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Liberalising Trade
in 'Environmental Goods':
Some Practical
Considerations

Ronald Steenblik

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by Ronald Steenblik

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Abstract

This chapter explores some practical issues that have arisen in the WTO negotiations on environmental goods and services, especially issues pertaining to liberalising trade in environmental goods. Since environmental goods are not covered by a single chapter of the Harmonized Commodity Description and Coding System (HS) — the international basis for codifying trade and tariffs — an agreement on environmental goods must be defined by reference to an agreed list. In such a case, when the most detailed (6-digit) product level is insufficiently specific, it becomes necessary to agree to create common commodity descriptions at the 8- or 10-digit level in national tariff schedules. Another important concern is the so-called “dual use” problem: many goods with environmental uses also can be used for non-environmental purposes. Possible solutions to these problems are explored, drawing on past experience in negotiating and implementing sectoral liberalisation agreements. The chapter also discusses issues relating to separate tariff lines for whole plants and to goods distinguished by their superior environmental performance in use. Finally, it considers some procedural and institutional issues that will have to be addressed before an agreement is concluded, notably whether to allow for the periodic addition of new goods to the agreement, and how to deal with the problem of changes over time in the relative environmental performance of competing goods.

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LIBERALISING TRADE IN “ENVIRONMENTAL GOODS”: SOME PRACTICAL CONSIDERATIONS

Executive Summary

This paper examines a series of practical considerations that must be addressed when nominating products as “environmental goods” on the basis of the Harmonized Commodity Description and Coding System (HS) tariff nomenclature. Two issues which negotiators need to address concern whether to include goods with multiple uses, some of which are not “environmental”, and goods that are sold as entire plants or systems. The first part of the paper explores possible ways of accommodating these categories of goods while remaining true to the principles of the WTO and the World Customs Organization (WCO). While procedures for dealing with such goods often create additional transaction costs, precedents in previous WTO sectoral agreements and initiatives could be followed. Goods can and are being differentiated on the basis of end use, generally either through assurances provided by importers or agreed indications on the covered products. Entire plants and systems can be and are being imported under single tariff descriptors.

A third set of issues concern goods of interest because of the processes or production methods by which they were manufactured, extracted or harvested. By identifying certain processes or methods as environmentally superior, it has been suggested by some observers that such criteria could provide another basis for identifying goods as “environmental”. Goods of interest because of the processes or methods used to produce them, but which are difficult to accurately and easily distinguish at borders, create other problems. There may be a few products, however, for which separate descriptors, and therefore separate tariff treatment, can be developed. These would include products distinguishable by some observable or measurable difference in their chemical or physical characteristics. By contrast, resource-efficient goods are easily distinguished by measurable technical criteria. For this category of goods, the main difficulties arise because of the need for international harmonisation of the relevant norms (e.g. annual energy consumption per litre of a refrigerator’s capacity), and for keeping them up to date.

The paper then takes up some institutional implications of considering different categories of goods as “environmental goods”. Unless WTO members decide to restrict any agreement to goods already described at the 6-digit HS level, they will need to decide on how to deal with “ex-heading” goods. One approach would be to revise the HS coding system, but this is unlikely to happen in the near future. Another would be for countries proposing “ex-heading” goods to be diligent in identifying the HS sub-heading under which they would classify them. Otherwise there may be protracted ex post negotiations on classification matters.

Last, but not of least importance, is the issue of whether WTO members would treat an agreement on environmental goods as a one-off exercise, or whether the product coverage should be reviewed as technologies and environmental requirements change. This has given rise to the concept of a “living list”. Such a review mechanism would be virtually imperative for an agreement that included goods defined by their relative environmental performance, since the very concept involves obsolescence: environmentally “better” products and technologies will inevitably become available over time.

Introduction

Under paragraph 31(iii) of the Doha Ministerial Declaration, ministers mandated negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services”. “Environmental goods” are not an internationally defined category, and will have to be defined by the negotiators, most likely in the form of a positive list of products to be covered under an eventual agreement. The negotiations on environmental goods are taking place in two groups: the Committee on Trade and Environment meeting in Special Session (CTE-SS) and the Non-agricultural Market Access Negotiating Group (NAMA).

The first product lists circulated to the negotiating groups were drawn up not by individual countries but by intergovernmental organisations and predated the Doha Declaration. Several countries have supported the product list produced by APEC as part of that organisation’s earlier early voluntary sectoral liberalisation (EVSL) initiative. Others have made reference to the illustrative product list produced by the OECD. As of October 2005, seven OECD countries or regional groupings (Canada, the European Union, Japan, Korea, New Zealand, Switzerland and the United States) and two other WTO members (Qatar and Chinese Taipei) had circulated product lists. Other lists and candidate products are likely to be circulated by WTO members before the negotiations are concluded.

What will emerge from this process is anybody’s guess. It is possible that negotiators might agree to liberalise a much broader range of goods, and, depending on the depth of the tariff cuts, this could reduce the need for a separate agreement on environmental goods.¹ However, there is no intrinsic contradiction between horizontal and sectoral trade liberalisation: the history of GATT and WTO negotiations provides plenty of examples of the combining of horizontal cuts in tariffs with sector-specific initiatives. Because there is a chance that the negotiations might lead to some form of sectoral agreement on environmental goods, it is worth thinking ahead to some of the practical issues that might arise as the negotiations move forward.

This chapter explores some of those practical issues that will need to be considered by negotiators in order to accommodate the unique features of the sector. It first considers the possible scope of an agreement on environmental goods, and describes criteria and procedures that might be used to deal with particular classes of goods. If proposals currently before the WTO provide an indication of the agreed product list that may eventually emerge from negotiations, it may include some goods that are not separately identified in current Harmonized System (HS) commodity classification sub-heading descriptors, and perhaps some goods that would require the institution of complementary procedures. Translating the “goods” side of an agreement on environmental goods into “the language of trade” might, accordingly, require additional negotiations on harmonising the encoding of products in countries’ tariff nomenclatures. The institutional consequences of including particular types of goods within a tariff liberalisation agreement are then explored, drawing on lessons from past sectoral liberalisation initiatives, particularly the 1996 Ministerial Declaration on Trade in Information Technology Products (also known as

1. In this regard, the following observation by the Director of the WTO’s Market Access Division is salient: “[I]t should be noted that while some participants have supported the need to define environmental goods, others have expressed the view that a definitional exercise is not required at this stage. According to them, for the moment priority should be given to reaching agreement on the modalities for the reduction of tariffs on all goods. Following completion of this exercise, the Group could evaluate whether additional reductions were necessary on environmental goods” (WT/CTE/GEN/9 and TN/MA/7 of 21 February 2003).

the Information Technology Agreement, or ITA)² and the Uruguay Round “zero-for-zero” initiative on Trade in Pharmaceutical Products.

This chapter aims simply to explore possibilities and consequences. No conclusions should be drawn from the examples given as to the likelihood or not of particular negotiated outcomes. Moreover, simply because a category of good is examined, no inferences should be made as to the implied desirability or not of including it in an agreement on environmental goods.

Challenges confronting the negotiations on environmental goods

Negotiators lack an internationally agreed definition of an environmental good

Countries seeking to negotiate a sector-specific agreement on liberalising a class of goods usually start with at least a rough idea of the products to be covered. When delegates to the Uruguay Round of multilateral trade negotiations were drawing up the Agreement on Agriculture, for example, there was a working assumption that it would pertain mainly to basic agricultural products. Some differences of opinion may have arisen over where to draw the boundary between a primary and a processed agricultural good, but these were minor issues, marginal to the negotiations. Moreover, the definition of agriculture was already well established in national and international statistics on production and trade.

WTO delegates working towards an agreement on environmental goods do not have the benefit of such a solid foundation — hence the decision to address definitional issues in parallel with discussions on modalities. Working definitions of environmental goods already exist, to be sure. Both APEC and the OECD, in drafting their product lists, referred to the definition agreed to by a combined OECD and Eurostat working group in the late 1990s: environmental goods include those that “measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems ... [including] cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use” (OECD/Eurostat, 1999, p. 10). This definition is quite broad, however, and can in theory encompass goods of almost any sort, from biodegradable fabrics to machines to chemicals. More to the point, it has been criticised as too limiting by some WTO members, notably developing countries that see themselves only as net importers of the kinds of manufactured goods proposed so far.

One result of the fluid state of discussions on definitions is that negotiators may eventually have to consider how to address proposals from countries that include types of goods that could be called “problematic”. During the APEC exercise, drafters of the EVSL product list had to grapple with environmental goods with multiple uses, some of which are not “environmental”, and goods that are defined by their superior environmental performance over otherwise comparable goods, such as energy-efficient refrigerators. At the WTO, some countries have already come forward with proposed lists of goods that include not only the aforementioned types of goods but also goods that are sold as entire plants. No countries have yet proposed goods defined by the processes or production methods (PPMs) involved in their manufacturing, extraction or harvesting, but some independent observers (*e.g.* Howse and van Borke, 2005) have asked whether they could be considered for inclusion.

These categories of goods are problematic for different reasons. Some may be unacceptable to certain countries because their inclusion would create additional procedures or an incentive to try to bribe customs officials to have their goods classified more favourably. Others would necessitate reaching international

2. The ITA concerns the progressive elimination of import duties for certain categories of goods mainly used in the information technology sector or for the production of these goods.

consensus on criteria for creating new distinctions between products. Still others would have implications for keeping the product coverage of the agreement up to date.

Harmonized System (HS) descriptors are not always sufficiently specific at the 6-digit level

Should the WTO negotiators produce a scope and definition for “environmental goods”,³ it will not fundamentally alter the process by which the coverage of any agreement on environmental goods will be determined. In particular, at least on the evidence of the product lists submitted to date, countries will endeavour to express their nominations for products with reference to the Harmonized Commodity Description and Coding System tariff nomenclature (Box 1).

The Harmonized System comprises around 5 000 commodity groups, but does not provide a unique code for every product that might enter international trade. For example, its description of chemicals is more specific than that of electrical or mechanical devices. For this reason, several countries’ proposed product lists contain many references to “ex” heading products — *i.e.* products proposed for liberalisation that are more specific than the 6-digit HS descriptions. For instance, the United States’ product list contains “machines of a kind for use in screening and washing coal” which are included under the broad, 6-digit HS sub-heading 8474.10, “sorting, screening, separating or washing machines”. Similarly, Japan has proposed “ultrasonic dish-washing machines” as an “ex-heading” product under HS 8422.11, “Dish washing machines ... of the household type”.

Unless negotiators intentionally confine product coverage to goods already separately identified under the HS, they will have to agree at the very least on some process for ensuring that the product description and encoding of “ex-heading” goods are consistent and carried out expeditiously across countries. Especially for new products, the problem is that it is not always clear to customs authorities which HS heading to use: depending on their technical characteristics, similar goods can sometimes be classified under two or more headings.⁴

Modalities of the negotiations have to be worked out

These additional complications have important implications for the modalities of the negotiations and the sequences in which certain decisions might be taken. Negotiators will encounter numerous decision points along the way, including whether to reach consensus on a single list of goods common to all parties, or a list that allows countries some flexibility in terms of which products they designate for liberalisation; whether to treat the final result as a one-off decision, or as an on-going process; if the latter, how to keep the product list current. These and related issues are addressed after the next section, which explores issues related to problematic goods.

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3. The CTE-SS has been responsible for discussing issues related to the definition and identification of environmental goods, whereas the NAMA will be responsible for modalities and implementation.
 4. Such goods would seem to present a problem for negotiators mainly when there is ambiguity about where to classify certain goods and one of the tariff lines under which the designated good could be classified is not included in an agreement.

Box 1. The Harmonized System

The Harmonized Commodity Description and Coding System tariff nomenclature, generally referred to as the "Harmonized System", or simply "HS", is sometimes called "the true language of international trade". It is a multipurpose international product nomenclature, developed by the World Customs Organization (WCO), under which products are arranged in a legal and logical structure supported by well-defined rules.¹ The system is used by more than 190 countries and economies as a basis for their customs tariffs and for the collection of international trade statistics. All modern, computerised customs declaration systems now depend on the HS classification. Over 98% of the merchandise in international trade is classified in terms of the HS.

The Harmonized System grew out of an international customs nomenclature that itself was an amalgam of national systems used by the major trading nations. Over time, however, the range of manufactured goods has grown rapidly in an environment "where product cycles are counted in months and no longer in years" (WCO, 2001). Consequently, quite a few HS sub-headings have become catch-alls for many types of manufactured goods not elsewhere specified. One that stands out in this regard is HS 8479.89, which refers to "other" machines and mechanical appliances having individual functions not specified or included elsewhere in Chapter 84 (nuclear reactors, boilers, machinery and mechanical appliances; parts thereof). This sub-heading could potentially cover such diverse products as ultrasonic cleaning devices, machinery and apparatus for cleaning the soil, and trash compactors.

Most countries maintain national customs nomenclature based on the HS, and some of these national nomenclatures are very detailed, containing up to 15 000 separate tariff lines. Countries that are parties to the International Convention on the Harmonized Commodity Description and Coding System ("the HS Convention") — which includes most members of the WTO — are free to establish their own customs codes beyond those applied by all countries down to the 6-digit level. However, these national codes must still be consistent with the HS. That is to say, a country cannot create an 8-digit code for a kind of light bulb and begin that code with the first 6 digits of the sub-heading that the HS has reserved for a carrot.

1. The official interpretation of the HS is given in the multi-volume *Explanatory Notes* (WCO, 2001). The *Explanatory Notes* are also available on CD-Rom, and on line, as part of a commodity database giving the HS classification of more than 200 000 internationally traded commodities.

Challenges for defining the scope of the sector

Products with multiple end uses

Many products used for environmental protection or improvement have several possible uses and are not exclusively environmental. For example, separating harmful waste products from an effluent stream often calls for a centrifuge. Yet centrifuges have a host of other industrial applications, particularly in food processing and medicine. One report from the mid-1990s estimated that, at the time, only 10% of centrifuges were being sold for environmental purposes (Melling, 1996). Similar conditions hold for many other products, such as pumps, filters, incinerators and chemicals that are used to bind polluting compounds into particular substances.

Of course, negotiators can always choose to ignore the "non-environmental" uses of a goods category and agree simply to accelerate liberalisation of *all* goods covered under a 6-digit HS sub-heading, regardless of how the good or goods falling under that heading are used. This approach typically works best if the 6-digit HS code is specific, *i.e.* refers to only one type of good. If experience with previous sectoral agreements is any guide, negotiators may still want to set a threshold share for environmental use when determining whether to include a particular good with multiple uses. In drawing up the so-called Uruguay Round "zero-for-zero" initiative on Trade in Pharmaceutical Products, for example, negotiators tended to include a designated active pharmaceutical ingredient if more than half of its consumption was used in the production of finished pharmaceutical products. By contrast, APEC economies, when they began drawing up a list of environmental goods for their EVSL initiative, took a less formulaic approach. Some economies, perhaps not wanting to see items on which they levied high tariffs targeted for

liberalisation, were quite sensitive to the multiple-use issue and made it plain that, for certain products, they did not want the effects of tariff liberalisation to extend beyond environmental uses (see Chapter 1 in this volume). This approach, not unlike the traditional request-and-offer approach used in market-access negotiations, made the final APEC list shorter than it otherwise might have been, but it allowed quite a number of “less sensitive” products with multiple uses, such as laboratory equipment, to remain on the list.

Frequently the dual-use problem arises from the lack of specificity of a HS sub-heading. Again, negotiators can simply agree to liberalise some goods that are not “environmental” because they are covered by the same 6-digit HS codes as one or more goods that are. Alternatively, they can try to resolve the problem by narrowing down the product descriptions to appropriate 8- or 10-digit (national) tariff line codes, indicated in the list by an “ex” next to the corresponding 6-digit HS sub-heading. That is, essentially, how APEC economies often chose to deal with the issue.

Yet another approach is available to negotiators: differentiation on the basis of the good’s expected use. Indeed, the logic behind an agreement on environmental goods could create an incentive to differentiate imports on the basis of their end use. Normally — except in the special cases of arms, sensitive information technology and substances that can be diverted to the manufacture of weapons of mass destruction — it is importers rather than exporters that care whether a good brought in under a low tariff ends up in some other (higher tariff) end use. In the case of environmental goods, however, exporters may want to demonstrate to certain groups that they are party to an agreement that relates primarily to “environmental” products. They are thus more likely to take an interest in agreeing to a product list that excludes “non-environmental” uses of multiple-use products.

Differentiation according to end use is not a new idea. The 1973 Agreement on Trade in Civil Aircraft,⁵ for example, accorded duty-free or duty-exempt treatment to an agreed list of products, “if such products are for use in civil aircraft or ground-flying trainers and for incorporation therein, in the course of their manufacture, repair, maintenance, rebuilding, modification or conversion”. In dealing with the multiple end-use problem associated with components, coverage of the agreement was restricted only to products:⁶

... [that have] the essential character of a complete or finished part, component, sub-assembly or item of equipment of a civil aircraft or ground flying trainer (*e.g.* an article which has a civil aircraft manufacturer’s number),

materials in any form (*e.g.* sheets, plates, profile shapes, strips, bars, pipes, tubes or other shapes) unless they have been cut to size or shape and/or shaped for incorporation in civil aircraft or a ground flying trainer (*e.g.* an article which has a civil aircraft manufacturer’s part number).

In both of the above cases, a characteristic that was readily observable to a customs agent was used to differentiate parts, components, equipment and even materials. Even something as non-functional as a manufacturer’s part number could serve as a distinguishing characteristic. Another example can be found in Japan’s customs tariff schedules, which allow carpet tiles, carpets and other textile floor coverings “of a size and shape suitable for incorporation in motor vehicles” (differentiated at the 9-digit level) to be imported duty-free. And the EU distinguishes on the basis of end use in respect of certain ICT components not covered by the WTO Information Technology Agreement, when they are destined as inputs to goods that are covered by the ITA.

5. Available from www.wto.org/english/docs_e/legal_e/air-79_e.htm.

6. Annex para. 2 of the Agreement.

More recently, the WTO's 30 August 2003 "Decision on implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health"⁷ also enlisted artificial distinguishing features to control Trade in Pharmaceutical Products produced under compulsory licence. According to paragraph 2(b)(ii) of the decision:

(ii) products produced under the licence shall be clearly identified as being produced under the system set out in this Decision through *specific labelling or marking*. Suppliers should distinguish such products through *special packaging* and/or *special colouring/shaping* of the products themselves, provided that such distinction is feasible and does not have a significant impact on price. (emphasis added)

For most of the above examples, a small number of companies import the affected goods. Given the large and diverse customer base for environmental goods, designing a system for clearing products differentiated by end use quickly and inexpensively through customs would present a real challenge.

One simple method is for the customs officials of the importing country to affix a label or other identifier to either the "environmental" or the "non-environmental" product. This would only work for products that are not delivered in bulk form and would rule out some chemicals (but not necessarily those delivered in containers). Generally, the practice of tax authorities (*e.g.* to distinguish beverages containing distilled spirits from alcohol used for industrial purposes) is to label or otherwise mark the product attracting the higher tax as proof that the tax has been paid. The logic is that the merchant has an incentive not to remove or destroy the designation. However, one could also imagine marking products in an indelible way to designate either the higher- or the lower-taxed product (or, alternatively, the product on which an import duty is imposed).

More technologically sophisticated approaches for differentiating according to end use have often involved irreversibly changing the product's characteristics. Tax authorities have been chemically marking goods for tax differentiation purposes for a long time. In many OECD countries, for example, diesel fuel sold for uses that attract a lower or no excise tax (normally fuel destined for use in farm equipment, commercial fishing boats, generators and other equipment that is not propelled) has a chemical dye added to give it a distinctive colour (usually red or green) that differentiates it from "normal" diesel fuel. Persons caught using tax-exempt fuel for non-authorized purposes are typically required to pay the taxes due, plus a fine. Another example is the incorporation of microscopic chemical markers, usually polymers, known as "taggants", into manufactured products. As a result of the International Civil Aviation Organization (ICAO) Treaty of 1991, signed by 39 countries, many manufacturers of military explosives are now adding micro-taggants to their products to assist investigators in tracing terrorist bombs.

No system for differentiating whether otherwise identical products are being used "properly" — in this hypothetical context, in accordance with an agreed environmental end use — can be 100% effective. Compliance invariably requires post-import monitoring and enforcement, which can be costly and administratively burdensome.⁸ The effectiveness of the monitoring and enforcement may itself become an issue. The need for governments to be able to demonstrate that the coverage of an agreement on environmental goods excludes "non-environmental" uses of multiple-use products might, at the extreme, lead some countries to require proof that an importer's monitoring and enforcement is effective. However, there is nothing that would prevent a party to an agreement from applying the same low tariff to all uses of the good in question.

7. Available at www.wto.org/english/tratop_e/trips_e/implem_para6_e.htm.

8. For example, the need to be able to verify how a product has been used once it has been imported may require spot checks of importers' records and warehouses.

To conclude, the multilateral trading system allows for differentiating products according to their end use, and there are several ways of doing so. But, ultimately, the choice of whether to apply the same low tariffs to goods used for environmental and for non-environmental purposes would rest with the importer. The latter can always decide to apply lower tariffs than those scheduled in their bound rates.

Entire plants and systems

Current trade in environmental goods and services, particularly equipment used for the recycling or recovery of waste or for end-of-pipe pollution control, often involves the sale of entire plants. In the absence of a separate tariff line for such plants, the components of these plants may be imported under separate tariff headings, many of which are too general to be considered “environmental”, or the plants may be designated “priority” projects and the relevant tariffs waived. The latter procedure certainly allows the importer a degree of flexibility, but from the exporter’s perspective it is arbitrary and subject to political influence.

This problem has led some in the industry to conclude that individual tariff headings should be created for certain types of whole plants. This is already possible under the Harmonized System, as for food-processing plants (*e.g.* 8438.10 and 8438.20), brewery machinery (8438.40) and floating or submersible drilling or production platforms (8905.20). In principle, the same could be done for pollution control equipment or for geothermal power plants. A plant for recovering sulphuric acid, for example, when operated as a part of a smelter, could be classified by national authorities as “filtering or purifying machinery” under HS 8421.39.⁹

Product descriptors for entire plants or systems can help to keep the focus on function, thereby circumventing the “limited shelf life” problem of environmental technologies and reducing the uncertainty over classification and customs duties arising from constant technological change. If the manufacturer of, say, a recycling plant changed some component or piece of technology, its position in the customs nomenclature would not change. Thus, recycling plants adopting this new component would continue to benefit from the same tariff treatment.

The main factor limiting the creation of new tariff lines for whole plants is the structure of the HS itself. Although countries may create separate tariff lines in their own customs nomenclatures, the descriptors must be consistent with their corresponding HS headings and sub-headings. This limits whole plants to a handful of current “functional” headings in the HS, mainly under Chapter 84 (Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof). Table 1 gives examples of possible headings under which entire plants could be classified.

9. Such interpretations of the HS are not necessarily shared by all, however. Moreover, if the plant were to be operated as an independent entity, classification under this sub-heading could be problematic.

Table 1. Examples of “functional” HS headings for classifying entire plants or systems

HS	HS description	Possible examples of entire plants
8402.19	Other vapour-generating boilers, including hybrid boilers	Cogeneration of heat and power plants (energy-efficient heat and power production technology)
8419	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment under heading no. 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilising, pasteurising, steaming, drying, evaporating, vaporising, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, non-electric	Recycling plants for chemical industry; flash smelters
8421	Centrifuges, including centrifugal dryers; filtering or machinery and apparatus, for liquids or gases.	Sulphuric acid recovery plant
8424	Mechanical appliances (whether or not hand-operated) for dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar appliances; steam or sand blasting machines and similar jet projecting machines.	
8439	Machinery for making pulp of fibrous cellulosic material or making or finishing paper or paperboard.	Paper plants using recycled material
8456	Machine-tools for working any material by removal of material, by laser or other light or photon beam, ultrasonic, electro-discharge, electro-chemical, or plasma arc processes.	
8475	Machines for assembling electric or electronic lamps, tubes or valves or flashbulbs, in glass envelopes; machines for manufacturing or hot working glass or glassware.	Glass recycling plants
8479	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter.	Oil recovery systems

In addition to agreeing on where to classify whole plants, negotiators would also need to agree on special customs clearance procedures. Only occasionally are plants actually shipped in one piece: they are usually imported disassembled, and often the machinery and other components (normally covered by separate tariff lines) arrive separately.¹⁰ Typical rules for treating a whole plant under one tariff line therefore require that all the components enter the country through the same port of entry, are billed to the same importer, and are imported within a specified time period (*e.g.* six weeks), or some combination thereof. Finally, if a WTO agreement on environmental goods should lead to the creation of new tariff lines for whole plants, negotiators could minimise future disputes by specifying whether or not the agreement also covers parts (items that are necessary for the plant to operate) and accessories (items that are not necessary for the plant to run but which enhance its performance). This distinction was not initially made in the ITA and required subsequent clarification.

Goods of interest because of the processes or methods used to produce them

Some countries, and many commentators, have wondered whether or not goods defined by their processes or production methods (PPMs) could conceivably be included in an agreement on environmental goods. This is a controversial question because an affirmative answer could have consequences for the

10. Sometimes this is done because of tariff escalation, and not simply to minimise transport costs. For example, prefabricated buildings and even log cabins are often shipped disassembled in order to avoid paying the higher tariffs levied on complete structures.

multilateral trading system as a whole. Many, if not most, WTO members have deep reservations about defining goods on the basis of PPMs, especially non-product-related PPMs.

Differentiation on the basis of PPMs is certainly possible for statistical purposes. Several countries already differentiate (certified) products of organic agriculture from agricultural products not so designated. And some, following the 7 July 2000 “Recommendation of the Customs Co-operation Council on the Insertion in National Statistical Nomenclatures of Subheadings to Facilitate the Collection and Comparison of Trade Data on Hand-made Products”, have established, in their HS-based statistical nomenclatures, new subdivisions for hand-made (artisanal) products. In both cases, provisions in respect of the certification of the organic or hand-made products are also laid down in the countries’ statistical nomenclatures.

Differentiation for statistical purposes is not the same as differentiation for levying input duties, however. WTO agreements require that products imported from the territory of any member be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country. While the important concept of “like product” has been variously interpreted by WTO dispute settlement panels and the Appellate Body, a fairly limited role has been allowed to date for distinguishing products on the basis of their PPMs (Box 2).¹¹

Carpets provide a salient example. The HS contains a sub-heading (5702.10) for “‘Kelem’, ‘Schumacks’, ‘Karamanie’ and similar hand-woven rugs”. Ostensibly, this sub-heading appears to define the relevant goods in terms of their production method. Many countries offer lower tariffs for such carpets, and at least one has established a certification arrangement for the purpose of extending duty-free treatment to certain hand-loomed and folklore textile articles under its Generalised System of Preferences.¹² But, strictly speaking, such carpets can, if necessary, be subjected to tests (*e.g.* inspection of the knots for mistakes and irregularities) that confirm whether they were indeed made by hand.

11. As one analyst (von Moltke, 1999) has observed, “The concept of like products is in many ways the linchpin of the GATT/WTO system. Its two central principles, most-favoured nation treatment (MFN) and national treatment are critically dependent on this concept.” The key passages in GATT 1947 are Articles I.1 and III.2.

12. See, for example, www.jedco.gov.jo/jedco/gsp.htm.

Box 2. Processes and production methods

Processes and production methods (PPMs) — how products are manufactured, or natural resources are extracted — can have significant environmental impact. Countries have adopted a variety of regulations that attempt to mitigate the negative impacts of processes and production methods, often successfully. Measures that address environmental problems at the production stage may raise complex trade issues if a country tries to impose national requirements on imported products, or tries to enforce its standards or production requirements on activities outside its jurisdiction. WTO rules relating to goods are attached to “products”. The national treatment and most-favoured nation obligations under the GATT and the Technical Barriers to Trade (TBT) Agreement require that imported products must be “treated no less favourably” than “like” domestic, or other origin, products. These rules do not explicitly recognise or prohibit import restrictions based on non-product-related characteristics, however. Indeed, there are some multilateral environmental agreements that contain trade-related measures related to processes and production methods, although these tend to apply to narrowly defined circumstances.

Recent interpretation of the relevant GATT rules, in a highly qualified ruling involving the protection of endangered species, suggests that it might be acceptable to apply national measures based on non-product-related PPMs to imports.¹ The application of such measures, however, is subject to strict conditions and must respect the rules of the trading system, notably the principle of non-discrimination.

1. See the WTO Appellate Body and Arbitrator’s reports relating to the dispute over “United States — Import prohibition of certain shrimp and shrimp products”, Document Nos. WT/DS58/AB/R (12 October 1998), WT/DS58/AB/RW (22 October 2001) and WT/DS58/RW (15 June 2001). Available at www.wto.org/english/tratop_e/dispu_e/distab_e.htm.

Source: OECD (2001), p. 224.

Goods defined by their relative environmental performance in use

Japan includes on its product lists goods that can perform a particular task — generate electricity, wash clothes, clean dishes — using less energy, water or other natural-resource-based inputs than competing products in the market. The included products are deemed intrinsically preferable by virtue of their distinct technology. In addition, a wide range of manufactured products can be deemed to be more “resource-efficient” than other goods using approximately the same technology, usually because of slight differences in controls or in the mix of inputs used (*e.g.* thickness of the insulating material). While it is conceptually feasible to include such goods in an agreement on environmental goods, important practical implementation issues would have to be addressed.

Such goods, because they can be defined in terms of characteristics embodied in the product, pose no problems for the HS *per se*. The international community could, if it chose, define separate tariff lines for, say, room air-conditioning units with energy-efficiency ratios greater than and less than 10. However, environmental preference in such cases depends on the good’s relative performance at a given point in time. Because of continuous technological progress, performance rated highly energy-efficient in the present year is likely to be considered average or below-average five years hence.

According separate treatment to goods differentiated by their energy-efficient rating or some other environmental performance criterion (or criteria) would first require obtaining consensus among countries on thresholds or boundaries. Given that many of the goods that might be candidates for inclusion in an agreement on environmental goods are currently the subject of government-run voluntary labelling schemes, this would involve recognition of the certifying bodies awarding the labels, *e.g.* on the basis of equivalence. In addition, including such goods in an agreement on environmental goods would virtually ensure the need to create an institutional framework (*e.g.* an expert technical group) for keeping the classification criteria up to date.

However, nothing would prevent parties to an environmental goods agreement, if they so decided, from defining a good with reference to an existing standard, even a private one. The Parties to the ITA, for example, have on at least one occasion defined a good with reference to a private international standard, such as the one (for Item No. 199) established by the Personal Computer Memory Card International Association (PCMCIA):¹³

Printed Circuit Assemblies for products falling within this agreement, including such assemblies for external connections such as cards that conform to the PCMCIA standard. Such printed circuit assemblies consist of one or more printed circuits of heading 8534 with one or more active elements assembled thereon, with or without passive elements. "Active elements" means diodes, transistors and similar semiconductor devices, whether or not photosensitive, of heading 8541, and integrated circuits and micro assemblies of heading 8542.

An important issue, again, is how to deal with changes in the standard over time. Countries would also need to come to some agreement on how to treat goods that, for example, qualify for the same national label but are accorded different tariff treatment.

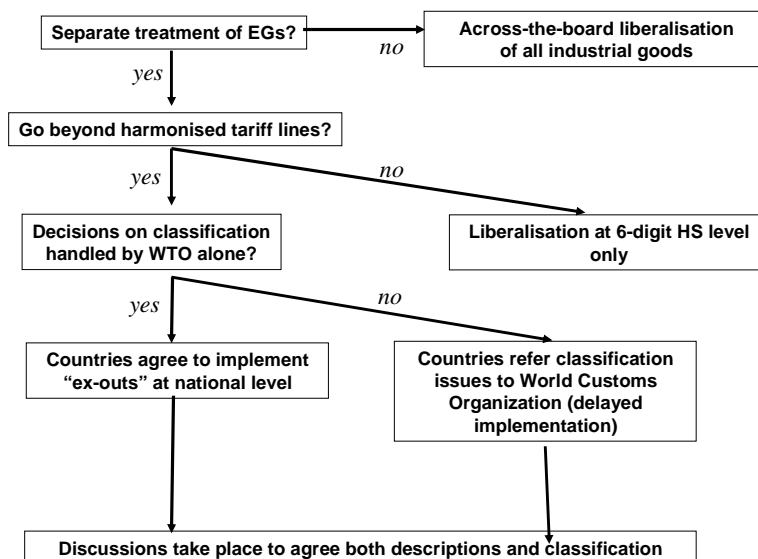
Procedural and institutional issues

The WTO mandate to undertake negotiations on environmental goods [DDA paragraph 31(iii)] has set in motion a process with several decision points along the path towards consensus and implementation. Figure 1 shows some of the decisions that negotiators might confront as they attempt to address this mandate.

The simplest and most straightforward way for countries to liberalise a list of goods would be to agree to include in that list only goods described under the Harmonized System at the time when the agreement is concluded, thus obviating any need to change either the HS or national customs nomenclatures. Such an approach, in the case of environmental goods, implies that the negotiators could reach consensus on how to deal with the specificity issue. WTO negotiators could choose to frame the question as APEC negotiators did. That is to say, they could agree either to include only goods that are unambiguously environmental at the 6-digit HS level, or find a rule for determining whether a particular 6-digit HS sub-heading is sufficiently environmental to be included on the list. This could range from including the sub-heading if even a single product covered by it is an environmental good to including the sub-heading only if a majority (*i.e.* some agreed percentage of goods or value of goods) of the goods traded under that category are environmental goods.

13. The PCMCIA is an international standards body and trade association founded in 1989 to establish standards for integrated circuit cards and to promote interchangeability among mobile computers where ruggedness, low power requirements, and small size were critical. The association currently has a membership of over 200 companies. See www.pcmcia.org/about.htm.

Figure 1. Partial decision tree for negotiations on environmental goods: questions of classification



From a trade perspective, a liberal inclusion rule would have many advantages, for exporters and importers alike. An analysis by the WTO Secretariat (WTO, 2002) of exports and imports of goods included in the product list circulated by Japan to the NAMA, for example, showed that while most developing countries were net importers of goods on the list compiled at the HS 6-digit level, the ratios between exports and imports tended to be larger when all tariff lines (including those identified by an “ex” qualifier) in the Japanese list were included in the analysis than when only tariff lines without an “ex” were included. A more recent analysis undertaken by UNCTAD also showed that, analysed at the 6-digit level, developing countries (as a group) were major net exporters of a number of industrial goods used to provide environmental services, such as fluorescent lamps, ethanol, methanol, mats and screens of vegetable materials, and thermometers (UNCTAD, 2003). In addition, UNCTAD examined trade in a selected list of “environmentally preferable products”, chosen on the basis of their product or disposal characteristics. At the 6-digit level, although developed countries dominated both import and export trade, developing countries were, as a group, net exporters of this basket of products.

However, countries may decide that certain goods currently classified under general HS sub-headings are too “sensitive”, and that wholesale liberalisation at the 6-digit HS level would adversely affect domestic producers of those products. Others may feel that it would be inappropriate to include, in an agreement purporting to liberalise trade in “environmental” goods, goods that could be claimed not to help to protect or enhance the environment. For whatever reasons, it seems likely that some “ex” heading goods will be included in any agreement on environmental goods and therefore some procedure for identifying unique tariff lines, at least for those products, would have to be agreed to.

Dealing with classification issues

All WTO sectoral agreements contain language, usually in an annex, that identifies the products covered by the agreement. Typically, Article 1 of the Annex will begin “This Agreement shall cover the

following products”, followed by a list of products registered in order of their HS chapter, heading or 6-digit sub-heading. At some point in the process of drafting a sectoral agreement, especially one that includes goods that will need to be treated separately in national nomenclatures, negotiators arrive at several decision points. First, they have to decide *whether* to resolve all classification issues from the start or to leave some to be resolved later. They must also decide on *where* to introduce new tariff nomenclature or changes to existing tariff nomenclature. As explained below, this issue is largely driven by institutional responsibilities, and thus by established timetables as well.

Option 1: Amend the Harmonized System

There are reasons why countries might prefer to give separate status in an amended Harmonized System to all goods included in an agreement on environmental goods. The HS is nearly universal in its application, transparent (it can be accessed via the Internet), and administered by an impartial intergovernmental organisation, the World Customs Organization. However, for reasons having to do both with the WCO’s timetable and the innate conservatism of the process (because of the ramifications of changes to the HS for customs authorities), amending the HS would not be a viable option in the short term, except perhaps for those goods that are clearly identifiable and traded in volumes sufficient to meet the WCO’s threshold criteria.¹⁴

The main obstacle to amending the HS in advance of concluding an agreement on environmental goods is the timing of the WCO’s review cycles. The WCO’s Council generally considers amendments in four-year cycles, with implementation taking place from one to two years following notification to members (Article 16.4 of the HS Convention; see Annex A1).¹⁵ The most recently completed review was approved by the WCO Council in June 2004 and will be implemented internationally on 1 January 2007. Amendments under the next review cycle are not scheduled to be implemented until 2012.

Is there a way to speed up the process? The WCO is asked this question frequently and is acutely aware that the process of revising and subsequently implementing amendments to the HS is a protracted one. Reducing the length of the implementation period appears to be out of the question, however, as during the first and second review cycles only 45% and 58% of Contracting Parties to the HS Convention were able to implement the amendments to the HS by the established deadlines (WCO, 2001). In particular, truncation of the implementation period would be counterproductive if it led to the use of different versions of the HS over long periods. According to the WCO, reducing the drafting process from four to three years might be achievable and thus shorten the overall review cycle from five to four years. But the rate of progress during the last HS review cycles suggests that the drafting periods are becoming longer, not shorter.

Alternatively, the WCO Council could simply issue recommendations calling upon signatories to amend national tariff and statistical nomenclatures on an interim basis (*i.e.* between Article 16 amendments to the Harmonized System). The advantage is that it can be done annually. The disadvantage is that this

14. For a product group to obtain a 6-digit HS sub-heading, the volume of world trade in the good must be at least USD 50 million a year; the corresponding threshold for obtaining a 4-digit HS sub-heading is annual trade worth at least USD 100 million. However, exceptions have been made for social or environmental reasons. For example, in the changes adopted in the 2002 revisions to the HS, categories were added to help countries comply with their obligations under multilateral environmental agreements to combat illicit trafficking in endangered species and dangerous and harmful substances and products.

15. Decisions merely concerning the interpretation or application of the Harmonized System, such as classification decisions and amendments to the Explanatory Notes or to the Compendium of Classification Opinions, become effective two months after approval by the HS Committee. These are reflected in the amending supplements of the relevant WCO publications and can also be found on the WCO’s Web site.

kind of recommendation is not binding on Contracting Parties to the HS Convention, which alone decide whether and at what speed to implement them.

One other consideration may also favour amending national customs nomenclatures, as opposed to the HS: the long-term aim of the WCO to keep the HS as simple as possible, and even to streamline it.¹⁶ Giving separate status in the HS to, say, 100 new goods — a not inconceivable result of an agreement on environmental goods — would be no trivial task for the WCO, especially if it were necessary to restructure some headings to provide additional space when most of the available codes are currently occupied.

Option 2: Countries agree to harmonise national practices for classifying products

Although changes can only be made to the HS by the WCO, nothing prevents Contracting Parties from establishing additional subdivisions in their national customs nomenclatures to identify goods that could not (*e.g.* within a given time frame) be given separate status in the HS. Contracting Parties must, however, ensure that the mandatory subdivisions (*i.e.* up to the 6-digit level) remain unchanged.

When drafting a sectoral agreement that includes goods that will need to be treated separately in national nomenclatures, as well as goods defined at the 6-digit or higher HS level, negotiators have several options. One is simply to agree to produce two product lists: one (A) comprising the HS headings or parts thereof to be covered under the agreement, the other (B) listing specific products for which HS codes do *not* exist, but which the Parties have decided will be covered by the agreement wherever they are classified in the HS. This was the approach taken in the 1996 Ministerial Declaration on Trade in Information Technology Products. Such an approach would enable negotiators to conclude an agreement more quickly (which may be desirable for various reasons) than if they waited until consensus was reached on all outstanding classification issues. It also ensures that the results of liberalisation are implemented equally regardless of differences in classification. It does not necessarily reduce negotiating costs in the long run.

In the case of the ITA, the decision essentially to leave implementation on a large number of products to national customs authorities worked well enough for some goods, but not for others. Different national customs authorities assigned national customs nomenclatures that referred to different HS codes, resulting in the reclassification or misclassification of goods entering trade. Eventually, customs authorities approached the WCO and sought their interpretive opinion.

The lesson here is that the process of harmonising the classification of goods to HS headings should begin early in the process — if possible before an agreement is finalised — to avoid costly delays and disputes later. This may have to be preceded by a “discovery” process to learn where the main divergences of opinion are likely to occur. In this regard, the fact that countries proposing environmental goods to the NAMA have also indicated the HS headings under which they would classify those goods, or sought advice from the WCO¹⁷ on where best to classify them, may portend less protracted discussion of classification than took place in connection with the ITA.

16. Indeed, it was agreed during the most recent review cycle that, in addition to reviewing specific sectors (such as high technology), a general review of the HS would take place. One goal of the current review cycle is to simplify the HS, particularly in the pharmaceutical, information technology and textile sectors.

17. Qatar, for example, has already indicated that it is seeking information from the WCO on where to classify a class of goods not currently separately identified in the HS: natural-gas-based fuel cell technologies (*e.g.* fuel cell power plants, fuel cells for residential use, and fuel cells for commercial use). See “Harmonized System (HS) classification codes of gas-related goods — submission by the State of Qatar — Paragraph 31 (iii)”, TN/TE/W/27 and TN/MA/W/33, 25 April 2003.

If WTO members decided to take the A-and-B list route, some mechanism would have to be provided for resolving outstanding classification issues. The WTO already has experience in dealing with liberalising trade in goods through the creation of national subdivisions of the HS. Parties to the ITA, for example, created a new Committee of Participants on the Expansion of Trade in Information Technology Products which meets several times a year “with the objective of ultimately harmonising national practices of classifying products within the HS nomenclature” (Fliess and Sauvé, 1999). However, the WCO’s Harmonized System Committee may nonetheless still need to be involved, especially in providing advice on interpretation. They have done this on many occasions for both the ITA and the initiative on Trade in Pharmaceutical Products.

One list or two?

The A-and-B list approach described above is meant to deal with the problem of unresolved questions of classification. Multiple lists can also be used to allow countries flexibility in terms of the products that they are willing to designate for liberalisation.

WTO members normally agree on sectoral liberalisation by agreeing on a common set of goods, irrespective of whether they are able to agree ahead of implementation on how the products are to be classified. The merit of a single list is its administrative simplicity: every country liberalises the same set of goods. Alternatively, as proposed by the United States, negotiators could produce two lists: a core list, which would be liberalised by all WTO members, and a complementary list, from which countries could choose to liberalise a negotiated percentage of goods.

According to the US proposal, the core list would comprise products for which there is consensus that they constitute environmental goods. A second, complementary list would contain products for which definitive consensus could not be reached but which a significant number of countries, if not all, deem important for environmental protection, pollution prevention or remediation, and sustainability. For the core list, members would be required to reduce tariffs, or, as appropriate, eliminate them altogether, within a certain period. For the complementary list, members would be required only to identify specific products representing a defined percentage of the total tariff lines on the list, and to subject these products to the same reduction or elimination agreed for the core list of products. Each country would choose the specific products to include in this percentage. The “less than full reciprocity provisions” in the Doha mandate could then be satisfied by requiring developing countries to eliminate tariffs on a smaller percentage of products on the complementary list than the percentage that would apply to developed countries.

Keeping the list current

Negotiators of any agreement on environmental goods will eventually find themselves at a critical juncture: to treat it as a one-off exercise or to make it a living agreement, subject to periodic and continuing review. Should negotiators choose the latter path, they will have to consider how to deal with at least two technical issues. The first relates to the need periodically to consider whether to add new products to the list. (Removing those no longer considered “environmental” would be problematic.¹⁸) The second

18. 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 General Agreement on Tariffs and Trade 1947. For example, during the first review of the initiative on Trade in Pharmaceutical Products (November 1995 to 11 July 1996), it emerged that 25 products (out of a list of over 6 000) were found to be used predominantly for non-pharmaceutical purposes and had been inadvertently included among those pharmaceuticals already receiving duty free treatment. Members concerned were asked to notify the WTO Secretariat of any changes they planned to make to their schedules “according to the existing procedures” (WTO Document No. G/MA/W/10 of 11 October 1996).

relates to the possible need, if products defined by their relative environmental performance characteristics are included, to keep redefining the boundaries between most and least efficient.

Expanding the product coverage

Providing for the possibility to expand the product coverage of a tariff liberalisation agreement is particularly necessary when the initial coverage does not tally exactly with a well-defined sector in the HS. The need to include a review mechanism for considering the steady stream of new products coming to market as a result of technological breakthroughs was anticipated by the drafters of both the ITA (which covers selected products in several HS Chapters, including 38, 70, 84, 85 and 90) and the initiative on Trade in Pharmaceutical Products. In both cases, the WTO members concerned agreed to meet periodically under the auspices of the WTO's Council on Trade in Goods to review the product coverage of the agreements.¹⁹

Keeping up with technological change is a general problem,²⁰ one that is by no means confined to environmental goods, pharmaceuticals and information technology. However, identifying environmental goods that are embodied in particular processes which have been defined as "cleaner" creates additional complexities. Cleaner technology, by definition, involves upstream changes in production and products as opposed to the installation of end-of-pipe facilities for separating out harmful effluents. Such changes are motivated as much by opportunities to save on production costs as to meet environmental regulations.

This dual motivation is intrinsic to many kinds of cleaner technologies, since pollution prevention is often accomplished primarily through better process control. One example from the automotive industry has been the use of robots to spray paint more precisely, which not only saves on input costs but also reduces emissions of volatile organic compounds (VOC). In the chemicals industry, costs and pollution are reduced by checking more diligently for leaks, cleaning heat exchange tubes more often, and applying better process control in order to eliminate hot and cold spots or to speed reactions. Over time, as preventing pollution becomes more economical than cleaning it up, and as pollution is managed as another kind of resource use, identifying the "environmental good" component of many industrial processes will become more difficult.

As industries find solutions to pollution through control of processes, they also rely more and more on specialised service providers. Accordingly, it is fast becoming obsolete to treat environmental goods and environmental services as separate components of environmental protection. Improved access to environmental goods may be of limited value if there is too little access to environmental services such as monitoring and measurement, and to related ones like engineering and construction.

19. In the case of the ITA it was not just a question of keeping the agreement relevant: IT producers were particularly concerned to make it impossible for participants to reclassify products for which the ITA eliminated tariffs into categories with import duties (including new categories resulting from technological changes). Because technology changes so rapidly in this sector, they saw that "there could be plenty of opportunities for ITA participants to manipulate the existing product classification system so as to nullify the ITA's tariff concessions and trade-liberalising effects" (Fliess and Sauv , 1999).

20. Commenting on the process of periodically updating the list of designated active ingredients for pharmaceutical products, for example, the European Federation of Pharmaceutical Industries and Associations (2001, p. 2) notes that it "is unable to keep up with the pace of product development and may be generating unproductive administrative costs".

Addressing the problem of moving targets

Some of the products proposed in the environmental goods lists circulated to date have been included because they are judged more efficient than competing products in their use of energy or material inputs such as water. Such technologies raise problems of relativism and moving targets. A technology that reduces resource use or pollution today may be relatively dirty in a few years, as more advanced technologies become available. Including such goods would necessitate some mechanism for regularly updating the product list to account for constantly moving targets.

Countries could simply agree to assign the task of reviewing the technical criteria to a WTO committee or technical working group. Such a body would meet at regular intervals to consider the suitability of the current criteria, much as standard-setting bodies responsible for updating specifications for energy-efficient products already do. Alternatively, for some products, countries could agree simply to reference an established, recognised international standard, either private or public, to avoid duplicating work undertaken elsewhere. They could even agree that product specifications will automatically change as the standard is updated, thus obviating the need to create a new international body of technical experts.²¹

However, there are several potential drawbacks to such an approach. First, the burden of communicating changes in the standard to customs agents would not be trivial. Second, relinquishing control of the key technical criteria of a product description to another body — particularly a private standardising body — could raise difficult issues. Not least of these would be the question of what to do if some WTO members were to declare that they did not agree with a decision taken by the standardising body.

Concluding remarks

This chapter has explored some of the practical issues that WTO delegates may have to address as they consider possible responses to negotiations mandated in the Doha Ministerial Declaration under paragraph 31(iii). At the very least, they will have to decide whether to cover goods not currently separately identified in the Harmonized System and, if so, whether to resolve classification issues before concluding an agreement or to leave that task until later. Decisions on this matter could have consequences for the work programme of the WTO and most probably the WCO.

Depending on what countries ultimately propose, negotiators may also have to consider how to treat goods: *i*) with multiple uses, some of which are not “environmental”; *ii*) goods sold as entire plants or systems; *iii*) goods of interest because of the processes or production methods by which they were manufactured, extracted or harvested; and *iv*) goods defined by their superior environmental performance. Procedures for including such goods under a trade liberalisation agreement exist, though usually not without imposing some costs on the multilateral trading system because of the need to create additional documentation or institutions. But the basic conclusion has to be: if there is a will to include goods within these categories, there is usually a way to do so.

Should negotiators decide to create a mechanism to periodically review an agreed product list of environmental goods, and to entertain the possibility of revising it, they will eventually have to decide what institution or institutions should be assigned the various tasks. These tasks relate to the evaluation of proposals for goods to add to the list and to the creation or modification of customs codes. Environmental goods, like many other goods, are subject to rapid technological changes. Identifying them can be difficult, however, particularly if the definition extends to goods defined by their relative environmental performance in use.

21. Such a clarification was not made for Item No. 199 (which references a private standard) under the ITA.

ANNEX A1

AMENDING THE HARMONIZED SYSTEM (HS) OF TARIFF NOMENCLATURE

The initial impetus for the HS, when it was developed during the 1970s and 1980s, was to facilitate trade. Studies had shown that differences in product classification systems across countries imposed heavy transaction costs on trade. International standardisation was seen as a way to reduce the root causes of those transaction costs — translation between codes and disputes over classification — as much as possible, though the framers of the HS recognised that such problems could never be eliminated entirely. Use of the HS is meant to ensure that a customs administration applies tariffs and produces statistics in accordance with uniform and internationally agreed classification standards. It is also intended to promote as close a correlation as possible between import and export trade statistics and production statistics. Today the HS is used as the basis not only for tariffs and trade statistics but also for:

- Harmonising non-preferential rules of origin.
- Conducting trade negotiations (*e.g.* the WTO schedules of tariff concessions).
- Applying transport charges and collecting statistics on transport.
- Monitoring the movement of controlled goods (*e.g.* wastes, narcotics, chemical weapons, substances that deplete the ozone layer, endangered species).
- Collecting internal taxes.
- Areas of customs controls and procedures, including risk assessment, information technology and compliance.

The HS is governed by the 1983 “International Convention on the Harmonized Commodity Description and Coding System”, which took effect on 1 January 1988. Most members of the WCO are also Contracting Parties to the HS Convention. However, about 50 WCO members have not yet taken that step. Being a Contracting Party obliges a country to bring its customs tariffs and statistical nomenclature into conformity with the HS and to publicly report its import and export statistics at the 6-digit HS level.

Maintenance of the HS is carried out by the WCO through its Harmonized System Committee (HSC), which is comprised of representatives of the Contracting Parties to the HS Convention. Each member has one official representative and one vote. The HSC examines policy matters, takes decisions on classification questions, settles disputes and prepares amendments to the *Explanatory Notes*.²² Though HSC decisions are not binding, members are aware that they are committed to implement them and that if they do not they are obliged to inform the WCO Secretariat and explain why. Every four to six years, the HSC also prepares amendments updating the HS nomenclature. These reviews are conducted by the HSC’s HS Review Sub-committee, which is assisted in its work by the Scientific Sub-committee, in particular on questions involving the classification of chemical products.

22. The HSC acts as an international tribunal with regard to the classification of goods in the Harmonized System. In this respect it is the sole international body able to give an authentic opinion on tariff classification.

The Preamble to the HS Convention stresses the importance of ensuring that the Harmonized System is kept up to date in light of changes that may occur in technology or in patterns of international trade. Article 16 sets out procedures for amending the HS Convention (Box 3). Since the HS Convention entered into force, there have been hundreds of requests for amendments. These are normally submitted to the WCO by member administrations.

Box 3. Amending the HS Convention

1. The Council may recommend amendments to this Convention to the Contracting Parties.
2. Any Contracting Party may notify the Secretary General of an objection to a recommended amendment and may subsequently withdraw such objection within the period specified in paragraph 3 of this Article.
3. Any recommended amendment shall be deemed to be accepted six months after the date of its notification by the Secretary General provided that there is no objection outstanding at the end of this period.
4. Accepted amendments shall enter into force for all Contracting Parties on one of the following dates:
 - (a) where the recommended amendment is notified before 1 April, the date shall be the first of January of the second year following the date of such notification,
 - or
 - (b) where the recommended amendment is notified on or after 1 April, the date shall be the first of January of the third year following the date of such notification.
5. The statistical nomenclatures of each Contracting Party and its customs tariff nomenclature or, in the case provided for under paragraph 1(c) of Article 3, its combined tariff/statistical nomenclature, shall be brought into conformity with the amended Harmonized System on the date specified in paragraph 4 of this Article.
6. Any State or Customs or Economic Union signing without reservation of ratification, ratifying or acceding to this Convention shall be deemed to have accepted any amendments thereto which, at the date when it becomes a Contracting Party, have entered into force or have been accepted under the provisions of paragraph 3 of this Article.

Source: "International Convention on the Harmonized Commodity Description and Coding System (done at Brussels on 14 June 1983), As amended by the Protocol of Amendment to the International Convention on the Harmonized Commodity Description and Coding System of 24 June 1986", World Customs Organization, Brussels. www.wcoomd.org/ie/En/Conventions/conventions.html.

REFERENCES

- European Federation of Pharmaceutical Industries and Associations (2001), "WTO Millennium Round", Position Paper, EFPIA, Brussels.
- Fliess, Barbara A. and Pierre Sauvé (1998), *Of Chips, Floppy Disks and Great Timing: Assessing the WTO Information Technology Agreement*, Institut français des relations internationales, Paris.
- Howse, Robert and Petrus B. van Bork (2005), "Options for the liberalisation of trade in environmental goods in the Doha Round", International Centre for Trade and Sustainable Development, Geneva. Available at www.trade-environment.org/page/theme/goods.htm.
- OECD (1997), "Processes and Production Methods (PPMs): Conceptual Framework and Considerations on use of PPM-based Trade Measures", OECD/GD(97)137.
- OECD (2001), *Environmental Goods: The Benefits of Further Global Trade Liberalisation*, OECD, Paris.
- OECD/Eurostat (1999), *The Environmental Goods and Services Industry: Manual on Data Collection and Analysis*, OECD, Paris.
- Melling, J. (1996), "Products with an environmental use", Department of Trade and Industry, London (cited in OECD, 2001).
- Moltke, Konrad von (1999), "Reassessing 'Like Products'", in H. Ward and D. Brack (eds.), *Trade, Investment and the Environment*, Royal Institute of International Affairs, London. Also available at www.iisd.org/pdf/likeproducts.pdf.
- UNCTAD: United Nations Conference on Trade and Development (2003), "Environmental Goods and Services in Trade and Sustainable Development — Note by the UNCTAD Secretariat", Document No. TD/B/COM.1/EM.21/2, 5 May 2003, UNCTAD, Geneva. Available at http://www.unctad.org/en/docs/c1em21d2_en.pdf.
- WCO: World Customs Organization (2001), "Amending the harmonized system", mimeograph, WCO, Brussels. Available at www.wcoomd.org/ie/En/Topics_Issues/topics_issues.html.
- WCO (2002), *HS Data Base & Explanatory Notes*, CD-Rom, Third Edition, WCO, Brussels.
- WTO: World Trade Organization (2002), "Trade in Environmental Goods — Note by the Secretariat", Document No. TN/MA/S/8, 2 December 2002, Geneva.