

**WTO NEGOTIATIONS
ON ENVIRONMENTAL GOODS:
SELECTED TECHNICAL ISSUES**



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I. INTRODUCTION

The food crisis, the energy crisis and finally the financial crisis, with international trade being one key victim, have all but eclipsed the Doha Round of the WTO negotiations. Now that recovery is underway, a long impasse in the Doha Round may well be over. Although even before the crises, the events of mid-2006—the suspension of negotiations, and the deadlines of mid-2007—the expiration of trade promotion authority in the United States, set the WTO system up for some hard choices.

The debates have largely shifted to the academic domain and “zoomed-out” of the more technical issues to highlight problems in the way the WTO conducts its intergovernmental business.¹ Admittedly, these problems go beyond the trade and environment agenda, stipulated in paragraph 31(iii) of the Doha Ministerial Declaration. However, this agenda may well be the best testing ground for trade officials as they consider the choice of subjects for the negotiations, the set of principles the WTO employs when negotiating, and, last but not least, the implementation of the agreements.

Indeed, the last-minute inclusion of paragraph 31 (iii) is a good example of a case-by-case approach to identifying *win-win* situations through linkages and trade-offs in the particular bargaining context of the time. The WTO Committee on Trade and Environment, in Special Sessions (CTESS), has spent years trying to post-rationalize the mandate and promote substantive link between the mandate and the negotiating process, with some delegations reading too much—and the others reading too little—into the Doha language.

The political momentum was not strong enough for the discourse in the CTESS to follow through on the various negotiating approaches. Although inconclusive, it did serve their main purpose—to remind the delegations that the environment and, in broader terms, sustainable development, should be the most important part of the complex scale

by which achievement in market access will be measured.

Should the signs of a new dynamic emerging on other, admittedly more important fronts prove true, the timing of what can be done with respect to the negotiations in the CTESS will be affected greatly. Particularly since the negotiations on environmental goods still lag behind in terms of maturity. Once having an elaborate negotiation is no longer an option, can the WTO Members settle for something focused and concrete, while preserving their chances for “triple-win”?

The new submissions in the CTESS concern mainly *technical issues* relating to the product coverage and special and differential (S&D) treatment. One can reasonably expect specific proposals with respect to *non-tariff barriers* (NTBs) in order for the negotiations to make progress on this aspect of the mandate. As far as the NTBs part of the mandate is concerned, it appears that Members are still in an educational phase in respect of some options, and are making progress in deepening their understanding of the various proposals and their implications. All these concerns—*technical issues relating to the product coverage, NTBs, development-related issues and S&D treatment*—were articulated by the developing Members that have taken special interest and active part in the negotiations.

For those on the technical track, time will be a factor, and there may simply not be enough of it to work through the issues that have been plaguing the negotiations from the outset. How big is the actual interface between the environmental industry and international trade? Can *ex-outs* really help “drill down” to single—environmental—use? What would be an outcome of an agreement based on listing environmental goods? Which approaches and modalities can the negotiators use to deal with non-tariff issues? Now that the Members start testing the various “what ifs”, we thought it might be useful to bring these and other relevant questions into focus.

¹ The Multilateral Trade Regime: Which Way Forward? The report of the first Warwick Commission, University of Warwick, 2007.

II. ENVIRONMENTAL MARKETS AND INTERNATIONAL TRADE: HOW BIG IS THE INTERFACE?

While environmental markets display a diversity of conditions, restrictions and regulatory strategies across sectors, there is certain logic to their development as they go through several phases, centred on environmental media.

Air is normally the first priority, with most of the attention focused on big cities and mostly on automobiles. As a result, there are changes in the fleet and fuel used. Factories are also targeted, with some being closed or moved. However, all in all, the contribution to the growth of the environmental industry is marginal.

A second phase usually focuses on *water*, and large equipment vendors and international engineering firms come in to service municipal contracts.

A third phase focuses more on *waste*. Vendors set up collection networks and disposal sites. New waste reduction laws come in emphasizing the 3Rs of *reduce*, *reuse* and *recycle* and eventually waste avoidance. Capacity becomes the main issue as needs for infrastructure are many and the facilities are few.

The *fourth* phase is about remediation as well as the site assessments, analysis, design engineering and compliance issues that precede remediation. Regulations are being put in place, although enforcement activity may be minimal. However, what is really driving the remediation business are transactions: property development, brownfield investment and corporate mergers and acquisitions. Lots of former industrial sites are going to commercial development. Remediation related to mergers and acquisitions is mostly multinationals buying companies or facilities and cleaning up to avoid liability or industrial companies cleaning up before selling, or just front-end analysis of sites to determine likely cleanup costs or potential liability to account for in the transaction value.

The gradual introduction of market instruments to complement regulation, with a more differentiated demand for goods in the cleaner technologies and resource management categories—*environmentally preferable products* (EPPs). The shift towards cleaner production is driven mainly by cost-efficiency because of the gap between environmental needs and financial resources available for environmental purposes.

The divergent approaches to, and widely different levels of ambition in, the negotiations find their explanation in market realities, which are far from being uniform.

Some (developing) countries are in the first phases of addressing environmental problems through command and control instruments, which generates demand for a broad spectrum of *environmental goods* used in conjunction with environmental services relating to water, sanitation and energy.

In developed countries, augmenting regulations in some segments creates an incentive for “better than compliance” through partial internalization of environmental costs and tips the balance in the environmental activities in favour of environmental services and EPPs.² To the point that some analysts are redefining the environmental markets as the *HP2*—as in *Healthy Products, Healthy Planet*—markets, which may include products as diverse as organic food and fitness equipment, complementary and alternative medicine, ecotourism, water filtration and wind power systems, environmental consulting and waste management, sales of recycled materials and emerging categories like “green building”, sustainable timber and hybrid cars. Many *HP2* categories represent just a tiny fraction of their conventional counterparts, indicating a vast potential for growth, which is expected to continue at more than twice the rate of the economy.³

² The concept of EPPs draws on aspects of the work undertaken by UNCTAD, which defines EPPs as products that cause significantly less environmental harm at some stage of their life-cycle than alternative products serving the same purpose. Less environmental harm according to the following criteria: (a) use of natural resources and energy; (b) amount and hazardousness of waste generated by the product along its life cycle; (c) impact on human and animal health; and (d) preservation of the environment. UNCTAD (1995) Environmental Preferable Products (EPPs) as a Trade Opportunity for Developing Countries, Geneva, UNCTAD (UNCTAD/COM/70).

³ Environmental Business Journal, Green Products, Volume XVII, Number 7/8, 2004.

More recent, but not much different attempts at redefining the environmental markets have prompted the concept of a *Green Economy*. Consumer products and industrial services are at opposite ends of the *Green Economy*, but its segments converge on the objectives of sustainable development. The value proposition may be health, it may be sustainability, it may be minimizing the footprint of each citizen, but, taken together, these markets represent the early stages of an inexorable trend towards a more sustainable economy and healthier lifestyles.⁴

The various stages in developing the environmental markets, or *HP2* markets—or “greening the economy”—are accompanied by, and managed through, the accumulation of environmental measures and policies: from raising awareness—to articulating policy addressing the various environmental issues—to environmental legislation—to specific standards, technical regulations and rules governing environmental performance. With all these laws, measures and policies in place, a strong and consistently growing environmental market grows and evolves fairly rapidly to a contribution of around 2,5 percent of the nation’s GDP. In an optimistic scenario, consistent environmental markets emerge over a course of ten years. And while the commercial activity of companies solving environmental problems is no sure measure of environmental quality, it is a valuable indicator of the impact that various policy instruments are having on environmental expenditures.

As the environmental market grows, so does the national environmental industry. If it doesn’t or if it does, but at a lower rate, a deficit in environmental goods and services arises, and imports may come in to fill in the gap.

There is a tendency to equate environmental markets and trade in environmental goods (and services), while the actual interface may not be as big as is commonly presumed. How much of environmental capacity is actually translating into trade flows? Are there factors that drive environmental markets the same as the factors that affect trade in environmental goods and services? Are there problems that could be addressed through the negotiations and that cannot

be dealt effectively by businesses themselves? How interested are businesses really in bringing down the tariffs?

There are—and there may be—no precise figures, but the EBI estimates put the share of *tradable* environmental goods and services, i.e. environmental goods and services that enter the international trade flows, at 10 percent.⁵

The goods are traded to a larger extent, with 35 to 45 percent of equipment entering trade flows, mostly related to air pollution control and water management. The tradability of services is lower—15 percent. According to other sources, trade accounts for less than one fifteenth of the global environmental markets.⁶ The fact that trade in environmental goods outperforms trade in environmental services is to a large extent due to the fact that environmental goods have multiple uses and are, in reality, industrial goods. Trade in EPPs, if those are included in the calculations, can only magnify the picture.

Although market quantifications are derived from aggregated sets of data or incomplete census of companies, one can safely say that the environmental industry in developing countries is still relatively new and unformed. There is anecdotal evidence that capacity in environmental goods and services is building in certain sectors, mostly from involvement in partnerships with established foreign firms but also from the increased demand in their domestic market. However, there is little data to indicate that any of this capacity is translating into exports.

What about trade liberalization? The respondents to the EBI surveys and questionnaire rate it only *eighth* out of twelve market drivers, well behind regulations, enforcement, global standards of multinationals, overall economic growth and ...even media coverage. The observer organizations have tried to reach out to the business community with questionnaires, interviews etc. Judging from these communications, tariffs do not figure among the big 5 or even big 10 problems companies have to deal with.

The same surveys confirm that environmental regulations and enforcement levels are consistently

⁴ Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication, UNEP, 2011.

⁵ Information provided by Environmental Business International, cited from Environmental Priorities and Trade Policy for Environmental Goods: A Reality Check, ICTSD Environmental Goods and Services Series, by Veena Jha, issue paper 7, September 2008.

⁶ Ibid.

and by far the two most significant drivers in developing environmental markets, and are often the most significant in developed markets as well. A third place goes to global environmental standards maintained by multinational corporations, which customarily “import” their own standards for operational, corporate image and liability protection reasons. The state of the economy in general and of the company’s client base in particular is also seen as considerable factors in driving environmental markets. Some growth is achieved off the government projects.

Clearly, the environmental industry is mostly driven by domestic interests. Trade policy plays only a minimal role. That said, trade liberalization may and does serve to reinforce the more highly ranked factors. In some cases, it may facilitate the development of the environmental industry, without being causative. In using trade to fill in the capacity gap, an important decision for developing countries to take is, should they go as far as to allow imports outpace the development of the local environmental industry? This decision can only be made on a case-by-case basis.

The development of environmental markets is mainly about investment, and *not* about trade. And the vast majority of leading environmental companies consider developing markets too risky and not profitable enough to validate the additional efforts of developing overseas business. This is particularly true of small companies

that make up the vast majority of the environmental industry, but many large companies have pulled back from international markets as well. Both Waste Management Inc. and Allied Waste, US’ largest and second largest environmental firms respectively, have divested foreign operations and eliminated any efforts at developing overseas business in solid waste. Japanese equipment firms have responded to tighter economic conditions by focusing on more predictable domestic markets. US, German and Dutch firms have cited inconsistent market demand and other barriers to pursuing more work outside western Europe, including public procurement problems, difficulty in collecting payments and currency issues among others.

While the developing members may be concerned about the erosion of tariff protection, the developed members are more concerned about the erosion of protection for their companies! Indeed, once environmental companies move in and set up their business, they may not necessarily be interested in any imports coming in; successfully invested companies have little interest in opening up the markets to their competitors. Some of the issues that could be done through the WTO negotiations are pretty well dealt with by businesses themselves. Against this background, enhancing *market access* for select “environmental goods” through negotiations that are hinged on reciprocity may seem oddly out of touch.

III. HOW ENVIRONMENTAL ARE “ENVIRONMENTAL GOODS”?

Anyone familiar with the negotiations in the CTESS would agree that *dual use* had emerged as *the* main structural problem, with the developing Members favouring environmental goods specifically designed or used for environmental purposes. The analysis conducted for UNCTAD by environmental industry experts is instructive. Out of some 440 entries appearing in the WTO compilation,⁷ for which HS⁸ codes have been provided, only about half a dozen are singularly used for environmental purposes, with the exact count depending on whether certain *EPPs* are included or not.⁹

These findings echo some of the problems encountered by the OECD/Eurostat informal working group, convened in late nineties with a view to forging an agreement on an interim definition of, and classification system for, the environment industry. At that time, the experts could already see that the existing classification system was not up to the task of deriving environmental industry data, even as some kind of “subset” of the industry data, without either additions or modifications to the system.

First of all, there was no single environmental industry classification. A question was raised as to whether resources—water, scrap, energy—should be in or out of the categories. Another question was, who had the infrastructure to collect the data? How were they going to share the data? To what extent could

the input/output analysis be useful? Why couldn't the classification system be modified to include this important industry analysis category?

The experts did not attempt to address product identification issues for the Customs. They focused primarily on industry economic analysis. A question came up about the possibility of updating tariff nomenclature in such a way as to “design in” single use designations. However, the experts were not charged nor had the authority to do this. In any case, for most goods, this would not have been possible. The industrial product classification codes were not a particularly usable system for attempting to specifically, or uniquely, classify environmental goods. The potential solutions envisaged and discussed extensively were: a separate (!) data collection process, *not* based on the existing system for acquiring consistent environmental industry data; creating unique classification codes for the environment; weaving in resource amounts as part of a “next generation” approach—a system that would run parallel to the existing product classification systems.¹⁰

The resource management categories were still little more than a concept. The question, how to link the concept with goods and services remained open. The later attempts—by member economies of the Asia Pacific Economic Cooperation (APEC) and the

⁷ All in all 480 goods have been identified as environmental in the lists submitted by nine Members and compiled into an informal document by the WTO Secretariat in November 2005, TN/TE/W/63.

⁸ The Harmonized Commodity Description and Coding System generally referred to as “Harmonized System” or simply “HS” is a multipurpose international product nomenclature developed by the World Customs Organization (WCO). It comprises about 5,000 commodity groups; each identified by a six digit code, arranged in a legal and logical structure and is supported by well-defined rules to achieve uniform classification. The system is used by more than 200 countries and economies as a basis for their Customs tariffs and for the collection of international trade statistics. Over 98 % of the merchandise in international trade is classified in terms of the HS.

⁹ Examples of single-use goods in the WTO compilation are: Animal & vegetable fertilizers (entry 45, HS 310100), Hydraulic Turbines (entry 219, 841012, entry 220 HS 841013), Electric Trains (, Self-propelled railway or tramway coaches, electrical (entry 352, HS 860310), Bicycles (entry 368, HS 871200), Brooms and brushes (entry 441, HS 960310). Only two types of renewable energy equipment can pass the single use test at the HS 6-digit level: (1) hydraulic turbines (8410.11, 8410.12, 8410.13) and (2) wind powered electricity generating sets (8502.31). Ethanol (2207.10) and methanol (2905.11) fail the single use test as these are common chemicals in many synthetic hydrocarbon reactions, in addition to being “green fuels”. Biodiesel is exclusively used for transportation or energy production but is an ex-out 38(3824.90 ex) as it is categorized under the large subheading of “products, preparations and residual products of the chemical or allied industries”. Solar cells also form part of a large subheading (8541.40), which includes semiconductor devices and light emitting diodes.

¹⁰ A classification systems have as their starting point either *economic activity* (SIC and ISIC and their European, American and Australian cum New Zealand derivatives—NACE, NAICS and ANZSIC); or the *characteristics of a product* (HS and the less specific SITC, derived from the UN Central Product Classification—CPC). It is, however, possible to build a relation between an industry classification (ISIC or SIC) and a product classification (HS) through the CPC.

WTO—to negotiate these essentially resource based products have not been particularly successful. In APEC they were considered a deal breaker and put at risk the entire Early Voluntary Sectorial Liberalization (EVSL)!

The EVSL exercise in APEC has managed to nuance these findings by relaxing the criterion of *single use* and looking for goods with *predominantly environmental use*. Applying this, relaxed criterion to the WTO compilation would leave us with round about 20 entries, which, while being of *dual use*, are likely to be used for environmental applications in more than 50 percent of the cases.¹¹ However, for some of these entries, specifically those relating to water and wastewater, e.g. pipes, pumps, valves and meters—all under separate HS codes—*predominant environmental use* presupposes that drinking *and* industrial water are counted in. Limited to the wastewater treatment, they will not pass the 50 percent threshold.

These are only very rough estimates, of course. More accurate market assessments should be performed if precise percentages of environmental vs. other uses are desired. However, who would recommend that path?

There have been proposals by experts, echoed by UNCTAD and the EC in their submissions to the CTESS,¹² to include within the scope of the negotiations *entire plants or technology systems*,¹³ which are, by definition, devoid of multiple-use and relativism in time problems. The same approach could apply to entire technology systems, e.g. oil recovery systems. In many cases there appears to be a possibility to classify entire technology systems under a single HS heading. However, more work is needed to find the appropriate tariff headings or to create new ones.

Since the existing definitions of EPPs are as much about the resources as they are about the environment,

the negotiators could, in principle, consider a particular category of EPPs as *single source* or *single process* from an environmental impact perspective. For instance, renewable energy goods could pass the test based on the *source* or *resource* rather than the *use* of the products as their categorization is not so much based on the specific category of technologies, e.g. electrical generating motors, power converters and inverters, etc., as it is on the *source* of the power, i.e. bio-fuels, low-head hydro, solar, wind, geothermal, etc. Other goods using a particular source of energy could be classified as a *single source* within a particular HS category.

Some WTO Members operate duty drawback schemes, where duty collected at the border is refunded based on an application by the user. Theoretically, such schemes could be extended to environmental goods, but their requirements in terms of monitoring and verification are beyond the capacity of Customs in most Members. The Combined Nomenclature of the EC has additional provisions, which apply, under certain conditions, to the classification of the so-called “split consignments of machines”. Under these provisions, importers need not provide a full import declaration for the individual components of a particular machine classifiable in Chapter 84 or 85 and brought into the country at different moments. These components are classified for import declaration purposes at the moment that they have been assembled.¹⁴

The system is limited to the 27 members of the EU. However, this is not the only concern. In the *China–Autoparts* case, the Appellate Body had to decide whether a charge on imported car parts was a border tariff, i.e. subject to GATT Article II or an internal duty, i.e. subject to Article III. China claimed it was under Article II and within its bindings, while the US claimed it was under Article III and, since it only applied to imports, discriminatory. The Appellate Body found it

¹¹ Examples of goods with predominant environmental use in the WTO compilation are: ceramic pipes (entry 142, HS 6906), glass wool (entry 154, HS 701932, entry 155, HS 701939), water pipes (entry 167, HS 730431), accessories to pipes (entry 170, HS 730630-90), pumps (entries 230, 231, 232, HS 841350, 841360, 841370), hand air pumps (entry 236, HS 841420), water filtering and purifying machinery (entry 256, HS 842121), UV lamps (entry 343, HS 853949), photosensitive semiconductor devices (entry 344, HS 854140), mufflers (entry 367, HS 870842), flat Panel Displays (entry 387, HS 901380), liquid meters (entry 413, HS 902820), brushes and parts (entry 442, HS 960350), mechanical brushes (entry, 443, HS 960390).

¹² UNCTAD'S Work on Environmental Goods and Services: Briefing Note, TN/TE/INF/7, 5 October 2004; European Communities, TN/TE/W/47.

¹³ Examples of entire plants that could be considered are numerous: recycling plants, plants for waste management, sulphuric acid recovery plants, plants for co-generation of heat and power.

¹⁴ HS codes and the Renewable Energy Sector, Izaak Wind, Paper for the ICTSD, 2009.

was an internal duty as it was triggered and decided based on internal use and assembly of the car parts within China. So, for environmental goods, if we let the duty be decided by internal use, it risks becoming an internal tax and if it is only applied on imports, it would violate GATT Article III.

Can a WTO Member rely upon different end-uses in defining *non-likeness* of a physically similar product? The United States contends in its submission to the CTESS that *likeness* cannot be exclusively defined on the basis of end-use alone, while India emphasizes the importance of end-use in the context of environmental projects. The case law of the WTO does not seem to allow, at this stage, for a clear answer.¹⁵ While most cases relate to the interpretation of *likeness* in the context of Article III GATT, in this particular context, the analysis of *likeness* in Article I is of paramount importance.

Hudec argued that likeness under the MFN should be defined differently depending on whether we talk about tax, regulation or tariff. For *Hudec*, since we need to give members room to define carefully where they want to give a concession, *likeness* for tariffs should be defined narrowly, in other words, one should not too easily find *likeness* between two products.¹⁶

If the criterion of end-use on its own, with or without a nationally defined project, does *not* stand the test of differential tariff treatment, can distinctions be lawfully drawn on the basis of different regulatory purposes *within* the criterion of end-use?¹⁷

Assuming selective privileges for imports of environmental products for the purpose of national environmental projects are inconsistent with GATT Article I, can they be justified through recourse to GATT Article XX, more specifically Articles XX(d) and XX(g), which allow exemptions if these are required to implement GATT consistent domestic market regulations or for the protection of non-renewable resources?

Admittedly, the matter can only be dealt with on a case-by case basis, taking fully into account the particularities of the project, specifically its legal structure. According to *Cottier*, Article XX(d) offers the most promising option. However, he argues, it would be difficult to meet the *necessity test* unless one can demonstrate that the extra costs incurred would render the environmental project impossible to operate, or if privileged access would merely confer a fiscal benefit to those procuring project related goods.¹⁸

What if regulatory distinctions are not treated as exceptions? Can the limits and relevance of the concept of *like product* be pushed in the context of the provisions for non-discrimination?

In her recent paper, *Cossy* suggests there is scope for reviewing the potential of the *aims and effect* approach.¹⁹ The approach stresses the importance of: (1) the role of alternative, non-protectionist objectives (“aim”) and (2) the measure’s effect on imports (“effect”). The *aim and effect* would complement rather than replace the traditional GATT test to determine whether goods, services and service suppliers are *like*.

According to this approach and to the extent that a product differentiation does not have discriminatory effects, members are entitled to operate product differentiation for regulatory purposes, including taxation. The approach could arguably apply as a guideline for defining essential products in the context of implementing a specific environmental objective. *A priori* that would not be more arbitrary or artificial than relying on tariff classification. It may offer guidance to include products used for specific purposes, while excluding other products which, on the basis of standard criteria, may be considered *like*, but are mainly used in a different context.

The *aim-and-effect* test has so far been formally rejected in both GATT and GATS. On the other hand,

¹⁵ See Cottier, T. Baracol Pinhao, D., The WTO Negotiations on Environmental Goods and Services: A Potential Contribution to the Millennium Development Goals, UNCTAD/DITC/TED/2008/4.

¹⁶ Robert E. Hudec, GATT/WTO Constraints on National Regulation: Requiem for an “Aim and Effects” Test, 32 International Law, 619, 1998.

¹⁷ Of course, one can always argue that the criteria of end-use has been conceived and used as a factual element. It relies upon end-use as found on markets and on the basis of consumer preferences. The criterion was not intended to respond to different regulatory purposes. This argument can be employed to discard practically any negotiating proposal alternative to the list.

¹⁸ Cottier, T. Baracol Pinhao, D. *ibid*.

¹⁹ Cossy, M., Determining “likeness” under the GATS: Squaring the circle? WTO Staff Working Paper ERSD-2006-08, September 2006.

the Appellate Body, with its “accordion metaphor”, has already made it clear that *likeness* needs not to have the same scope across the different provisions of a given agreement, let alone in different WTO agreements. For instance, the concept of *likeness* is not necessarily identical in goods and services. And parties to RTAs as well as the case-law define *likeness* in services on the basis of broader concepts than those used in the WTO jurisprudence in goods.²⁰ Would the negotiators be willing to take the task of refining these criteria to take better into account the specificities of trade in environmental goods (and services)?

In his comments on Cossy’s paper, Pauwelyn argues rather convincingly that the focus on *likeness* as the defining element of MFN and national treatment may be misguided.²¹ The more important question is whether or not a measure affords less favourable treatment to imports. Even if a particular environmental good and its analogue are to be found *like*, this does not mean a measure is inconsistent with MFN or national treatment. The MFN and national treatment principles are about discrimination based on *origin*,

its rationale is not grounded in perceived differences between goods (and services). Consequently, the MFN and national treatment analysis should focus on the regulatory purpose and protectionism. Which means tackling the main question: is the measure origin neutral?

Pauwelyn’s view was reiterated most recently in the panel report on EC—Biotech. In that case, the panel assumed that biotech products and non-biotech products were *like*, skipping the *likeness* question altogether, but pointed out that the EC treats all biotech and non-biotech products alike, irrespective of origin.²²

Two conclusions can be drawn from this analysis. First, *likeness* is overrated. Second, what matters is finding *de facto* discrimination related to *origin*. We would not equate that with *aims-and-effects*, but with a holistic check as to whether based on *all* evidence, including structure of the measure, its application, impact, regulatory purpose etc., we can speak of a *de facto* discrimination of imports.

²⁰ In the field of services, the doctrine of like products is far from settled. Art XVII: 3 GATS essentially relies upon the concept of modification of competition between different products and service providers.

²¹ The Unbearable Lightness of Likeness. Joost Pauwelyn, For a similar argument in respect of GATT, see William Davey and Joost Pauwelyn, http://www.law.duke.edu/fac/pauwelyn/pdf/unbearable_lightnes...

²² Panel Report on EC – Biotech Products, WT/DS291/R, adopted on 21 November 2006, para. 7.2514.

IV. WHAT WOULD BE A LOGICAL OUTCOME OF AN AGREEMENT BASED ON LISTING?

A default option is a sectorial agreement, coloured by preconceived notions stemming from the work conducted previously by the OECD and APEC, where purely market access considerations prevail. This may be a problem in itself as there are members opposed to the idea of sectorial agreements in general, and with respect to environmental goods in particular. Brazil, for instance, argues that the environmental goods negotiations are not exactly market access negotiations nor should they lead to a “super-sectorial” agreement. Other members, including some leading trading nations, consider sectorial breakthroughs as an important contribution to the overall package and most often cite environmental goods, along with chemicals and information technology goods, as a likely subject of such initiatives.

Generally speaking the incidence of sectorial approaches in international negotiations—regional, plurilateral, multilateral—is relatively limited. More often than not, sectorial negotiations had been tried for several sectors in parallel, and cross-sectorial demands and linkages contributed towards a balanced overall outcome. For the sake of our analysis, we set aside these political concerns and consider the WTO experience, weighing the pros and cons of such an outcome from a mere technical perspective.

The OECD list was never meant for trade negotiations. And even if it were, it is just too comprehensive and would never get the *critical mass*. The APEC members

do not negotiate. Their list was produced in part to meet the optimistic expectations of a new WTO round. Contrary to the popular belief, it was not based on consensus; the individual lines had multiple sponsors; some countries had reservations against the EVSL, because of other sectors. The list was time-bound as it represented the not necessarily shared views of twelve at that time APEC members, but was open to new proposals. Arguably, the OECD list and its derivative—the APEC list—represent the best, readily available reference for the negotiations, but could they serve as a blueprint?²³

Not surprisingly, most list-based submissions come from APEC members and are based on the lists they had built at the time of the Early Voluntary Sectorial Liberalization Initiative. There are two notable exceptions: the proposal by Qatar,²⁴ targeting low-carbon (natural gas) and carbon-free (renewable energy) technologies, and that of the Brazil, EC, New Zealand and Switzerland²⁵ which seeks to broaden the scope of the negotiations to include certain examples of EPPs of interest to developing countries. Brazil also argues for broadening the scope of the negotiations on product coverage to include agricultural goods of particular interest to developing countries, and not the industrial products only.

For non-APEC members, coming up with a negotiating proposal complete with a list is not that easy. It presupposes extensive internal consultations

²³ The OECD list includes goods spanning 132 6-digit Harmonized Commodity Description and Coding System (HS) codes. Of these, 25 are minerals and chemicals used in water and waste treatment, and in renewable energy systems, and 97 are manufactures that serve as components of the systems and infrastructure used to provide environmental services. Also included in the list are some environmentally sound technologies, such as integrated turn-key pollution prevention systems and cleaner/resource efficient systems (e.g., fuel cells, electric transportation vehicles and fluidized bed combustion), however, there exist no HS codes to classify these technologies in the form of integrated capital goods, and thus their trade is not tracked by internationally reported national trade flows at the 6-digit HS level. The APEC list of environmental goods spans 104 HS codes, with 44 goods on the APEC list qualified by ex-heading specifications (i.e., providing descriptive product details at a higher level of desegregation than the international or common 6-digit HS level). A comparison of the APEC and OECD lists of environmental goods reveals similarities – both lists share a common set of environmental functions for which they seek to define goods and the two lists have 54 goods in common – and differences – 50 (68) goods on the APEC (OECD) list do not appear on the OECD (APEC) list (OECD, 2003). Differences in the composition of the two lists are significant; minerals and chemicals for water/waste treatment are exclusive to the OECD list, while the APEC list includes a relatively more extensive set of goods needed for environmental monitoring and assessment. The OECD list contains a large number of EPPs, whereas the APEC list contains a more limited number.

²⁴ Qatar, TN/TE/W/19, TN/MA/W/24, 28 January 2003.

²⁵ Brazil, TN/TE/W/59, European Communities, TN/TE/W/47, New Zealand, TN/TE/W/49/Suppl.1., Switzerland, TN/TE/W/57.

involving domestic businesses—to identify actual products on the market, environmental authorities—as environmental regulations are the prime drivers of the environmental industry, trade authorities—to assess defensive and offensive interest in the negotiations, and last but not least, customs officials—as it is the customs who will be responsible for the implementation of any eventual agreement.

The range of questions is very large: the validation of environmental claims for particular products; potential for overlap with other sectorial initiatives, e.g. chemicals harmonization, Information Technology Agreement (ITA), construction equipment; trade coverage of the hypothetical reduction to “0”; principal and substantial suppliers; extent of dual use, if relevant; specificity of the respective HS code; possibility of going beyond the HS 6-digit harmonized tariff line; immediate spare parts and accessories: whether to include these or not, on a selective basis or not; level of tariff protection (MFN bound, applied); preferential tariffs applied in the regional trading arrangements (RTAs) the members may be party to and possible erosion of preferences; level of tariff protection for primary and intermediate goods used in the production of the product in question to avoid the risk of “negative protection”; the relevance of NTBs; the evaluation of reciprocity. The list goes on...

Some of these points will have to be addressed with the eventual negotiations in NAMA in mind: e.g. reciprocity—in a particular product group, in trade with a principal and substantial suppliers, if applicable; reciprocity through exception from formula reduction; reciprocity through “critical mass”, S&D treatment carve-outs for sensitive items, staging; focus on select NTBs.

UNCTAD has been involved in such consultations, both in Geneva and on the ground. When done properly, they tend to turn into a rather resource intensive and time consuming exercise, even in those countries where there is an interagency coordinating mechanism in place to facilitate the process. Making use of the existing lists as a reference may save some time and effort, but cannot substitute for a thorough country-based analysis.

Shortly before the suspension of the negotiations in 2007, Brazil, China, India, and South Africa, in a joint statement echoed by Argentina and Egypt, summed up the problems that had been plaguing the negotiations from the outset.²⁶ Dual use has emerged as the main problem in the discussions on product coverage. As for the majority of “environmental goods”, dual use is a function of their ubiquitous nature for uses other than environmental, *ex-outs* cannot be used to effectively “design in” single environmental use into the HS system. Moreover, the use of *ex-outs* tends to frustrate the objectives of tariff elimination by leading to trade restrictive or trade distorting measures.²⁷ Recourse to *ex-outs* in other trade agreements has invariably led to problems at the implementation stage. In fact, concerns about the difficulties stemming from implementing *ex-outs* domestically is the main reason the trade negotiators are trying to keep those to an absolute minimum. Unlike the sectorial agreements, any agreement on environmental goods would span practically the entire HS, i.e. in fact be cross-sectorial and affect a great number of traders, making the use of *ex-outs* even more dubious.

Four years later the technical negotiations resume, and Argentina, Brazil, China, India and South Africa remain critical of a list of 153 environmental goods submitted for tariff elimination by a group of mostly developed Members in 2007. They argue that the majority of the goods are used predominantly for non-environmental purposes and tend to serve the export interests of developed Members more than any environmental objective. Brazil stresses the need for an outcome that offers measurable environmental gains along with improved trade opportunities for developing Members, and remains critical of the CTESS for failing to shed any light on how the environmental and developmental dimensions of the mandate are to be fulfilled through essentially tariff negotiations on a list of goods of interest to some Members only.

To allay these concerns, some analysts have been focusing on the statistical analysis of reciprocity and arguing that the proposed list is not all that bad as far as the developing Members are concerned. There is nothing wrong with using the statistics as a

²⁶ Summary report on the sixteenth meeting of the Committee on Trade and Environment in Special Session, 6-7 July 2006, Note by the Secretariat, TN/TE/R/16, 22 December 2006, paragraphs 293, 294 and 302.

²⁷ Extensive recourse to *ex-outs* would actually mean that many Members could end up liberalizing more than what was required by the agreement that they would have negotiated. Being cognizant of this risk, some Members could put in place special provisions, e.g. in the form of licensing or end use certificates, which were often described as NTBs.

starting point in evaluating reciprocity, of course. The danger lies in it becoming the end point. Doing “due diligence” on reciprocity presupposes that factors other than statistics are taken fully into account: tariff profiles, the incidence of NTBs, supply and demand elasticity, and, finally, the size and composition of markets.

Even as a first step, statistical analysis may be misleading, especially when applied to artifacts such as “environmental goods”. More often than not, the value of trade in the underlying “environmental good” is just a fraction - in some instances as small as one percent - of the corresponding HS line at the six-digit level. Besides, the analysis is often conducted for groups of products and groups of countries. What kind of conclusions can be drawn from the fact that nine developing countries account for ninety percent of trade in “environmental goods”? Isn't it obvious that we are talking about the biggest developing country exporters of industrial goods?

Nobody wants to conduct the negotiations almost unencumbered by any facts. On the other hand, there is not much point in superimposing measurables on the unknown. The ubiquitous nature of “environmental goods” is such that it can thwart any correlations and regressions.

Some Members have engaged in simulation exercises to see how tariffs on the proposed list of 153 environmental goods might be reduced. The most recent ones, conducted by China, present tentative outcomes for three major developed Members - the US, the EU and Japan - and three major developing Members - China, India and Brazil.

The results of the simulation show that the standard tariff treatment for developed Members in the NAMA negotiations, i.e. a “Swiss formula” applied with a coefficient of 8, would reduce the average tariff rate on selected environmental goods from 1.31 percent to 0.94 percent in the US, from 2.01 percent to 1.45 percent in the EU, and from 0.24 percent to 0.16 percent in Japan. Assuming the “Swiss formula” will be applied to the developing Members with a coefficient of 20, an average tariff for the same set of goods would come down from 7.59 percent to

5.02 percent in China, from 31.71 percent to 12.08 percent in Brazil, and from 30.47 percent to 11.28 percent in India.²⁸ All in all, the results are rather intuitive and play into the developing Members' arguments in favour of special and differential treatment.

If the delegations choose to pursue the sectorial scenario, it is not going to be important whether or not the goods included in the product coverage are really “environmental”. The negotiations will hinge on reciprocity and proceed in the absence of an agreed definition, with the WTO members playing the game of artifacts and equivalences.

In a classical WTO afterthought, the negotiations may turn into a *request-and-offer* process, with the WTO members trying to make deals by seeking to identify bilateral coincidences of wants. In this case, a list of environmental goods may evolve as a post-scriptum to a bottom-up process of bilateral requests and offers, with subsequent multi-lateralization of concessions. We hinted at such a possibility in our earlier analysis; more recently, this approach was formally proposed by the delegation of Brazil.²⁹ The *request-and-offer* process can also be conducted in a plurilateral mode, as collective meetings between demandeurs and targeted countries. Such meetings, organized along sectorial and modal lines, are a common feature in the services negotiations.

Some Members advocate *hybrid* approaches. For instance, Mexico believes Members could undertake tariff-reduction commitments on a self-selected list of environmental goods, and then use a request-offer process to negotiate further commitments. Singapore, Australia, Hong Kong, China and Norway propose to have a core list of single-use environmental goods, complemented by a self-selected list and a request-and-offer procedure.

If an agreement on environmental goods is negotiated as part of the *single undertaking*, and given the asymmetries in environmental markets, the developing members will be looking for trade-offs against the other negotiating agendas, and this kind of bargaining is indeed taking place.

²⁸ Bridges Trade BioRes, Volume 11, Number 4, 7th March 2011.

²⁹ UNCTAD'S work on environmental goods and services: briefing note, Committee on Trade and Environment in Special Session, TN/TE/INF/7, 5 October 2004; Submission by Brazil, entitled: Environmental Goods for Development, which develops further some of the issues pointed out in TN/TE/W/59 of 7 July, 2005.

The developing Members will also be seeking less than full reciprocity and S&D treatment so as to hedge against the indiscriminate product coverage, limit the scope for unintended commitments, increase trade opportunities, safeguard own interests, introduce flexibility of commitments, of actions, including the use of policy instruments, and promote technical assistance and capacity building. The concept of a development list, promoted by China at the early stages in the negotiations, is one case in point. A special category of S&D may target LDCs and constitute, or border on, full exemption. For example, in their most recent submission to the CTESS, the U.S. and EU proposed exempting so-called Paragraph 6 countries, such as Kenya, which the Doha round would only obligate to bind their industrial tariffs, rather than subject to formula cuts. Also exempted from *Tier Two* obligations are LDCs and small and vulnerable economies.

If the negotiations on environmental goods proceed on a plurilateral—*à la carte* basis, reciprocity will be achieved through the *critical mass* requirement. The S&D treatment will either be insignificant or take the blanket form, allowing members to opt for a complete exemption. Such an outcome would make the agreement on environmental goods similar to the three sectorial agreements concluded during the period of the “built-in agenda”—on information technology, financial services and basic telecommunications services, where a large number of developing countries that had signed on were not, and did not expect to become exporters in the near future.

A full implementation of such an agreement would require going through three phases.

In phase one, the WTO members agree on a list that determines the product coverage. This list sometimes takes a legal form and is incorporated in the WTO Agreements, but in most cases it merely determines the basis of a commitment to be inscribed in the schedule.

In the second phase, the list has to be transcribed into individual schedules of concessions for the WTO Members (Article II of GATT 1994). In the process, items that are not uniquely defined at the HS 6-digit level, must take the form of an *ex-out* or be specifically described in the national nomenclature (e.g. 8-, 9-, or 10- digits, internationally non-harmonized). A process of verification typically takes place, i.e. technical meetings in which the delegations assess

the way their trading partners have reflected the list of products in their schedules, or in more recent times, electronic verification by the WTO Secretariat has also been used. The individual schedules of concessions of the Members constitute the legal outcome and are binding. Any disputes regarding the product coverage would be addressed on the basis of these binding schedules.

In the third phase—domestic implementation—the individual WTO Members must do further work to apply the WTO commitments at the border, which determines how the traders see the negotiated outcome in reality and practice. This phase is beyond the WTO legal concessions, and it is up to each Member to determine the most suitable way to implement the concessions based on its experience, practice, legal constraints, and organization of its Customs service. In practice, domestic implementation may mean the following: creation of national codes at the 8-, 9-, 10-digit level; recourse to HS Chapters beyond 1-97; “wholesale” implementation at the HS 6-digit, i.e. essentially a “WTO plus” outcome; or special provisions such as licenses or additional procedures which have often been described as non-tariff barriers. Except in the cases of a customs union, domestic implementation invariably results in different outcomes across the WTO Members participating.

The use of 8-, 9-, and 10-digit codes for domestic implementation can be quite straightforward and transparent when a Member has such definition in its national nomenclature. However, for many developing countries whose tariff structure is simple (i.e. at the HS 6-digit level), codes at the 8, 9, or 10 digit level are non-existent, are too few, or are beyond their capabilities to create. Thus they face a choice: make the necessary changes in their national tariff nomenclature and follow through these changes with adequate implementation measures and procedures, or alternatively, liberalize the corresponding HS 6-digit tariff line in its entirety.

Taking such a decision presupposes comparing the costs of complex implementation to costs of foregone tariff revenue in case of a “wholesale” liberalization. The relevant questions here are: how much of the HS 6-digit tariff line is accounted for by the underlying (environmental) good, and what is the value of trade of this good. Whereas the latter question can relatively easily be answered, the former requires in-depth analysis which may not be obtainable. In other words, extensive recourse to *ex-outs* actually means that

many developing Members may end up liberalizing more than what is required by the agreement they have negotiated. Being cognizant of this risk, some developing Members put in place *special provisions*, e.g. in the form of licensing, end-use certificates etc., which are not unlike some of the measures that are contained in other proposals already made in these negotiations, for example, in the context of the project-based approach, advocated by India, and which have sometimes been described by others as non-tariff barriers.

This short analysis explains why the trade negotiators like *ex-outs*, and why the Customs people do not. *Ex-outs* can certainly make negotiating a trade agreement easier. However, the same *ex-outs* may frustrate the objectives of tariff elimination by leading to trade restrictive or trade distorting measures. It seems that of late, trade negotiators have been more aware of the issues and problems that are created. Their concerns about the difficulties stemming from implementing *ex-outs* domestically is the main reason the trade negotiators are trying to keep those to an absolute minimum.

The sectorial agreements have used *ex-outs* to varying degrees. For example, there is one *ex-out* for Agricultural Equipment, no *ex-outs* for Chemical Harmonization, mostly all *ex-outs* for the Civil Aircraft, one *ex-out* for Construction Equipment, one *ex-out* for Furniture, three *ex-outs* in the Medical equipment, two *ex-outs* in the Steel, none on Paper, many *ex-outs* in certain lists of the Pharmaceuticals, and no *ex-outs* in Toys.

The Information Technology Agreement (ITA) is of relevance in this regard. While one list in the ITA is relatively straightforward and contains few *ex-outs*, there has been extensive on-going technical work to correct some of the problems created with a second list which is essentially all *ex-outs*. After many years, a significant number of these have been rectified through changes to the HS nomenclature (internationally harmonized 6-digits) by the World Customs Organization (WCO).

Experience with the ITA has fully revealed the problem of ensuring consistent interpretation of customs

classification, leading to disagreements among trade negotiators as well as between Customs authorities and traders. To the point that some analysis are questioning the relevance of the Agreement and the technological assumptions it was based on.

If there is an overall lesson to be drawn from the sectorial agreements, it is that *ex-outs* have been—and should remain—the exception rather than the rule. The problem with dual use may arise either because the HS is not specific enough to capture “environmental goods”, or because multiple use is inherent to these goods. Creating *ex-outs* in national nomenclature may serve to address the former problem, but not the latter. Environmental industry experts converge on the view that for the vast majority of “environmental goods”, dual use is a function of their ubiquitous nature for uses other than environmental. Therefore, using *ex-outs* to “drill down” to single use from dual use does not seem to be a viable option.

The recent legal challenge to the application of the ITA Agreement is very telling. The US, Japan and Taiwan Province of China have brought the case against the EU regarding certain dual use products.³⁰

The United States argued that “[w]hile the particular measures the EC has adopted to eliminate duty-free treatment for the products in question differ, all share a common theme: the use of arbitrarily chosen technical characteristics to reclassify products and thereby exclude an increasingly significant share of products from duty-free treatment.”

The EC argued that “[t]he complainants’ position... is guided by the notion that any multifunctional product which happens to have among its functions one covered by an ITA concession must always be classified according to that function, irrespective of that function’s relative importance when compared to other functions not covered by the ITA.” The EC stated that “[i]n essence, the complainants’ view is that an ITA concession always trumps a non-ITA concession.”³¹

The case has revealed the drawbacks of the Agreement. The positive list, based on a precise nomenclature, proves self-limiting and does little to solve the structural problem of dual use. The all but

³⁰ The products in question—TV set-boxes, flat screen monitors—can be used in applications that ITA did not cover, e.g. consumer electronics and certain kinds of printer.

³¹ Quoted from WTO Panel report: EC—Tariff Treatment of Technology Products, by Brendan McGivern, White and Case, available on <http://www.whitecase.com/geneva/>.

inoperable review mechanism has largely failed to manage the product coverage.³²

The Panel stressed that the ITA listed the covered goods not just by specific HS headings, but also through a narrative list of products that were “covered by this agreement wherever they are classified in the HS.”³³ The decision of the Panel in this case is consistent with prior WTO rulings that have imposed strict disciplines on the use of tariff reclassification.

This case was more complicated as the EC argued that technological innovation had essentially transformed certain goods into entirely new products. Nonetheless, the Panel insisted that goods subject to ITA commitments had to remain duty-free, even if some covered products have since become capable of performing additional functions. A ruling to the

contrary could have vitiated the value of the ITA. Moreover, continuing product evolution is not limited to IT goods.³⁴

Will litigation help develop a case law regarding the tariff classification issues for dual use products? We do not know, but the ruling may serve as a basis for renegotiating the ITA in such a way that it becomes more accommodating of technological change. In the meantime, analysts converge on the following conclusions. To be manageable, the product list should be *negative*, i.e. only exceptions should be listed. There should be disciplines on handling dual use products at customs, especially those products that embody technological change. Last, but not least, a new Agreement should deal with non-tariff barriers, specifically inadequate licensing or government procurement practices.³⁵

³² The review is based consensus, no objectives or timelines are specified for the negotiations.

³³ ITA participants considered that the traditional approach of listing HS codes was inadequate to address the full scope of the product coverage that was intended by participants to the ITA and agreed to implement their commitments through a “dual” approach, which included binding and eliminating duties for both: (i) products classified or classifiable in HS codes, down to the six digit level, as set out in Attachment A (“list of HS headings”), and (ii) products identified through a narrative description, without any reference to the HS system, as set out in Attachment B (“list of products”). This approach was considered as a “[p]ositive list of specific products to be covered by this agreement wherever they are classified in the HS.”

³⁴ The decision of the Panel in *European Communities and its Member States – Tariff Treatment of Certain Information Technology Products* (DS375, DS376, DS377) was released on August 16, 2010; see analysis by Brendan McGivern, White and Case, available on <http://www.whitecase.com/geneva/>

³⁵ Deyer I., Hindley B., *Trade in Information Technology—Adapting the ITA to the 21st Century technological Change*, available on www.ecipe.org.

V. HOW TO NEGOTIATE NON-TARIFF CONCESSIONS?

In theory, negotiating a sectorial agreement allows the simultaneous treatment of the tariffs and NTBs affecting trade in a particular group of products. It also brings together the most important exporters and importers and makes the exchange of concessions more dynamic.³⁶

In practice, sectorial approaches in international negotiations have never entailed an exhaustive coverage of actual or potential barriers to trade. The ITA and other agreements demonstrate rather convincingly that it is a fallacy to think that a sectorial approach would necessarily be instrumental in dealing with NTBs. More often than not, sectorial negotiations are tried for several sectors in parallel, and it is through cross-sectorial demands and linkages that the negotiators try and achieve a balance in the overall outcome.

It would appear that the principle of *critical mass*—identifying and addressing critical sectors and barriers—especially if applied at the beginning of the negotiating process, can help bring the NTBs dimension of environmental goods into focus and deal with the most burdensome or urgent NTBs.

Various means may be used to make the principle of *critical mass* operational. A comparison may be drawn between regulatory measures applied domestically and internationally, or between measures applied to domestic as compared to imported products. The sheer number of complaints from the exporters converging on particular products may also serve as a criterion.

The process of identifying and inventorying NTBs by members—similar to the efforts made in the Kennedy Round—was initiated by the Chairman of NAMA in 2001. Some 30 plus members have participated in this process. Its outcome suggests that standards and technical regulations play by far the most important

role in developing countries' access to developed country markets.³⁷

In principle, the CTESS could, at Members' request, take upon itself to evaluate NTBs relevant to trade in environmental goods and to identify possible approaches. It could also help the developing members manage the risks implicit in the notification process in NAMA, which is aimed at promoting exposure, rather than promoting transparency, which is the objective of the notifications made in the WTO Committee on Technical Barriers to Trade (TBT).

Once the evaluation exercise and non-technical discussions in the CTESS are over, NAMA and other relevant bodies will have to take over as the CTESS lacks the specialised technical expertise to go beyond and negotiate on its own multiple NTBs simultaneously.

It would be logical for NTBs that are more *issue-specific* to be taken up in relevant committees or negotiating groups, while *sector-specific NTBs* could be discussed in NAMA. NAMA could also discuss issue-specific NTBs that other committees or negotiating groups have no mandate to address.

There are those who consider it futile and even counterproductive to refer NTBs to subsidiary bodies that do not have a mandate to negotiate. They feel the bodies will do little or nothing at all, and the matter will simply bounce back to NAMA. So, even if the agreements implied are not strictly under the purview of the NAMA, it would still be desirable to negotiate them in NAMA, with assistance from experts in existing groups, as appropriate—the argument goes.

This argument operates on a growing perception that the two current mechanisms for dealing with NTBs in the WTO—the committees that oversee the implementation of relevant Agreement, and the

³⁶ *A priori*, any specifically identified NTB would be considered and reduced to the maximum extent possible so as to facilitate trade in environmental goods. However, the NTB discussion could not take place in the abstract, and there is a need to identify specific NTBs in connection with the product coverage, i.e. the goods that are being considered. New Zealand had proposed on numerous occasions that the discussions needed to move from the abstract to the specific. The US welcomed other delegations' efforts to identify specific barriers to trade in environmental goods. Australia welcomed advice from any Member on specific barriers faced in the exportation of environmental goods. Several WTO Members have notified NTBs faced by them in the markets of other Members and have also suggested mechanisms for addressing them. See for example, TN/MA/W/25 and TN/MA/W/46 series of documents.

³⁷ As well as SPS-related measures such as conformity assessment and certification.

dispute settlement—are insufficient. This perception has been articulated in a number of proposals for an efficient and effective horizontal mechanism that is solution based rather than rights based and meant for mediation rather than arbitration, e.g. proposal by NAMA-11 and a similar proposal from the EU. Earlier on, such ideas had been mooted by China.

Indeed, there are many NTBs that can—and should—be dealt with by experts on a case-by-case basis, without going into the legality of the measures and focusing primarily on their adverse trade impact. Since NTBs change over time, a legal solution is not necessarily a definitive one, as the NTB in question may be replaced by another, leaving the complainant in the same situation as before. The proposed horizontal mechanism would allow interested parties deal with NTBs in real time, in real terms and at any stage in their life cycle. It could also reduce the risk of NTBs arising in the future.³⁸

Other, more traditional proposals fall into four categories: (i) horizontal or multilateral approaches (ii) vertical or sectorial approaches—plurilateral or multilateral; (iii) request/offer—bilateral, or plurilateral; and (iv) an NTB package. None of these proposals is a reflection of the degree of convergence between members on the issues.

The *horizontal* modality would be the most appropriate and effective way to deal with *issue-specific* measures such as tariff classification, customs valuation or pre-shipment inspection. Their advantages draw from the experience of WTO Members in negotiating the Agreements on Customs Valuation and Import

Licensing, not to mention the ongoing negotiations on Trade Facilitation.³⁹ The main disadvantage is that generic issues that may prove relevant to environmental goods are yet to be clearly identified.

The WTO Members' have gained some experience with *vertical* NTB negotiations, including the "TBT plus"⁴⁰ approach in the ITA. Incidentally, most of the sectorial proposals entertained in NAMA foresee a simultaneous treatment of tariffs and NTBs.⁴¹ Vertical agreements in areas of interest to developing countries could constitute a form of S&D in the NTB negotiations. Some developed members have actually welcomed such suggestions.

An avenue that seems particularly promising for vertical NTB negotiations is "*positive agreements*", which are essentially plurilateral NTB agreement. For example, a group of Members could agree to implement specific international standards, which would then be applied on an MFN basis. Members might also consider a "*smorgasbord*" approach, along the lines of the current trend in the ISO towards declaring specific national, or regional or international standards as equivalent rather than having one standard as the only option.⁴² Of course, Members already are free to adopt such standards, subject to the provisions of the TBT. Doing so in the context of vertical NTB packages would be just another way to reduce fragmentation and promote harmonization efforts where they make sense.⁴³

A vertical approach, including plurilateral positive agreements, would be appropriate should the CTESS decide to focus on a particular environmental area or

³⁸ Striving To Achieve Fair, Balanced And Development Friendly Modalities In NAMA, Submission by NAMA 11 Group Of Developing Countries, dated 24 March 2006, by the delegations of Argentina, Bolivarian Republic of Venezuela, Brazil, Egypt, India, Indonesia, Namibia, Philippines, South Africa and Tunisia, Negotiating Group on Market Access, TN/MA/W/68, 30 March 2006. A similar proposal from the EU, entitled: "Improving WTO Means to Reduce the Risk of Future NTBs and to Facilitate Their Resolution"; earlier on, similar ideas had been mooted by China. TN/MA/W/68/Add.1, 8 May 2006. Resolution of NTBs through a Facilitative Mechanism, Submission by NAMA 11 Group Of Developing Countries.

³⁹ The experience has not been easy though. The Customs Valuation Agreement, which was negotiated during the Tokyo Round, i.e. 30 years ago, has not been implemented multilaterally. The list of rules of origin, which are really the "meat" of the respective agreement, has already taken almost 10 years and not been done, creating a lot of scepticism in the process. In the meantime, textile quotas are going away, the only remaining importance being with regard to trade remedies.

⁴⁰ The approach refers to the Agreement on Technical Barriers to Trade

⁴¹ In NAMA, the following sectors have been put forth as possibilities using this method: automotive products, fisheries, forest products, and textiles and clothing.

⁴² Another interesting example comes from New Zealand, which allows the importation of cars that meet the safety standards of any of the EU, US, Japan, Australia or the UN-ECE. Such an approach could serve as a relatively efficient way for this negotiation to reduce transaction costs and distortions arising from multiple standards and technical regulations in major global markets.

⁴³ A number of industries, including automobiles, chemicals and IT, have already engaged in devising ways of removing NTBs.

on a particular group of EPPs. The main advantage of this approach is seen in that it can help sequence the removal of NTBs. The disadvantage of this approach is that issues, e.g. investment-related issues, not included in the current round of negotiations can enter through the “back-door”.

Specific bilateral issues relating to existing WTO disciplines might be tackled through a *request and offer* procedure. There is a natural incentive for pairs of countries to negotiate mutual concessions on pairs of goods for which each was the other's *principal supplier*. The *principal supplier* bargaining has proved successful in securing tariff reductions and offered a promising approach to the reduction of NTBs today.

The request and offer approach can also be used plurilaterally. Although as the number of participants in the negotiations increases, the process tends to become more cumbersome. At best, this approach can serve as a complement for specific stages or parts of the negotiating process. It could also be used as a *residual method* of negotiating to take up issues that do not fit neatly into the other methods outlined above. The procedure may also be used to fine tune or to customize NTBs agreements.

If necessary, this case-by-case approach to dealing with specific NTBs, could be supplemented by more horizontal provisions based on GATT Articles III and XI. According to some developed members, the usefulness of including such individual commitments in some members' schedules has been demonstrated. And some developing members consider this modality appropriate.

An agreement on environmental goods may also include pilot projects, as did the ITA II. If the negotiators decided to borrow from the Agreement on Subsidies and Countervailing Measures or the Agreement on Agriculture, they could also identify NTBs by “boxes” which are given the colours of traffic lights: green (permitted), amber (to be reduced), red (forbidden). There may also an “S&D box”—exemptions for the developing Members. However, no such proposal has been advanced in the negotiations so far.

Most probably, NTBs relevant to environmental goods or EPPs will have to be dealt with through several complementary approaches. WTO Members may engage in bilateral and plurilateral negotiations to make the reciprocal adjustments, including with respect to NTBs that they consider necessary for a balanced outcome. The results of these multiple

bilateral or multilateral negotiations, which could deal with specific measures, types of measures, or specific environmental sectors, would be included in the Members' new schedules of commitments and applied on a MFN basis at the end of the current Round.

The various negotiated elements can be combined into an NTB package pertaining to an environmental area, while providing enough room for flexibility in terms of scope. Participation in vertical NTB packages can also be flexible. Multilateral aspects of the package would clearly include all WTO Members. However, the core group of countries needed for the various plurilateral—or *positive*—elements of a single vertical agreement need not be the same. All agreements within a single vertical package—whether multilateral, plurilateral, or bilateral – would be applied on an MFN basis. In other words, plurilateral and bilateral components will create rights for non-participating WTO Members. Individual WTO Members can then customize the agreement by adding bilateral issues negotiated on a request and offer basis.

It will be up to NAMA to identify the elements of a particular vertical package, e.g. customs documentation, licensing, etc. NAMA will then need to determine if the issues are being—or could be—dealt with elsewhere in the WTO, or whether they should be negotiated in NAMA, and to devise appropriate mechanisms to ensure transparency between the relevant committees and negotiating groups. Transparency will especially be important with respect to the status of relevant request and offer negotiations, conducted bilaterally or plurilaterally. Reports could come directly from the chairs of such committees or negotiating groups or from NAMA Members pursuing particular initiatives in other committees or negotiating group.

The packaging of NTB negotiations so as to allow for cross-issue trade-offs—and repackaging them afterwards—is unavoidable as the members differ in their rankings of the relative importance of various NTBs. Moreover, there are great cross-country variations in the roles played by government (environmental) policy, and in the policies themselves.

As most NTBs are prompted by government priorities or concerns that can claim a degree of legitimacy, and unlike with tariffs, elimination is not necessarily an issue or a goal. Rather, the objective is to promote more harmonized approaches to non-border regulation

through the elaboration of rules that acknowledge the legitimacy of government interventions while seeking to control untoward trade effects.

Negotiators need to be creative in tailoring ways to address developing members' concerns relating to NTBs where they might collide with legitimate public policy interests, such as public health, safety and environmental protection. So far, no concrete options have been tabled that would assist developing country exporters in dealing with NTBs. And developing countries have requested S&D, including in the area of NTBs! Indeed, they may have to deploy certain non-tariff measures to create markets and to level the playing field.

Cottier's idea of progressive regulation—as opposed to *progressive liberalization*—may provide a key. Drawing from the idea of progressive liberalization, i.e. liberalization commensurate with diverging levels of development, Cottier argues that graduation, based on recourse to economic factors within substantive rules, and scheduling of additional commitments could replace traditional approaches to S&D treatment and render the negotiations more responsive to the needs of developing members⁴⁴.

Establishing linkages between economic factors and legal rules and predicating the application of an agreement on economic factors would not be without precedent. Take, for instance, non-actionable subsidies under Article 8 of the ASCM (currently suspended), with the threshold for environmental assistance limited to 20 percent of adaption costs. There are other examples: safeguard measures under Article 9 of the Agreement on Safeguards, the *de minimis* exception for developing members from Article 6 of the Agreement on Agriculture, determination of the customs value under the Agreement of Implementation of Article VII. The concept of *substantial sector coverage* in Article V GATS or *substantially all trade* in Article XXIV GATT also depend on economic analysis.

As a practical matter, *progressive regulation* can be formalized through specific commitments in individual

schedules of members. *Requests and offers* may serve as a basis for such commitments. In fact, this modality may prove particularly useful as it can reflect better the particular regulatory needs of exporters seeking improved access to particular markets. Negative or positive lists can be elaborated to exempt or apply the rules-based disciplines of the agreement to specific products or institutions—as in government procurement. The approach can be used to elaborate Annexes of exemptions or specific rules.

According to *Cottier*, existing schedules relating to the GATT and GATS, as well as the Agreement on Government Procurement, are suitable for prescriptive rules. In fact, GATT schedules already contain a considerable number of such rules.⁴⁵ Some of these additional commitments, e.g. in the Agreement on Government Procurement, are applicable on the basis of reciprocity and thus to particular members only.

How does one apply this, essentially GATS-like approach to goods? In principle, it can be done either within the existing parameters of the GATT agreement, specifically under part III of the GATT schedules, which deals with non-tariff concessions. In a more far-reaching scenario, an additional part—"part V"—would need to be added to the GATT schedules, to deal specifically with regulations concerning trade and environment. This, latter scenario presupposes a negotiated agreement, establishing "part V" in the GATT schedules and linking this part to the GATT substantively and in legal terms. This approach seems to be neither system-changing nor particularly radical though.

Even the concept of *S&D treatment* may be developed to accommodate the idea of applying WTO rules in a manner that the differing levels of environmental markets are taken into account, perhaps even considered as inherent to the rule itself. Such an approach would mean *phasing in* of obligations, rather than defining opt-outs and exceptions.⁴⁶

⁴⁴ From progressive liberalization to progressive regulation in WTO law, Thomas Cottier, *Journal of International Economic Law* 9(4), 779–821, December 2006.

⁴⁵ Cottier points out that specific conditions are often enshrined in footnotes to schedules, and sometimes the subject matter of dispute settlement, can be found in schedules. Likewise, disciplines on tariff quotas and limitations on domestic support in agriculture amount to prescriptive rules. The schedules of the GATS Agreement contain such rules in particular in the field of telecommunication, introduced on the basis of the 4th Protocol. Finally, additional commitments, so-called "WTO plus" elements, are sometimes inscribed in the Protocol of Accession, the one on China being the most prominent example.

⁴⁶ *Ibid.*

VI. CONCLUSIONS

The reason why environmental goods should be negotiated in the WTO as a separate agreement is yet to be explained. Not only is it an artifact to talk about environmental goods, there are simply not enough environmental markets or these markets are not strong enough to be concerned about market access. And trying to promote equal competitive opportunities is in vain where there is no or little competition. True, some goods (and services) are dynamic but not yet considered as vital to the broader economy as e.g. the IT products. It is little wonder the industry is not pushing for trade liberalization, not even in developed WTO Members.

There appears to be nothing special about the tariff and non-tariff barriers to trade in environmental goods, or indeed the negotiating objectives. The only thing that makes these negotiations special is the mandate, which is there, to be accounted for.

Clearly, WTO Members could attempt bringing down or doing away with tariffs on environmental goods as part of a broader deal in NAMA. As a practical matter, that would mean making sure that HS categories at the six-digit level, with a certain percentage of underlying environmental goods, are all included and subject to the deepest cuts in or elimination of tariffs. In fact, dealing with environmental goods as part of a broad-based tariff reduction exercise using request-offer or other negotiating approaches would be instrumental in facilitating trade-offs across products and across sectors.

Not to mention that the WTO itself has moved far beyond the realm of tariffs, bargaining, reciprocal deals, and balancing and rebalancing concessions to become an agreement about rules—rules primarily focused on non-discrimination but also allowing governments to take actions in derogation of the norms of non-discrimination as necessarily to deal with non-trade concerns, including the environment.

When it comes to rules-based negotiations, it is important to make sure that the disciplines negotiated target those with the means of distorting markets

and competition. From this perspective, one can envisage, for instance, disciplines on environmental or energy subsidies targeting economies or sectors that are capable of distorting competition by means of subsidization.

The fact that NTBs affecting trade in environmental goods are no different from other NTBs has received broad confirmation, including in work done by observers in the negotiations, most notably the OECD.⁴⁷ With multilateral rules covering a vast array of barriers that are reported, the need for new agreements specifically dealing with environmental goods is not obvious.

It is a fitting irony that the negotiating approaches currently on the table have one thing in common—they do not necessarily require the negotiations to be implemented. It is little wonder that the negotiating proposals that make most sense look like an alternative to the negotiations rather than an alternative *in* the negotiations.

Cross-issue trade would have to play an important part in obtaining any agreement on environmental goods, and that would require reconfiguring the set of trade-offs across the various negotiating mandates. Of course, there may be half-way options between member-specific and the comprehensive (horizontal) approach, which fall short of a new agreement, which would somehow take into account the fact that conditions of access associated with similar commitments may vary significantly between Members.

Admittedly, there are those who tend to see at least some—if not most—of the technical issues that we have revisited in this paper as unnecessary complication. However, brushing them off is hardly an option. All the submissions and discussions in the CTESS, no matter what the perspective, are a valuable experience, an *acquis* for subsequent negotiations. Particularly since the current negotiations are not meant to deal with environmental goods and services once and for all.

⁴⁷ Analysis of non-tariff barriers of concern to developing countries, OECD Trade Policy Working paper number 16, Barbara Fleiss and Liza Lejarraga, TC/TD/WP(2004)/47 FINAL, OECD, November 2005; Business perceptions of non-tariff barriers facing trade in selected environmental goods and associated services: survey results, OECD Trade and Environment Working Paper 2007-02 Part I by Barbara Fleiss and Joy Kim, COM/ENV/TD(2006)48/FINAL, OECD, September 2007.

We are not quite sure how and why this happened, but it is a fact that, while the mandate includes both environmental goods *and* environmental services, tariffs *and* NTBs, it is the tariff negotiations on environmental goods, and more specifically questions relating to the product coverage, that have grabbed the lion share of time and attention. In this article we had little choice but to acknowledge this fact, but it was our intention to erase the pattern rather than imprint it even more.

Indeed, some procedures and methods developed for *services* may eventually bring about more productive approaches to liberalizing trade in environmental goods. Making operational the concept of *progressive regulation*, using the purchasing power of the government to bundle goods and services and to put pressure on foreign suppliers to build facilities or transfer technology as offsets, affording preferential treatment to environmental goods supplied for priority investment projects—these and other options are there to be explored in the context of the WTO negotiations on environmental goods *and* services.

It is a task for the future to develop a comprehensive negotiating approach applicable to both goods and services for sector-specific agreements in the various areas of the WTO law. The most promising avenue, it would seem, is exploring the negotiating approaches enshrined in GATS, although such approaches are currently lacking.

A comprehensive approach would presuppose linking the negotiations and discussions on environmental goods with issues such as the treatment of horizontal issues in services, namely emergency safeguard mechanisms, government procurement and classification; the role of subsidies for both environmental goods and services, particularly in developed countries; existing market structures and related anti-competitive practices; linkages to other negotiating areas, notably agriculture; the relationship with objectives and instruments in relevant multilateral environmental agreements, and last but not least the

supply capacity. After all, what is the point of having opportunities if there is no capacity?

The negotiations put into question—again—the desirability of expanding the WTO agenda in a particular direction by seeking linkages between trade and non-trade issues. As in virtually every one of the “trade and ...” areas, the liberalization of trade in environmental goods (and services) can generate complex and often contradictory effects. Much depends on the *type* of trade liberalization undertaken, and the underlying economic and environmental conditions. How should these so-called non-trade issues be dealt with in the WTO? What is the current state of *scope* and *linkage* of these subjects between the WTO and other intergovernmental instruments or within the WTO treaty itself? Where does the mandate of the WTO—and the expertise of trade negotiators—stop in this particular case? How do other forms of governance—domestic and multilateral—fit in?

In clarifying the various options, the CTESS serves as a place for delegations to test the various approaches and hypotheses as the true progress is born not of knowledge secured but of its willing suspension. In such a process, differences are the source, not the stumbling blocks, they should enhance and not diminish the quality of the negotiating process. That presupposes a playful exchange of ideas that fosters solutions through respect for the novel elements in the proposals by others—rather than a forensic questioning that tries to close distance.

As attempts are still being made to identify ways towards the objectives of this particular negotiating mandate, a better alignment between the mission and means would be helpful. Sticking to the letter of the mandate, pushing for an outcome despite the apparent absence of a substantive link between the mandate and the negotiations—the “just do it” approach—is no substitute for finding a policy framework to be able to say what makes sense and what doesn't.
