the descriptions for the core environmental services to reflect better the nature and scope of the activities, and to better reflect the new, and more sophisticated, services which have developed for environmental protection and resource management. While it should in no way prescribe the exact level and scope of commitments which Members may wish to undertake, such a classification would base commitments on a clear and up-to-date description of this service sector and provide greater flexibility to Members to undertake commitments.

Evidently, a classification, or definition, is only a means towards the overall objective of improved commitments, and should serve the overall objective, that is increasing trade in environmental services. Nevertheless, it constitutes an important tool for the negotiations, and resulting commitments, by setting in a way the definitional framework. By agreeing on a common classification, Members, and ultimately service providers who wish to benefit from market access commitments, share an understanding of which activities are open for international trade.

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Paragraph 6 of the Doha Ministerial Declaration reiterates that “the aims of upholding and safeguarding an open and non-discriminating multilateral trading system and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive”. Paragraph 31 of the Declaration states that “with a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on ... (iii) the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services”.

One of the major concerns regarding the environment is climate change. The rapid rate of growth of fossil fuel consumption has been a major factor contributing to climate change. There is an increasing realization that the switch to non-conventional and renewable energy sources in order to meet growing energy needs cannot be delayed any longer. It is imperative, therefore, that renewable energy forms an essential part of any

attempt at a global consensus on trading that addresses environment and sustainable development.

Alexey Vikhlyayev, in his very enlightening article, has brought out the role of renewable energy generated by solar and wind technologies, among others, mainly in the context of environmentally preferable products (EPPs). “The uncertainty about definitions and classification of the environmental industry”, as pointed out by Mr. Vikhlyayev, holds true in the case of renewable energy as well. In mitigating climate change and consequently environmental harm, renewable energy has a stand-alone position in addition to its role in EPPs. My submission is that “energy” — that is, its generation and distribution — should be treated with “goods and services which provide environmental protection in different domains: water, solid waste, air, soil, noise, natural resources and miscellaneous services”, as explained in the article.

Paragraph 16 of the Doha Declaration states that the negotiations “shall aim to eliminate barriers to products of export interest to developing countries”. It also reaffirms that “they shall aim to increase the participation of developing countries in trade in services”. One area where the above-mentioned objectives could be pursued is renewable energy. Unlike in the case of other EGS mentioned in the article, where developed countries look for “market access” and where developing countries look for “access to EGS”, in the case of renewable energy products, the emerging markets consist not only of the energy-starved developing and least developed countries but also developed countries as the “commitment period” under the Kyoto Protocol draws closer. Developing countries have become extremely capable in terms of manufacturing and providing services (consulting, engineering, and so forth).

Although the automation level in the manufacture of renewable energy goods is far lower in developing than in developed nations, it constitutes an advantage in that it offers flexibility in the case of decentralized energy generation and distribution, which are much needed in most parts of developing countries. However, to ensure that the liberalization efforts in this sector at the WTO become commercially, financially and technically viable, they should be considered in connection with the possibilities of financing them, as mentioned by the author. The growth of renewable energy production, especially solar energy, is inhibited by the high initial capital costs. As aptly pointed out, the challenge is to develop institutional linkages between the negotiations at the WTO and all the different forums that deal with development finance and assistance.

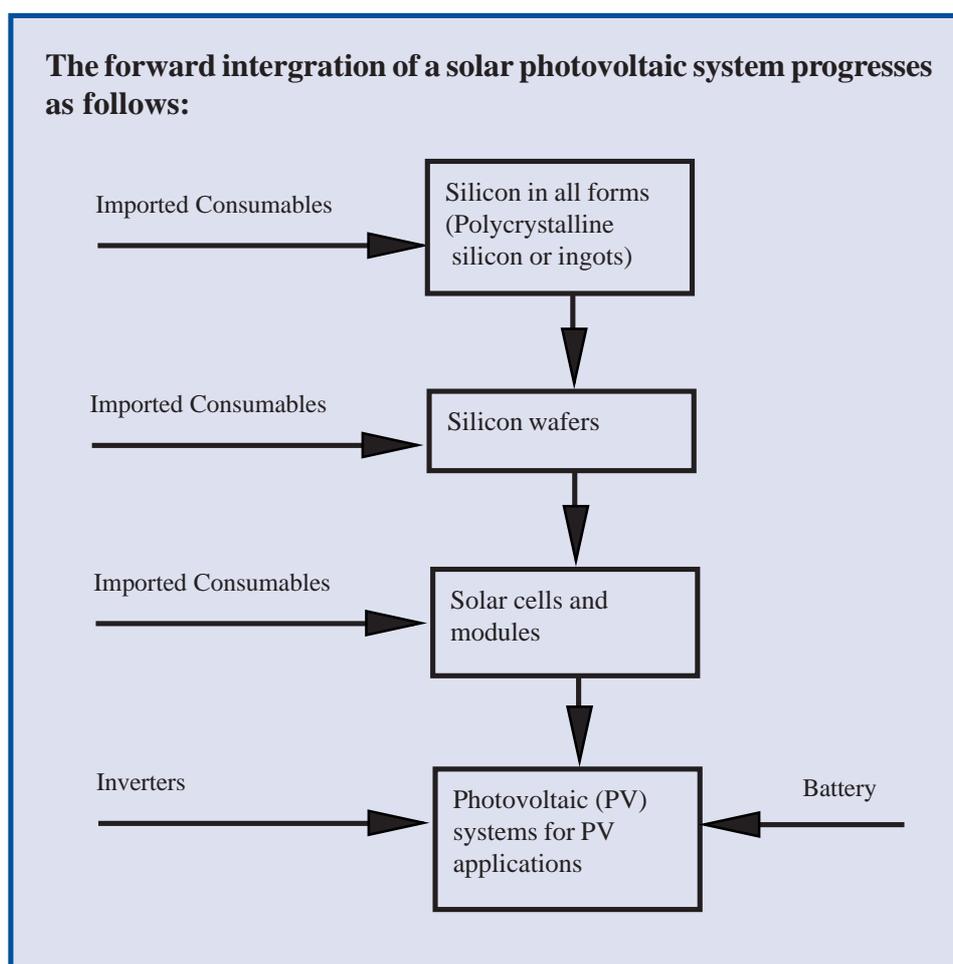
The article is not very emphatic about the need to modify the Harmonized Commodity Coding and Description System within each segment in order to enable the participating nations to calibrate their response more accurately to their needs and capacity in technology and service supply. Local rules and regulations may have to be modified, taking into account the prerequisites of adding value at the destination and the employment of local consultants.

The following example from the renewable energy industry, and more particularly the solar photovoltaic industry, illustrates the need for a more detailed and modernized classification of environmental goods to analyse the implications of trade liberalization.

In many developing countries, import duties are an important source of government revenue and sensitive in nature as they are often attractive because of their ease of revenue collection in comparison with revenue collection from domestic income or sales tax. However conflicting interests can arise, for example, in the case of renewable energy equipment, which offers savings on fuel import costs in many instances. On the one

hand, import duties increase the cost of imported items that go into the products and will have a long-term impact on the economy. On the other hand, it has taken more than two decades to build up the capacity in this sector and many constituents of the chain may need “protection”. The existing OECD and APEC lists do not allow any leeway for calibrating the right response, taking into account the conflicting situation mentioned above. These lists mention only one heading, namely “photosensitive semiconductor devices, including photovoltaic cells”.

*Silicon in all forms:* Although technology is available, there is no incentive to manufacture this item. It will be useful for the industry to import silicon nuggets and ingots until those conditions are put right. This situation *favours liberalization*.



*Silicon Wafers:* Although India has the capacity to produce about five million wafers, and the requirement could be in the order of 10 to 15 million wafers, only about one million are being produced because of the high cost of energy. Until those conditions are put right it will be useful for the industry to import silicon wafers. This situation *favours liberalization*.

*Solar cells and modules:* Indigenous capacity for manufacturing is about 30 MW of solar cells and 70 MW of modules against a production of about 20 MW of cells and modules. Unless there is aggressive demand growth, any liberalization of imports will only hamper the indigenous capacity as foreign manufacturers have an edge over indig-

enous ones due to availability of consumables, capital goods (machinery) and financing at far lower cost. This segment therefore needs *existing levels of protection*.

*Photovoltaic systems for various applications:* Although India is second to none in terms of system engineering knowledge, and solar module and battery availability, there is a dearth of reliable hybrid controllers and inverters which go into the systems deployed for applications. Furthermore, there is no plan in the industry to address the requirements of capacities above 5 KVA in size. Currently, such inverters are appraised on merit and carry a very high level of customs duty, which increases the cost of the system and strikes at the root of cost/benefit. There is a need to look at these high-tech inverters, which when deployed for solar Photovoltaic applications, *attract a lower level of duty if not zero*. However, in order to overcome the skewed effect, the photovoltaic systems as a whole need *protection*.

The above-mentioned is only one illustration of the dilemma in addressing one heading. Therefore, from the liberalization point of view the tariff classification needs to be more disaggregate than the OECD and APEC lists.

The second EGS article in the *Review* (Barria et al.) very clearly brings out the balancing of equations in the liberalization of trade in EGS for Central American and Caribbean countries. From a developing nation perspective, and more specifically from an Indian angle, many of the inferences drawn are wholly applicable. Examining the implications of trade liberalization and strengthening of domestic capacities in EGS is critical for all developing nations. Most of the issues raised in the countries studied are also relevant for India and other developing countries, in particular the following questions. What are the benefits (and risks) of trade liberalization? What is India's export potential in certain segments of the EGS industry? What classification of EGS suits the trade and sustainable development interests of the country? What conditions should be attached to specific commitments? What are the capacity-building needs relating to EGS, in particular in the context of their inclusion in the WTO negotiations?

The country studies referred to in the article have focused largely on sectors for which a certain amount of information was available, although original research has also been undertaken. The authors mention that the sector coverage will gradually increase to include other sub-sectors, including, where possible, those for which information is currently very scarce. One sub-sector where greater focus on information assimilation is needed is the renewable energy sector.

India, by being a signatory to the Kyoto Protocol and in recognition of its potential for climate change projects, has already become a favourite destination for investment projects under the Clean Development Mechanism (CDM). Such projects will become an important driver of demand not only for environment-related consultancy services, but also for technologies and systems.

It is observed, that a balance has to be found between the need for a modernized classification of environmental services as a means to allow for commercially relevant commitments on the one hand and developing countries' concerns about the implications of reclassification exercises and a broadening of the environmental services sector under the GATS on the other hand, and this is an extremely relevant observation.

As seen in the case of Cuba, the main constraints facing the environmental infrastructure services in many of the other developing nations also are lack of equipment, technology and finance.

One of the major potential benefits that developing nations derive from the WTO is increased exports. India's exports have almost doubled in less than a decade under the WTO regime; they went up from \$26.3 billion in 1994-1995 to \$51.7 billion in 2002-2003. Not only do exports help to earn much-needed foreign exchange but also increased international trade results in improvements in the coverage and quality of services available in the domestic market.

All the above explains the need for intensive capacity-building measures. As stated in the article, the authorities responsible for trade negotiations should organize consultations with other ministries and with relevant industries to determine how best to ensure the consistency of any new liberalization commitments with national policies. In this regard, the DFID-funded project "Strategies and Preparedness for Trade and Globalization in India" implemented by UNCTAD in cooperation with the Ministry of Industry and Commerce is highly relevant. In particular, the national seminar on environmental goods and services organized by UNCTAD and the Tata Energy Resources Institute (TERI) in New Delhi on 16 May 2003<sup>39</sup> made possible a very useful dialogue among various stakeholders in the country. Seminars, studies and training carried out under UNCTAD's capacity-building activities have gone a long way to creating awareness, among various stakeholders in the country, of the synergies between trade, environment and sustainable development.

#### ⑥ Dale Andrew<sup>40</sup>

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In this new issue of the *Trade and Environment Review*, the second of the two papers dealing with environmental goods and services (EGS) is an important complement to the first, general discussion entitled "Environmental goods and services: Defining negotiations or negotiating definitions?" The second article focuses on concrete outcomes of research and consultations undertaken in five Central American and two Caribbean countries, which were aimed at identifying linkages between trade and sustainable development. In a similar vein, the OECD Joint Working Party on Trade and Environment (JWPTE) has been following up its extensive work from the late 1990s on EGS.<sup>41</sup> Recently, the JWPTE decided to deepen its study of the role of trade in EGS, this time by approaching it from the environmental side. The new exercise examines the determinants of demand for EGS in eight economies — three rapidly industrializing OECD Members and five developing countries — and the respective roles of national output and imports in meeting this demand.<sup>42</sup> While the OECD studies still represent work in progress, it is interesting to compare these preliminary results with those from the UNCTAD-supported research. These brief comments will highlight similarities in these various case studies about growing demand for environmental services.

#### *Meeting environmental needs and understanding the demand drivers for ES*

The bulk of environmental needs in the countries studied is in the category of what the OECD/Eurostat classification terms "the pollution management group". UNCTAD divides these services into two sub-categories:

(a) *Environmental infrastructure services*: Water supply, sewage connection and wastewater treatment, as well as solid waste management, were considered in the eight

OECD case studies as key national environmental priorities, as indeed they are also in the Central American and Caribbean countries. The primary factors behind the growth in demand include population growth, rapid urbanization and an expanding economy. Interest in improving the management of hazardous waste, on the other hand, appears to be more localized in countries or regions that are rapidly industrializing.

*(b) Non-infrastructure, commercial environmental services:* Air and water pollution control — including river restoration and remediation and clean-up of soil are also important national environmental priorities in the countries studied. Growth in demand is seen as a function of domestic environmental regulations and, as importantly, by the degree of enforcement. For example, stricter control of air quality requires installation of sophisticated ozone-measuring devices, and a higher level of water quality necessitates analysis and testing services. In many cases growing civilian preferences for improved environmental quality were cited as a key determinant, as were voluntary initiatives by industry to improve its corporate social responsibility and environmental image.

A third category of environmental services involves services which support the delivery of services in the first two categories or which reflect newer environmental priorities: *consulting; design and engineering; construction and installation; analysis and monitoring, including environmental impact assessments; and certification services.* Demand for this group of services tends to be determined directly and indirectly by environmental and related regulations. These activities were found to be in growing demand in countries studied by both UNCTAD and OECD. Perhaps most surprising was the discovery in many of these countries that they had an actual or potential national supply for many of these services.

The OECD and UNCTAD studies further recognize the importance of a shift in emphasis in environmental policy towards *pollution prevention* and *natural resource management*, in areas such as energy efficiency, water conservation and recycling. In some cases, it is national environmental policy that has been evolving to complement command-and-control environmental regulations, which generally rely on end-of-pipe technologies and traditional pollution control services, with new types of environmental instruments and the redesigning of processes to emphasize reduction in raw material inputs, including energy. In other cases, the obvious financial advantage for entrepreneurs to save on raw materials is the principal determinant of this growing demand for certain environmental services related to pollution prevention.

Participation in MEAs is also creating demand for related environmental services, particularly some of these same professional services, such as analysis and assessment, but also project formulation and environmental R&D. In several countries studied, mention is made of services needed in the context of the Clean Development Mechanism (CDM) under the Kyoto Protocol. Assistance from bilateral and international agencies (e.g. the InterAmerican Development Bank and the World Bank) for implementation of MEA obligations, as well as their support for strengthening of domestic environmental institutions, has also been identified as a demand driver for environmental services.

Certification services of various types, such as those required in order to accredit environmental management systems (EMS) and for organic products, are also frequently referred to in the national studies. Plans to develop exports of organics have often run into a lack of domestic capacity for certification. Whereas such services may in some cases be imported, in other cases, firms with relevant expertise have succeeded in obtaining accreditation by the competent authorities in importing countries.

It is also widely recognized that national environmental institutions' weak enforcement capability can act as a dampener on demand. Whereas regulations in many countries reflect best practices, the lack of follow-up or the perception that enforcement imposes extra costs on exporters has meant that the regulations have not had the effect they could have had. In all studies the importance of institutional strengthening and capacity building was underscored — particularly at the local level.

Finally, government procurement and the way bids are specified have been identified as a barrier to the adoption of appropriate environmental technology. A common problem seems to be that the government bids for tender specify technology-specific solutions instead of performance-based approaches.

Possible implications for promoting trade in environmental services, including in those areas where developing countries' export potential and environmental needs coincide

Promoting a whole-of-government position through research on national needs and supplies, as well as holding consultations with stakeholders,<sup>43</sup> can allow governments to identify national trade interests — both in imports and in exports — of environmental services. Participation in the Central American and Caribbean regional consultations by Geneva-based services trade negotiators provided national stakeholders with the opportunity to appreciate the complexities of WTO Agreements, including the GATS, and in turn informed trade negotiators about essential national needs in terms of meeting environmental goals.

All the national case studies recognize the important role of imports in addressing environmental protection and pollution prevention problems. In general, imports lead to increased availability of goods and services at better prices and quality, as well as increased access to finance, management and know-how. Even in countries with national supply capacity in various sub-sectors of the environmental industry, other essential inputs are imported — both goods and other services.

Numerous examples of market access opportunities in services trade for developing country-based firms are increasingly being documented.<sup>44</sup> Cataloguing national services capabilities, as was done in the UNCTAD's Central American and Caribbean studies and in some of the rapidly industrializing countries studied by the OECD, has revealed that domestic supply in many services sectors is growing. This belies a common perception that developing economies have little export interest in services. Quite often regional markets, for reasons of linguistic and cultural ties and knowledge of similar environmental conditions, become a stepping-stone to global exports of services; or, following a more traditional paradigm, foreign investments may, through joint ventures or other partnerships (including public-private arrangements), lead to the adaptation of technology to regional needs and development of national capacity. Appropriately negotiated, these commercial ventures can result in a strengthening of domestic supply of services and over time of export capacity. In some of the middle-income countries studied, design, consulting, engineering and other professional services have been successfully exported to other developing countries in the region, in direct competition with companies from developed countries.

Classification issues are crucial for services trade negotiations. Previous OECD work<sup>45</sup> and discussions in the WTO have pointed to the inadequacy of the W/120 sectoral classification list in terms of both environmental needs and commercial reality. Other articles and commentaries in this issue of the UNCTAD *Trade and Environment Review*

emphasize the importance of “dusting off” W/120 in the area of environmental services. This point has been made time and again in classification proposals, *inter alia*, by Australia, Colombia, the European Union and Switzerland.

### *Possible implications for trade negotiations*

Challenges arise then as to how to exploit the information assembled in these studies for the use of services negotiators in order to move towards better implementation of national environmental policy and sustainable development. To what extent can trade liberalization and in particular the current GATS negotiations increase availability, price and quality considerations for those countries wishing to make use of increased trade in services to meet their national environmental priorities? Owing to the restrictive sectoral classification list used in the Uruguay Round, several countries have made offers on the basis of a modernized list. A further challenge is to recognize the close link with a whole host of other related services. Ideas such as using a “core and cluster” approach or checklists of associated or intrinsically related environmental services have also been advanced.

How can the growing markets for environmental services be tapped by those developing countries where the cataloguing of national capacity has revealed export potential? Some of these areas, as shown in the studies, include services intrinsically related to environmental services, such as consulting, architecture, engineering and construction. Where export potential exists, requests could be addressed to trading partners. Where analysis shows national capacity is insufficient to export relevant services, in-depth identification of the barriers to the delivery of needed services by other WTO Members, for example through mode 3 to attract foreign investment, is necessary. Making national restrictions more transparent and taking decisions on where specific commitments can be scheduled — both in infrastructure and commercial services as well as the intrinsically related group — should promote imports of the range of services needed to implement sustainable development goals.

### *Complementary measures to trade liberalization*

All of the national studies — as well as other articles and commentaries in this issue, — emphasize the importance of regulatory frameworks to accompany liberalization. To take one example, quality control must be ensured, be it for the professional qualifications of service providers or to ensure protection for the final consumer of the output of the service provided (irrigation water, soil decontamination, water for human use, etc.).

In sum, the findings presented in the article by Barria and others on studies and consultations involving stakeholders in seven Central American and Caribbean countries point in the same general direction as OECD-supported research on three OECD rapidly industrializing and five non-OECD Members — that services trade can make an important contribution to meeting sustainable development goals. These case studies use a particular approach to understanding both national environmental needs for environmental goods and services and the contribution, as well as the limitations, of trade liberalization in meeting growing demand for greater environmental quality, whether this be for basic environmental infrastructure, other pollution management services or pollution prevention, natural resource management and intrinsically related services. Such a needs assessment approach is also playing a role in helping to discover supplies of intrinsically related environmental services offering export potential for developing

country firms. The outcomes of these exercises can then inform trade diplomats when defining national positions for the current GATS negotiations.

## 7 Umberto Mazzei

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The paper “Environmental goods and services: Challenges and opportunities for Central American and Caribbean countries” provides a well-structured analysis of the environmental services sector in those countries, focusing on key characteristics of the sector, demand for and supply of environmental services and WTO negotiations. Guatemala is one of the countries participating in the UNCTAD-FIELD project and a national study on the environmental services sector in this country is in preparation. Such studies are important in helping to address existing research and information gaps and supporting national consultations. This commentary briefly examines Guatemala’s institutional framework for environmental policy, its environmental services market, its foreign direct investment (FDI) policies and approaches to the WTO negotiations on environmental services.

### *Institutional framework*

In Guatemala, which means “land of the forests” in Nahuatl, policies to protect and improve the environment and the institutional coordination of such policies, have evolved since the creation of the National Commission for the Environment (CONAMA, Spanish acronym) in 1986. The most relevant activity of this governmental entity was the evaluation of environmental impact studies required for new industries. It also supervised the activities of other, more specialized offices.

In January 2001, the Government of Guatemala created the Ministry of Environment and Natural Resources as a means to better coordinate the country’s environmental policies. According to its Strategic Plan, the activities of the ministry were divided in three areas: (a) environmental quality, (b) sustainable management of natural resources, and (c) cross-sectoral matters related to both areas.

In accordance with this structure, the Ministry of Environment and National Resources has direct responsibility for activities relating to environmental quality. It shares responsibility for the sustainable management of natural resources with other governmental entities, such as the Ministries of Agriculture and Mines and the National Forestry Institute. In the case of cross-sectoral matters relating to both areas, other ministries, such as the Ministry of Education, are also involved along with universities, research centres and productive sectors associations that are directly or indirectly linked to the management of the environmental and natural resources.

The Centre for Legal Environmental Action (CALAS, Spanish acronym; [www.calas.org.gt](http://www.calas.org.gt)) is a well-known local environmental organization in Guatemala. CALAS states that “In Guatemala, public and private efforts related to environmental protection, sustainable use of natural resources and biodiversity are dispersed. This is reflected by the involvement of 58 different public entities, which are disseminated within

the Environment Ministry and the State's executive, legislative and judicial branches, as well as through the municipalities and government autonomous entities".

Additionally, a number of ongoing projects are worth mentioning, in particular, the National System of Environmental Evaluation, the National System of Environmental Quality and the National System of Environmental Management.

### *Environmental services market*

In order to take advantage of the economic, environmental and social opportunities that the adequate provision of environmental services would offer, it is necessary for each country to develop a strategy of technological development on the supply side and regulatory and institutional frameworks to stimulate demand. In addition, the country's approach to infrastructure investment will also influence the environmental services market. It is important to emphasize that the environmental services market tends to develop in different stages, which depend on the evolution of public policies, as well as economic and socio-cultural conditions.

The recent privatization and liberalization in some developing countries in the water, energy and waste treatment sectors have resulted in private enterprises playing a larger role in the delivery of public environmental services. Furthermore there are also cases where successful public enterprises in developed countries are competing with private companies in the international market.

In the case of Guatemala, the main clients for environmental services are the public and manufacturing sector, with the public sector also acting as the main supplier. The latter is responsible for the supply of potable water, the treatment of residual water, the management and processing of waste, and the management of natural resources and forests. The supply of services can be effected either at the municipal level, as in the case of water, or by state entities, as in the energy sector. Regarding waste treatment, both the public and private sectors play a role, especially in urban areas, where the provision of such services is frequently outsourced to private enterprises.

Private sector investment is typically concentrated in the fight against atmospheric pollution and wastewater treatment.

An example of the contribution of the private sector to the supply of environmental services can also be found in the sugar industry. The National Association of Sugar Producers on Guatemala (AZASGUA, Spanish acronym) has been successfully promoting the investment in waste management equipment and programmes throughout this industry. This is relevant as the main environmental problems that sugar producers face are the pollution of water basins due to the use of fertilizers, as well as the management of residual sugar cane fibres.

### *Foreign direct investment*

Legislation on FDI in Guatemala is modern and open, offering stability and transparency to the foreign investor. This facilitates investment, including in the area of environmental services, and strengthens the country's position in services negotiations.

### *Negotiations*

Guatemala has a small economy and is in the first stage of developing an environmental services market, consisting of basic infrastructure of environmental services (which have the characteristics of a “public good”). In the second stage of this development, the country will require the contribution of private enterprises to ensure more efficient use of natural resources, as well as compliance with national environmental regulations. Progression to this second stage will require the participation of foreign suppliers of environmental services. In the context of the WTO negotiations, the perception of this need has led European and North American countries to request developing countries to open the environmental services market to foreign investment.

The third stage of the development of an environmental services market is related to the need to comply with environmental requirements in international markets and to enhance the environmental performance of production processes. This also involves issues of environmental certification.

To date, Guatemala and Panama have been the only countries in the region to present a proposal on environmental services in the WTO negotiations since the Doha Ministerial Conference. Specifically, Guatemala has offered and requested liberalization in modes 1, 2 and 3 for services related to nature and landscape protection (CPC 94080) and in mode 4 concerning landscape architecture and environmental engineering. The latter services require intensive use of qualified labour, in which Guatemala has comparative advantages.

### *Conclusions*

Guatemala suffers from environmental degradation despite having relevant public and private sector strategies and an established regulatory and institutional framework since 1986.

A growing ecological consciousness among social groups, the perception among industries of the economic loss caused by ecological damage, the opening of environmental services to private investment and the market liberalization offered during the WTO negotiations, are all indications that the conditions needed for improvement are present.

The means to achieve the above would be the development of an environmental services market through the assimilation of international investment and modern technology.

The UNCTAD/FIELD project is an important contribution in providing an orientation to this development, as it offers the opportunity to compare regional experiences and needs. It also opens the door to increased coordination of common efforts and to the channelling of investment to more efficient environmental services that can improve the quality of life.

## 8 Scott Vaughan

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One of the surprises of the Doha Ministerial Declaration (DMD) remains the reference to environmental goods and services (EGS). In the Declaration, WTO Members promised to consider differentiating liberalization schedules for EGS compared with their non-environmental or mainstream counterparts.

Since that decision of three years ago, work in Geneva continues to examine how best to classify EGS in a way that mirrors the characteristics of green markets, while providing unambiguous and useful customs codes that negotiators can use in fulfilling the promise of Doha. This balancing act in classifying EGS remains far more difficult than many imagined, since EGS are inherently dynamic — driven by regulatory and policy developments, scientific evidence and public preference.

During the past decade, green markets for goods and services have grown to exceed US\$ 500 billion in revenue per year. Examples range from capital goods such as end-of-pipe scrubbers and catalytic converters for automobiles to wastewater treatment technologies and related engineering, auditing, legal and other services. In these areas, work by OECD and UNCTAD have underlined the importance of ensuring that the liberalization of environmental goods moves closely in tandem with related services liberalization. However, green markets are hardly limited to big-ticket capital goods for which industrialized countries have the strongest comparative advantage. Other examples of EGS include sustainable forest and fisheries products, the booming eco or sustainable tourism segment, energy-efficient appliances and renewable energy, recycled materials for consumer markets, carbon sequestration and related services, green fabrics made of non-toxic dyes and other procedures, and sustainable agricultural produce.

This second cluster of EGS remains the most difficult to classify from a customs perspective. This in part reflects the fact that for the most part there is an absence of uniform or international standards as to what exactly is “green” in different market segments. For example, there are over 75 major environmental labelling and certification schemes in place in North America alone, and almost as many covering specific products and services. In the area of sustainable coffee — a product that has received a great deal of policy and consumer attention since the late 1990s — there are differing definitions, often combining criteria of organic, fair trade and biological diversity considerations.

The difficulty in classifying EGS in a way that is useful for trade negotiations also reflects the fact that most goods and services described in some way as “green” or “environmental” are so defined because of their *relative* environmental characteristics. That is, most consumer environmental products and services are described in that way because they are greener than their mainstream or standard counterparts. No EGS are completely environmentally benign, but their impact or footprint on the environment — however measured — is lower than that of their mainstream counterparts. For example, appliances that receive an energy efficiency label tend to be anywhere from 30-70 per cent more efficient than appliances that lack such a label. However, as technologies advance, those that were defined as the upper limit of energy efficiency performance a decade ago may find themselves at the lower end of that definitional spectrum today.

An additional challenge for the rules of the trading system is that many EGS are defined because of their production criteria in addition to their product characteristics, product performance and product end-use (reuse, recycling and disposal) characteristics. Production criteria remain a source of uncertainty and possible tension in the WTO, which is why casting a wide net around EGS classifications remains sensitive as well as procedurally difficult.

Notwithstanding these challenges, the paper “Environmental goods and services: Challenges and opportunities for Central America and Caribbean countries” clearly identifies both the potential this issue brings to developing countries of the Americas, and the policy challenges inherent in deepening liberalization of environmental services. In the area of environmental goods, the authors examine not only some definitional or classification challenges relating to the EGS mandate, but also key information barriers or failures that continue the gap between small-scale producers of EGS in developing countries, and consumer preferences, market characteristics and market changes.

Information failure is hardly a new concept; for years, UNCTAD, as well as the International Trade Centre, the WTO secretariat, bilateral donors and others have struggled to identify and overcome information bottlenecks and related failures that hinder in particular small and medium-sized producers in developing countries. There are a number of other challenges closely related to the information failures, which may be partially addressed as follows:

*Knowing consumer preferences and willing to pay:* Outside regulatory-driven EGS such as end-of-pipe abatement technologies intended to meet pollution targets, markets for such diverse products as sustainable forest products, green electricity and sustainable or low-impact farm produce are all about public preferences. Consumers are no less fickle about EGS than they are in any other market. Before small-scale producers in developing countries invest in expanding their production and delivery of EGS, they need to understand consumer interest in, and willingness to pay for, EGS. As part of capacity building for EGS, more work is needed on undertaking targeted consumer surveys and market analysis. As a rule of thumb, market surveys measuring EGS show that for every ten people who say they would buy green goods, only one person actually does. However, there are several crucial factors even for customers who practise in the market what they preach in the policy arena: (a) a price premium above 10 per cent, compared with non-environmental goods, sees consumer support quickly drop off; (b) consumers will pay as much as 10 per cent more if the product delivers quality *comparable or superior* to that of non-environmental products. If green goods show uneven quality, then customer loyalty plummets.

*Costs of Multiple Definitions and Third-Party Certification:* As noted earlier, one of the challenges facing all suppliers of EGS is the absence of uniform, international or global definitions of environmental goods. UNCTAD continues to provide invaluable analysis of potential market access or diseconomies of scale arising from multiple environmental labelling and certification schemes for EGS. These schemes present challenges to producers, as well as eroding the understanding and confidence of consumers. In recent years, there has been a great deal of talk about “labelling fatigue,” as some consumers — fed up with competing and confusing claims about what is green or greenest — walk away from some green markets, while all-important new consumers remain disengaged.

*Access to Finance:* It is hardly news that small-scale producers in developing countries often face chronic obstacles in accessing working capital, and unfortunately EGS

proves no exception to this problem. Although many definitions of EGS in the agricultural and textiles sector in fact hinge around an absence of capital inputs such as pesticides, herbicides, bioengineering or chemical dyes, small and medium,-sized companies nevertheless need working capital to meet a range of production and product-specific requirements, as well as paying for third-party certification. One potentially powerful ally in addressing this systemic issue is the reduced role that spot markets are playing in agricultural, textiles and apparel and other markets for which developing countries have a strong comparative advantage, and their replacement with purchaser supply contracts. These contractual arrangements often link large retail buyers with small-scale producers. Supply-purchase contracts typically cover such aspects as quantity, price as well as quality specifications of produce delivered to buyers. Often, these contracts spell out specific environmental criteria and act as a key determinant for the ability of producers to access working capital (either from local banks, or more directly from the buyer).

Given the growing importance of supply-purchase arrangements, there is an opportunity for large retail buyers — especially in the United States, for which the majority of exports from the Central American and Caribbean countries are destined — to advance the EGS agenda in a way that benefits small-scale producers in those countries. Clearly, many large-scale buyers have adopted corporate social responsibility and environmental codes covering their internal operations. Building on these virtues, leading companies in the region have a tremendous opportunity to promote EGS cooperatively with small-scale producers, and in so doing, extend working finance to producers. One lesson of “win-win” relationships involving trade and the environment is that realizing these win-win outcomes is hardly straight-forward, and often entails difficult decisions that affect and unsettle the status quo.

Turning briefly to the area of environmental services, the UNCTAD paper rightly points out that the liberalization of environmental services — particularly involving water delivery, wastewater treatment and sanitation services, remains a key challenge for countries of the region. Liberalization of public services almost always requires *more* — not less — domestic regulations related to competition policy, as well as the ensuring of universal access, service reliability and service pricing and tariff caps. The paper rightly notes that there are potential risks involved in services liberalization, not least ensuring that developing countries have sufficiently robust regulatory oversight and related government actions. Given these risks, caution is needed to ensure that countries do not move too far ahead of their domestic regulatory capacity to track the effects of water services liberalization.

Finally, the one sector briefly noted in the UNCTAD paper is tourism. In recent years, there has been a huge increase in the demand for environmental, sustainable and eco-tourism (as in other areas, there is no common definition). Given the tremendous economic importance of tourism to the Caribbean and increasingly to Central American countries, more work is needed to define and actively promote environmental tourism in a way that delivers tangible benefits to those countries.

## 9 Juan Mario Martínez Suárez

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The paper “Environmental goods and services: Challenges and opportunities for Central American and Caribbean countries” contributes to the existing knowledge on the impact and relevance of environmental goods and services in the building of sustainable development processes within the region.

The diversity with which each of these topics can be approached is reflected in the paper’s conceptual analysis, definitions and classification of environmental services, all which are significantly influenced by each country’s individual characteristics. The article covers important aspects related to trade in environmental goods and services, ranging from the analysis of the negotiation and consultation processes to the definition of each country’s priorities and capacity requirements.

The results set out in the paper are important for the countries included in the analysis. It defines the path to define each country’s export interests and improve its market access. It also helps to identify and overcome the potential tariff and non-tariff barriers to trade in environmentally preferable products.

The authors also demonstrate that the demand for environmental services in these countries is significant. Moreover, they highlight the fact that the demand for environmental services is usually associated with the acquisition and use of environmentally friendly technologies, as well as with infrastructure development and modernization. Thus, this translates into high economic, political and social costs, which in most cases the countries in the region are not prepared to confront.

In this context, the paper becomes a call for increased political will and economic support, as well as for the building of a national and international consciousness, all which should converge into real situations that can benefit trade, environment and development.

## Notes

- <sup>1</sup> It can be argued that after Rio a number of OECD members have effectively sought to supplant the “mutual supportiveness” principle and have pushed instead the principle that trade and environment policies should be “integrated”.
- <sup>2</sup> A strong case can be made that environmental officials in some Governments consciously pursued measures that conflicted with WTO provisions. Officials in EU countries refused point blank to have an operative provision in the Cartagena Protocol, which expressly stated that WTO members rights were protected. Green lobby groups were also fully aware. Lori Wallach of Public Citizen wrote in “Whose Trade Organization”, which was published before the WTO Ministerial Conference in Seattle and before the Cartagena Protocol was finished, that a key objective should be to create provisions in the Protocol that undermined the WTO rules on use of trade measures to protect sanitary and phytosanitary measures. (They are the provisions limiting such measures to reflections of international standards, or to scientific principles and risk assessment procedures).
- <sup>3</sup> The views expressed in this commentary are those of the author and should not be attributed to the Secretariat of the Basel Convention.

- <sup>4</sup> The author is a Counsellor at the Permanent Mission of Costa Rica to the WTO in Geneva. The views expressed in these comments are strictly of a personal nature and should not be attributed to the Government of Costa Rica.
- <sup>5</sup> The paper correctly notes that only 38 of the 238 or so MEAs currently in existence contain trade measures – but omits to add that these include many of the most wide-ranging and effective MEAs, and also many of those most recently negotiated.
- <sup>6</sup> See Ros Reeve, *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London: Royal Institute of International Affairs, 2002), Chapter 5, “Problem Countries”.
- <sup>7</sup> See Duncan Brack, *International Trade and the Montreal Protocol* (London: Royal Institute of International Affairs, 1996), pp. 54–59.
- <sup>8</sup> As allowed under the “Indicative list of measures that might be taken by a meeting of the Parties in respect of non-compliance with the Protocol”, section C – see UNEP Ozone Secretariat, *Handbook for the International Treaties for the Protection of the Ozone Layer* (sixth edition, 2003), p. 297.
- <sup>9</sup> The argument is mentioned in the paper, but is implicitly dismissed in the following sentence.
- <sup>10</sup> Reeve, *Policing International Trade in Endangered Species*, p. 121.
- <sup>11</sup> Duncan Brack and Kevin Gray, *Multilateral Environmental Agreements and the WTO* (Royal Institute of International Affairs and International Institute for Sustainable Development, 2003), available at [www.riia.org/sustainabledevelopment](http://www.riia.org/sustainabledevelopment)
- <sup>12</sup> In a section not quoted in the paper.
- <sup>13</sup> See OECD, *Trade Measures in Multilateral Environmental Agreement*, pp. 198–200.
- <sup>14</sup> See, in particular, Article 30 of the Vienna Convention on the Law of Treaties. For extended discussions of these rules in the context of MEAs and the WTO, Gabrielle Marceau, “A Call for Coherence in International Law – Praises for the Prohibition Against ‘Clinical Isolation’ in WTO Dispute Settlement,” *Journal of World Trade*, 33, (1999); Richard Tarasofsky, “Ensuring Compatibility between Multilateral Environmental Agreements and GATT/WTO”, Vol. 7, *Yearbook of International Environmental Law*, 1996, pp. 52-74.
- <sup>15</sup> Vienna Convention on the Law of Treaties, Article 30.
- <sup>16</sup> By contrast, Article 103 of the North American Free Trade Agreement sets out a limited supremacy clause for NAFTA over all prior treaty obligations between the three NAFTA Parties, but not over future treaty obligations. Article 104 then sets out a limited and conditional supremacy clause for specifically listed MEAs.
- <sup>17</sup> See paragraphs 10-11 of the Cartagena Protocol on Biosafety, 2000; also preambular paragraphs 9-10 of the Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998
- <sup>18</sup> For a fuller analysis than space here allows, see Howard Mann and Stephen Porter, *The State of Trade Law and the Environment 2003*, IISD/CIEL 2003 (Forthcoming)
- <sup>19</sup> *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 by Malaysia*, Report of the Panel, WT/DS58/RW, 15 June 2001. Hereinafter, Shrimp-Turtle Implementation review panel decision; *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 by Malaysia, Report of the Appellate Body, 22 October 2001*, WT/DS58/AB/RW.
- <sup>20</sup> The regional agreement in question was the *Inter-American Convention for the Protection and Conservation of Sea Turtles*, which the United States and several Atlantic and Caribbean states were signatories to. The AB endorsed its use “as a basis for comparison” with unilateral measures adopted by the United States that were applied to other countries. Shrimp-Turtle Implementation Review, paragraphs. 127-130, esp. 130.
- <sup>21</sup> Shrimp-Turtle Implementation Review, paragraphs 20, 125-126.
- <sup>22</sup> An international standard is a technical term in trade law that refers to standards adopted by international standards negotiating bodies such as the ISO. An international treaty is not considered to be a standard in this context.

- <sup>23</sup> For a classic example of this view in its broadest form see William Dymond & Michael Hart, "Post Modern Trade Policy: Reflections on the Challenges to Multilateral Trade Negotiations After Seattle," (2000) 34(3) *Journal of World Trade*, pp. 21-38.
- <sup>24</sup> Aaron Cosbey and Stanley Burgiel, *The Cartagena Protocol on Biosafety: An Analysis of Results*, IISD, February 2000, at <http://www.iisd.org/publications/publication.asp?pno=332>.
- <sup>25</sup> See the text surrounding note 75 in the main paper.
- <sup>26</sup> The views expressed are those of the author and do not necessarily represent the position of the OECD or its members.
- <sup>27</sup> OECD, *The Global Environmental Goods and Services Industry*, OECD Publications, Paris, 1996.
- <sup>28</sup> Ely J.C., C.R. Neal, C.K. Kulpa, M.A. Schneegurt, J.A. Seidler, and J.C. Jain, "Impacts of platinum-group element accumulation in the USA from catalytic-converter attrition", *Environmental Science & Technology*, Vol. 35 (19), 1 October 2001, pp. 3816-3822.
- <sup>29</sup> Commission of the European Communities (1998), "Options to Reduce Nitrous Oxide Emissions (Final Report)", report produced for DGXI, Commission of the European Communities, Brussels. Available at [http://europa.eu.int/comm/environment/enveco/climate\\_change/nitrous\\_oxide\\_emissions.pdf](http://europa.eu.int/comm/environment/enveco/climate_change/nitrous_oxide_emissions.pdf).
- <sup>30</sup> Wald, Matthew L., "Autos' converters increase warming as they cut smog: A split over solutions", *New York Times*, 29 May 1998, pp. A1 and A18.
- <sup>31</sup> OECD, *Liberalising Trade in "Environmental Goods": Some Practical Considerations*, OECD Document no. COM/ENV/TD(2003)34/FINAL, Paris, 2003.
- <sup>32</sup> The views expressed in this paper of those of the author and do not represent the position of the European Commission, or the European Community and its Member States.
- <sup>33</sup> The term is not to be confused with construction services for building infrastructure.
- <sup>34</sup> Of course, there are differences between the sub-sectors. While network services such as water distribution/sewage realistically do not allow competition in the market, waste collection services do not have this constraint.
- <sup>35</sup> OECD/TD/ENV(99)93FINAL.
- <sup>36</sup> An example is England and Wales (UK), where water distribution services were fully privatized at the end of the 1980s and a regulator, OFWAT, was established which regulates quality, prices, and so forth.
- <sup>37</sup> GATS Article I.3
- <sup>38</sup> This question arises also in other services sectors, such as energy services and transport services, which display some of the same characteristics as environmental infrastructure services.
- <sup>39</sup> <http://www.teriin.org/events/docs/envgoods.htm>.
- <sup>40</sup> The views expressed are those of the author and do not necessarily represent the position of the OECD or its members.
- <sup>41</sup> *Environmental Goods and Services: the Benefits of Further Global Trade Liberalisation*, OECD, 2001.
- <sup>42</sup> The following countries have been studied by the OECD: Brazil, Chile, the Czech Republic, Indonesia, Israel, Kenya, the Republic of Korea and Mexico.
- <sup>43</sup> Part I of "Managing Request-Offer Negotiations under the GATS" offers suggestions on organizing domestic stakeholder consultations on services trade. Examples of how both OECD and developing countries have been undertaking such consultations can be found in a note prepared in collaboration with UNCTAD: "Managing Request-Offer Negotiations under the GATS: Survey of Country Preparations for the Negotiations". Both are available at [www.oecd.org/ech/tradepolicy/services](http://www.oecd.org/ech/tradepolicy/services).
- <sup>44</sup> In addition to a series of UNCTAD experts meetings on specific services sectors held over recent years, a recent OECD study, "Services Trade Liberalisation: Identifying Opportunities and Gains", illustrates services exports by developing country firms across a whole range of sectors; available on [www.oecd.org/ech/tradepolicy/services](http://www.oecd.org/ech/tradepolicy/services).
- <sup>45</sup> "Modernizing the list of environmental services: OECD proposals" [Andrew, in UNCTAD (2003), *Energy and Environmental Services: Negotiating Objective and Development Priorities*,] set out in Table 3, a list of core environmental services and intrinsically related services crucial to the delivery of core services and their corresponding GATS and CPC codes and, in table 4, the six proposals on classifying environmental services made by WTO Members through 2002.