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Stalemate at the Negotiations on Environmental Goods and Services at the Doha Round

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Abstract

Pursuant to article 31 of the Doha mandate, WTO members have been asked to reduce or eliminate tariffs and NTBs on a list of Environmental Goods and Services (EGS) to be determined during the negotiations. This paper reviews progress so far. First, it reviews the identification process under the Committee on Trade and the Environment in Special Session (CTESS) since 2002, while discussing the difficulties in identifying EGS and the different approaches on the table. The paper then concentrates on tariff reductions and import responses that occurred since the start of the negotiations, focusing on the 26 products identified as “clear environmental goods”. ... / ...

Keywords: Environmental Goods, Doha Round, Tariff Reductions.

JEL Categories: F18 and Q56

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... / ...

On average, tariffs have been reduced for an average of 6 percentage points (pp), ranging from 2 pp for high-income to 11 pp for low-income countries. The gap in protection between EGs and other goods remained constant across income groups. While imports did rise for EGs in which average tariff reduction was at least five percentage points, imports grew as much for tariff lines with no tariff reductions. Taken together, the evidence here suggests the lack of a 'mandate effect' on EGS since the initiation of the negotiations and that these negotiations fall short of helping 'the protection of the environment'.

1 Introduction

Until recently, trade and climate negotiations have been pursued separately: Trade only appeared in climate negotiations at the Conference Of the Parties meeting in 2007 (COP13), where one of the four pillars of the 'Bali roadmap' involved trade and finance compensation under the "common but differentiated responsibility" agreed under the UN Framework Convention on Climate Change. Environmental issues entered trade negotiations earlier as the text of the Preamble to the Agreement establishing the WTO in 1994 stated that it would have as an objective to promote sustainable development and the protection of the environment (WTO, 1994a). Environmental issues were then introduced formally into the Doha Round dubbed the Round for the "Developing Countries and for the protection of the environment". Pursuant to article 31, WTO members have been asked to negotiate on the reduction, or, as appropriate, elimination of tariff and Non-Tariff Barriers (NTBs) on Environmental Goods and Services (EGS).¹

The aim of these negotiations is to create a triple win situation, for trade, for the environment, and for development. Indeed, if negotiations are successful, trade will be facilitated through reduced or eliminated tariffs and NTBs on environmental Goods and Services (EGS). This would in turn decrease the cost of environmental technologies, increase their use, and stimulate innovation and technology transfer. As a consequence, the environment would be better preserved, especially if a wide definition of environmental goods were adopted to include as EGS all those environmental products and services with production, usage and disposal characteristics that avoid damaging the environment. Lastly, developing countries would benefit in two ways from better market access in EGS. Producers of EGS would have better access to large markets in Europe, the US and high income Asia and

¹ The Doha ministerial decision of November 2001, paragraph 31(iii) stated that "...With a view to enhancing the mutual supportiveness of trade and the environment, we agree to negotiations, without prejudging their outcome, on: (...) (iii) the reduction or, as appropriate, elimination of tariff barriers to environmental goods and services". Negotiations take place in the Special Session of the Committee on Trade and the Environment (CTE in Special Session or CTESS). The other two mandates under paragraph 31 are on coordination and dispute settlement and on information exchange with Multilateral Environmental Agreements (MEAs).

it would be easier for developing countries as a whole to obtain high quality environmental goods on world markets. Such access should increase energy efficiency and improve the water and sanitation situation in developing countries.

As of this writing, in September 2011, almost ten years into negotiations in the Doha Round, WTO members have failed to reach an agreement on a comprehensive package. In June 2011, in a last ditch effort to rescue the negotiations, the WTO director-general Pascal Lamy called for a “plan B” with three lanes. The first ‘fast lane’, which has to be concluded in December 2011, is the “LDC+” minimal package. It should concentrate on preserving some market access for LDCs, with the plus component yet to be determined but that could include Trade Facilitation and progress towards a framework for concrete negotiations on EGS.

This paper takes stock of the difficulties encountered during the negotiations around article 31, and assesses progress so far on trade liberalization in EGS. Section 2 gives an analytical description of those “goods and services which measure, prevent, limit, minimize or correct environmental damage” (OECD/EUROSTAT, 1999, p.9). It discusses the difficulty in dealing with these aspects under the straitjacket of the Harmonized Commodity Description and Coding System (hereafter HS) and of the WTO articles defining members’ rights and obligations. This analytical description serves to interpret the following inquiries in the paper. Section 3 discusses how countries have responded to article 31, and the different approaches they have proposed. We then focus on what is called the “list approach”, describing the different Environmental Goods (EGs) submissions and the extent of overlap across them. Section 4 explores the extent of tariff reduction that has occurred for the goods on these lists since 2002. It shows that tariff reductions have not been greater than in other goods and that the hoped-for increased import response has been, at best, weak, leading us to conclude in section 5 that the Doha negotiations fall short of being a Round for ‘the protection of the environment’.

2 Environmental Goods: An Analytical Description

2.1 Defining EGs

Under the Committee on Trade and Environment in Special Session (CTESS) Work Programme (see WTO, 2008), WTO members were invited to make submissions that would help define a “universe” of ‘environmental goods’ that would be concerned by tariff reductions. There are no provisions in the WTO legal system related specifically to environmental goods and services (EGS), except for the application of the MFN clause and a general interdiction of quantitative restrictions. As a result, there is no agreed-upon definition of what an ‘environmental good’ or an ‘environmental service’ is. Figure 1, extended from OECD/Eurostat (1999) and Hamwey (2005), suggests classifying goods into two broad categories: on the left, Goods for Environmental Management (GEM), and on the right, Environmentally Preferable Products (EPPs). These are now described in turn.

On the left belong products whose use is to improve the management of the environment (Goods for Environmental Management, GEM). The OECD defines them as “products [and services] that reduce environmental risk and minimize pollution and resource use” (OECD/Eurostat, 1999, p.9). This includes goods and services used in “pollution management” services (e.g. tubes, pipes, filters and chemicals used in sewage and wastewater treatment; mixing, kneading, grinding machines used for solid waste recycling services; pumps, air compressors used to control air pollution; and measuring equipment to monitor the environment (optical instruments for example)). This category also comprises “Resource management” products such as renewable energy equipment (towers and lattice masts for wind turbines, photosensitive devices and optical fibers used to generate, concentrate or intensify solar power) or indoor air pollution control equipment.² These goods generally have multiple end-uses, only part of which serves environmental purposes.

Environmentally Preferable Products (EPPs)³ are on the right-hand-side of figure 1. These are single-use products that produce less environmental damage either in their production, their use or their disposal. For each EPP there exists a close substitute with a similar use but which is less environmentally friendly (for example the use of biodegradable products in a manufacturing process). Another example of an EPP would be an energy-efficient washing machine or the use of low-emission technology in aluminum production (e.g. Pre-bake rather than Soderberg technology).

However, in some cases, there is some overlap between these categories (Hamwey, 2005, p.4): first, some EPPs may be used to prevent or treat environmental problems as well (e.g. cleaner recycling machinery). Second, renewable energy equipment could be in either GEM or EPPs: equipment used in renewable energy plants would fall under GEM whereas consumer good could fall under EPP (solar cars, biofuels).

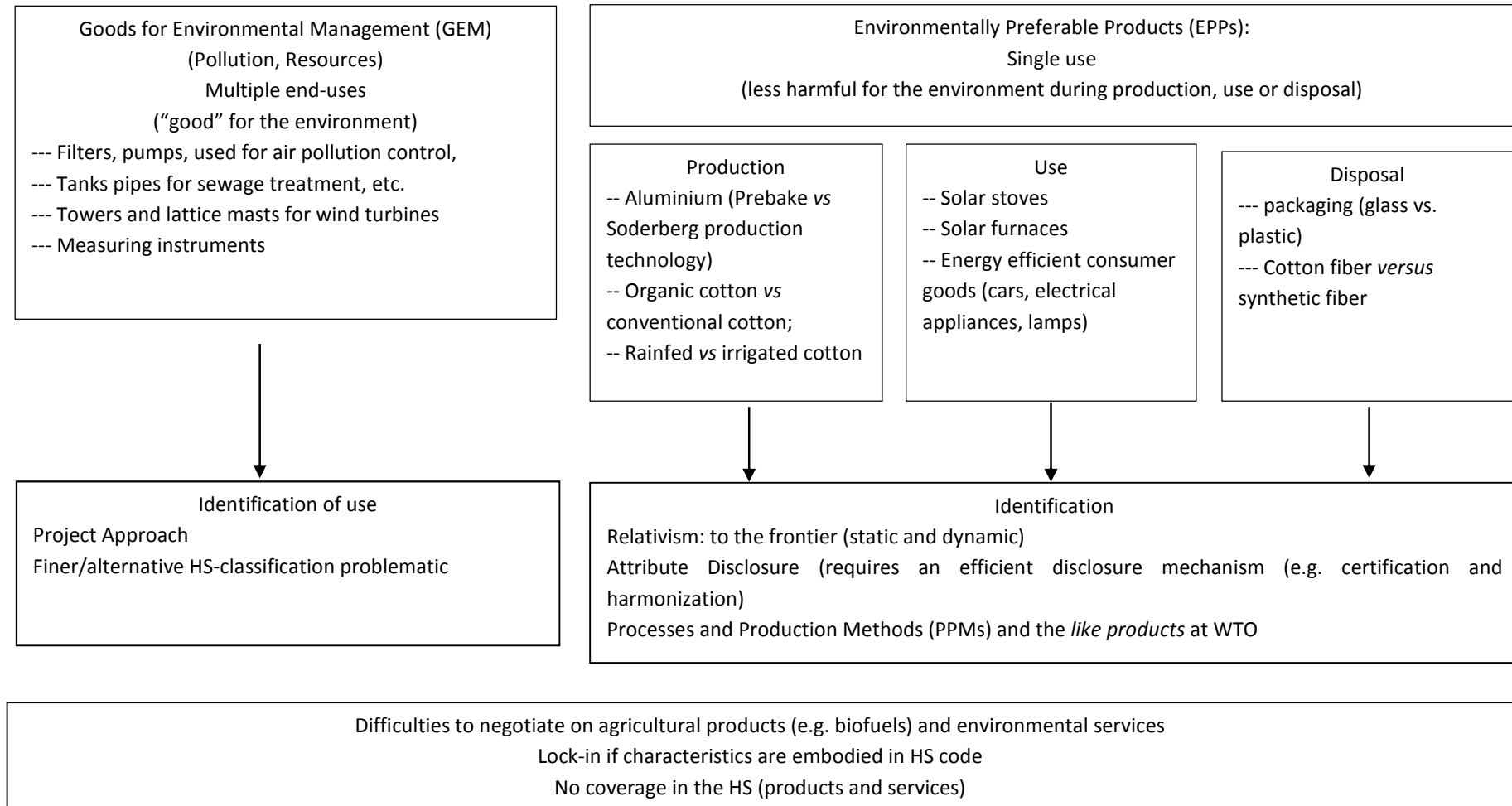
2.2 Problems in identifying EGs

Apart from their different rationale for inclusion in EG lists, when it comes to WTO negotiations, GEM and EPPs face different problems. Multiple end-uses related problems are specific to GEM. The next three problems (relativism, attribute disclosure, and ‘like’ products) primarily apply to EPPs. Finally, some problems are common to both GEM and EPPs (agricultural goods and services negotiations in the WTO, no coverage in the HS nomenclature, and lock in). Issues relating to each are now reviewed briefly.

² This category comprises both the “Pollution Management” and “Resources Management” groups identified by the OECD and Eurostat (1999). UNCTAD refers to these products as “Type A EGs” (Hamwey, 2005), while the ICTSD refers to them as “established environmental technologies” (EET) (Howse and Bork, 2006).

³ Hamwey (2005, p.2) refers to as “Type B products” and defines them as “industrial and consumer goods not primarily used for environmental purposes but whose production, end-use and/ or disposal have reduced negative, or potentially positive, environmental impacts relative to substitute goods providing similar function and utility.”

Figure 1: Identifying and Classifying Goods Related to the Preservation and Management of the Environment



Multiple end-uses

The problem for Goods for Environmental Management (GEM) is that they generally have multiple end-uses (also referred to as the “dual use” or “multi-purposes” problem). For example, tubes and pipes used in water treatment can also be used for the transportation of gas. Several WTO members, including developing countries, have tabled an informal document stressing the importance of only liberalizing trade in environmental goods that serve a single environmental end-use (Claro *et al.*, 2007, p.8). However, if a list approach is used to identify EGs, there is a major identification problem as the Harmonized commodity code System (HS) was not designed according to end-use. A finer HS classification specifying “ex/outs” (goods which are not separately identified at the 6-digit level of the HS system and that have to be identified in national tariff schedules at the 8- or 10-digit level) could help solve the multiple-use problem, but this would be particularly costly and difficult to implement for developing countries. Moreover, this is only a partial solution.

Another way to deal with multiple end-uses is to use a project approach in assessing whether the product (e.g. a turbine) is being used to improve the environment which is the justification for the *define-by-doing-approach*. For example, among competing approaches that have been proposed to liberalize goods, those proposed by India (“the project approach”) and Argentina (“the integrated approach”) avoid the dual use problem. In these approaches, only EGs selected by national authorities for environmental projects would temporarily benefit from enhanced market access (see Annex I for more details).

Relativism

Relativism applies to EPPs and refers to the fact that criteria to judge what “environmental friendly” is are lacking. Apart from the divergence in preferences (conceptions of the “environment”), this is also due to the hurdles facing the completion of a life-cycle assessment (LCA)⁴ as a same good may be used and disposed of in different ways (Hamwey, 2005). For other goods or human activities, criteria are lacking because of scientific knowledge gaps (particularly for those goods differentiated by Process and Production Methods (PPM) of which the impact is “indeterminate”, see Balineau and Dufeu, 2010). As examples, Steenblik (2007) and Hufbauer *et al.* (2009), stress that the use of bio-fuels to save on energy and reduce CO₂ emissions is doubtful. Likewise cotton production may have high environmental impacts, potentially offsetting positive end use and disposal benefits of cotton products (Hamwey, 2005). This problem is all the more critical when knowledge that was thought to be stabilized could be challenged periodically (for example, some studies stated that environmental impacts of recycling processes may offset benefits of recycling (*ibid.*)). Scientific knowledge progress is also related to another form of relativism, namely the “changing

⁴ See e.g. Brenton *et al.* (2009) for the difficulty in establishing carbon footprints for food systems, especially in developing countries where emissions from land use change are difficult to evaluate.

technology frontier”: today’s cleanest available technology will change as technological progress occurs. This problem is critical for trade liberalization as it would imply regular updates of the list of goods that would benefit from tariff exemptions.

Attributes Disclosure

Even if problems linked to relativism were solved (i.e. if there were a consensus about what EPPs are), liberalization in EPPs would require their identification. However, most countries have avoided classifying EGs based on their production characteristics because of the difficulties in distinguishing between the same products produced using different methods.⁵ Indeed, EPPs mainly differ in non-observable attributes (which include not only products that are differentiated by PPM but also energy efficient products). Their identification thus requires an efficient disclosure mechanism which can be very costly when attributes are not observable in the final product (e.g. efficient third-party certification for “credence goods”).⁶ This implies that multilateral liberalization for many EPPs would further require an international standard and certification process harmonization, one of the reasons why countries are now converging on the view that only a restricted and widely accepted list of goods should be put for negotiation.

Like Products in the WTO

Because all EPPs, if not most, have conventional counterparts, further liberalization would require dealing with the problem of like products so that the promotion of trade in EGs would not create unnecessary restrictions to international trade (contrary to GATT art. XI). This problem affects goods which differ in their Processes or Production Methods (PPMs) without being modified in their final physical characteristics (in that case PPMs are referred to as “non-product-related” PPMs), as WTO members cannot discriminate among products based on the way they are produced. For instance, while some governments may want to discriminate between wood products derived from sustainable grown forests from other wood products, they cannot do so if the unlikeliness of these two types of wood products is not established.

While discrimination according to PPMs seems possible, especially if human health or the conservation of exhaustible natural resources is concerned, the jurisprudence at the GATT/WTO on PPMs is still in flux. Moreover, several members, including developing countries, are against designating PPM-based EGs. Developing countries actually fear that this would open the door to discrimination against their products based on other than

⁵ This also raises the question of non-tariff barriers and international standards. There are some proposals on the table, relating in particular to the harmonization of standards on organic products (JOB(07)/146, Brazil, 1 October 2007) and energy efficient goods (TN/TE/W/75/Add.1, Japan, 16 February 2010). See WTO documents TN/TE/19, paragraph 16.

⁶ While the definition of “credence goods” given by Darby and Karni (1973) is somewhat more complicated, “credence goods” generally refers to those goods whose attributes cannot be observed before their purchase (“search goods”, e.g. the price of tuna) or their consumption (“experience goods”, e.g. the taste of tuna). For example, consumers cannot know if tuna have been fished in dolphin-safe conditions before, during, or even after consumption (see Balineau and Dufeu, 2010). Credence characteristics disclosure thus requires other mechanisms than repeated purchases and reputation.

environmental concerns (“social concerns” for example, based on the absence of legislation on domestic workers’ rights).⁷ Other members (e.g. the European Union and Switzerland) suggested that product-related PPMs (i.e. PPMs that modified the final physical characteristics of products in a way that their use or disposal is less harmful for the environment) could benefit from additional discussions. Peru proposed to include organic products in EGs [JOB(09)/177, Peru, 27 November 2009]. The difficulty here is to prove that organic production methods are product-related (e.g. consumers may want to rinse thoroughly a chemically treated apple while waste less water with an organic apple, see UNEP and IISD, 2005).

Additional Problems

First, some WTO members’ submissions call for some agricultural goods to be included in EGs (e.g. Brazil proposed the inclusion of biofuels [JOB/TE/6, 1 July 2010]). However, to date no formal link has been made between the Doha mandate under Paragraph 31(iii) and the WTO Committee on Agriculture (CoA). Similarly, while a number of EGs only become “environmental” through their use in delivery of environmental services, they have not received much attention. Little progress has occurred in the Committee on Trade in Services Special Session where the negotiations are taking place (see WTO, 2011, TN/TE/20 for more details). Second, as with all classifications, but especially in areas of rapid technological change, once a classification is adopted, one is subject to lock-in which can be an impediment to R&D and a subject of conflict over changing use of goods as in the recent EC-IT case brought up to the Appellate Body.⁸ Finally, while the HS nomenclature has some advantages among which lending itself to higher level of disaggregation than other product nomenclatures, these have to be balanced against its drawbacks. First, using the HS implies the exclusion of environmental services. Second, some EGs have no equivalent HS commodity code. For example in the lists proposed by WTO members, 3 products do not have HS-2002 codes.⁹

⁷ Relevant environmental WTO cases are: US-Gasoline, US-Shrimp and Brazil-Retreaded Tyres. In a first decision by the Appellate Body in the Tuna-dolphin case involving the US and Mexico (under the GATT (1991)), the US lost the case when it argued that tuna could only be imported if it was caught in purse-seine nets, jurisprudence that was overturned later in the shrimp-turtle decision which in effect allowed that process and production methods (PPMs) could be invoked at the WTO for contingent protection. Technically the shrimp-turtle case did not explicitly approve the so-called non-product related process and production methods (NPR-PPMs), but as a result of the case, it could under certain circumstances be justified under the GATT’s article XX exception clauses. In the EC-asbestos case opposing Canada and the EU (DS 135), the Appellate Body upheld the EU position that discrimination according to PPM could be applied when human health was involved.

⁸ In the “EC-IT Products” case, the issue was how to treat increasingly multifunctional hi-tech goods, i.e. should flat monitor screens initially duty-free as they were used for computers pay the 14% tariff applied to televisions because they are also used as televisions. See Conconi and Howse (2011) “Panel Report on EC-IT Products WT/DS/375”.

⁹ Japan (TN/TE/W/75/Add.1) submitted two products descriptions, with HS codes to be determined. These are: “LED lamp (LED light bulb etc.) and lighting” and “Energy efficient liquid crystal displays which conform to the energy efficiency standard and are so certified by the authority in destination country”. Besides, Saudi Arabia (JOB(09)/169) submitted “Cut-outs of a kind used in conjunction with internal combustion engine” with HS code 841160 that cannot be found (see TN/TE/20, p.18).

3 WTO Environmental Goods submissions

The classification difficulties described above have given leeway for countries to reflect their conflicting interests under three main approaches: (i) the “list approach”, favored by most developed countries, (ii) the “request and offer” approach, used in early GATT negotiations, favored by some developing countries (e.g. Brazil), and; (iii) the “Integrated-Project Approach” that would address the problem of multiple end-uses. These and two other proposals combining elements of these main approaches are described in Annex I. Since reductions in barriers to trade in EGs are on HS products, we discuss briefly two lists, the ‘WTO combined list’ which combines products from all lists, and the smaller ‘core list’ presently viewed as the list around which any negotiations might take place.

3.1 The ‘WTO combined list’ (411 HS codes)

Following an initial period of illustrative submissions between 2002 and 2005, under the 2008 CTESS Work Programme, WTO members were officially invited “to make submissions identifying environmental goods of interest to them across as many categories as possible, and/or environmental goods identified in any requests/offers they would have made to other Members” to determine the “universe” of environmental goods and to identify environmental categories for the project approach. For fears discussed above, with the exception of the Philippines, developing countries did not participate. Thirteen countries participated to the submission process resulting in 6 lists (number of HS-2002 6-digit codes in parenthesis): Saudi Arabia (262), Japan (57), Philippines (17), Qatar (20), Singapore (72), and the group of nine Friends (164).¹⁰ (Since Japan’s list is an additional list, there are only thirteen countries that participated to the submission process).

Due to partial overlaps, the combined list (hereafter the “WTO list”) contains 411 unique HS-2002 6-digit level codes¹¹ (see Annex II). The very limited overlap (see Figures III-A and III-B in Annex III) indicates the diverging positions as to countries’ perceptions about which goods should be considered as “environmental”. It also confirms the difficulties in identifying the two categories of environmental goods discussed in Figure 1. In fact, there is not a single product that appears on all six lists, and more than two thirds of the products proposed are on only one list. Only 7 products are common to four lists. More than 80% of the 90 duplicates are common to the Friends’ list, of which almost three quarters (54 HS codes)

¹⁰ It is likely that the submission from the Philippines was under the pressure of the then chairman of the CTESS, Manuel A.J. Teehankee, the Philippine Permanent Representative to the WTO in Geneva. The “friends” lists includes a merger of individual submissions made by Canada, the European Union, Japan, Korea, New Zealand, Switzerland, Taiwan, and the United States with Norway joining the list without making individual submissions.

¹¹ The final list compiled by the WTO (TN/TE/20, 21 April 2011) contains 408 6-digit HS-2002 six-digit level codes. However, the list we use for this work contains 411 6-digit HS-2002 six-digit level codes. This is because we make additional corrections looking at products descriptions provided by Members (see Annex II). Because some countries prefer the Project or Request approaches, members were also asked to submit their products under pre-identified categories and/or suggest new categories (see Annex II, Table II-B and Table 1, column “Categories”).

are also common to Saudi Arabia's list, and another quarter (20 HS codes) common to Singapore's proposal (Annex III further discusses the overlaps).

3.2 The 'Core List' (26 goods)

From this combined list of 411 codes, Australia, Colombia, Hong Kong, China, Norway, and Singapore, have drawn a 'core list' of 26 goods that could serve as a starting point for WTO negotiations. Table 1 lists these 26 HS codes, the countries that proposed the good in individual submission, and the categories under which that good was classified.

Table 1 – The 'Core List'				
N°	HS 2002 CODE	HS CODE DESCRIPTION	MEMBERS	CATEGORY(IES)
1	460120	Mats, matting and screens of vegetable materials	PHL	WM/WT
2	730820	Towers & lattice masts	FRD, PHL, SGP	RE
3	732111	Cooking appliances and plate warmers: For gas fuel or for both gas and other fuels.	FRD	ET
4	732490	Other sanitary ware and parts thereof, of iron or steel	FRD, SAU	WM/WT, ET, CCS
5	840290	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers: Parts	FRD, SAU, PHL	WM/WT, ET, CCS
6	840410	Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recoverers); condensers for steam or other vapour power units	FRD, SAU, PHL	WM/WT, ET, CCS
7	840510	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	FRD, SAU, PHL, SGP	APC, RE, WM/WT, ET, CCS
8	840681	Steam turbines and other vapour turbines for marine propulsion: Of an output exceeding 40 MW	FRD, SAU, PHL	RE
9	840999	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08 other	FRD, SAU, SGP	APC, ET, CCS
10	841011	Hydraulic turbines and water wheels of a power not exceeding 1,000 kW	FRD, SAU, PHL	RE, ET, CCS
11	841012	Hydraulic Turbines and Water Wheels, Power 1, 000-10, 000kw	SAU	ET, CCS
12	841090	Hydraulic turbines, water wheels, and regulators ; parts, including regulators	FRD, SAU, PHL	RE, ET, CCS
13	841181	Other gas turbines of a power not exceeding 5,000 kW	FRD, SAU, PHL, QAT	RE, ET, CCS, OTH
14	841182	Other gas turbines of a power exceeding 5,000 kW	FRD, SAU, PHL, QAT	RE, ET, CCS, OTH
15	841861	Other refrigerating or freezing equipment; heat pumps: Compression-type units whose condensers are heat exchangers	FRD	RE
16	841919	Instantaneous or storage water heaters, non-electric: Other	FRD, PHL	RE
17	841950	Heat exchange units	FRD, SAU, PHL	RE, ET, CCS
18	847989	Other machines and mechanical appliances: Other	FRD, SGP	APC, WM/WT, RE
19	850231	Other generating sets: Wind-powered	FRD, PHL, SGP	RE

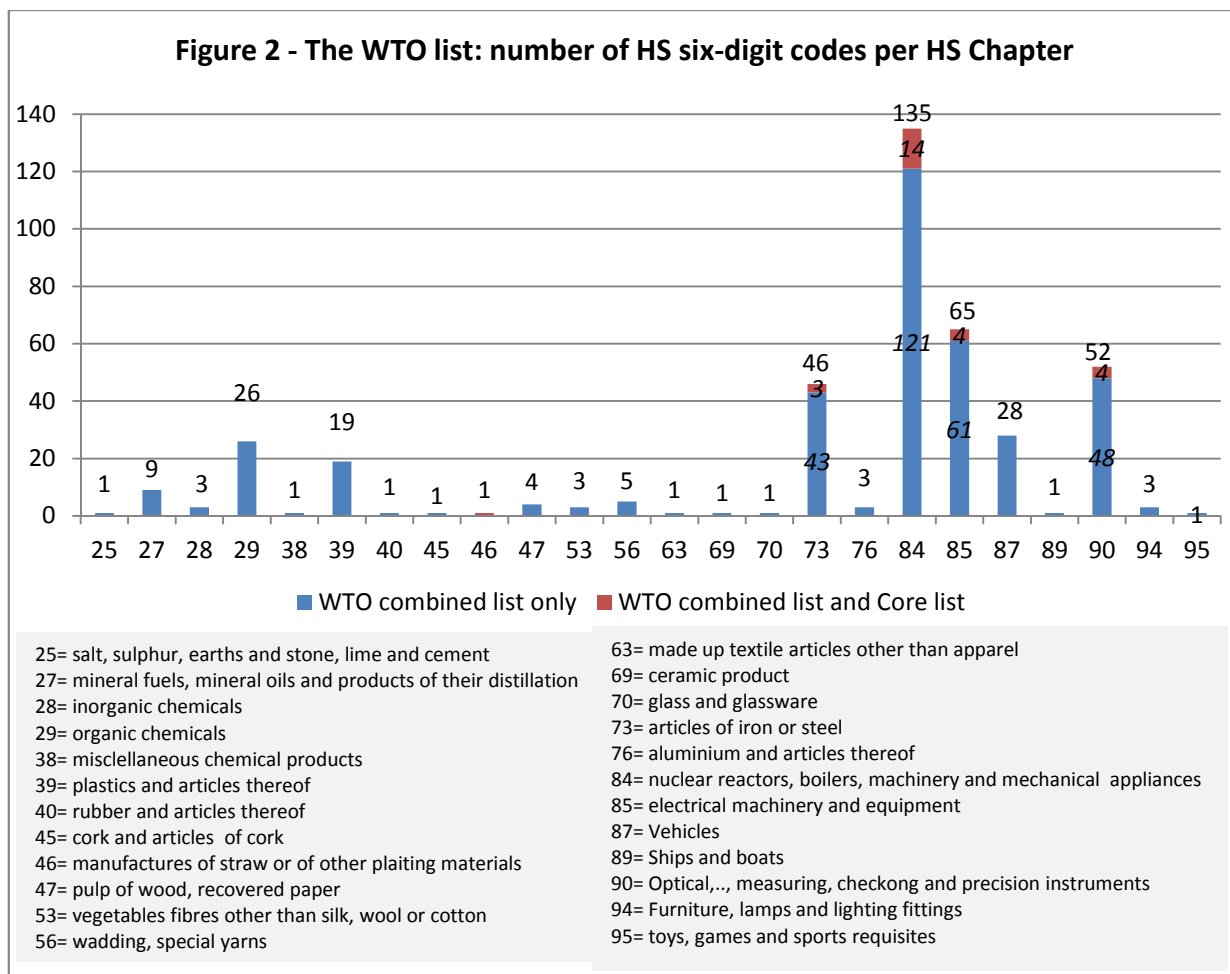
Table 1 – The ‘Core List’				
N°	HS 2002 CODE	HS CODE DESCRIPTION	MEMBERS	CATEGORY(IES)
20	850410	Ballasts for discharge lamps or tubes	SAU	ET, CCS
21	853710	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 85.35 or 85.36, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90, and numerical control apparatus, other than switching apparatus of heading 85.17For a voltage not exceeding 1,000V	FRD, PHL	RE
22	854140	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes.	FRD, PHL, SGP	RE
23	900190	Optical fibres and optical fibre bundles; optical fibre cables other than those of heading 85.44; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked: other	FRD	RE
24	900290	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked: other	FRD	RE
25	902730	Spectrometers, spectrophotometers and spectrographs using optical radiations (UV, visible, IR)	FRD, SGP	ET
26	903210	Thermostats	FRD, SAU, SGP	ET, CCS

Source: Compiled from country submissions by the authors and TN/TE/20

APC=Air Pollution Control, RE=Renewable Energy, ET=Environmental Energy, CCS=Carbon Capture and Storage, WM/WT=Water Management / Water Treatment, OTH=Other

Among these goods identified as “clear environmental goods”, 7 are singles, 5 are common to two submissions, 11 are common to 3 submissions, 3 are quadruplicates and 23 are on the Friends’ list.

Figure 2 describes the combined (411 goods) and core (26 goods) lists under the two-digit HS-2002 Chapter classification (96 product categories).



It is apparent that the 411 codes fall within 24 of the 96 HS Chapters with almost one third under HS Chapter 84 (machinery and mechanical appliances, for example pumps for air handling equipment, turbines, and machinery for waste management). Chapter 85 (electrical machinery such as generators), Chapter 90 (Precision instruments to monitor and analyze the environment), and Chapter 73 (articles of iron or steel like tubes, pipes, tanks and reservoir for water treatment) respectively accounts for 16%, 13%, and 11% of the WTO combined list of EGs. Energy efficient or cleaner vehicles (chapter 87) proposed by Japan account for 7% of the list. Ethers and ketones of chapter 29 (proposed by Saudi Arabia as “Carbon Capture and Storage” (CCS), “Gas flaring emission reduction”, or “Efficient Consumption of Energy (EC)” technologies) account for another 7%. Plastics articles (chapter 39) mainly suggested by Saudi Arabia as CCS- or EC- technologies account for 5%.

As a first check on progress in reducing barriers on EGS, Figure VI-A in Annex VI plots the import shares by income group for the core and combined lists over the period 2000-10. The graph shows that the share in total imports of the core list is between 0.5 % and 1.0% for the low-income countries and 1.5% and 2.0% for the lower-middle income countries. With the combined list, the share rises to the range of 20% for all income groups except for the low-income group for which the share rises from 12% to 38%. Since many multi-use goods are

included in the combined list (e.g. vehicles or parts), it is best to rely on the figures for the core list. Importantly, there is no rising trend in the share for core EGs in total imports over the period.

In conclusion, no single technology or sub-set of technologies is likely to meet the objective of preserving the environment and particularly to mitigate or adapt to the adverse effects of climate change. This reflects conflicting interests across countries, some of which are due to political economy considerations (see Balineau and de Melo, 2011) and others reflect the fact that environmental problems are different across countries. So it should not be surprising, especially for environmental goods relating to climate change, that there is only limited overlap across the lists. Finally, recognizing that technical progress could be rapid in this field (as in the IT sector), leads to the conclusion that any agreement is likely to be challenged either when negotiations take place, or later on when new information about climate change and about the appropriate accompanying technologies to mitigate and adapt become available (see the EC-IT products case recently adjudicated by the WTO Appellate Body mentioned earlier).

4 Trade liberalization in EGs and Imports

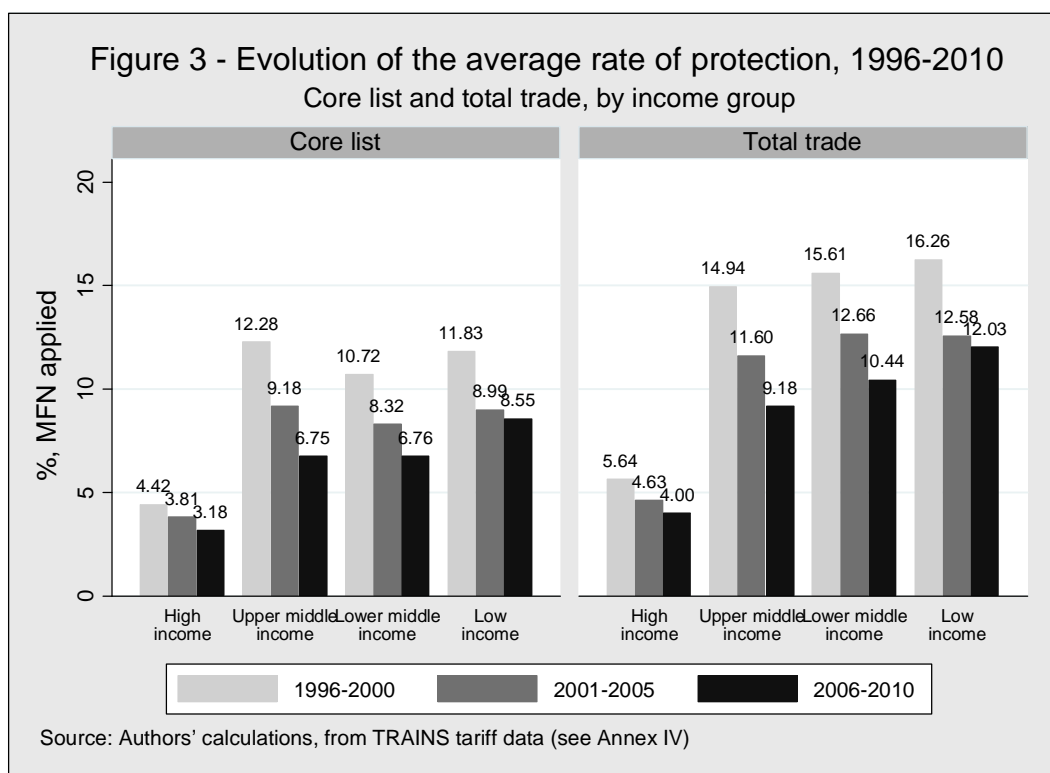
At this late stage in the Doha negotiations, it is likely that any measures towards trade liberalization in EGs will either involve some tariff reductions on the 'Core list' or agreement on a standstill fallback (countries agree to bind tariffs at their current applied rates). Here we address the following: how much tariff reduction has taken place and how has the pace of tariff reduction compared with that for non-EGs? For those EGs for which trade liberalization was substantial, we look at the import response. Data are described in Annex IV. We take 5-year averages over intervals starting in 1996 to see if there are any noticeable tendencies. We summarize results for the 'core list' by income group and by region and report the (very similar) results for the 'combined list' in Annex V.

4.1 Tariff Reductions in EGs

Four patterns are apparent in the data. First, protection in EGs remains highest in the low-income group, i.e. the group that would benefit the most from imports of EGs (Figure 3). With few exceptions, these are the countries that specialize in 'end-of-pipe' activities using imported clean technologies that reduce pollution and protect the environment. Second, the absolute gap in protection between the low income group and the other developing groups has remained constant during the period, and the number of duty-free tariff-lines is still very low for the low-income group, standing barely above 10% at the end of the period (see Figure VI-B in Annex VI). Third, the data show a steady decline in tariffs over the period across income groups, all groups reducing tariff by about 50% over the period. Fourth, for all income

groups, EGs are less protected on average than other goods, but the gap in average protection has remained fairly constant for all products and across groups.¹²

Turning to the pattern of reduction in protection for the EG group, the data fail to show a “mandate effect” as one observes no acceleration in the reduction of EGs tariffs relative to other products as the Doha negotiations proceeded, especially for the low-income group where the reduction in protection was greatest in the 2002-2004 period.¹³

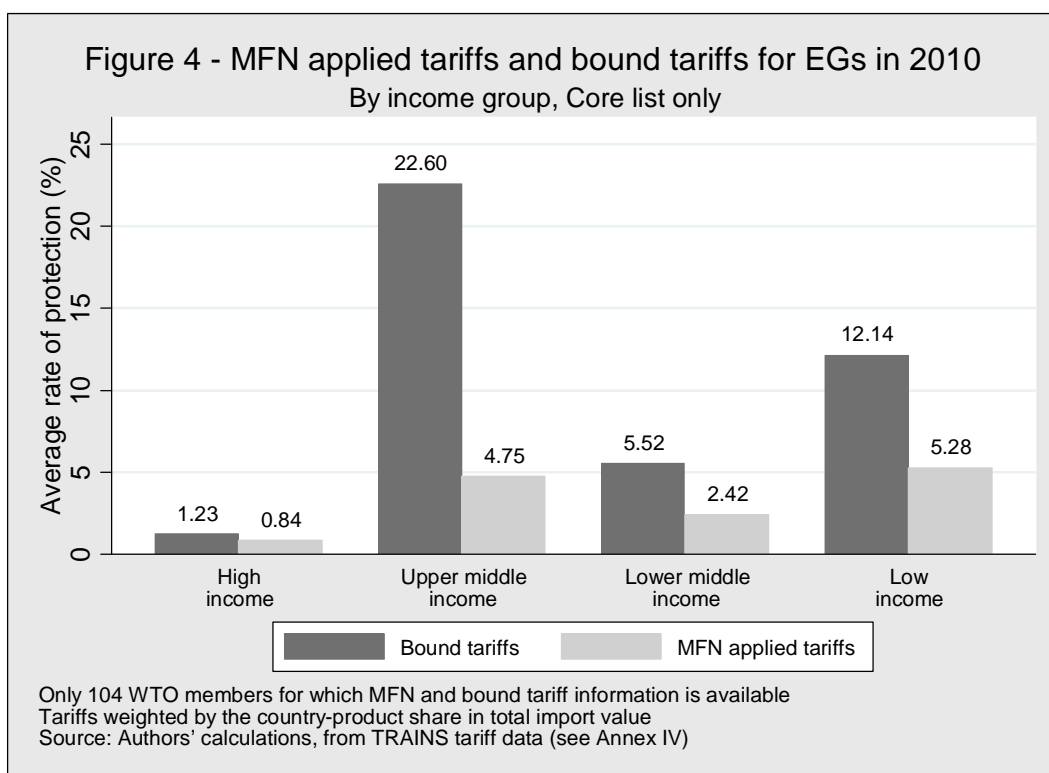


Should the negotiations end up in a standstill compromise, as expected, the high income group would not lose much leeway in tariff setting since for most countries in the group applied tariffs are their bound levels. Figure 4, which compares average applied and bound tariffs for those products that are bound on a trade-weighted basis across products within and countries (and across countries within groups), shows that the upper middle-income countries would lose the most leeway. This is due to the combined effects of the larger unilateral tariff reductions in this group of countries and their having a greater proportion of bound tariff lines.¹⁴ Otherwise, as expected, the removal of flexibility in tariff setting would hit the low-income group more than the lower-middle income group (figure 4).

¹² The average percentage point tariff reductions in Core list EGs (in parenthesis) over the period 1996-2010 were: High income (2.1), Upper-middle income (5.4), lower-middle (6.1) and low-income (11.1). See Table VI-C

¹³ The same conclusion emerges when the comparisons are carried out on the number of HS-6 lines with zero protection over the period. High-income countries had about one third of tariff lines duty-free by the end of the period while low-income countries who would presumably gain the most from the adoption of imported technologies only had 15% of duty-free tariff lines (even though there was a 50% increase in the number of zero-tariff lines) (see Figure VI-B).

¹⁴ Most Latin American countries in the sample (Brazil, Chile, Colombia, Mexico and Venezuela) have bound tariffs in the 30% range and applied tariffs around 10%.



4.2 Import Response to Tariff Reductions

The triple-win presumption motivating the negotiations rests on the assumption that reductions in protection would take place through the adoption of cleaner imported technologies and of greater investment in cleaner technologies. We use COMTRADE data to investigate import response.¹⁵ A satisfactory approach would stipulate a structural model of import demand at the HS-6 level that would identify the elasticity of import demand as in e.g. Kee *et al.* (2008). However, the quality of the data (missing data for tariffs and imports that had to be filled – see Annex IV) prevented us from obtaining a stable relationship between import volumes and tariff reductions across samples, the implied elasticities often being insignificant and of widely fluctuating magnitudes.¹⁶

To iron out the often extreme fluctuations in the yearly data we turned to ‘event analysis’ which is well-suited to study the correlates of a variable that is highly unstable (e.g.

¹⁵ We use data deflated by the GDP deflator going back to 1996 for a sample of over 700,000 observations at the HS-6 level. This date corresponds to the beginning of the period with much less missing data giving us a data base of 15 years for 123 countries and 411 HS-6 products, i.e. 758,295 observations of which 54,450 are tariff reductions (see Annex IV for a complete description of the data used).

¹⁶ In a typical estimation, the change in imports was regressed (usually at the HS-2 level to reduce measurement error) on the change in tariffs and a host of dummy variables to control for omitted variables, usually yielding an (expected) negative, but very unstable, coefficient on tariffs.

growth or imports at a disaggregated level). This approach has been used by, among others, Hausman *et al.* (2006), to study the correlates of significant growth events across developing countries. We do the same here, asking whether significant tariff reductions (to be defined shortly) are followed by significant changes in corresponding imports.

Since we wish to concentrate on ‘substantial tariff reductions’ (one would not expect much import response to a tariff reduction of a few percentage points) we restricted an ‘event’ to tariff reductions of 5 percentage points or more, e.g. a tariff that is reduced from 12% to 7%. The alternative is option of a 10 percentage point reduction was not considered as it would have reduced the sample considerably, notably by excluding the high-income group from the overall comparisons. More specifically, we defined a tariff event in year t (i.e. a “tariff-event year”) for country i ($i \in [1, \dots, 123]$) and good j ($j \in [1, \dots, 411]$) if the following two conditions are met:

(i) $Tariff_{ij,t-1} - Tariff_{ij,t} \geq 5$ (the tariff reduction exceeds 5 percentage points). We choose this threshold because the average sample reduction is around this threshold (6pp, see table VI-C) and this is a plausible magnitude that could be expected to engender an import response. This gives a sample of 24,560 tariff reductions exceeding 5pp in our database (13,907 after 2001).

(ii) The tariff reduction is not followed by a rise in tariffs that exceeds 1pp in the 3 following years ($t+1, t+2, t+3$). We assume that a rise that does not exceed 1pp is either due to noise or measurement error in the dataset or either that it is not significant.¹⁷

(iii) Finally, we consider all events, even if one event is immediately followed by another. With this definition, we have 586 events (table 2) since the initiation of the Doha round negotiations in 2002 and up to 2008.¹⁸ To see if imports responded to a so-defined ‘tariff-event’, we then compared average imports of good j in country i 3 years before the event ($t, t-1$ and $t-2$), “ M_{before} ”, with the average import 3 years after the event ($t+1, t+2, t+3$), “ M_{after} ”, that is:

$$\bar{M}_{Before} = \sum_{n=0}^{n=2} M_{ij,t-n} \quad ; \quad \bar{M}_{After} = \sum_{n=1}^{n=3} M_{ij,t+n} \quad (1)$$

where $M_{ij,t}$ are the imports of good j by country i at time t ; for i, j and t which are concerned by an event. Caution in interpretation is called for, as a tariff reduction can take place any time during the year and that when tariff data was missing in $t, t-1$ and $t-2$ we replaced the missing data for $t+1$ or $t+2$. Also the results would be sensitive to the choice of averaging period before and after the tariff change which could also be spread over a longer period. Table 2 shows that half the countries (63) had at least one substantial tariff reduction in between

¹⁷ Tariff increases were due either to temporary increases following a macroeconomic crisis (e.g. Argentina) or to tariff harmonization following establishment of a customs union (e.g. Rwanda and EAC).

¹⁸ Figure VI-D in Annex VI shows the distribution of events on the larger sample in the ‘combined list’ where there are over 12,000 events. The average per year events is 1,421 with peaks in 2003, 2004 and 2005. The very similar results based on the combined list are reported in Annex V.

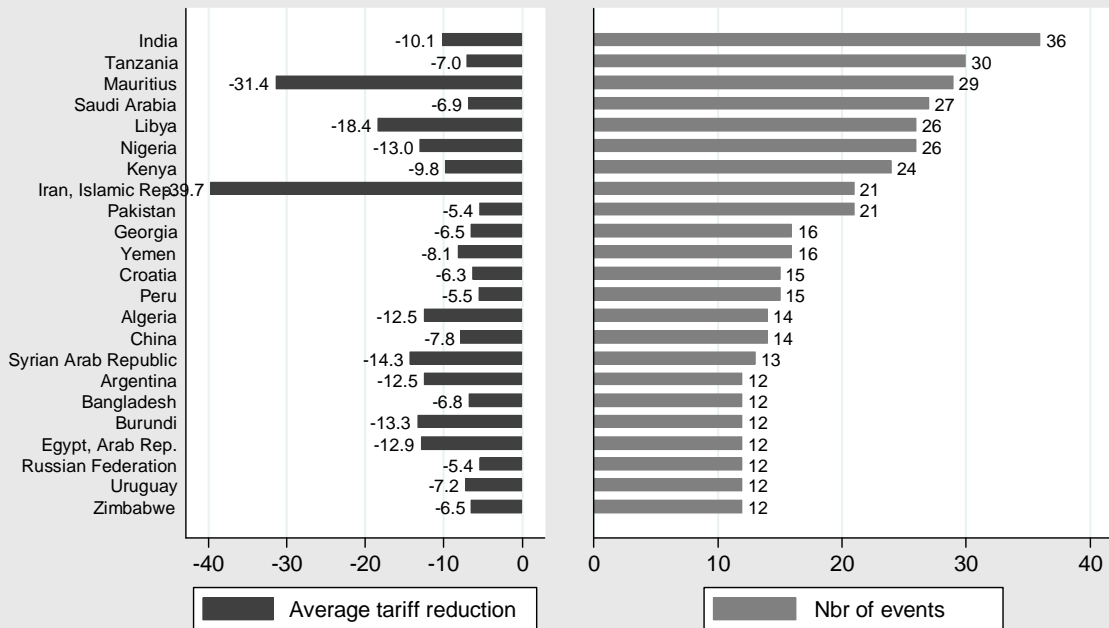
2002 and 2007 (i.e. a reduction of at least 5 percentage points). With this choice of ‘event’, we have an average of 9 events per country.

Table 2: Distribution of events by income group (2002-2007), Core list						
Income group (nbr of countries)	Nbr of countries concerned by at least one event	Nbr of events	Distribution of events	Average nbr of drops by country	Av. reduction (pp)	Standard deviation (pp)
	A	B	C	D=B/A	E	F
High income (20)	10	67	11%	7	6.56	1.69
Upper middle (31)	17	176	30%	10	17.34	22.19
Lower middle (38)	22	216	37%	10	9.64	6.36
Low income (34)	14	127	22%	9	8.20	4.64
Total (123)	63	586	100%	9	11.23	13.56

Two patterns emerge: (1) events were concentrated in the middle-income group even though, on average, protection was higher in the low-income group; (2) the upper-middle income group had the highest average absolute reduction per event (the same patterns hold for the ‘combined’ list – see table V-B Annex V). Considering that the average reduction was more than 17 percentage points for this upper-middle group, it is likely that the greatest efficiency gains from tariff reduction took place in the upper-middle income group.

Figure 5 ranks the top 20 countries in terms of events and their corresponding average tariff reduction per event. The left-hand part of figure 5 shows the average reduction in protection per event and the right-hand side the corresponding number of events. India had 36 events averaging a reduction of 10 percentage points per event. In the sample of top reducers, Iran and Mauritius have the largest average reduction per event and the two big countries, India and China had average reductions of respectively 10 and 8 percentage points per event. The same pattern holds for the ‘combined’ list (see figure V-C, Annex V).

Figure 5 - Number of events and average tariff reduction
Top 20 reducers, Core List only



Countries ranked by number of events in descending order
Source: Authors' calculations, TRAINS tariff data and COMTRADE import data, see Annex IV

Table 3 concludes with an estimate of the import response for these events (Table 3a) and for a control group (Table 3b). Table 3a indicates that prior to these events; the average import value over all the HS lines that had an event was close to \$23 million and close to double (\$40 million) for the three year average after the event. Column E shows that for about 65% of the events, the average imports were higher after the event than before the tariff reduction and on average, imports were between 50% and 100% higher after the reduction in tariffs (column F). Since under normal circumstances, imports would be growing in real terms, table 3b reports the same estimates for the control group (i.e. the HS-6 tariff lines that did not have an event during the period when there was an event for the tariff lines-years in table 4a).

Table 3 – Import responses (tariff events and control group)

Table 3a – % of events followed by a rise in imports, core list (distribution by income groups)

Country group	Nbr of events(n on issuing)	Av. reduction (pp)	M _{before} (1000 USD)	M _{after} (1000 USD)	% of M _{after} > M _{before}	M _{after} /M _{before} *100
	A	B	C	D	E	F=D/C*100
All sample	521 ^(a)	11.1	23,287	40,210	67%	173
High inc.	65	6.6	8,549	15,690	71%	184**
Upper middle inc..	148	17.3	5,649	7,829	68%	139
Lower middle inc.	187	9.7	54,489	95,135	70%	175
Low inc.	121	8.3	431	919	60%	213**

Table 3b: Import Growth for the “Control Group”, Core list only (i.e. For the HS-6 goods that did not have a tariff reduction event)

	Av. Tariff change (pp)	M _{before} (1000 USD)	M _{after} (1000 USD)	% of M _{after} > M _{before}	M _{after} /M _{before} *100
	A	B	C	D	E=D/C*100
All sample	0.03	34,555	53,464	62%	155***
High inc.	-0.02	133,686	211,423	68%	158*
Upper middle inc..	-0.05	7,673	10,738	62%	140**
Lower middle inc.	0.01	34,566	52,415	61%	152*
Low inc.	0.16	565	1,279	62%	226***

Notes: M_{after} and M_{before} defined as in eq. (1) either for goods concerned by the event (table 3a) or for goods in control group (table 3b). M_{after} is significantly different from M_{before} at 1% (***), 5% (**), 10*** confidence levels. Similar results with mirror data but significance levels for differences in means higher for the combined list. See table V-D.

Source: Authors’ calculation from TRAINS and COMTRADE data, see Annex IV for a complete database description.

Three results stand out: (1) the volume of imports affected by a tariff event was less than half in volume; (2) as expected, the percentage of tariff lines that experienced growth in the volume of imports was less in the control group where average tariff reduction was negligible (the slight increase in tariffs for lower-middle and low-income groups is due to filling for missing tariff data); (3) import growth was less in the control group except for the low-income group. In sum, the event-analysis does not suggest a noticeable import response to tariff reductions.

5 Conclusions

There are no provisions in the WTO legal system related specifically to environmental goods and services (EGS), except for the application of the MFN clause and a general interdiction of quantitative restrictions. As a result, there is no agreed-upon definition of what an 'environmental good' or an 'environmental service' is. As reviewed here, identifying EGS is a daunting task facing many hurdles: (i) Multiple-end use (calling, among others, for a finer disaggregation of the HS); (ii) relativism (what is an 'environmentally friendly' product?); (iii) attribute disclosure (identifying EGs according to PPMs); (iv) 'like' products at the WTO (e.g. wood products derived from sustainable forests). Adding these difficulties to conflicting interests and differing perceptions, has led to few submissions with little overlap across lists in the 'universe' of EGS represented by a 'combined list' of 411 products.

The paper then concentrates on tariff levels and import-response to tariff reductions for a 'core list' of 26 products. Estimates by income group show that protection was (and remains) the highest for low-income countries and that protection for EGs is lower than average across country groupings. The gap in tariff rates between country groups and between EGs in the core list and other goods has remained fairly constant suggesting a lack of action with respect to the mandate in article 31.

The number of tariff lines with zero protection rates is lowest (15%) for the low-income group specialized in 'end-of-pipe' products using imported clean technologies. These are the countries that would gain the most in efficiency from a reduction in protection. Should the negotiations end up in a standstill compromise, the higher-middle and low-income groups would lose most leeway in tariff setting.

Import response to tariff reductions of at least 5 percentage points shows that average imports over the next three years were between 50% and 100% higher than in the preceding three-year average. However, this increase in imports was not higher than in the control group of EGs that did not experience substantial tariff reductions.

Average protection for EGs is lower than for other products but, since the initiation of the Doha negotiations, tariff reductions for EGs were not greater than for other products. Neither did the gap in protection across income groups close during the period. Finally, the data fail to show an import response for EGs that experienced substantial tariff reductions. Taken together, the evidence here suggests the lack of a 'mandate effect' on EGS since the initiation of the negotiations and that these negotiations fall short of helping 'the protection of the environment'.

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Annexes to
Stalemate at the Negotiations on Environmental Goods and Services at the Doha Round

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and

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6 Annex I – Approaches proposed to identify EGs for trade liberalization¹⁹

WTO Members have proposed several approaches to identify EGs for trade liberalization under the Doha Round. Until 2010, there were three broad approaches: the “List approach”, the “Request and Offer approach”, and the “Integrated-Project approach”. Then, during the recent intensification of negotiations, some Members have proposed two approaches that seek to combine the various proposals on the table (namely the “Alpha and Beta combined approach” of Mexico, Chile, and the Small and Vulnerable Economies²⁰; and the “Hybrid approach” suggested by Australia, Colombia, Hong Kong, Norway and Singapore²¹).

List approach: Under this approach, WTO members put lists of products up for tariff reductions.²² They would have to agree on a list of products (at the HS 6-digit level) for which trade barriers should be reduced. So far WTO members have been unable to agree on such a list: six different lists have been proposed, and some developing countries argue that a number of products are of export interest primarily to industrialized countries. That is why the idea of developing two lists had been put forward by several proposals:

- The United States (2003) proposed that Members agree on a *core list* of EGs for tariff elimination. In addition, there would be a *complementary* list of goods on which there is a strong acknowledgment of environmental credential, but no

¹⁹ The summary that follows is extracted from the last report of the Chairman of the Committee on Trade and Environment in Special Session (CTESS) (see WTO, 2011, TN/TE/20, 21 April 2011).

²⁰ JOB/TE/16 and Cor. 1 (Mexico, Chile, 11 March 2011), and JOB/TE/18 (SVEs, 1 April 2011).

²¹ JOB/TE/15 (Australia; Colombia; Hong Kong, China; Norway and Singapore, 8 March 2011).

²² According to JOB(09)/132 (Canada, European Union, Japan, Korea, New Zealand, Norway, Taiwan, Switzerland, and United States, 9 October 2009), goods on the agreed list would be subject either to total tariff elimination or to a two-pronged tariff elimination with a percentage (to be determined) of goods on the list to have tariffs removed and the remainder eliminated in a phased down calendar.

consensus, from which Members would have to self-select a certain x percent of tariff lines²³. For example, a group of nine WTO members, based on their individual previous submissions (except Norway) agreed on a “potential set of convergence”²⁴ of 164 products (at the HS-2002 six-digit level), and proposed that tariffs on the identified goods could be eliminated (for developing countries, tariff could be removed gradually and later than developed economies). The agreed set of goods would be subject to periodic review.

- China’s 2004 proposal²⁵, suggested a *common* list for all Members, which would comprise specific product lines on which there is a consensus that they are EGs. For these products, Members would be committed to reduce or eliminate tariff and non-tariff barriers²⁶. A second list would be a *development list* selected from the common list by developing countries and LDCs for exemption or a lower tariff treatment, with a view to reflecting the principle of “less than full reciprocity”.

The core/common list with a complementary/development list reflects the view that Members should first agree on a reduced list of EGs to start the negotiations, and that negotiations should take into account Special & Differential (S&D) treatment *via* different lists, or differential treatment on a common list. However, so far, members have been unable to agree on such a list: nine members have proposed a set of 164 products in 2007 and 2009. More recently, members have identified 26 products as a potential starting-point basis (see below).

Request and Offer approach, proposed by Brazil²⁷: Here countries would request specific tariff cut commitments on products of interest and then extend these tariff-cuts to all WTO members based on the MFN clause. Such an approach would better take into account developing countries' specific interests.

Integrated-Project approach, proposed by India and Argentina²⁸: Here, national authorities would select projects (for instance under the Clean development Mechanism of the Kyoto Protocol), thereby addressing the “multiple-uses” issue raised by the list approaches.

²³ TN/TE/W/34 (United States, 19 June 2003), and TN/TE/W/38 (United States, 7 July 2003).

²⁴ JOB(07)/54 (Canada, European Union, Japan, Korea, New Zealand, Norway, Taiwan, Switzerland, and United States, 27 April 2007)

²⁵ TN/TE/W/42 (China, 6 July 2004).

²⁶ The specific modality should be developed by the NAMA negotiating group (TN/TE/W/42, China).

²⁷ JOB(07)/146 (Brazil, 1 October 2007), and JOB(09)/184 (Brazil, 15 December 2009).

²⁸ TN/TE/W/74 (Argentina, 23 November 2009); TN/TE/W/62 (Argentina, 14 October 2005); Job(07)/77 (Argentina and India, 6 June 2007); TN/TE/W/51 (India, 3 June 2005); TN/TE/W/67 (India, 13 June 2006); TN/TE/W/60 (India, 19 September 2005); TN/TE/W/54 (India, 4 July 2005).

Environmental goods and services necessary for the selected projects would then temporarily benefit from enhanced market access. Categories of goods could be identified multilaterally in advance.

Combined approach, proposed by Mexico and Chile, and the SVEs²⁹: Here, countries would self-select a set of goods from the reference universe (consisting of the lists of goods submitted by individual countries under the list approach, see Annex II) with developed countries to have a larger list of products than developing countries. Products not covered by the self-selected lists could be committed under a request and offer process on a voluntary basis.

Hybrid approach, proposed by Australia, Colombia, Hong Kong, Norway and Singapore.³⁰ This most recent proposal combines all the elements on the table: (i) an agreed core list on which all members would take commitments (proponents of this Hybrid approach have identified 26 HS six-digit codes from the reference universe on an illustrative and starting-point basis, see Table II-C, Annex II below); (ii) a complementary self-selected list (mainly for developed countries); (iii) a complementary request/offer approach, the outcome of which would be multilateralized on a MFN basis; and (iv) environmental projects could be used to identify other lines as of environmental interest.

²⁹ See JOB/TE/16 and Cor. 1 (Mexico, Chile, 11 March 2011), and JOB/TE/18 (SVEs, 1 April 2011).

³⁰ JOB/TE/15 (Australia; Colombia; Hong Kong, China; Norway and Singapore, 8 March 2011)

7 Annex II –WTO compilation of EGs submissions (with corrections)

Table II-A contains submissions made by Members relating to Environmental Goods (EGs) of interest to them, as reported in Annex II.A of the Report by the Chairman to the TNC Report (TN/TE/20, 21 April 2011); i.e. EGs are listed by order of their HS headings at 6-digit level while preserving the specific categories and sub-categories suggested by the proponents in their respective submissions.

Table II-B compiles the submissions made by WTO Members in relation to environmental goods of interest to them under the broad groups suggested in the WTO Work Programme (2008) while reflecting the specific categories suggested by the proponents in their respective submissions. These broad categories and sub-categories are listed hereafter (Air Pollution Control, etc.).

- Air Pollution Control
- Renewable Energy
- Waste Management and Water Treatment
 - Clean Up Or Remediation of Soil and Water
 - Management of Solid and Hazardous Waste and Recycling Systems
 - Waste Management, Recycling and Remediation
 - Waste Water Management and Potable Water Treatment
- Environmental Technologies
 - Gas Flaring Emission Reduction
 - Efficient Consumption of Energy Technologies
 - Cleaner or More Resource Efficient Technologies and Products
 - Energy Efficiency
 - Environmental Monitoring, Analysis and Assessment Equipment
 - Heat and Energy Management
 - Natural Risk Management
 - Noise and Vibration Abatement
- Carbon Capture and Storage
- Others
 - Environmentally Preferable Products based on End-Use or Disposal Characteristics
 - Natural Resources Protection
 - Renewable Products and Energy Source
 - Resources and Pollution Management
 - Others

Table II-C lists the 26 HS lines that have been identified by a number of Members as a starting point for discussion in the CTESS towards a credible core list of environmental goods (as reported in Annex II.B of the Report by the Chairman to the TNC Report TN/TE/20, p.43).

NOTE: The combined list in TN/TE/20 contains 408 6-digit HS2002 codes. However, the list we use for this work contains 411 6-digit HS2002 codes. This is because we made additional

corrections looking at products descriptions provided by Members: we replaced 291430 with 291431 and 291439, 730420 with 730421 and 730429. One product from Japan's last submission (TN/TE/W/75/Add.2, January 2011) is missing in TN/TE/20 (871190). Finally, we replaced 903140 with 903141 and 903149 (but as 903149 is submitted in the WTO list, that does not change the final number of HS codes).

Table II-A – The WTO combined list, ordered by HS-2002 six-digit codes

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	2503	Sulphur of all kinds, other than sublimed sulphur, precipitated sulphur and colloidal sulphur.	
1	250300	-Sulphur of all kinds, other than sublimed sulphur, precipitated sulphur and colloidal sulphur.	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	2710	Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations; waste oils	
2	271011	- Light oils and preparations	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
3	271019	- Others	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
	2711	Petroleum gases and other gaseous hydrocarbons	
4	271111	- Natural gas, liquefied	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
5	271112	- Propane, liquefied	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
6	271113	- Butanes, liquefied	Environmental Technologies, Carbon Capture and Storage Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
7	271114	- Ethylene, propylene, butylene & butadiene, liquefied	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
8	271119	- Other liquified	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
9	271121	- Natural gas, in gaseous state	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
10	271129	- Other in gaseous state	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	2818	Artificial corundum, whether or not chemically defined; aluminium oxide; aluminium hydroxide	
11	281810	- Artificial corundum, whether or not chemically defined	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
12	281820	- Aluminium oxide, other than artificial corundum	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
13	281830	- Aluminium hydroxide	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	2909	Ethers, ether-alcohols, ether-phenols, ether-alcohol-phenols, alcohol peroxides, ether peroxides, ketone peroxides (whether or not chemically defined), and their halogenated, sulphonated, nitrated or nitrosated derivatives	
14	290911	- Acyclic ethers and their halogenated, sulphonated, nitrated or nitrosated derivatives: Diethyl ether	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
15	290919	- Acyclic ethers and their halogenated, sulphonated, nitrated or nitrosated derivatives: Other	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
16	290920	- Cyclanic, cyclenic or cycloterpenic ethers and their halogenated, sulphonated, nitrated or nitrosated derivatives	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
17	290930	- Aromatic ethers and their halogenated, sulphonated, nitrated or nitrosated derivatives	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
18	290941	- Ether- Alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives: 2,2'-Oxydiethanol (diethylene glycol, digol)	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
19	290942	- Ether- Alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives: Monomethyl ethers of ethylene glycol/of diethylene glycol	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
20	290943	- Ether- Alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives: Monobutyl ethers of ethylene glycol/of diethylene glycol	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
21	290944	- Ether- Alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives: Other monoalkylethers of ethylene glycol or of diethylene glycol	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
22	290949	- Ether-alcohols & their halogenated/sulphonated/nitrated/nitrosated derivatives: Others	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
23	290950	- Ether-phenols, ether-alcohol-phenols and their halogenated, sulphonated, nitrated or nitrosated derivatives	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
24	290960	- Alcohol peroxides, ether peroxides, ketone peroxides and their halogenated, sulphonated, nitrated or nitrosated derivatives	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	2914	Ketones and quinones, whether or not with other oxygen function, and their halogenated, sulphonated, nitrated or nitrosated derivatives	
25	291411	- Acyclic ketones without other oxygen function: Acetone	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
26	291412	- Acyclic ketones without other oxygen function: Butanone (methyl ethyl ketone)	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
27	291413	- Acyclic ketones without other oxygen function: 4-Methylpentan-2-one (methyl isobutyl ketone)	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
28	291419	- Acyclic ketones without other oxygen function: Others	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
29	291421	- Cyclanic, cyclenic or cycloterpenic ketones without other oxygen function: Camphor	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
30	291422	- Cyclanic, cyclenic or cycloterpenic ketones without other oxygen function: Cyclohexanone & methylcyclohexanones	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
31	291423	- Cyclanic, cyclenic or cycloterpenic ketones without other oxygen function: Ionones & methylionones	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
32	291429	- Cyclanic/cyclenic/cycloterpenic ketones without other oxygen function: Other	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
33	291431	- Aromatic ketones without other oxygen function: Phenylacetone (phenylpropan-2-one)	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
34	291439	idem	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
35	291440	- Ketone-alcohols & ketone-aldehydes	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
36	291450	- Ketone-phenols and ketones with other oxygen function	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
37	291461	- Quinones : Anthraquinone	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
38	291469	- Quinones: Other	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
39	291470	- Halogenated, sulphonated, nitrated or nitrosated derivatives	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	3824	Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included	
40	382490	- Other	Waste Management and Water Treatment, WWM Renewable Energy , Renewable Products and Energy Source
	3902	Polymers of propylene or of other olefins, in primary forms.	
41	390210	- Polypropylene	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
42	390220	- Polyisobutylene	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
43	390230	- Propylene copolymers	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
44	390290	- Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	3907	Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms.	
45	390799	- Other polyesters: Other	Renewable Energy , Renewable Products and Energy Source
	3909	Amino-resins, phenolic resins and polyurethanes, in primary forms	

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
46	390910	- Urea resins; thiourea resins	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
47	390920	- Melamine resins	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
48	390930	- Other amino-resins	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
49	390940	- Phenolic resins	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
50	390950	- Polyurethanes	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	3911	Petroleum resins, coumarone-indene resins, polyterpenes, polysulphides, polysulphones and other products specified in Note 3 to this Chapter, not elsewhere specified or included, in primary forms.	
51	391110	- Petroleum resins, coumarone, indene or coumarone-indene resins and polyterpenes	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
52	391190	- Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	3912	Cellulose and its chemical derivatives, not elsewhere specified or included, in primary forms	
53	391211	- Cellulose acetates; non-plasticised	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
54	391212	- Cellulose acetates, plasticised	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
55	391220	- Cellulose nitrates (including collodions)	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
56	391231	- Cellulose ethers: Carboxymethylcellulose & its salts	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
57	391239	- Cellulose ethers: Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
58	391290	- Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	3920	Other plates, sheets, film, foil and strip, of plastics, non-cellular and not reinforced, laminated, supported or similarly combined with other materials	
59	392010	- Of polymers of ethylene	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	4016	Other articles of vulcanised rubber other than hard rubber	
60	401699	- Other: Other	Renewable Energy, Renewable Products and Energy Source
	4504	Agglomerated cork (with or without a binding substance)	
61	450410	- Blocks, plates, sheets and strip; tiles of any shape; solid cylinders, including discs	Environmental Technologies, Noise and Vibration Abatement
	4601	Plaits and similar products of plaiting materials, whether or not assembled into strips; plaiting materials, plaits and similar products of plaiting materials, bound together in parallel strands or woven, in sheet form, whether or not being finished artic	
62	460120	- Mats, matting and screens of vegetable materials	Waste Management and Water Treatment, Waste Management, Recycling and Remediation
	4707	Recovered (waste and scrap) paper or paperboard	
63	470710	- Recovered (waste & scrap) unbleached kraft paper/paperboard/corrugated paper/paperboard	Renewable Energy, Renewable Products and Energy Source
64	470720	- Other paper or paperboard made mainly of bleached chemical	Renewable Energy, Renewable Products and Energy Source

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
65	470730	- Paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)	Renewable Energy, Renewable Products and Energy Source
66	470790	- Other, including unsorted waste and scrap	Renewable Energy, Renewable Products and Energy Source
	5303	Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock)	
67	530310	- Jute and other textile bast fibres, raw or retted	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
	5304	Sisal and other textile fibres of the genus Agave, raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock).	
68	530410	- Sisal and other textile fibres of the genus Agave, raw	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
69	530490	- Other	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
	5603	Nonwovens, whether or not impregnated, coated, covered or laminated	
70	560314	- Of man-made filaments: Weighing more than 150 g/m ²	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
	5607	Twine, cordage, ropes and cables, whether or not plaited or braided and whether or not impregnated, coated, covered or sheathed with rubber or plastics	
71	560710	- Of jute or other textile bast fibres of heading 53.03	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
72	560721	- Of sisal or other textile fibres of the genus Agave: Binder or baler twine	Environmentally Preferable Products based on End-Use or Disposal Characteristics
	5608	Knotted netting of twine, cordage or rope; made up fishing nets and other made up nets, of textile materials	
73	560811	- Of man-made textile materials: Made up fishing nets	Others, Natural Resources Protection
74	560890	- Other	Natural Resources Protection
	6305	Sacks and bags, of a kind used for the packing of goods	
75	630510	- Of jute or of other textile bast fibres of heading 53.03	Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
	6910	Ceramic sinks, wash basins, wash basin pedestals, baths, bidets, water closet pans, flushing cisterns, urinals and similar sanitary fixtures	
76	691010	- Of porcelain or china	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
	7019	Glass fibres (including glass wool) and articles thereof (for example, yarn, woven fabrics)	
77	701931	- Thin sheets (voiles), webs, mats, mattresses, boards and similar nonwoven products: Mats	Environmental Technologies, Heat and Energy Management
	7303	Tubes, pipes and hollow profiles, of cast iron	
78	730300	- Tubes, pipes & hollow profiles of cast iron	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	7304	Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel	
79	730410	- Line pipe of a kind used for oil or gas pipelines	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
80	730421	- Casing, tubing and drill pipe, of a kind used in drilling for oil or gas: Drill Pipe	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
81	730429	idem	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
82	730431	- Other, of circular cross-section, of iron or non- Alloy steel: Cold-drawn or cold-rolled (cold-reduced)	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
83	730439	- Other, of circular cross-section, of iron or non- Alloy steel: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
84	730441	- Other, of circular cross-section, of stainless steel: Cold-drawn or cold-rolled (cold-reduced)	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
85	730449	- Other, of circular cross-section, of stainless steel: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
86	730451	- Other, of circular cross-section, of other alloy steel: Cold-drawn or cold-rolled (cold-reduced)	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
87	730459	- Other, of circular cross-section, of other alloy steel: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
88	730490	- Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	7305	Other tubes and pipes (for example, welded, riveted or similarly closed), having circular cross sections, the external diameter of which exceeds 406.4 mm, of iron or steel	
89	730511	- Line pipe of a kind used for oil or gas pipelines: Longitudinally submerged arc welded	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
90	730512	- Line pipe of a kind used for oil or gas pipelines: Other, longitudinally welded	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
91	730519	- Line pipe of a kind used for oil or gas pipelines: Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
92	730520	- Casing of a kind used in drilling for oil or gas	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
93	730531	- Other, welded: Longitudinally welded	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
94	730539	- Other, welded: Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
95	730590	- Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	7306	Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel	
96	730610	- Line pipe of a kind used for oil or gas pipelines	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
97	730620	- Casing and tubing of a kind used in drilling for oil or gas	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
98	730630	- Other, welded, of circular cross-section, of iron or non-Alloy steel	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
99	730640	- Other, welded, of circular cross-section, of stainless steel	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
100	730650	- Other, welded, of circular cross-section, of other alloy steel	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
101	730660	- Other, welded, of non-circular cross-section	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
102	730690	- Other	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7307	Tube or pipe fittings (for example, couplings, elbows, sleeves), of iron or steel	
103	730711	- Cast fittings: Of non-malleable cast iron	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
104	730719	- Cast fittings: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
105	730721	- Other, of stainless steel: Flanges	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
106	730722	- Other, of stainless steel: Threaded elbows, bends and sleeves	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
107	730723	- Other, of stainless steel: Butt welding fittings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
108	730729	- Other, of stainless steel: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
109	730791	- Other: Flanges	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
110	730792	- Other: Threaded elbows, bends & sleeves	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
111	730793	- Other: Butt welding fittings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
112	730799	- Other: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7308	Structures (excluding prefabricated buildings of heading 94.06) and parts of structures (for example, bridges and bridge sections, lock gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel	
113	730820	- Towers & lattice masts	Renewable Energy , Renewable Energy Renewable Energy , Renewable Products and Energy Source
	7309	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment.	

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
114	730900	- Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment.	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7310	Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	
115	731010	- Of a capacity of 50 litres or more	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
116	731021	- Of a capacity of less than 50 litres: Cans which are to be closed by soldering or crimping	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
117	731029	- Of a capacity of less than 50 litres: Other	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7311	Containers for compressed or liquefied gas, of iron or steel	
118	731100	- Containers for compressed or liquefied gas, of iron or steel	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7321	Stoves, ranges, grates, cookers (including those with subsidiary boilers for central heating), barbecues, braziers, gas-rings, plate warmers and similar non-electric domestic appliances, and parts thereof, of iron or steel.	
119	732111	- Cooking appliances and plate warmers:	Environmental Technologies , Cleaner or More Resource Efficient Technologies and Products
120	732190	- Parts	Environmental Technologies , Cleaner or More Resource Efficient Technologies and Products
	7324	Sanitary ware and parts thereof, of iron or steel	
121	732490	- Other, including parts	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	7325	Other cast articles of iron or steel	
122	732510	- Of non-malleable cast iron	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment
	7326	Other articles of iron or steel	
123	732690	- Other.	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment
	7611	Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	
124	761100	- Aluminium reservoirs, tanks, vats & similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	7612	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment.	
125	761290	- Other	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	7613	Aluminium containers for compressed or liquefied gas	
126	761300	- Aluminium containers for compressed or liquefied gas	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	8402	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers	
127	840211	- Steam or other vapour generating boilers: Watertube Boilers With a Steam Production >45t per hour	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
128	840212	- Steam or other vapour generating boilers: Watertube boilers with a steam production not >45 t per hour	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
129	840219	- Steam or other vapour generating boilers: Other vapour generating boilers, including hybrid boilers	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
130	840220	- Super-heated Water Boilers	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
131	840290	- Parts	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems Waste Management and Water Treatment, Waste Management, Recycling and Remediation
	8403	Central heating boilers other than those of heading 84.02.	
132	840310	- Boilers	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
133	840390	- Parts	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	8404	Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recoverers); condensers for steam or other vapour power units	
134	840410	- Auxiliary plant for use with boilers of heading 84.02 or 84.03	Waste Management and Water Treatment, Waste Management, Recycling and Remediation Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
135	840420	- Condensers for steam or other vapour power units	Air Pollution Control Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
136	840490	- Parts	Air Pollution Control Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	8405	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	
137	840510	- Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	Air Pollution Control Renewable Energy , Renewable Energy Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
138	840590	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8406	Steam turbines and other vapour turbines	
139	840610	- Turbines for marine propulsion	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
140	840681	- Other turbines of an output exceeding 40MW	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Renewable Energy , Renewable Energy
141	840682	- Other turbines of an output not exceeding 40 MW	Renewable Energy , Renewable Energy
142	840690	- Parts	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8407	Spark-ignition reciprocating or rotary internal combustion piston engines	
143	840790	- Other Engines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8408	Compression-ignition internal combustion piston engines (diesel or semi-diesel engines)	
144	840890	- Other Engines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8409	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08	
145	840991	- Other: suitable for use solely or principally with the engines of heading 84.07 or 84.08.	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies, Carbon Capture and Storage , Noise and Vibration Abatement
146	840999	- Other	Air Pollution Control Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies, Carbon Capture and Storage , Noise and Vibration Abatement
	8410	Hydraulic turbines, water wheels, and regulators therefor	
147	841011	- Hydraulic turbines and water wheels of a power not exceeding 1,000 kW .	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
148	841012	- Hydraulic Turbines and Water Wheels, Power 1, 000-10, 000kw	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
149	841013	- Hydraulic Turbines, Water Wheels, of a Power Exceeding 10, 000kw	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
150	841090	- Parts, including regulators	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8411	Turbo-jets, turbo-propellers and other gas turbines	
151	841111	- Turbo-jets of a Thrust Not Exceeding 25kn	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
152	841112	- Turbo-jets of a Thrust Exceeding 25kn	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
153	841121	- Turbo-propellers of a Power Not Exceeding 1, 100kW	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
154	841122	- Turbo-propellers of a Power Exceeding 1, 100kW	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
155	841181	- Other gas turbines of a power not exceeding 5,000 kW	Renewable Energy, Renewable Energy Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
156	841182	- Other gas turbines of a power exceeding 5,000 kW	Renewable Energy, Renewable Energy Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
157	841191	- Parts of Turbo-jets or Turbo-propellers	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Others, Environmentally Preferable Products based on End-Use or Disposal Characteristics
158	841199	- Parts : Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	8412	Other engines and motors	
159	841210	- Reaction Engines Other than Turbo-jets	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
160	841221	- Hydraulic Power Engines and Motors, Linear Acting (cylinders)	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
161	841229	- Other Hydraulic Power Engines and Motors	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
162	841231	- Pneumatic Power Engines and Motors, Linear Acting (cylinders)	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
163	841239	- Other Pneumatic Power Engines and Motors	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
164	841280	- Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Renewable Energy, Renewable Products and Energy Source
165	841290	- Parts	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Renewable Energy, Renewable Products and Energy Source
	8413	Pumps for liquids, whether or not fitted with a measuring device; liquid elevators	
166	841311	- Pumps fitted or designed to be fitted with a measuring device: Pumps for Dispensing Fuel or Lubricants of the type used in filling-stations or in garages	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
167	841319	- Other Pumps fitted or designed to be fitted with a measuring device	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
168	841320	- Hand pumps, other than those of subheading 8413.11 or 8413.19	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
169	841330	- Fuel, Lubricating or Cooling Medium Pumps for internal combustion piston engines	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
170	841340	- Concrete Pumps	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
171	841350	- Other reciprocating positive displacement pumps	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
172	841360	- Other rotary positive displacement pumps	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
173	841370	- Other Centrifugal Pumps	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
174	841381	- Other pumps	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
175	841382	- Liquid Elevators	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
176	841391	- Parts of Pumps	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
177	841392	- Parts of Liquid Elevators	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8414	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters	
178	841410	- Vacuum pumps	Air Pollution Control Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
179	841430	- Compressors of a kind used in refrigerating equipment	Air Pollution Control
180	841440	- Air compressors mounted on a wheeled chassis for towing.	Air Pollution Control Other , Resources and Pollution Management
181	841459	- Fans: other	Air Pollution Control
182	841480	- Other	Air Pollution Control Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies , Noise and Vibration Abatement
183	841490	- Parts	Air Pollution Control Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Other , Resources and Pollution Management
	8415	Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated	
184	841510	- Window or wall types, self-contained or "split-system"	Environmental Technologies , Energy Efficiency
185	841581	- Others: incorporating a refrigerating unit & a valve for reversal of the cooling or heat cycle (reversible heat pumps)	Environmental Technologies , Energy Efficiency
	8416	Furnace burners for liquid fuel, for pulverised solid fuel or for gas; mechanical stokers, including their mechanical grates, mechanical ash dischargers and similar appliances	
186	841610	- Furnace Burners for Liquid Fuel	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
187	841620	- Other Furnace Burners, Including Combination Burners	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others , Environmentally Preferable Products based on End-Use or Disposal Characteristics

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
188	841630	- Mechanical Stokers, including their Mechanical Grates, Mechanical Ash Dischargers and similar appliances	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
189	841690	- Parts	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	8417	Industrial or laboratory furnaces and ovens, including incinerators, non-electric	
190	841780	- Other	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
191	841790	- Parts	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading 84.15	
192	841810	- Combined refrigerator-freezers, fitted with separate external doors	Environmental Technologies, Energy Efficiency
193	841821	- Household type refrigerators of compression-type	Environmental Technologies, Energy Efficiency
194	841830	- Freezers of the chest type, not exceeding 800 l capacity	Environmental Technologies, Energy Efficiency
195	841840	- Freezers of the upright type, not exceeding 900 l capacity	Environmental Technologies, Energy Efficiency
196	841861	- Other refrigerating or freezing equipment, heat pumps: Compression-type units whose condensers are heat exchangers	Renewable Energy, Renewable Energy
197	841869	- Other refrigerating or freezing equipment heat pumps: Parts	Renewable Energy, Renewable Energy
	8419	Machinery, plant or laboratory equipment	
198	841919	- Instantaneous or storage water heaters, non-electric: Other	Renewable Energy, Renewable Energy
199	841939	- Other dryers	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
200	841940	- Distilling/rectifying plant	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Others
201	841950	- Heat exchange units	Renewable Energy, Renewable Energy Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies, Heat and Energy Management

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
202	841960	- Machinery for liquefying air or other gases	Air Pollution Control Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
203	841989	- Other machinery, plant and equipment: Other	Air Pollution Control Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Others
204	841990	- Parts	Renewable Energy, Renewable Energy Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	8420	Calendering or other rolling machines, other than for metals or glass, and cylinders therefor	
205	842010	- Calendering or Other Rolling Machines	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
206	842091	- Parts: Cylinders	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
207	842099	- Parts: Other	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	8421	Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases	
208	842119	- Other: Centrifuges, including centrifugal dryers	Waste Management and Water Treatment, Clean Up Or Remediation of Soil and Water Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
209	842121	- Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
210	842123	- Filtering or purifying machinery and apparatus for liquids: Oil or Petrol-filters for Internal Combustion Engines	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
211	842129	- Filtering or purifying machinery and apparatus for liquids: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
212	842131	-Filtering or purifying machinery and apparatus for gases: Intake Air Filters for Internal Combustion Engines	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
213	842139	- Filtering or purifying machinery and apparatus for gases: Other	Air Pollution Control Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
214	842191	- Parts of centrifuges, including centrifugal dryers.	Waste Management and Water Treatment, Clean Up Or Remediation of Soil and Water Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
215	842199	- Parts: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	8422	Dish washing machines; machinery for cleaning or drying bottles or other containers; machinery for filling, closing, sealing or labelling bottles, cans, boxes, bags or other containers; machinery for capsuling bottles, jars, tubes and similar containers; other packing or wrapping machinery (including heat-shrink wrapping machinery); machinery for aerating beverages	
216	842220	- Machinery for cleaning or drying bottles or other containers.	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
217	842290	- Parts.	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	8428	Other lifting, handling, loading or unloading machinery	
218	842833	- Continuous-action elevators and conveyors, for goods or materials: Other, belt type.	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
	8429	Self-propelled bulldozers, angledozers, graders, levellers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and road rollers	
219	842940	- Tamping machines and road rollers.	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	8462	Machine-tools (including presses) for working metal by forging, hammering or die-stamping; machine-tools (including presses) for working metal by bending, folding, straightening, flattening, shearing, punching or notching; presses for working metal or metal carbides	
220	846291	- Other: Hydraulic presses.	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	8465	Machine-tools (including machines for nailing, stapling, glueing or otherwise assembling) for working wood, cork, bone, hard rubber, hard plastics or similar hard materials	
221	846596	- Other: Splitting, slicing or paring machines	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
222	846599	- Other machine tools not elsewhere specified or included	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	8466	Parts and accessories suitable for use solely or principally with the machines of headings 84.56 to 84.65, including work or tool holders, self-opening dieheads, dividing heads and other special attachments for machine-tools; tool holders for any type of tool for working in the hand	
223	846694	- Other: for machines of heading 84.62 to 84.63.	Waste Management and Water Treatment, Management of Solid and Hazardous Waste and Recycling Systems
	8471	Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included	
224	847130	- Portable digital automatic data processing machines, weighing not more than 10 kg, consisting of at least a central processing unit, a keyboard and a display	Environmental Technologies, Energy Efficiency

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
225	847160	- Input or output units, whether or not containing storage units in the same housing	Environmental Technologies , Energy Efficiency
226	847170	- Storage units	Environmental Technologies , Energy Efficiency
	8474	Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid (including powder or paste) form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand	
227	847410	- Sorting, Screening, Separating or Washing Machines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
228	847420	- Crushing or Grinding Machines	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
229	847431	- Mixing or kneading machines: Concrete or Mortar Mixers	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
230	847432	- Mixing or kneading machines: Machines for Mixing Mineral Substances With Bitumen	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
231	847439	- Other Mixing or Kneading Machines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
232	847480	- Other machinery	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
233	847490	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8477	Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this Chapter	
234	847710	- Injection-moulding Machines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
235	847720	- Extruders	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
236	847730	- Blow Moulding Machines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
237	847740	- Vacuum Moulding Machines and Other Thermoforming Machines	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
238	847751	- Other machinery for moulding or otherwise forming: For Moulding or Retreading Pneumatic Tyres or for moulding otherwise forming inner tubes	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
239	847759	- Other machinery for moulding or otherwise forming: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
240	847780	- Other Machinery	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
241	847790	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8479	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter	
242	847920	- Machinery for the extraction or preparation of animal or fixed vegetable fats or oils	Renewable Energy , Renewable Products and Energy Source
243	847982	- Other machines and mechanical appliances: Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
244	847989	- Other machinery for moulding or otherwise forming: Other	Air Pollution Control Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Renewable Energy , Renewable Products and Energy Source
245	847990	- Parts	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems
	8481	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves	
246	848110	- Pressure-reducing valves	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Resources and Pollution Management
247	848120	- Valves for oleohydraulic or pneumatic transmissions	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Resources and Pollution Management
248	848130	- Check (non-return) valves	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Resources and Pollution Management
249	848140	- Safety or relief valves	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Resources and Pollution Management
250	848180	- Other appliances	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
251	848190	- Parts	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8482	Ball or roller bearings	
252	848210	- Ball Bearings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
253	848220	- Tapered Roller Bearings, Including Cone and Tapered Roller Assemblies	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
254	848230	- Spherical Roller Bearings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
255	848240	- Needle Roller Bearings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
256	848250	- Other Cylindrical Roller Bearings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
257	848280	- Other Bearings, Including Combined Ball or Roller Bearings	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
258	848291	- Parts: Balls, Needles and Rollers	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
259	848299	- Parts: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	8483	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including pulley blocks; clutches and shaft couplings (including universal joints)	
260	848340	- Gears, gearing (excluding toothed wheels, chain sprockets and other transmission elements presented separately); ball or roller screws; gear boxes, other speed changers, including torque converters	Renewable Energy, Renewable Energy
	8483	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including pulley blocks; clutches and shaft couplings (including universal joints)	
261	848360	- Clutches & shaft couplings (incl. universal joints)	Renewable Energy, Renewable Energy
	8501	Electric motors and generators (excluding generating sets)	
262	850161	- AC generators (alternators), of an output not exceeding 75 kVA	Renewable Energy, Renewable Energy
263	850162	- AC generators (alternator), of an output exceeding 75 kVA but not exceeding 375 kVA	Renewable Energy, Renewable Energy
264	850163	- AC generators (alternator), of an output exceeding 375 kVA but not exceeding 750 kVA	Renewable Energy, Renewable Energy
265	850164	- AC generators (alternator), of an output exceeding 750 kVA	Renewable Energy, Renewable Energy
	8502	Electric generating sets and rotary converters	
266	850231	- Other generating sets - wind-powered	Renewable Energy, Renewable Energy Renewable Energy, Renewable Products and Energy Source
267	850239	- Other generating sets: other	Renewable Energy, Renewable Energy
	8503	Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02	
268	850300	- Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02.	Renewable Energy, Renewable Energy Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	8504	Electrical transformers, static converters (for example, rectifiers) and inductors	
269	850410	- Ballasts for Discharge Lamps or Tubes	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
270	850421	- Liquid Dielectric Transformers, having a power handling capacity not Exceeding 650kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
271	850422	- Liquid Dielectric Transformers having a power handling capacity exceeding 650 kVA but not exceeding-10,00kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
272	850423	- Liquid Dielectric Transformers having a power handling capacity exceeding 10,000kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
273	850431	- Other Transformers, Having a Power Handling Capacity Not Exceeding 1kva	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
274	850432	- Other Transformers, Having a Power Handling Capacity Exceeding 1kVA But Not Exceeding 16kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
275	850433	- Other Transformers, having a power handling capacity exceeding 16kVA But Not Exceeding 500kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
276	850434	- Other Transformers, Having a Power Power Handling Capacity Exceeding 500kVA	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
277	850440	- Static converters	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
278	850450	- Other Inductors	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
279	850490	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8505	Electro-magnets; permanent magnets and articles intended to become permanent magnets after magnetisation; electro-magnetic or permanent magnet chucks, clamps and similar holding devices; electro-magnetic couplings, clutches and brakes; electro-magnetic lifting heads	
280	850511	- Permanent Magnets and Magnetized Articles, intended to become permanent magnets after magnetisation, of metal	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
281	850519	- Permanent Magnets and Magnetized Articles intended to become permanent magnets after magnetisation, other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
282	850520	- Electro-magnetic Couplings, Clutches and Brakes	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
283	850530	- Electro-magnetic Lifting Heads	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
284	850590	- Other, including parts	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8506	Primary cells and primary batteries	
285	850610	- Primary cells & primary batteries, manganese dioxide	Renewable Energy , Renewable Products and Energy Source
286	850630	- Primary cells & primary batteries, mercuric oxide	Renewable Energy , Renewable Products and Energy Source
287	850640	- Primary cells & primary batteries, silver oxide	Renewable Energy , Renewable Products and Energy Source
288	850650	- Primary cells & primary batteries, lithium	Renewable Energy , Renewable Products and Energy Source
289	850660	- Primary cells & primary batteries, air-zinc	Renewable Energy , Renewable Products and Energy Source
290	850680	- Other Primary cells & primary batteries	Renewable Energy , Renewable Products and Energy Source Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
291	850690	- Parts	Renewable Energy , Renewable Products and Energy Source
	8507	Electric accumulators, including separators therefor, whether or not rectangular (including square)	
292	850720	- Other lead – Acid accumulators	Renewable Energy , Renewable Energy
293	850740	- Nickel-iron	Renewable Energy , Renewable Energy
294	850780	- Other accumulators	Renewable Energy , Renewable Energy Environmental Technologies , Energy Efficiency Others , Environmentally Preferable Products based on End-Use or Disposal Characteristics
295	850790	- Parts	Others , Environmentally Preferable Products based on End-Use or Disposal Characteristics
	8509	Electro-mechanical domestic appliances, with self-contained electric motor	

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
296	850980	- Other appliances	Environmental Technologies , Cleaner or More Resource Efficient Technologies and Products
	8511	Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (for example, ignition magnetos, magneto-dynamos, ignition coils, sparking plugs and glow plugs, starter motors); generators (for example, dynamos, alternators) and cut-outs of a kind used in conjunction with such engines.	
297	851140	- Starter Motors and Dual Purpose Starter-generators	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
298	851150	- Other Generators	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
299	851180	- Other Equipment	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
300	851190	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8514	Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss.	
301	851410	- Resistance heated furnaces & ovens	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
302	851420	- Furnaces & ovens functioning by induction/dielectric loss	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
303	851430	- Other Furnaces and Ovens	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
304	851440	- Other equipment for the heat treatment of materials by induction or dielectric loss	Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
305	851490	- Parts	Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems
	8516	Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electro-thermic hair-dressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electro-thermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 85.45	
306	851629	- Electric space heating apparatus and electric soil heating apparatus; other	Waste Management and Water Treatment , Clean Up Or Remediation of Soil and Water

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	8517	Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets and telecommunication apparatus for carrier-current line systems or for digital line systems; videophones	
307	851711	- Telephone sets; videophones: Line telephone sets with cordless handsets	Environmental Technologies , Energy Efficiency
308	851721	- Facsimile machines	Environmental Technologies , Energy Efficiency
309	851730	- Telephonic or telegraphic switching apparatus	Environmental Technologies , Energy Efficiency
310	851750	- Other apparatus, for carrier-current line systems or for digital line systems	Environmental Technologies , Energy Efficiency
	8518	Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets	
311	851840	- Audio-frequency electric amplifiers	Environmental Technologies , Energy Efficiency
	8520	Magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device	
312	852090	- Other	Environmental Technologies , Energy Efficiency
	8521	Video recording or reproducing apparatus, whether or not incorporating a video tuner	
313	852190	- Other	Environmental Technologies , Energy Efficiency
	8522	Parts and accessories suitable for use solely or principally with the apparatus of headings 85.19 to 85.21	
314	852210	- Pick-up cartridges	Environmental Technologies , Energy Efficiency
	8523	Prepared unrecorded media for sound recording or similar recording of other phenomena, other than products of Chapter 37	
315	852390	- Other	Environmental Technologies , Energy Efficiency
	8525	Transmission apparatus for radio-telephony, radio-telegraphy, radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras; still image video cameras and other video camera recorders; digital cameras	
316	852540	- Still image video cameras and other video camera records; digital cameras	Environmental Technologies , Energy Efficiency
	8526	Radar apparatus, radio navigational aid apparatus and radio remote control apparatus	
317	852691	- Other: Radio navigational aid apparatus	Environmental Technologies , Energy Efficiency
	8528	Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus; video monitors and video projectors	
318	852812	- Reception apparatus for television, whether or not incorporating radio broadcast receivers or sound or video recording or reproducing apparatus: Colour	Environmental Technologies , Energy Efficiency
319	852821	- Video monitors: Color	Environmental Technologies , Energy Efficiency
320	852830	- Video projectors	Environmental Technologies , Energy Efficiency

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
	8536	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp-holders, junction boxes), for a voltage not exceeding 1,000 volts	
321	853661	- Lamp-holders, plugs and sockets: Lamp holders	Environmental Technologies, Energy Efficiency
	8537	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 85.35 or 85.36, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90, and numerical control apparatus, other than switching apparatus of heading 85.17	
322	853710	- For a voltage not exceeding 1,000 V	Renewable Energy, Renewable Energy
	8539	Electric filament or discharge lamps, including sealed beam lamp units and ultra-violet or infra-red lamps; arc-lamps	
323	853949	- Ultra-violet or infra-red lamps; arc-lamps: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
	8541	Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes; mounted piezo-electric crystals	
324	854140	- Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes.	Renewable Energy, Renewable Energy Renewable Energy, Renewable Products and Energy Source
	8543	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this Chapter	
325	854389	- Other machines and apparatus: Other	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
326	854390	- Parts	Waste Management and Water Treatment, Waste Water Management and Potable Water Treatment
	8702	Motor vehicles for the transport of ten or more persons, including the driver	
327	870210	- With compression-ignition internal combustion piston engine (diesel or semi-diesel)	Air Pollution Control
328	870290	- Other	Air Pollution Control Renewable Energy, Renewable Energy
	8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars	
329	870321	- Other vehicles, with spark-ignition internal combustion: of a cylinder capacity not exceeding 1,000 cc	Air Pollution Control Renewable Energy, Renewable Energy
330	870322	- Other vehicles, with spark-ignition internal combustion: of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc	Air Pollution Control Renewable Energy, Renewable Energy
331	870323	- Other vehicles, with spark-ignition internal combustion: of a cylinder capacity exceeding 1,500 cc but not exceeding 3,000 cc	Air Pollution Control Renewable Energy, Renewable Energy
332	870324	- Other vehicles, with spark-ignition internal combustion: of a cylinder capacity exceeding 3,000 cc	Air Pollution Control Renewable Energy, Renewable Energy
333	870331	- Other vehicles, with compression-ignition internal combustion piston engine (diesel or semi-diesel): of a cylinder capacity not exceeding 1,500 cc	Air Pollution Control Renewable Energy, Renewable Energy

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
334	870332	- Other vehicles, with compression-ignition internal combustion piston engine (diesel or semi-diesel): of a cylinder capacity exceeding 1,500 cc but not exceeding 2,500 cc	Air Pollution Control Renewable Energy, Renewable Energy
335	870333	- Other vehicles, with compression-ignition internal combustion piston engine (diesel or semi-diesel): of a cylinder capacity exceeding 2,500 cc	Air Pollution Control Renewable Energy, Renewable Energy
336	870390	- Other	Air Pollution Control Renewable Energy, Renewable Energy
	8704	Motor vehicles for the transport of goods	
337	870410	- Dumpers designed for off-highway use	Air Pollution Control Renewable Energy, Renewable Energy
338	870421	- Other, with compression-ignition internal combustion piston engine (diesel or semi-diesel);, g.v.w. not exceeding 5 tonnes	Air Pollution Control Renewable Energy, Renewable Energy
339	870422	- Other, with compression-ignition internal combustion piston engine (diesel or semi-diesel);, g.v.w. not exceeding 5 tonnes but not exceeding 20 tonnes	Air Pollution Control Renewable Energy, Renewable Energy
340	870423	- Other, with compression-ignition internal combustion piston engine (diesel or semi-diesel);, g.v.w. exceeding 20 tonnes	Air Pollution Control Renewable Energy, Renewable Energy
341	870431	- Other, with spark-ignition internal combustion piston engine:g.v.w. not exceeding 5 tonnes	Air Pollution Control Renewable Energy, Renewable Energy
342	870432	- Other, with spark-ignition internal combustion piston engine: g.v.w. exceeding 5 tonnes	Air Pollution Control Renewable Energy, Renewable Energy
343	870490	- Other	Air Pollution Control Renewable Energy, Renewable Energy
	8705	Special purpose motor vehicles, other than those principally designed for the transport of persons or goods (for example, breakdown lorries, crane lorries, fire fighting vehicles, concrete-mixer lorries, road sweeper lorries, spraying lorries, mobile workshops, mobile radiological units)	
344	870510	- Crane lorries	Air Pollution Control Renewable Energy, Renewable Energy
345	870520	- Mobile drilling derricks	Air Pollution Control Renewable Energy, Renewable Energy
346	870530	- Fire fighting vehicles	Air Pollution Control Renewable Energy, Renewable Energy
347	870540	- Concrete-mixer lorries (concrete-mixers)	Air Pollution Control Renewable Energy, Renewable Energy
348	870590	- Other	Air Pollution Control Renewable Energy, Renewable Energy
	8711	Motorcycles (including mopeds) and cycles fitted with an auxiliary motor, with or without side-cars; side-cars	
349	871110	- With reciprocating internal combustion piston engine of a cylinder capacity not exceeding 50 cc.	Air Pollution Control Renewable Energy, Renewable Energy
350	871120	- With reciprocating internal combustion piston engine of a cylinder capacity exceeding 50 cc but not exceeding 250cc.	Air Pollution Control Renewable Energy, Renewable Energy
351	871130	- With reciprocating internal combustion piston engine of a cylinder capacity exceeding 250 cc but not exceeding 500cc.	Air Pollution Control Renewable Energy, Renewable Energy
352	871140	- With reciprocating internal combustion piston engine of a cylinder capacity exceeding 500 cc but not exceeding 800cc.	Air Pollution Control Renewable Energy, Renewable Energy
353	871150	- With reciprocating internal combustion piston engine of a cylinder capacity exceeding 800 cc.	Air Pollution Control Renewable Energy, Renewable Energy

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
354	871190	- others	Air Pollution Control Renewable Energy , Renewable Energy
	8907	Other floating structures (for example, rafts, tanks, coffer-dams, landing-stages, buoys and beacons)	
355	890790	- Other	Waste Management and Water Treatment , Clean Up Or Remediation of Soil and Water
	9001	Optical fibres and optical fibre bundles; optical fibre cables other than those of heading 85.44; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked	
356	900190	- Other	Renewable Energy , Renewable Energy
	9002	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked	
357	900290	- Other	Renewable Energy , Renewable Energy
	9015	Surveying (including photogrammetrical surveying), hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses; rangefinders	
358	901510	- Rangefinders	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
359	901520	- Theodolites and tachymeters (tacheometers)	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
360	901530	- Levels	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies , Environmental Monitoring, Analysis and Assessment Equipment
361	901540	- Photogrammetrical surveying instruments and appliances	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies , Natural Risk Management
362	901580	- Other instruments and appliances	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies , Natural Risk Management
363	901590	- Parts and accessories	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies , Natural Risk Management
	9024	Machines and appliances for testing the hardness, strength, compressibility, elasticity or other mechanical properties of materials (for example, metals, wood, textiles, paper, plastics)	
364	902410	- Machines and appliances for testing metals	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
365	902480	- Other machines and appliances	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
366	902490	- Parts and accessories	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	9025	Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments	
367	902511	- Thermometers and pyrometers, not combined with other instruments: Liquid-filled, for direct reading	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
368	902519	- Thermometers and pyrometers, not combined with other instruments: Other	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
369	902580	- Other instruments	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
370	902590	- Parts and accessories	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	9026	Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 90.14, 90.15, 90.28 or 90.32	
371	902610	- For measuring or checking the flow or level of liquids	Air Pollution Control Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
372	902620	- For measuring or checking pressure	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
373	902680	- Other instruments or apparatus	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
374	902690	- Parts and accessories	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
	9027	Instruments and apparatus for physical or chemical analysis (for example, polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes	
375	902710	- Gas or smoke analysis apparatus	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
376	902720	- Chromatographs and electrophoresis instruments	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
377	902730	- Spectrometers, spectrophotometers and spectrographs using optical radiations (UV, visible, IR)	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
378	902740	- Exposure meters	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
379	902750	- Other instruments and apparatus using optical radiations (UV, visible, IR)	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
380	902780	- Other instruments and apparatus	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
381	902790	- Microtomes; parts and accessories	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
	9028	Gas, liquid or electricity supply or production meters, including calibrating meters therefor	
382	902810	- Gas meters	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Others, Resources and Pollution Management Environmental Technologies, Heat and Energy Management

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
383	902820	- Liquid meters	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Environmental Technologies, Heat and Energy Management
384	902830	- Electricity meters	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Environmental Technologies, Heat and Energy Management
385	902890	- Parts and accessories	Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Environmental Technologies, Heat and Energy Management
	9030	Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 90.28; instruments and apparatus for measuring or detecting alpha, beta, gamma, X-ray, cosmic or other ionising radiations	
386	903010	- Instruments and apparatus for measuring or detecting ionising radiations.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
387	903020	- Cathode-ray oscilloscopes and cathode-ray oscillographs.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
388	903031	- Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device: Multimeters.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
389	903039	- Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device: Other.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
390	903040	- Other instruments and apparatus, specially designed for telecommunications (for example, cross-talk meters, gain measuring instruments, distortion factor meters, psophometers)	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
391	903082	- Other instruments and apparatus:for measuring or checking semiconductor wafers or devices	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
392	903083	- Other instruments and apparatus: Other, with a recording device	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
393	903089	- Other instruments and apparatus: Other	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
394	903090	- Parts and accessories	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
	9031	Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this Chapter; profile projectors	
395	903110	- Machines for balancing mechanical parts	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies Environmental Technologies, Noise and Vibration Abatement
396	903120	- Test benches.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
397	903130	- Profile projectors.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
398	903141	- Other optical instruments and appliances	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
399	903149	- Other optical instruments and appliances: Other	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
400	903180	- Other instruments, appliances and machines.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
401	903190	- Parts and accessories	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Efficient Consumption of Energy Technologies
	9032	Automatic regulating or controlling instruments and apparatus	
402	903210	- Thermostats	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
403	903220	- Manostats.	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
404	903281	- Other instruments and apparatus: Hydraulic or pneumatic	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
405	903289	- Other instruments and apparatus: Other	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Renewable Energy, Renewable Energy
406	903290	- Parts and accessories	Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies
	9033	Parts and accessories (not specified or included elsewhere in this Chapter) for machines, appliances, instruments or apparatus of Chapter 90	
407	903300	- Parts and accessories (not specified or included elsewhere in this chapter) for machines, appliances	Environmental Technologies, Carbon Capture and Storage, Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies, Environmental Monitoring, Analysis and Assessment Equipment
	9405	Lamps and lighting fittings including searchlights and spotlights and parts thereof, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like, having a permanently fixed light source, and parts thereof not elsewhere specified or included	
408	940510	- Chandeliers and other electric ceiling or wall lighting fittings, excluding those of a kind used for lighting public open spaces or thoroughfares	Environmental Technologies, Energy Efficiency
409	940520	- Electric table, desk, bedside or floor-standing lamps	Environmental Technologies, Energy Efficiency

	HS 2002 CODE	HS 2002 CODE DESCRIPTION	CATEGORY(IES)
410	940540	- Other electric lamps and lighting fittings	Environmental Technologies , Energy Efficiency
	9507	Fishing rods, fish-hooks and other line fishing tackle; fish landing nets, butterfly nets and similar nets; decoy birds (other than those of heading 92.08 or 97.05) and similar hunting or shooting requisites	
411	950720	- Fish-hooks, whether or not snelled.	Others , Natural Resources Protection

Table II-B – The WTO comined list of EGs (411 products), by categories suggested by the proponents in their respective submissions.

Air Pollution Control		
N°	HS	Product description
1	840420	Condensers for steam or other vapour power units.
2	840490	Parts for auxiliary plant for boilers, condensers for steam, vapour power unit.
3	840510	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers.
4	840999	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08
5	841410	Vacuum pumps.
6	841430	Compressors of a kind used in refrigerating equipment
7	841440	Air compressors mounted on a wheeled chassis for towing.
8	841459	Fans other than table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output not exceeding 125 W.
9	841480	Air Pumps, air/oth. gas compressors and fans (excl. of 8414.10-8414.59); ventilating/recycling hoods incorp. a fan, whether or not fitted with filters (excl. of 8414.60).
10	841490	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters: Parts.
11	841960	Machinery for liquefying air or other gases.
12	841989	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 85.14), 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.
13	842139	Filtering or purifying machinery and apparatus for gas (other than intake air filters for internal combustion engines).
14	847989	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter; others
15	870210	Motor vehicles for the transport of ten or more persons, including the driver, with compression-ignition internal combustion piston engine (diesel or semi-diesel)
16	870290	Motor vehicles for the transport of ten or more persons, including the driver, excluding those with diesel or semi-diesel
17	870321	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity not exceeding 1,000 cc
18	870322	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc
19	870323	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 1,500 cc but not exceeding 3,000 cc
20	870324	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 3,000 cc
21	870331	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity not exceeding 1,500 cc
22	870332	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity exceeding 1,500 cc but not exceeding 2,500 cc
23	870333	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity exceeding 2,500 cc
24	870390	Motor cars and other motor vehicles principally designed for the transport of persons, including incomplete motor vehicles without engine, other than those with spark-ignition internal combustion reciprocating piston engine and with compression-ignition internal combustion piston engine (diesel or semi-diesel)
25	870410	Dumpers designed for off-highway use
26	870421	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. not exceeding 5 tonnes
27	870422	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. not exceeding 5 tonnes but not exceeding 20 tonnes
28	870423	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. exceeding 20 tonnes
29	870431	Motor vehicles for the transport of goods with spark-ignition internal combustion piston engine g.v.w. not exceeding 5 tonnes
30	870432	Motor vehicles for the transport of goods with spark-ignition internal combustion piston engine g.v.w. exceeding 5 tonnes
31	870490	Motor vehicles for the transport of goods other than those with compression-ignition internal combustion piston engine (diesel or semi-diesel) and with spark-ignition internal combustion piston engine

Air Pollution Control		
N°	HS	Product description
32	870510	Crane lorries
33	870520	Mobile drilling derricks
34	870530	Fire fighting vehicles
35	870540	Concrete-mixer lorries
36	870590	Special purpose motor vehicles other than crane lorries, mobile drilling derricks, fire fighting vehicles and concrete-mixer lorries
37	871110	Motorcycles With reciprocating internal combustion piston engine of a cylinder capacity not exceeding 50 cc
38	871120	Motorcycles With reciprocating internal combustion piston engine of a cylinder capacity exceeding 50 cc but not exceeding 250 cc
39	871130	Motorcycles With reciprocating internal combustion piston engine of a cylinder capacity exceeding 250 cc but not exceeding 500 cc
40	871140	Motorcycles With reciprocating internal combustion piston engine of a cylinder capacity exceeding 500 cc but not exceeding 800 cc
41	871150	Motorcycles With reciprocating internal combustion piston engine of a cylinder capacity exceeding 800 cc
42	871190	Other motorcycles
43	902610	Instruments for measuring or checking the flow, level, pressure or other variables of liquids or gases.

Renewable Energy		
N°	HS	Product description
1	730820	Towers and lattice masts for wind turbine
2	761100	Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment: tanks etc, over 300 litres capacity, aluminium.
3	840510	Producer gas or water gas generators, with purifiers
4	840681	Steam and other vapour turbines (other than turbines for marine propulsion): Of an output exceeding 40 MW.
5	840682	Steam turbines and other vapour turbines (other than for marine propulsion) of an output not exceeding 40 MW.
6	840690	Parts for steam and other vapour turbines.
7	841011	Hydraulic turbines and water wheels of a power not exceeding 1,000 kW
8	841090	Hydraulic turbines, water wheels, and regulators ; parts, including regulators.
9	841181	Gas turbines of a power not exceeding 5,000 kW
10	841182	Gas turbines of a power exceeding 5,000 kW
11	841581	Compression-type refrigerating, freezing equipment whose condensers are heat exchangers; Refrigerating, freezing equipment not elsewhere specified in 84.18; heat pumps and Air-conditioning machines incorporating a refrigerating unit and a valve for reversal of the cooling/heat cycle (reversible heat pumps)
12	841861	Compression-type refrigerating, freezing equipment whose condensers are heat exchangers; Refrigerating, freezing equipment not elsewhere specified in 84.18; heat pumps and Air-conditioning machines incorporating a refrigerating unit and a valve for reversal of the cooling/heat cycle (reversible heat pumps)
13	841869	Compression-type refrigerating, freezing equipment whose condensers are heat exchangers; Refrigerating, freezing equipment not elsewhere specified in 84.18; heat pumps and Air-conditioning machines incorporating a refrigerating unit and a valve for reversal of the cooling/heat cycle (reversible heat pumps)
14	841919	Solar boiler (water heater)
15	841950	Solar collector and solar system controller, heat exchanger
16	841990	Parts of machinery, plant and equipment of heading No 84.19
17	848340	Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball or roller screws; gear boxes and other speed changers, including torque converters.
18	848360	Clutches and shaft couplings (including universal joints).
19	850161	AC generators (alternators), of an output not exceeding 75 kVA
20	850162	AC generators (alternator), of an output exceeding 75 kVA but not exceeding 375 kVA
21	850163	AC generators (alternator), of an output exceeding 375 kVA but not exceeding 750 kVA
22	850164	AC generators (alternator), of an output exceeding 750 kVA

Renewable Energy		
N°	HS	Product description
23	850231	Other electric generating sets: Wind-powered.
24	850239	Electric generating sets and rotary convertors: other
25	850300	Parts suitable for use solely or principally with the machines of heading 85.01 or 85.02.
26	850440	Static converters
27	850680	Other primary cells and primary batteries
28	850720	Electric accumulators, including separators thereof, whether or not rect. (incl. square), lead-acid (exclusive of 8507.10)
29	850740	Nickel-iron electric accumulators
30	850780	Other accumulators
31	853710	Photovoltaic system controller
32	854140	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes
33	870210	Motor vehicles for the transport of ten or more persons, including the driver, with compression-ignition internal combustion piston engine (diesel or semi-diesel)
34	870290	Motor vehicles for the transport of ten or more persons, including the driver, excluding those with diesel or semi-diesel
35	870321	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity not exceeding 1,000 cc
36	870322	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc
37	870323	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 1,500 cc but not exceeding 3,000 cc
38	870324	Motor cars and other motor vehicles principally designed for the transport of persons with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity exceeding 3,000 cc
39	870331	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity not exceeding 1,500 cc
40	870332	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity exceeding 1,500 cc but not exceeding 2,500 cc
41	870333	Motor cars and other motor vehicles principally designed for the transport of persons with compression-ignition internal combustion piston engine(diesel or semi-diesel), of a cylinder capacity exceeding 2,500 cc
42	870390	Motor cars and other motor vehicles principally designed for the transport of persons, including incomplete motor vehicles without engine, other than those with spark-ignition internal combustion reciprocating piston engine and with compression-ignition internal combustion piston engine (diesel or semi-diesel)
43	870410	Dumpers designed for off-highway use
44	870421	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. not exceeding 5 tonnes
45	870422	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. not exceeding 5 tonnes but not exceeding 20 tonnes
46	870423	Motor vehicles for the transport of goods with compression-ignition internal combustion piston engine (diesel or semi-diesel), g.v.w. exceeding 20 tonnes
47	870431	Motor vehicles for the transport of goods with spark-ignition internal combustion piston engine g.v.w. not exceeding 5 tonnes
48	870432	Motor vehicles for the transport of goods with spark-ignition internal combustion piston engine g.v.w. exceeding 5 tonnes
49	870490	Motor vehicles for the transport of goods other than those with compression-ignition internal combustion piston engine (diesel or semi-diesel) and with spark-ignition internal combustion piston engine
50	870510	Crane lorries
51	870520	Mobile drilling derricks
52	870530	Fire fighting vehicles
53	870540	Concrete-mixer lorries
54	870590	Special purpose motor vehicles other than crane lorries, mobile drilling derricks, fire fighting vehicles and concrete-mixer lorries
55	900190	Optical fibres and optical fibre bundles; optical fibre cables other than those of heading 85.44; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked: Other: Lenses prisms mirrors optical element not optically worked.
56	900290	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked: Other: Prism, mirrors, mounted and parts and accessories, not elsewhere specified or included
57	903289	Automatic regulating or controlling instruments, other

Waste Management and Water Treatment (WM/WT)		
N°	HS	Product description
(a) Clean Up Or Remediation of Soil and Water (R/C)		
1	842119	Centrifuges, including centrifugal dryers, other than cream separators and clothes-dryers.
2	842191	Parts of centrifuges, including centrifugal dryers.
3	851629	Electric space heating apparatus and electric soil heating apparatus; other.
4	890790	Other floating structures (for example, rafts, tanks, coffer-dams, landing-stages, buoys and beacons): Other (other than inflatable rafts).
(b) Management of Solid and Hazardous Waste and Recycling Systems (SHW)		
1	392010	Other plates, sheets, film, foil and strip, of polymers of ethylene, non-cellular and not reinforced, laminated, supported or similarly combined with other materials: Plates, sheets, film, foil and strip of plastics, not self-adhesive, non-cellular, not reinforced or laminated etc., of polymers of ethylene.
2	761290	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment.
3	840219	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers: and part of the boilers of 840211 - 840220
4	840290	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers.
5	840410	Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recoverers); condensers for steam or other vapour power units.
6	841780	Other industrial or laboratory furnaces and ovens, including incinerators, non-electric
7	841790	Industrial or laboratory furnaces and ovens, including incinerators, non-electric: Parts.
8	841940	Distilling or rectifying plant.
9	842220	Machinery for cleaning or drying bottles or other containers.
10	842290	Machinery for cleaning or drying bottles or other containers: Parts.
11	842940	Tamping machines and road rollers.
12	846291	Hydraulic presses for working metal.
13	846596	Splitting, slicing or paring machines.
14	846599	Other machine tools not elsewhere specified or included
15	846694	Parts and accessories suit. for use solely/princ. with the machines of 84.62/84.63.
16	847420	Crushing or grinding machines
17	847982	Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines
18	847989	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter
19	847990	Parts thereof, engines and motors, machines and mechanical appliances having individual functions
20	850590	Other, including parts
21	851410	Resistance heated furnaces and ovens.
22	851420	Furnaces and ovens; functioning by induction or dielectric loss.
23	851430	Other furnaces and ovens.
24	851490	Parts of industrial or laboratory electric furnaces and ovens; other laboratory induction or dielectric heating equipment.
(c) Waste Management, Recycling and Remediation (WMR)		
1	460120	Mats/screens of vegetable materials
2	840290	Super-heated water boilers and parts of steam generating boilers
3	840410	Auxiliary plant for steam, water and central boiler
(d) Waste Water Management and Potable Water Treatment (WWM)		
1	382490	Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included
2	560314	Non wovens, whether or not impregnated, coated, covered or laminated: Of man-made filaments: Weighing more than 150 g/m2.
3	691010	Ceramic sinks, wash basins, wash basin pedestals, baths, bidets, water closet pans, flushing cisterns, urinals and similar sanitary fixtures: Of porcelain or china.

Waste Management and Water Treatment (WM/WT)		
N°	HS	Product description
4	730300	Tubes, pipes and hollow profiles, of cast iron:
5 to 11	730431 to 730490	Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel: Other than Line pipe of a kind used for oil or gas pipelines.
12 to 16	730630 to 730690	Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel: Other:
17	730900	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment; Tanks etc, over 300 litres capacity, iron or steel; Reservoirs, tanks, vats and similar containers, capacity >300L, iron or steel (ex liq/compr gas type); Reservoirs, tanks, vats and similar containers, of iron or steel, > 300 litres
18	731010	Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment: Of a capacity of 50 l or more: Composting systems of organic matter.
19	731029	Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 l, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment: Of a capacity of less than 50 l: Other (excluding containers fitted with mechanical or thermal equipment, and cans); Other cans which are to be closed by soldering or crimping, capacity less 50L
20	732490	Sanitary ware and parts thereof, of iron or steel: Exclusive of 732410 - 732429.
21	732510	Other cast articles of iron or steel; of non-malleable cast iron
22	732690	Other articles of iron or steel: Other.
23	840510	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers
24	841320	Hand pumps, other than those of subheading 8413.11 or 8413.19
25	841350	Other reciprocating positive displacement pumps
26	841360	Other rotary positive displacement pumps
27	841370	Other centrifugal pumps
28	841381	Pumps for liquids, whether or not fitted with a measuring device; other pumps
29	841939	Dryers, other:
30	842121	Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water
31	842129	Filtering or purifying machinery and apparatus for liquids: other.
32	842199	Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases: Parts (other than of centrifuges and centrifugal dryers):Filtering or purifying machinery and apparatus for water and parts thereof
33	842833	Other continuous-action elevators and conveyors, for goods or materials: Other, belt type.
34	848100	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves
35	848110	Pressure-reducing valves
36	848120	Valves for oleohydraulic or pneumatic transmissions
37	848130	Check (non-return) valves
38	848140	Safety or relief valves
39	848180	Other appliances for pipes, boiler shells, tanks, vats or the like
40	848190	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves: Parts:.
41	853949	Ultra-violet or infra-red lamps; arc-lamps
42	854389	Other electrical machines and apparatus having individual functions, not elsewhere specified in chapter 85.
43	854390	Parts thereof, electrical machines and apparatus, having individual functions, not specified or included elsewhere in this Chapter

Environmental Technologies (ET)		
N°	HS	Product description
(a) Gas Flaring Emission Reduction (GFR)		
1	271111	Natural Gas (Liquefied)

Environmental Technologies (ET)		
N°	HS	Product description
2	271112	Propane (Liquefied)
3	271113	Butanes (Liquefied)
4	271114	Ethylene, Propylene, Butylene, Butadiene (Liquefied)
5	271119	Other Petroleum Gases, Gaseous Hydrocarbons (Liquefied)
6	271121	Natural Gas
7	271129	Other Petroleum Gases, Other Gaseous Hydrocarbons
8	281810	Artificial Corundum, Whether or Not Chemically Defined
9	281820	Other Aluminium Oxide
10	281830	Aluminium Hydroxide
11	290911	Diethyl Ether
12	290919	Other Acyclic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives
13	290920	Cyclanic, Cyclenic, Cycloterpenic Ethers, Their Derivatives (Halogenated, Sulfonated, Nitrated)
14	290930	Aromatic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives
15	290941	2, 2'-oxydiethanol (Diethylene Glycol, Digol)
16	290942	Monomethyl Ethers of Ethylene Glycol or of Diethylene Glycol
17	290943	Monobutyl Ethers of Ethylene Glycol or of Diethylene Glycol
18	290944	Other Monoalkyl Ethers of Ethylene Glycol or of Diethylene Glycol
19	290949	Other Other-alcohols, Their Halogenated, Sulfonated, Nitrated Derivatives
20	290950	Ether-phenols, Ether-alcohol-phenols, Their Halogenated, Sulfonated Derivatives
21	290960	Alcohol Peroxides, Ether Peroxides, Ketone Peroxides, Their Derivatives (Halogenated, Sulfonated)
22	291411	Acetone
23	291412	Butanone (Methyl Ethyl Ketone)
24	291413	4-methyl Pentan-2-one- (Methyl Isobutyl Ketone)
25	291419	Other Acyclic Ketones Without Oxygen Function
26	291421	Camphor
27	291422	Cyclohexanone, Methylcyclohexanones
28	291423	Ionones, Methylionones
29	291429	Other Cyclanic, Cyclenic, Cycloterpenic Ketones
30	291430	3.aromatic Ketones Without Other Oxygen Function
31	291441	4-hydroxy-4-methylpentan-2-one (Diacetone Alcohol)
32	291449	Other Ketone-alcohols, Ketone-aldehydes
33	291450	Ketone-phenols, Ketones With Other Oxygen Function
34	291461	Anthroquinone
35	291469	Other Quinones
36	291470	Halogenated, Sulfonated, Nitrated Derivatives of Ketones and Quinones
37	841610	Furnace Burners for Liquid Fuel
38	841620	Other Furnace Burners, Including Combination Burners
39	841630	Mechanical Stokers, Mechanical Grates, Mechanical Ash Dischargers
40	841690	Parts of Furnace Burners, Mechanical Stokers, Mechanical Grates, the Like
41	841780	Other Industrial or Laboratory Furnaces and Ovens, Non-electric
42	841790	Parts of Industrial or Laboratory Furnaces and Ovens
43	841939	Other Dryers Other than Household Machinery
44	841940	Distilling or Rectifying Plant

Environmental Technologies (ET)		
N°	HS	Product description
45	841950	Heat Exchange Units
46	841960	Machinery for Liquefying Air or Other Gas
47	841989	Other Apparatus for Treatment of Materials By Temperature
48	841990	Parts of Apparatus for Treatment of Materials By Temperature
49	842123	Oil or Petrol-filters for Internal Combustion Engines
50	842129	Other Filtering or Purifying Machinery and Apparatus for Liquids
51	842131	Intake Air Filters for Internal Combustion Engines
52	842139	Other Filtering or Purifying Machinery and Apparatus for Gases
53	842191	Parts of Centrifuges, Including Centrifugal Dryers
54	842199	Parts for Filtering or Purifying Machinery, for Liquids or Gases
55	851410	Resistance Heated Furnaces and Ovens
56	851420	Induction or Dielectric Furnaces and Ovens
57	851430	Other Industrial or Laboratory Electric Furnaces and Ovens
58	851440	Other Induction or Dielectric Heating Equipments, Industry, Laboratory
59	851490	Parts of Industrial or Laboratory Electric Furnaces and Ovens
60	902620	Instruments and apparatus For measuring or checking pressure
61	902680	Other instruments or apparatus for Measuring or Checking of Gases or Liquids
62	902690	Parts and accessories (Flow Meters, Level Gauges, Manometers, Heat Meters)
63	902810	Gas meters
64	902890	Parts and accessories: Gas, Liquid or Electricity Supply or Production Meters
65	903210	Thermostats
66	903220	Manostats
67	903281	Hydraulic or pneumatic
68	903289	Other Automatic Regulating or Controlling Instruments & Apparatus
69	903290	Parts and accessories (Automatic Regulating or Controlling Instruments & Apparatus)
70	903300	Parts and accessories (not specified or included elsewhere in this chapter) for machines, appliances
(b) Efficient Consumption of Energy (EC) Technologies		
1	250310	Sulphur (Crude or Unrefined)
2	250390	Sulphur (Other than Crude or Unrefined Sulphur)
3	271111	Natural Gas (Liquefied)
4	271112	Propane (Liquefied)
5	271113	Butanes (Liquefied)
6	271114	Ethylene, Propylene, Butylene, Butadiene (Liquefied)
7	271119	Other Petroleum Gases, Gaseous Hydrocarbons (Liquefied)
8	271121	Natural Gas
9	271129	Other Petroleum Gases, Other Gaseous Hydrocarbons
10	281810	Artificial Corundum, Whether or Not Chemically Defined
11	281820	Other Aluminium Oxide
12	281830	Aluminium Hydroxide
13	290911	Diethyl Ether
14	290919	Other Acyclic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives
15	290920	Cyclanic, Cyclenic, Cycloterpenic Ethers, Their Derivatives (Halogenated, Sulfonated, Nitrated)
16	290930	Aromatic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives

Environmental Technologies (ET)		
N°	HS	Product description
17	290941	2, 2'-oxydiethanol (Diethylene Glycol, Digol)
18	290942	Monomethyl Ethers of Ethylene Glycol or of Diethylene Glycol
19	290943	Monobutyl Ethers of Ethylene Glycol or of Diethylene Glycol
20	290944	Other Monoalkyl Ethers of Ethylene Glycol or of Diethylene Glycol
21	290949	Other Other-alcohols, Their Halogenated, Sulfonated, Nitrated Derivatives
22	290950	Ether-phenols, Ether-alcohol-phenols, Their Halogenated, Sulfonated Derivatives
23	290960	Alcohol Peroxides, Ether Peroxides, Ketone Peroxides, Their Derivatives (Halogenated, Sulfonated)
24	291411	Acetone
25	291412	Butanone (Methyl Ethyl Ketone)
26	291413	4-methyl Pentan-2-one- (Methyl Isobutyl Ketone)
27	291419	Other Acyclic Ketones Without Oxygen Function
28	291421	Camphor
29	291422	Cyclohexanone, Methylcyclohexanones
30	291423	Ionones, Methylionones
31	291429	Other Cyclanic, Cyclenic, Cycloterpenic Ketones
32	291430	3.aromatic Ketones Without Other Oxygen Function
33	291441	4-hydroxy-4-methylpentan-2-one (Diacetone Alcohol)
34	291449	Other Ketone-alcohols, Ketone-aldehydes
35	291450	Ketone-phenols, Ketones With Other Oxygen Function
36	291461	Anthroquinone
37	291469	Other Quinones
38	291470	Halogenated, Sulfonated, Nitrated Derivatives of Ketones and Quinones
39	390210	Polypropylene
40	390220	Polyisobutylene
41	390230	Propylene Copolymers
42	390290	Other Polymers of Propylene or Other Olefins
43	390910	Urea Resins, Thiourea Resins
44	390920	Melamine Resins
45	390930	Other Amino-resins
46	390940	Phenolic Resins
47	390950	Polyurethanes
48	391110	Petroleum Resins, Coumarone, Indene, Coumarone-indene Resins, Polyterpenes
49	391190	Polysulfides, Polysulfones, Furan Resin, Resols, Other Prepolymers
50	391211	Cellulose Acetates (Non-plasticised)
51	391212	Cellulose Acetates (Plasticised)
52	391220	Cellulose Nitrates (Including Collodions)
53	391231	Carboxymethyl Cellulose and Its Salts
54	391239	Other Cellulose Ethers
55	391290	Other Cellulose and Its Chemical Derivatives
56	730300	Tubes, pipes and hollow profiles, of cast iron
57	730410	Line pipe of a kind used for oil or gas pipelines: Of iron or nonalloy steel
58	730420	Casing, tubing and drill pipe, of a kind used in drilling for oil or gas: Casing
59	730431	Tubes, Pipes and Hollow Profiles, of Iron or Non-alloy Steel, Cold-drawn or cold-rolled (cold-reduced)

Environmental Technologies (ET)		
N°	HS	Product description
60	730439	Other Tubes, Pipes and Hollow Profiles, of Iron or Non-alloy Steel
61	730441	Tubes, Pipes and Hollow Profiles, of stainless steel, Cold-drawn or cold-rolled (cold reduced)
62	730449	Other Tubes, Pipes and Hollow Profiles, of Stainless Steel, Seamless
63	730451	Tubes, Pipes and Hollow Profiles, of Other Alloy Steel, Cold-drawn or cold-rolled (cold reduced)
64	730459	Other Tubes, Pipes and Hollow Profiles, of Other Alloy Steel
65	730490	Other Tubes, Pipes and Hollow Profiles, Seamless, of Iron or Steel
66	730511	Line pipe of a kind used for oil or gas pipelines, Longitudinally submerged arc welded
67	730512	Other Line pipe of a kind used for oil or gas pipelines, longitudinally welded
68	730519	Other Line Pipe, Welded, More than 406.4mm in External Diameter
69	730520	Casing of a kind used in drilling for oil or gas
70	730531	Other Tubes and Pipes, Longitudinally welded
71	730539	Other Tubes and Pipes, Welded, of Iron or Steel
72	730590	Other Tubes and Pipes, Riveted or Similarly Closed, of Iron or Steel
73	730610	Line pipe of a kind used for oil or gas pipelines
74	730620	Casing and tubing of a kind used in drilling for oil or gas of Iron or Steel, Open Seam or Welded, Riveted
75	730630	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of iron or nonalloy steel
76	730640	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of stainless steel
77	730650	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of other alloy steel
78	730660	Other Tubes, Pipes, Hollow Profiles, welded, of non-circular cross section
79	730690	Other Tubes, Pipes, Hollow Profiles, of Iron or Steel, Open Seam, Riveted
80	730711	Tube or Pipe Fittings, Of nonmalleable cast iron
81	730719	Other Tube or Pipe Fittings, of Cast Iron
82	730721	Flanges of Stainless Steel
83	730722	Threaded elbows, bends and sleeves, of Stainless Steel
84	730723	Butt welding fittings of Stainless Steel
85	730729	Other Tube or Pipe Fittings, of Stainless Steel
86	730791	Flanges of Iron or Steel
87	730792	Threaded elbows, bends and sleeves, of Iron or Steel
88	730793	Butt welding fittings, of Iron or Steel
89	730799	Other Tube or Pipe Fittings, of Iron or Steel
90	730900	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 liters (7925 gallons), whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment
91	731010	Tanks, Casks, Drums, Cans, Boxes, of Iron or Steel, Of a capacity of 50 liters (1321 gallons) or more
92	731021	Cans which are to be closed by soldering or crimping
93	731029	Other Tanks, Casks, Drums, Cans, Boxes, of Iron or Steel, Capacity Less 50l
94	731100	Containers for compressed or liquefied gas, of iron or steel
95	732490	Other Sanitary Ware and Parts Thereof, of Iron or Steel
96	761100	Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 liters (79.3 gallons), whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment
97	761190	Other
98	761300	Aluminum containers for compressed or liquefied gas
99	840211	Watertube Boilers With a Steam Production Exceeding 45t Per Hour
100	840212	Watertube Boilers With a Steam Production Not Exceeding 45t Per Hour

Environmental Technologies (ET)		
N°	HS	Product description
101	840219	Other Vapour Generating Boilers, Including Hybrid Boilers
102	840220	Super-heated Water Boilers
103	840290	Parts of Steam Generating Boilers and Super-heated Water Boilers
104	840310	Central Heating Boilers
105	840390	Parts of Central Heating Boilers
106	840410	Auxiliary Plant for Use With Boilers
107	840420	Condensers for Steam or Other Vapour Power Units
108	840490	Parts of Auxiliary Plant for Use With Boilers and Condensers
109	840510	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers; parts thereof
110	840590	Parts
111	840611	Steam Turbines and Other Vapour Turbines, for Marine Propulsion
112	840619	Other Steam Turbines and Other Vapour Turbines
113	840690	Parts of Steam Turbines and Other Vapour Turbines
114	840790	Other Spark-ignition Internal Combustion Piston Engines
115	840890	Other Compression-ignition Internal Combustion Piston Engines
116	840991	Parts of Spark-ignition Internal Combustion Piston Engines of heading 8407 or 8408
117	840999	Parts of Compression-ignition Internal Combustion Piston Engines of heading 8407 or 8408
118	841011	Hydraulic Turbines, Water Wheels, of a Power Not Exceeding, 1, 000kw
119	841012	Hydraulic Turbines and Water Wheels, Power 1, 000-10, 000kw
120	841013	Hydraulic Turbines, Water Wheels, of a Power Exceeding 10, 000kw
121	841090	Parts of Hydraulic Turbines and Water Wheels, Including Regulators
122	841111	Turbo-jets of a Thrust Not Exceeding 25kn
123	841112	Turbo-jets of a Thrust Exceeding 25kn
124	841121	Turbo-propellers of a Power Not Exceeding 1, 100kw
125	841122	Turbo-propellers of a Power Exceeding 1, 100kw
126	841160	Cut-outs of a Kind Used in Conjunction With Internal Combustion Engine
127	841181	Other Gas Turbines of a Power Not Exceeding 5,000kw
128	841182	Other Gas Turbines of a Power Exceeding 5, 000kw
129	841191	Parts of Turbo-jets or Turbo-propellers
130	841199	Parts of Other Gas Turbines
131	841210	Reaction Engines Other than Turbo-jets
132	841221	Hydraulic Power Engines and Motors, Linear Acting
133	841229	Other Hydraulic Power Engines and Motors
134	841231	Pneumatic Power Engines and Motors, Linear Acting
135	841239	Other Pneumatic Power Engines and Motors
136	841280	Other Engines and Motors
137	841290	Parts of Other Engines and Motors
138	841311	Pumps for Dispensing Fuel or Lubricants
139	841319	Other Pumps for Liquids, With a Measuring Device
140	841320	Hand Pumps for Liquids
141	841330	Fuel, Lubricating or Cooling Medium Pumps
142	841340	Concrete Pumps

Environmental Technologies (ET)		
N°	HS	Product description
143	841350	Other Reciprocating Positive Displacement Pumps
144	841360	Other Positive Rotary Displacement Pumps
145	841370	Other Centrifugal Pumps
146	841381	Other Pumps for Liquids
147	841382	Liquid Elevators
148	841391	Parts of Pumps for Liquids
149	841392	Parts of Liquid Elevators
150	841410	Vacuum Pumps
151	841480	Other Air Pumps and Air or Gas Compressors; Other Hoods
152	841490	Parts of Air or Vacuum Pumps, Air or Other Gas Compressors, Fans & Hoods
153	841610	Furnace Burners for Liquid Fuel
154	841620	Other Furnace Burners, Including Combination Burners
155	841630	Mechanical Stokers, Mechanical Grates, Mechanical Ash Dischargers
156	841690	Parts of Furnace Burners, Mechanical Stokers, Mechanical Grates, the Like
157	841780	Other Industrial or Laboratory Furnaces and Ovens, Non-electric
158	841790	Parts of Industrial or Laboratory Furnaces and Ovens
159	841939	Other Dryers Other than Household Machinery
160	841940	Distilling or Rectifying Plant
161	841950	Heat Exchange Units
162	841960	Machinery for Liquefying Air or Other Gas
163	841989	Other Apparatus for Treatment of Materials By Temperature
164	841990	Parts of Apparatus for Treatment of Materials By Temperature
165	842010	Calendering or Other Rolling Machines, Other than for Metals or Glass
166	842091	Cylinders for Calendering or Other Rolling Machines
167	842099	Parts of Calendering or Other Rolling Machines
168	842119	Other Centrifuges, Including Centrifugal Dryers
169	842121	Machinery and Apparatus for Filtering or Purifying Water
170	842123	Oil or Petrol-filters for Internal Combustion Engines
171	842129	Other Filtering or Purifying Machinery and Apparatus for Liquids
172	842131	Intake Air Filters for Internal Combustion Engines
173	842139	Other Filtering or Purifying Machinery and Apparatus for Gases
174	842191	Parts of Centrifuges, Including Centrifugal Dryers
175	842199	Parts for Filtering or Purifying Machinery, for Liquids or Gases
176	847410	Sorting, Screening, Separating or Washing Machines, for Mineral Substance
177	847420	Crushing or Grinding Machines for Mineral Substances
178	847431	Concrete or Mortar Mixers
179	847432	Machines for Mixing Mineral Substances With Bitumen
180	847439	Other Mixing or Kneading Machines for Mineral Substances
181	847480	Machinery for Agglomerating, Shaping or Moulding Mineral Products
182	847490	Parts of Machinery for Sorting, Crushing, Mixing, Moulding or Shaping
183	847710	Injection-moulding Machines, for Rubber or Plastic Industry
184	847720	Extruders, for Rubber or Plastic Industry
185	847730	Blow Moulding Machines, for Rubber or Plastic Industry

Environmental Technologies (ET)		
N°	HS	Product description
186	847740	Vacuum Moulding Machines and Other Thermoforming Machines
187	847751	Machinery for Moulding or Retreading Pneumatic Tyres
188	847759	Other Machinery for Moulding or Otherwise Forming
189	847780	Other Machinery for Working Rubber or Plastics
190	847790	Parts of Extruders or Other Moulding Machines for Rubber or Plastic
191	848110	Pressure-reducing Valves
192	848120	Valves for Oleohydraulic or Pneumatic Transmissions
193	848130	Check Valves
194	848140	Safety or Relief Valves
195	848180	Other Valves and Other Appliances for Pipes, Tanks, Vats or the Like
196	848190	Parts of Taps, Cocks, Valves for Pipes, Boiler Shells, Tanks or the Like
197	848210	Ball Bearings
198	848220	Tapered Roller Bearings, Including Cone and Tapered Roller Assemblies
199	848230	Spherical Roller Bearings
200	848240	Needle Roller Bearings
201	848250	Other Cylindrical Roller Bearings
202	848280	Other Bearings, Including Combined Ball or Roller Bearings
203	848291	Balls, Needles and Rollers
204	848299	Other Parts of Ball or Roller Bearings
205	850300	Parts, of Motors, of Generators, of Generating Sets, of Rotary Converters
206	850410	Ballasts for Discharge Lamps or Tubes
207	850421	Liquid Dielectric Transformers, Not Exceeding 650kva
208	850422	Liquid Dielectric Transformers, Power Handling Capacity 650-10, 00kva
209	850423	Liquid Dielectric Transformers, Exceeding 10, 000kva
210	850431	Other Transformers, Power Handling Capacity Not Exceeding 1kva
211	850432	Other Transformers, Exceeding 1kva But Not Exceeding 16kva
212	850433	Other Transformers, Exceeding 16kva But Not Exceeding 500kva
213	850434	Other Transformers, Power Handling Capacity Exceeding 500kva
214	850440	Static Converters
215	850450	Inductor
216	850490	Parts, of Electrical Transformers, of Static Converters, of Inductors
217	850511	Permanent Magnets and Magnetized Articles, of Metal
218	850519	Other Permanent Magnets and Magnetized Articles
219	850520	Electro-magnetic Couplings, Clutches and Brakes
220	850530	Electro-magnetic Lifting Heads
221	850590	Electro-magnets, Electro-magnetic and Permanent Magnet Chucks and Clamp
222	851140	Starter Motors and Dual Purpose Starter-generators
223	851150	Other Generators for Internal Combustion Engines
224	851180	Electrical Ignition, Starting Equipment and Cut-outs for Internal Combustion Engine
225	851190	Parts of Ignition, Starting Equipment, for Internal Combustion Engine
226	851410	Resistance Heated Furnaces and Ovens
227	851420	Induction or Dielectric Furnaces and Ovens
228	851430	Other Industrial or Laboratory Electric Furnaces and Ovens

Environmental Technologies (ET)		
N°	HS	Product description
229	851440	Other Induction or Dielectric Heating Equipments, Industry, Laboratory
230	851490	Parts of Industrial or Laboratory Electric Furnaces and Ovens
231	901510	Rangefinders
232	901520	Theodolites and tachymeters
233	901530	Levels
234	901540	Photogrammetrical surveying instruments and appliances
235	901580	Other instruments and appliances: Surveying, Hydrographic, Oceanographic or Hydrological Instruments
236	901590	Parts and accessories: Surveying, Hydrographic, Oceanographic or Hydrological Instruments
237	902410	Machines and appliances for testing metals
238	902480	Other machines and appliances for testing metals
239	902490	Parts and accessories of Machines & Appliances for Testing of Materials
240	902511	Thermometers and pyrometers, not combined with other instruments: Liquid-filled, for direct reading
241	902519	Other: Thermometers and pyrometers, not combined with other instruments
242	902520	Barometers, not combined with other instruments
243	902580	Other instruments (Hydrometers, Pyrometers, Hygrometers and Psychrometers)
244	902590	Parts and accessories (Hydrometers, Pyrometers, Hygrometers and Psychrometers)
245	902610	Instruments and apparatus For measuring or checking the flow or level of liquids
246	902620	Instruments and apparatus For measuring or checking pressure
247	902680	Other instruments or apparatus for Measuring or Checking of Gases or Liquids
248	902690	Parts and accessories (Flow Meters, Level Gauges, Manometers, Heat Meters)
249	902810	Gas meters
250	902820	Liquid meters
251	902830	Electricity meters
252	902890	Parts and accessories: Gas, Liquid or Electricity Supply or Production Meters
253	903110	Machines for balancing mechanical parts
254	903130	Profile projectors
255	903140	Other optical instruments and appliances
256	903180	Other Measuring or Checking instruments, appliances and machines
257	903190	Parts and accessories (Profile Projectors, Focimeters, Ultrasonic Fish Finders, Load-cells)
258	903210	Thermostats
259	903220	Manostats
260	903281	Hydraulic or pneumatic
261	903289	Other Automatic Regulating or Controlling Instruments & Apparatus
262	903290	Parts and accessories (Automatic Regulating or Controlling Instruments & Apparatus)
263	903300	Parts and accessories (not specified or included elsewhere in this chapter) for machines, appliances
(c) Cleaner or More Resource Efficient Technologies and Products (CT/P)		
1	732111	Cooking appliances and plate warmers: For gas fuel or for both gas and other fuels.
2	732190	Stoves, ranges, grates, cookers (including those with subsidiary boilers for central heating), barbecues, braziers, gas-rings, plate warmers and similar non-electric domestic appliances, and parts thereof, of iron or steel: Parts.
3	850680	Other primary cells and primary batteries
4	850980	Electro-mechanical domestic appliances, with self-contained electric motor: Other.
(d) Energy Efficiency (EE)		
1	841510	Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, of window or wall types, self-contained or ""split-system""

Environmental Technologies (ET)		
N°	HS	Product description
2	841581	Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, incorporating a refrigerating unit and a valve for reversal of the cooling/heat cycle (reversible heat pumps), n.e.s.
3	841810	Combined refrigerator-freezers, fitted with separate external doors
4	841821	Household type refrigerators of compression-type
5	841830	Freezers of the chest type, not exceeding 800 l capacity
6	841840	Freezers of the upright type, not exceeding 900 l capacity
7	847130	Portable digital automatic data processing machines, weighing not more than 10 kg, consisting of at least a central processing unit, a keyboard and a display
8	847160	Input or output units, whether or not containing storage units in the same housing
9	847170	Storage units, n.e.s.
10	850680	Other primary cells and primary batteries
11	850740	Nickel-iron electric accumulators
12	850780	Other accumulators
13	851711	Line telephone sets with cordless handsets
14	851721	Facsimile machines
15	851730	Telephonic or telegraphic switching apparatus
16	851750	Other apparatus , for carrier-current line systems or for digital line systems
17	851840	Audio-frequency electric amplifiers
18	852090	Magnetic tape recorders and other sound recording apparatus whether or not incorporating a sound reproducing device (other than 852110-852039)
19	852190	Video recording or reproducing apparatus, whether or not incorporating a video tuner other than magnetic tape-type
20	852210	Pick-up cartridges
21	852390	Prepared unrecorded media for sound recording or similar recording of other phenomena, other than products of Chapter 37 and 852311-852330
22	852540	Still image video cameras and other video camera records; digital cameras
23	852691	Radio navigational aid apparatus
24	852812	Reception apparatus for television, whether or not incorporating radio broadcast receivers or sound or video recording or reproducing apparatus
25	852821	Color video monitors
26	852830	Video projectors
27	940510	Chandeliers and other electric ceiling or wall lighting fittings, excluding those of a kind used for lighting public open spaces or thoroughfares
28	940520	Electric table, desk, bedside or floor-standing lamps
29	940540	Electric lamps and lighting fittings other than those of 9405.10-9405.30
30	853661	Lamp holders
31	940540	Other electric lamps and lighting fittings
32	To be determined by each member	
33	To be determined by each member	
(e) Environmental Monitoring, Analysis and Assessment Equipment (M/A)		
1	901530	Levels: Hydrological, oceanographic, meteorological instruments and appliances. Exclusive of 90.31
2	902610	Instruments and apparatus for measuring or checking the flow or level of liquid
3	902620	Instruments and apparatus for measuring or checking pressure
4	902680	Other instruments and apparatus
5	902690	Parts and accessories for articles of subheading 9026
6	902710	Gas or smoke analysis apparatus
7	902720	Chromatographs and electrophoresis instruments
8	902730	Spectrometers, spectrophotometers and spectrographs using optical radiations (UV, visible, IR)

Environmental Technologies (ET)		
N°	HS	Product description
9	902740	Exposure meters
10	902750	Other instruments and apparatus using optical radiations (UV, visible, IR)
11	902780	Instruments and apparatus for physical or chemical analysis not elsewhere specified in 90.27.
12	902790	Microtomes; parts and accessories of instruments and appliances of 90.27.
13	903010	Instruments and apparatus for measuring or detecting ionising radiations.
14	903020	Cathode-ray oscilloscopes and cathode-ray oscillographs.
15	903031	Multimeters.
16	903039	Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device.
17	903083	Other instruments and apparatus for measuring or checking electrical quantities, with a recording device.
18	903089	Other instruments and apparatus for measuring or checking electrical quantities.
19	903090	Parts and accessories of Heading 90.30.
20	903120	Test benches.
21	903130	Profile projectors.
22	903149	Other measuring and checking instruments, appliances and machines, not specified or included elsewhere in this chapter: ..Other optical instruments, appliances and machines elsewhere specified for measuring or checking.
23	903180	Other instruments, appliances and machines.
24	903190	Parts and accessories of the instruments and appliances and machines of 90.31.
25	903210	Thermostats.
26	903220	Manostats.
27	903281	Hydraulic and pneumatic instruments and apparatus.
28	903290	-Parts and accessories for nominated articles of subheading 9032.
29	903300	Parts and accessories (not specified or included elsewhere in this Chapter) for machines, appliances, instruments or apparatus of Chapter 90.
30	902600	Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 90.14, 90.15, 90.28 or 90.32
31	902700	Instruments and apparatus for physical or chemical analysis (for example, polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes
32	903000	Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 90.28; instruments and apparatus for measuring or detecting alpha, beta, gamma, X-ray, cosmic or other ionising radiations
33	903100	Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this Chapter; profile projectors
34	903200	Automatic regulating or controlling instruments and apparatus
35	903300	Parts and accessories (not specified or included elsewhere in this Chapter) for machines, appliances, instruments or apparatus of Chapter 90
(f) Heat and Energy Management (H/EM)		
1	701931	Glass fibres (including glass wool) and articles thereof (for example, yarn, woven fabrics): Mats
2	841950	Heat exchange units, whether or not electrically heated
3	902810	Gas meters -including calibrating meters thereof
4	902820	Liquid meters including calibrating meters thereof
5	902830	Electricity meters
6	902890	Parts and accessories for articles of subheading 9028:
(g) Natural Risk Management (RM)		
1	901540	Photogrammetrical surveying instruments and appliances
2	901580	Other surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses, not elsewhere specified in 90.15

Environmental Technologies (ET)		
N°	HS	Product description
3	901590	Parts and accessories of the instruments and appliances of 90.15
(h) Noise and Vibration Abatement (N/V)		
1	450410	Agglomerated cork (with or without a binding substance) and articles of agglomerated cork: Panels, boards, tiles, blocks and similar articles of agglomerated cork
2	840991	Parts suitable for use solely or principally with the engines of heading No. 84.07 or 84.08: Other: Suitable for use solely or principally with spark-ignition internal combustion piston engines.
3	840999	Parts suitable for use solely or principally with the engines of heading No. 84.07 or 84.08: Other.
4	841480	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters
5	903110	Machines for balancing mechanical parts.

Carbon Capture and Storage (CCS)		
N°	HS	Product description
1	250310	Sulphur (Crude or Unrefined)
2	250390	Sulphur (Other than Crude or Unrefined Sulphur)
3	271111	Natural Gas (Liquefied)
4	271112	Propane (Liquefied)
5	271113	Butanes (Liquefied)
6	271114	Ethylene, Propylene, Butylene, Butadiene (Liquefied)
7	271119	Other Petroleum Gases, Gaseous Hydrocarbons (Liquefied)
8	271121	Natural Gas
9	271129	Other Petroleum Gases, Other Gaseous Hydrocarbons
10	281810	Artificial Corundum, Whether or Not Chemically Defined
11	281820	Other Aluminium Oxide
12	281830	Aluminium Hydroxide
13	290911	Diethyl Ether
14	290919	Other Acyclic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives
15	290920	Cyclanic, Cyclenic, Cycloterpenic Ethers, Their Derivatives (Halogenated, Sulfonated, Nitrated)
16	290930	Aromatic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives
17	290941	2, 2'-oxydiethanol (Diethylene Glycol, Digol)
18	290942	Monomethyl Ethers of Ethylene Glycol or of Diethylene Glycol
19	290943	Monobutyl Ethers of Ethylene Glycol or of Diethylene Glycol
20	290944	Other Monoalkyl Ethers of Ethylene Glycol or of Diethylene Glycol
21	290949	Other Other-alcohols, Their Halogenated, Sulfonated, Nitrated Derivatives
22	290950	Ether-phenols, Ether-alcohol-phenols, Their Halogenated, Sulfonated Derivatives
23	290960	Alcohol Peroxides, Ether Peroxides, Ketone Peroxides, Their Derivatives (Halogenated, Sulfonated)
24	291411	Acetone
25	291412	Butanone (Methyl Ethyl Ketone)
26	291413	4-methyl Pentan-2-one- (Methyl Isobutyl Ketone)
27	291419	Other Acyclic Ketones Without Oxygen Function
28	291421	Camphor
29	291422	Cyclohexanone, Methylcyclohexanones
30	291423	Ionones, Methylionones
31	291429	Other Cyclanic, Cyclenic, Cycloterpenic Ketones

Carbon Capture and Storage (CCS)		
N°	HS	Product description
32	291430	3.aromatic Ketones Without Other Oxygen Function
33	291441	4-hydroxy-4-methylpentan-2-one (Diacetone Alcohol)
34	291449	Other Ketone-alcohols, Ketone-aldehydes
35	291450	Ketone-phenols, Ketones With Other Oxygen Function
36	291461	Anthroquinone
37	291469	Other Quinones
38	291470	Halogenated, Sulfonated, Nitrated Derivatives of Ketones and Quinones
39	390210	Polypropylene
40	390220	Polyisobutylene
41	390230	Propylene Copolymers
42	390290	Other Polymers of Propylene or Other Olefins
43	390910	Urea Resins, Thiourea Resins
44	390920	Melamine Resins
45	390930	Other Amino-resins
46	390940	Phenolic Resins
47	390950	Polyurethanes
48	391110	Petroleum Resins, Coumarone, Indene, Coumarone-indene Resins,Polyterpenes
49	391190	Polysulfides, Polysulfones, Furan Resin, Resols, Other Prepolymers
50	391211	Cellulose Acetates (Non-plasticised)
51	391212	Cellulose Acetates (Plasticised)
52	391220	Cellulose Nitrates (Including Collodions)
53	391231	Carboxymethyl Cellulose and Its Salts
54	391239	Other Cellulose Ethers
55	391290	Other Cellulose and Its Chemical Derivatives
56	730300	Tubes, pipes and hollow profiles, of cast iron
57	730410	Line pipe of a kind used for oil or gas pipelines: Of iron or nonalloy steel
58	730420	Casing, tubing and drill pipe, of a kind used in drilling for oil or gas: Casing
59	730431	Tubes, Pipes and Hollow Profiles, of Iron or Non-alloy Steel, Cold-drawn or cold-rolled (cold-reduced)
60	730439	Other Tubes, Pipes and Hollow Profiles, of Iron or Non-alloy Steel
61	730441	Tubes, Pipes and Hollow Profiles, of stainless steel, Cold-drawn or cold-rolled (cold reduced)
62	730449	Other Tubes, Pipes and Hollow Profiles, of Stainless Steel, Seamless
63	730451	Tubes, Pipes and Hollow Profiles, of Other Alloy Steel, Cold-drawn or cold-rolled (cold reduced)
64	730459	Other Tubes, Pipes and Hollow Profiles, of Other Alloy Steel
65	730490	Other Tubes, Pipes and Hollow Profiles, Seamless, of Iron or Steel
66	730511	Line pipe of a kind used for oil or gas pipelines, Longitudinally submerged arc welded
67	730512	Other Line pipe of a kind used for oil or gas pipelines, longitudinally welded
68	730519	Other Line Pipe, Welded, More than 406.4mm in External Diameter
69	730520	Casing of a kind used in drilling for oil or gas
70	730531	Other Tubes and Pipes, Longitudinally welded
71	730539	Other Tubes and Pipes, Welded, of Iron or Steel
72	730590	Other Tubes and Pipes, Riveted or Similarly Closed, of Iron or Steel
73	730610	Line pipe of a kind used for oil or gas pipelines
74	730620	Casing and tubing of a kind used in drilling for oil or gas of Iron or Steel, Open Seam or Welded, Riveted

Carbon Capture and Storage (CCS)		
N°	HS	Product description
75	730630	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of iron or nonalloy steel
76	730640	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of stainless steel
77	730650	Other Tubes, Pipes, Hollow Profiles, welded, of circular cross section, of other alloy steel
78	730660	Other Tubes, Pipes, Hollow Profiles, welded, of non-circular cross section
79	730690	Other Tubes, Pipes, Hollow Profiles, of Iron or Steel, Open Seam, Riveted
80	730711	Tube or Pipe Fittings, Of nonmalleable cast iron
81	730719	Other Tube or Pipe Fittings, of Cast Iron
82	730721	Flanges of Stainless Steel
83	730722	Threaded elbows, bends and sleeves, of Stainless Steel
84	730723	Butt welding fittings of Stainless Steel
85	730729	Other Tube or Pipe Fittings, of Stainless Steel
86	730791	Flanges of Iron or Steel
87	730792	Threaded elbows, bends and sleeves, of Iron or Steel
88	730793	Butt welding fittings, of Iron or Steel
89	730799	Other Tube or Pipe Fittings, of Iron or Steel
90	730900	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 liters (7925 gallons), whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment
91	731010	Tanks, Casks, Drums, Cans, Boxes, of Iron or Steel, Of a capacity of 50 liters (1321 gallons) or more
92	731021	Cans which are to be closed by soldering or crimping
93	731029	Other Tanks, Casks, Drums, Cans, Boxes, of Iron or Steel, Capacity Less 50l
94	731100	Containers for compressed or liquefied gas, of iron or steel
95	732490	Other Sanitary Ware and Parts Thereof, of Iron or Steel
96	761100	Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 liters (79.3 gallons), whether or not lined or heat insulated, but not fitted with mechanical or thermal equipment
97	761190	Other
98	761300	Aluminum containers for compressed or liquefied gas
99	840211	Watertube Boilers With a Steam Production Exceeding 45t Per Hour
100	840212	Watertube Boilers With a Steam Production Not Exceeding 45t Per Hour
101	840219	Other Vapour Generating Boilers, Including Hybrid Boilers
102	840220	Super-heated Water Boilers
103	840290	Parts of Steam Generating Boilers and Super-heated Water Boilers
104	840310	Central Heating Boilers
105	840390	Parts of Central Heating Boilers
106	840410	Auxiliary Plant for Use With Boilers
107	840420	Condensers for Steam or Other Vapour Power Units
108	840490	Parts of Auxiliary Plant for Use With Boilers and Condensers
109	840510	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers; parts thereof
110	840590	Parts
111	840611	Steam Turbines and Other Vapour Turbines, for Marine Propulsion
112	840619	Other Steam Turbines and Other Vapour Turbines
113	840690	Parts of Steam Turbines and Other Vapour Turbines
114	840790	Other Spark-ignition Internal Combustion Piston Engines

Carbon Capture and Storage (CCS)		
N°	HS	Product description
115	840890	Other Compression-ignition Internal Combustion Piston Engines
116	840991	Parts of Spark-ignition Internal Combustion Piston Engines of heading 8407 or 8408
117	840999	Parts of Compression-ignition Internal Combustion Piston Engines of heading 8407 or 8408
118	841011	Hydraulic Turbines, Water Wheels, of a Power Not Exceeding, 1, 000kw
119	841012	Hydraulic Turbines and Water Wheels, Power 1, 000-10, 000kw
120	841013	Hydraulic Turbines, Water Wheels, of a Power Exceeding 10, 000kw
121	841090	Parts of Hydraulic Turbines and Water Wheels, Including Regulators
122	841111	Turbo-jets of a Thrust Not Exceeding 25kn
123	841112	Turbo-jets of a Thrust Exceeding 25kn
124	841121	Turbo-propellers of a Power Not Exceeding 1, 100kw
125	841122	Turbo-propellers of a Power Exceeding 1, 100kw
126	841160	Cut-outs of a Kind Used in Conjunction With Internal Combustion Engine
127	841181	Other Gas Turbines of a Power Not Exceeding 5,000kw
128	841182	Other Gas Turbines of a Power Exceeding 5, 000kw
129	841191	Parts of Turbo-jets or Turbo-propellers
130	841199	Parts of Other Gas Turbines
131	841210	Reaction Engines Other than Turbo-jets
132	841221	Hydraulic Power Engines and Motors, Linear Acting
133	841229	Other Hydraulic Power Engines and Motors
134	841231	Pneumatic Power Engines and Motors, Linear Acting
135	841239	Other Pneumatic Power Engines and Motors
136	841280	Other Engines and Motors
137	841290	Parts of Other Engines and Motors
138	841311	Pumps for Dispensing Fuel or Lubricants
139	841319	Other Pumps for Liquids, With a Measuring Device
140	841320	Hand Pumps for Liquids
141	841330	Fuel, Lubricating or Cooling Medium Pumps
142	841340	Concrete Pumps
143	841350	Other Reciprocating Positive Displacement Pumps
144	841360	Other Positive Rotary Displacement Pumps
145	841370	Other Centrifugal Pumps
146	841381	Other Pumps for Liquids
147	841382	Liquid Elevators
148	841391	Parts of Pumps for Liquids
149	841392	Parts of Liquid Elevators
150	841410	Vacuum Pumps
151	841480	Other Air Pumps and Air or Gas Compressors; Other Hoods
152	841490	Parts of Air or Vacuum Pumps, Air or Other Gas Compressors, Fans & Hoods
153	841610	Furnace Burners for Liquid Fuel
154	841620	Other Furnace Burners, Including Combination Burners
155	841630	Mechanical Stokers, Mechanical Grates, Mechanical Ash Dischargers
156	841690	Parts of Furnace Burners, Mechanical Stokers, Mechanical Grates, the Like
157	841780	Other Industrial or Laboratory Furnaces and Ovens, Non-electric

Carbon Capture and Storage (CCS)		
N°	HS	Product description
158	841790	Parts of Industrial or Laboratory Furnaces and Ovens
159	841939	Other Dryers Other than Household Machinery
160	841940	Distilling or Rectifying Plant
161	841950	Heat Exchange Units
162	841960	Machinery for Liquefying Air or Other Gas
163	841989	Other Apparatus for Treatment of Materials By Temperature
164	841990	Parts of Apparatus for Treatment of Materials By Temperature
165	842010	Calendering or Other Rolling Machines, Other than for Metals or Glass
166	842091	Cylinders for Calendering or Other Rolling Machines
167	842099	Parts of Calendering or Other Rolling Machines
168	842119	Other Centrifuges, Including Centrifugal Dryers
169	842121	Machinery and Apparatus for Filtering or Purifying Water
170	842123	Oil or Petrol-filters for Internal Combustion Engines
171	842129	Other Filtering or Purifying Machinery and Apparatus for Liquids
172	842131	Intake Air Filters for Internal Combustion Engines
173	842139	Other Filtering or Purifying Machinery and Apparatus for Gases
174	842191	Parts of Centrifuges, Including Centrifugal Dryers
175	842199	Parts for Filtering or Purifying Machinery, for Liquids or Gases
176	847410	Sorting, Screening, Separating or Washing Machines, for Mineral Substance
177	847420	Crushing or Grinding Machines for Mineral Substances
178	847431	Concrete or Mortar Mixers
179	847432	Machines for Mixing Mineral Substances With Bitumen
180	847439	Other Mixing or Kneading Machines for Mineral Substances
181	847480	Machinery for Agglomerating, Shaping or Moulding Mineral Products
182	847490	Parts of Machinery for Sorting, Crushing, Mixing, Moulding or Shaping
183	847710	Injection-moulding Machines, for Rubber or Plastic Industry
184	847720	Extruders, for Rubber or Plastic Industry
185	847730	Blow Moulding Machines, for Rubber or Plastic Industry
186	847740	Vacuum Moulding Machines and Other Thermoforming Machines
187	847751	Machinery for Moulding or Retreading Pneumatic Tyres
188	847759	Other Machinery for Moulding or Otherwise Forming
189	847780	Other Machinery for Working Rubber or Plastics
190	847790	Parts of Extruders or Other Moulding Machines for Rubber or Plastic
191	848110	Pressure-reducing Valves
192	848120	Valves for Oleohydraulic or Pneumatic Transmissions
193	848130	Check Valves
194	848140	Safety or Relief Valves
195	848180	Other Valves and Other Appliances for Pipes, Tanks, Vats or the Like
196	848190	Parts of Taps, Cocks, Valves for Pipes, Boiler Shells, Tanks or the Like
197	848210	Ball Bearings
198	848220	Tapered Roller Bearings, Including Cone and Tapered Roller Assemblies
199	848230	Spherical Roller Bearings
200	848240	Needle Roller Bearings

Carbon Capture and Storage (CCS)		
N°	HS	Product description
201	848250	Other Cylindrical Roller Bearings
202	848280	Other Bearings, Including Combined Ball or Roller Bearings
203	848291	Balls, Needles and Rollers
204	848299	Other Parts of Ball or Roller Bearings
205	850300	Parts, of Motors, of Generators, of Generating Sets, of Rotary Converters
206	850410	Ballasts for Discharge Lamps or Tubes
207	850421	Liquid Dielectric Transformers, Not Exceeding 650kva
208	850422	Liquid Dielectric Transformers, Power Handling Capacity 650-10, 00kva
209	850423	Liquid Dielectric Transformers, Exceeding 10, 000kva
210	850431	Other Transformers, Power Handling Capacity Not Exceeding 1kva
211	850432	Other Transformers, Exceeding 1kva But Not Exceeding 16kva
212	850433	Other Transformers, Exceeding 16kva But Not Exceeding 500kva
213	850434	Other Transformers, Power Handling Capacity Exceeding 500kva
214	850440	Static Converters
215	850450	Inductor
216	850490	Parts, of Electrical Transformers, of Static Converters, of Inductors
217	850511	Permanent Magnets and Magnetized Articles, of Metal
218	850519	Other Permanent Magnets and Magnetized Articles
219	850520	Electro-magnetic Couplings, Clutches and Brakes
220	850530	Electro-magnetic Lifting Heads
221	850590	Electro-magnets, Electro-magnetic and Permanent Magnet Chucks and Clamp
222	851140	Starter Motors and Dual Purpose Starter-generators
223	851150	Other Generators for Internal Combustion Engines
224	851180	Electrical Ignition, Starting Equipment and Cut-outs for Internal Combustion Engine
225	851190	Parts of Ignition, Starting Equipment, for Internal Combustion Engine
226	851410	Resistance Heated Furnaces and Ovens
227	851420	Induction or Dielectric Furnaces and Ovens
228	851430	Other Industrial or Laboratory Electric Furnaces and Ovens
229	851440	Other Induction or Dielectric Heating Equipments, Industry, Laboratory
230	851490	Parts of Industrial or Laboratory Electric Furnaces and Ovens
231	901510	Rangefinders
232	901520	Theodolites and tachymeters
233	901530	Levels
234	901540	Photogrammetrical surveying instruments and appliances
235	901580	Other instruments and appliances: Surveying, Hydrographic, Oceanographic or Hydrological Instruments
236	901590	Parts and accessories: Surveying, Hydrographic, Oceanographic or Hydrological Instruments
237	902410	Machines and appliances for testing metals
238	902480	Other machines and appliances for testing metals
239	902490	Parts and accessories of Machines & Appliances for Testing of Materials
240	902511	Thermometers and pyrometers, not combined with other instruments: Liquid-filled, for direct reading
241	902519	Other: Thermometers and pyrometers, not combined with other instruments
242	902520	Barometers, not combined with other instruments
243	902580	Other instruments (Hydrometers, Pyrometers, Hygrometers and Psychrometers)

Carbon Capture and Storage (CCS)		
N°	HS	Product description
244	902590	Parts and accessories (Hydrometers, Pyrometers, Hygrometers and Psychrometers)
245	902610	Instruments and apparatus For measuring or checking the flow or level of liquids
246	902620	Instruments and apparatus For measuring or checking pressure
247	902680	Other instruments or apparatus for Measuring or Checking of Gases or Liquids
248	902690	Parts and accessories (Flow Meters, Level Gauges, Manometers, Heat Meters)
249	902810	Gas meters
250	902820	Liquid meters
251	902830	Electricity meters
252	902890	Parts and accessories: Gas, Liquid or Electricity Supply or Production Meters
253	903110	Machines for balancing mechanical parts
254	903130	Profile projectors
255	903140	Other optical instruments and appliances
256	903180	Other Measuring or Checking instruments, appliances and machines
257	903190	Parts and accessories (Profile Projectors, Focimeters, Ultrasonic Fish Finders, Load-cells)
258	903210	Thermostats
259	903220	Manostats
260	903281	Hydraulic or pneumatic
261	903289	Other Automatic Regulating or Controlling Instruments & Apparatus
262	903290	Parts and accessories (Automatic Regulating or Controlling Instruments & Apparatus)
263	903300	Parts and accessories (not specified or included elsewhere in this chapter) for machines, appliances

Others (OTH)		
N°	HS	Product description
(a) Environmentally Preferable Products based on End-Use or Disposal Characteristics (EPP)		
1	271011	GTL Jet Fuel
2	271019	GTL Paraffin
3	271111	Liquefied natural gas (LNG)
4	271112	GTL LPG (Propane)
5	271113	GTL LPG (Butane)
6	271121	Natural gas
7	290911	GTL Dimethyl Ether
8	530310	Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock).
9	530410	Sisal other textile fibres of the genus Agave raw
10	530490	Sisal and other textile fibres of the genus Agave, processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock).
11	560710	Twine, cordage, ropes and cables, whether or not plaited or braided and whether or not impregnated, coated, covered or sheathed with rubber or plastics: Of jute or other textile bast fibres of heading 53.03.
12	560721	Twine, cordage, ropes and cables whether or not plaited or braided and whether or not impregnated, coated, covered or sheathed with rubber or plastics: Of sisal or other textile fibres of the genus Agave: Binder or baler twine
13	630510	Sacks and bags, of a kind used for the packing of goods: Of jute or of other textile bast fibres of heading 53.03.
14	841181	Natural gas driven turbines of a power not exceeding 5,000 KW

Others (OTH)		
N°	HS	Product description
15	841182	Natural gas driven turbines of a power exceeding 5,000 KW
16	841191	Natural gas driven turbines associated parts
17	841620	Gas Burners
18	850780	Fuel cells
19	850790	Fuel cells – parts
(b) Natural Resources Protection (NR)		
1	560811	Made-up fishing nets of man-made textile materials.
2	560890	Knotted netting of twine, cordage or rope; made up fishing nets and other made up nets, of textile materials; Other than made-up fishing nets of manmade textile materials: Knot net of twine made-up fish net textile materials not elsewhere specified or included.
3	950720	Fish-hooks, whether or not snelled.
(c) Renewable Products and Energy Sources (RPE)		
1	390799	Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms; other than unsaturated
2	470700	Recovered (waste and scrap) paper or paperboard
3	850600	Primary cells and primary batteries
4	854140	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes
5	401699	Other articles of vulcanised rubber other than hard rubber
6	847989	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter
7	382490	Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included; others
8	847920	Machinery for the extraction or preparation of animal or fixed vegetable fats or oils
9	730820	Towers and lattice masts
10	841280	Pneumatic power engines and motors
11	841290	Parts thereof, engines and motors
12	850231	Electric generating sets and rotary converters: other generating sets – wind-powered
(d) Resources and Pollution Management (RPM)		
1	841440	Gas Compressors
2	841490	Parts for Gas Compressors
3	848110	Pressure-reducing valves
4	848120	Valves for oleohydraulic or pneumatic transmissions
5	848130	Check valves
6	848140	Safety or relief valves
7	902810	Gas Meters
(e) Other (OTH)		
1	841940	Distilling or rectifying plant
2	841989	Machinery, plant or laboratory equipment whether or not electrically heated (excluding furnaces, ovens etc.) for treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing

Table II-C – The “Core list” (26 HS lines that have been identified as a strating point for negotiations)

	HS 2002 CODE	HS CODE DESCRIPTION	CATEGORY(IES)
	4601	Plaits and similar products of plaiting materials, whether or not assembled into strips; plaiting materials, plaits and similar products of plaiting materials, bound together in parallel strands or woven, in sheet form, whether or not being finished artic	
1	460120	- Mats, matting and screens of vegetable materials	Waste Management and Water Treatment , Waste Management, Recycling and Remediation
	7308	Structures (excluding prefabricated buildings of heading 94.06) and parts of structures (for example, bridges and bridge sections, lock gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel	
2	730820	- Towers & lattice masts	Renewable Energy , Renewable Energy Renewable Energy , Renewable Products and Energy Source
	7321	Stoves, ranges, grates, cookers (including those with subsidiary boilers for central heating), barbecues, braziers, gas-rings, plate warmers and similar non-electric domestic appliances, and parts thereof, of iron or steel	
3	732111	- Cooking appliances and plate warmers: For gas fuel or for both gas and other fuels.	Environmental Technologies , Cleaner or More Resource Efficient Technologies and Products
	7324	Sanitary ware and parts thereof, of iron or steel	
4	732490	- Other, including parts	Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies

	HS 2002 CODE	HS CODE DESCRIPTION	CATEGORY(IES)
	8402	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers	
5	840290	- Parts	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Waste Management and Water Treatment , Waste Management, Recycling and Remediation
	8404	Auxiliary plant for use with boilers of heading 84.02 or 84.03 (for example, economisers, super-heaters, soot removers, gas recoverers); condensers for steam or other vapour power units	
6	840410	- Auxiliary plant for use with boilers of 84.02 or 84.03	Waste Management and Water Treatment , Waste Management, Recycling and Remediation Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8405	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	
7	840510	- Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	Air Pollution Control Renewable Energy , Renewable Energy Waste Management and Water Treatment , Waste Water Management and Potable Water Treatment Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8406	Steam turbines and other vapour turbines	
8	840681	- Turbines for marine propulsion: Of an output exceeding 40 MW	Renewable Energy , Renewable Energy
	8409	Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08	
9	840999	- Other: other	Air Pollution Control Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Environmental Technologies, Carbon Capture and Storage , Noise and Vibration Abatement

	HS 2002 CODE	HS CODE DESCRIPTION	CATEGORY(IES)
	8410	Hydraulic turbines, water wheels, and regulators therefor	
10	841011	- Hydraulic turbines and water wheels of a power not exceeding 1,000 kW .	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
11	841012	- Hydraulic Turbines and Water Wheels, Power 1, 000-10, 000kw	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
12	841090	- Hydraulic turbines, water wheels, and regulators ; parts, including regulators	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8411	Turbo-jets, turbo-propellers and other gas turbines	
13	841181	- Other gas turbines of a power not exceeding 5,000 kW	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Environmentally Preferable Products based on End-Use or Disposal Characteristics
14	841182	- Other gas turbines of a power exceeding 5,000 kW	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies Others , Environmentally Preferable Products based on End-Use or Disposal Characteristics
	8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading 84.15	
15	841861	- Other refrigerating or freezing equipment; heat pumps: Compression-type units whose condensers are heat exchangers	Renewable Energy , Renewable Energy
	8419	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 85.14), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting	
16	841919	- Instantaneous or storage water heaters, non-electric: Other	Renewable Energy , Renewable Energy
17	841950	- Heat exchange units	Renewable Energy , Renewable Energy Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies Environmental Technologies , Heat and Energy Management

	HS 2002 CODE	HS CODE DESCRIPTION	CATEGORY(IES)
	8479	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter	
18	847989	- Other machines and mechanical appliances: Other	Air Pollution Control Waste Management and Water Treatment , Management of Solid and Hazardous Waste and Recycling Systems Renewable Energy , Renewable Products and Energy Source
	8502	Electric generating sets and rotary converters	
19	850231	- Other generating sets: Wind-powered	Renewable Energy , Renewable Energy Renewable Energy , Renewable Products and Energy Source
	8504	Electrical transformers, static converters (for example, rectifiers) and inductors	
20	850410	- Ballasts for discharge lamps or tubes	Environmental Technologies, Carbon Capture and Storage , Efficient Consumption of Energy Technologies
	8537	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 85.35 or 85.36, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90, and numerical control apparatus, other than switching apparatus of heading 85.17	
21	853710	- For a voltage not exceeding 1,000V	Renewable Energy , Renewable Energy
	8541	Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes; mounted piezo-electric crystals	
22	854140	- Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes.	Renewable Energy , Renewable Energy Renewable Energy , Renewable Products and Energy Source
	9001	Optical fibres and optical fibre bundles; optical fibre cables other than those of heading 85.44; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked	
23	900190	- Other	Renewable Energy , Renewable Energy
	9002	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked	

	HS 2002 CODE	HS CODE DESCRIPTION	CATEGORY(IES)
24	900290	- Other	Renewable Energy , Renewable Energy
	9027	Instruments and apparatus for physical or chemical analysis (for example, polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes	
25	902730	- Spectrometers, spectrophotometers and spectrographs using optical radiations (UV, visible, IR)	Environmental Technologies , Environmental Monitoring, Analysis and Assessment Equipment
	9032	Automatic regulating or controlling instruments and apparatus	
26	903210	- Thermostats	Environmental Technologies , Environmental Monitoring, Analysis and Assessment Equipment Environmental Technologies, Carbon Capture and Storage , Gas Flaring Emission Reduction, Efficient Consumption of Energy Technologies

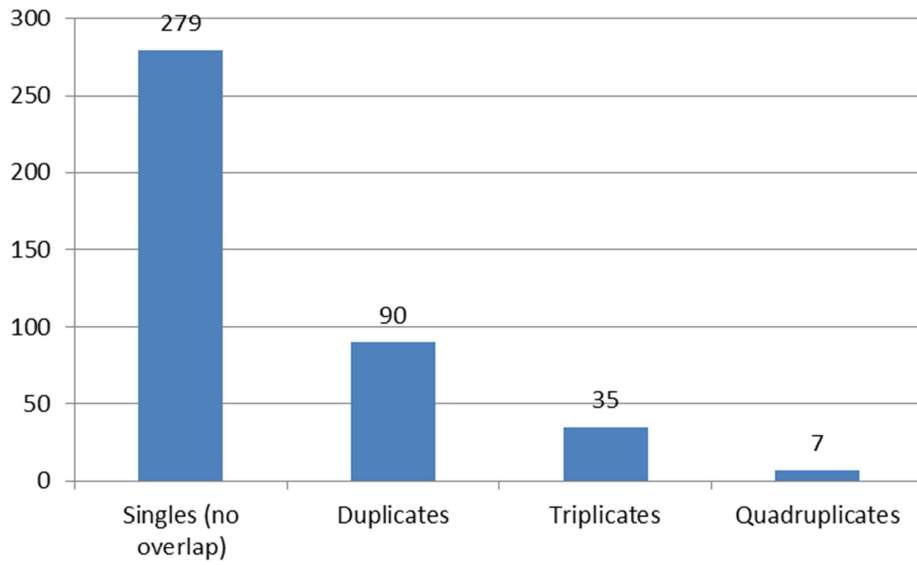
8 Annex III – Overlaps across lists

Figure III-A gives the number of singles, duplicates, triplicates and quadruplicates contained in the WTO combined list of 411 products (see Annex II). Figure III-B shows the geography of overlap across the six lists.

Saudi Arabia that put forth a large list has 61% of the products that are non-overlapping. 27% of the products in the Friends' list are also non-overlapping. Japan's list is made up of almost entirely non-overlapping products which is not surprising since the Japan's list complements the Friends' list (actually the fact that the Japan list and the Friends' list share 2 products is quite surprising). Singapore added 18 products to proposals on the table, the other three quarters having been already proposed. Qatar's and Philippines' list are mainly overlapping with other lists.

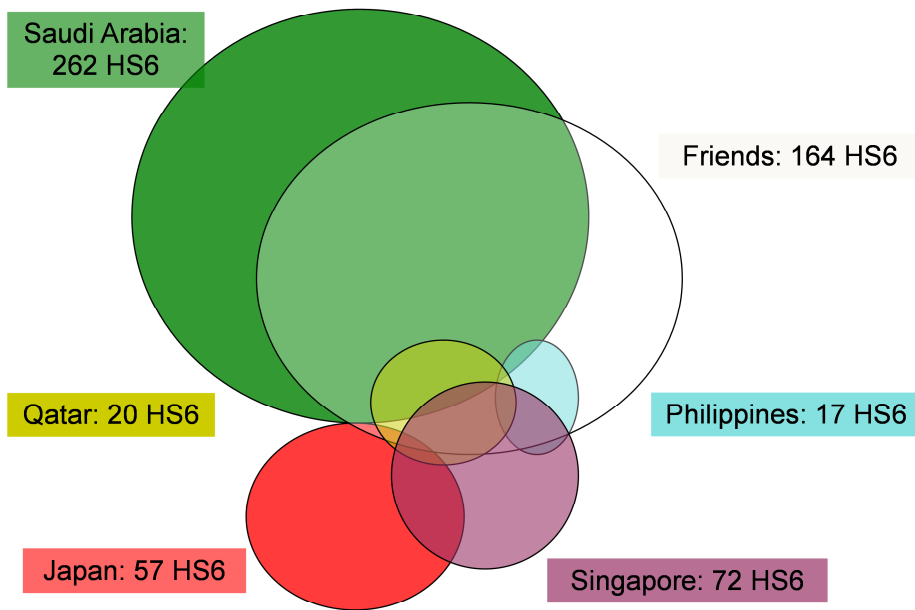
More than 80% of the 90 duplicates are common to the Friends' list, of which almost three quarters (54 HS codes) also common to the Saudi Arabia's list, and another quarter (20 HS codes) common to the Singapore's proposal. 60% of the triplicates have been proposed by Saudi Arabia, the group of Friends and Singapore. 4 quadruplicates are common to the Friends', the Saudi Arabia's, the Qatar's and the Singapore's list (848110, 848120, 848130 and 848140: valves for pipes, boiler shells, tanks, vats or the like; used for waste water management and potable water treatment for example). 2 quadruplicates are common to the Friends', the Saudi Arabia's, the Qatar's and the Philippines' list (841181 and 841182: turbo-jets and gas turbines used to generate electrical power). 1 quadruplicate is common to the Friends', the Saudi Arabia's, the Philippines' and the Singapore's list (840510: producer gas or water gas generators, with purifiers, used to remove contaminants produced in the manufacture of gases).

Figure III-A - Overlap across lists of EGs



Source: Authors' calculations from Members' submissions

Figure III-B – The geography of overlaps



Source: Vesile Kulaçoğlu, Contribution of Trade Opening to Access to Climate-Friendly Goods and Services, WTO Trade and Environment Division, WTO Side Event at COP 16, 8 December 2010

9 Annex IV – Data preparation and description

This annex describes the preparation for the tariff and import database over the period 1996-2010.

Data sources

Data on import and tariffs have been retrieved from the online World Integrated Trade Solution (WITS). WITS was developed by the World Bank, in close collaboration with the United Nations Conference on Trade and Development (UNCTAD), the International Trade Center (ITC), the United Nations Statistical Division (UNSD), and the World Trade Organization (WTO). It includes three major databases: COMTRADE (import data), TRAINS and WTO-IDB (tariff data).

Import data used in this paper are from COMTRADE, and tariff data have been retrieved from TRAINS because TRAINS offers larger country/period coverage than IDB (for EGs as for other products). What is particularly interesting for the tariff analysis of EGs is that TRAINS offers large country/period coverage since the Kyoto-Protocol. To insure the most complete coverage as possible, WITS advises TRAINS users to check the IDB database when a tariff year is missing. However, as there are some discrepancies, we stick to TRAINS to be consistent in time series.

Country-product-year coverage:

Countries: sample restricted to 123 countries with available data and above 1 million people (population data source: World Development Indicators, World Bank, January 2011; number of countries per income group in parenthesis: High-income (20); Upper middle income (31); Lower-middle (38); Low-income (34)). European Union means the EU15 to keep consistent time series. Intra-trade excluded. Other European Union members excluded.

Years: The database covers the 1996-2010 period.

Products: 411 HS-2002 six-digit product codes (see Annex II).

Product concordance

Tariffs: - Tariffs are missing between 1996 and 2001 (resp. 2007-2010) for those HS-2002 product codes which have no equivalent in the HS-1996 nomenclature (resp. in the HS-2007 nomenclature).

- For HS-2002 six-digit product codes which have only one equivalent in the HS-1996 or HS-2007, we replace the missing tariff with the tariff of the equivalent code (source of product concordance between HS nomenclatures: WITS).

- For HS-2002 six-digit product codes which have more than one equivalent in the HS-1996 or HS-2007, we replace the missing tariff with the average tariffs of the equivalent codes (number of national tariff lines weighted average).

Imports: Imports are missing over the 2006-2010 period for the HS-2002 codes that have no equivalent on HS-2007. They are also missing before 2002 for the HS-2002 codes that have more than one equivalent in HS-1996 (the HS-1996 code 271000 split into 271011 and 271019 in the HS-2002 nomenclature). All other HS-2002 codes correspond to only one HS-1996 code. So we retrieved data from the HS-1996 codes, as WITS automatically give the equivalent in subsequent years if there are changes in the nomenclature (for example, the HS-2007 codes 730661 and 730669 replaced the HS-1996/02 code 730660. If we request for the import of the HS-1996 code 730660 from 1996-2010, WITS automatically gives the total of the 730661 and 730669 imports from 2007).

Missing tariff data

Tariffs: tariffs can be missing because of changes in the HS nomenclature (see above). They are also missing because Members do not report their tariffs each year (included WTO members). We filled tariff data as follows: suppose that we have data at time $t=1$ and $t=7$ but not in $t=2$, $t=3$, $t=5$ and $t=6$. We filled tariff data in 2 and 3 with 1; and in 5 and 6 with 7. As a consequence, we could overestimate/underestimate the impact of a reduction in tariffs depending on the true timing of the reduction.

Imports: A missing data for a country-period, says Argentina in 2007, means that the import data is missing. A missing data for one specific product is a problem of change in specification/definition (see “product concordance” above: that product does not exist anymore or did not exist before). Otherwise, missing import data are considered zero (WITS does not give zero trade lines so as to save time and space). When all data is missing for a particular country (Argentina 2007), we could use mirror data (i.e. export to Argentina instead of import of Argentina). However, we do not use mirror data to be consistent in time series. Data are missing for the whole period for the following countries: Angola, Congo (Dem. Rep.), Congo, Haiti, Laos, Libya, Lesotho, Chad, Uzbekistan.

Gdp deflator

We use import data deflated by the GDP deflator (source: World Development Indicators, World Bank, January 2011) going back to 1996 (i.e. base year = 1996, except for Afghanistan (2002), Libya (1999), Qatar (2000)). The EU GDP deflator is the average of country indices weighted by the population of each member.

10 Annex V – Results for the combined list

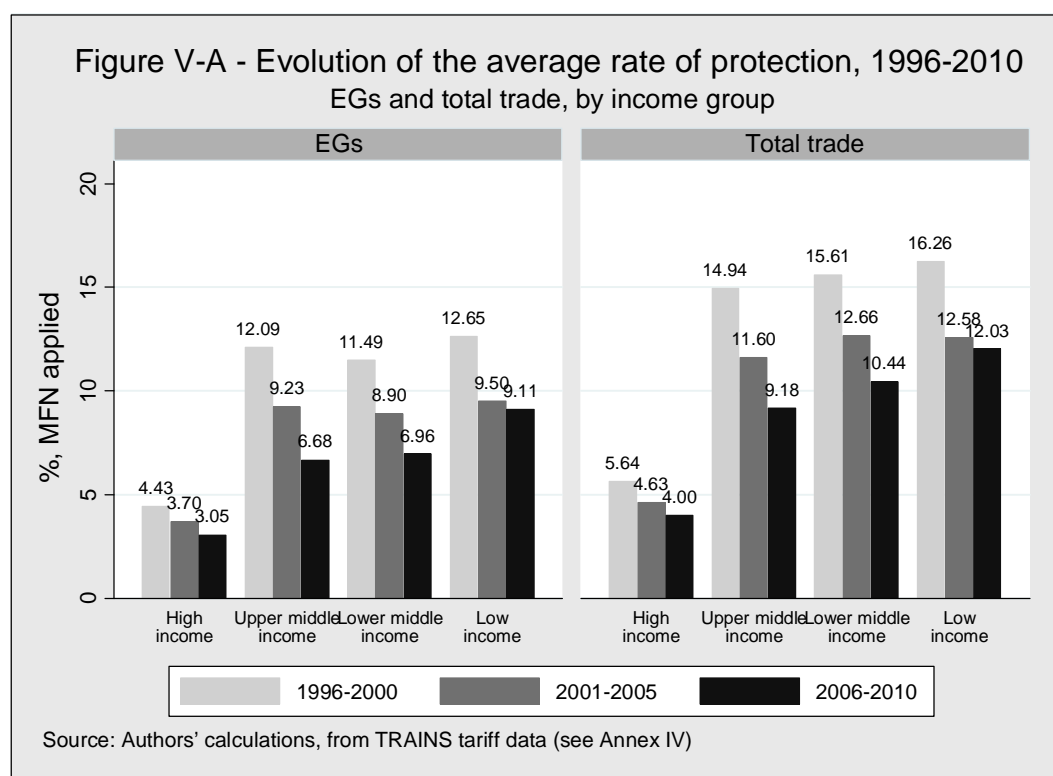


Table V-B: Distribution of events by income groups (2002-2007), all EGs

Income group (<i>nbr of countries</i>)	Nbr of countries concerned by at least one event	Nbr of events	Distribution of events	Average nbr drops of by country	Av. reduction (pp)	Standard deviation (pp)
Column	A	B	C	D=B/A	E	F
High income (20)	14	986	10%	70	7.2	3.2
Upper middle (31)	28	2,665	27%	95	17.4	21.2
Lower middle (38)	34	4,057	42%	119	10.2	7.7
Low income (34)	22	2,025	21%	92	8.4	6.4
Total (123)	98	9,733	100%	99	11.5	13.1

Source: Authors' calculations, TRAINS tariff data (see Annex IV).

Figure V-C - Number of events and average tariff reduction
Top 20 reducers, all EGs

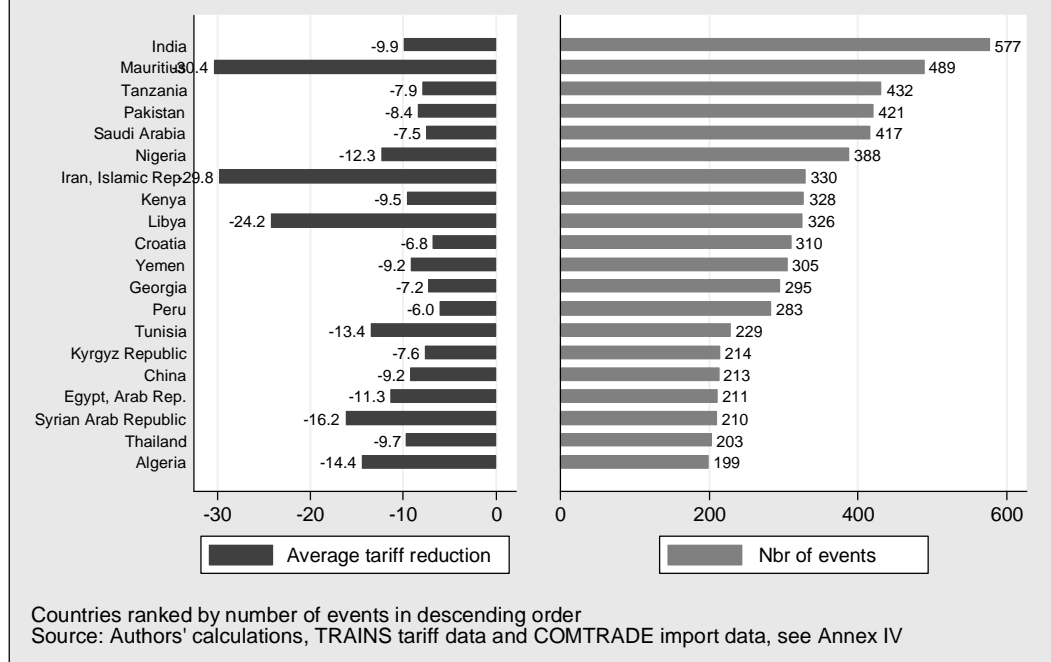


Table V-D: % of events followed by a rise in imports, all EGs (distribution by income groups)

Country group	Nbr of events	Av. reduction (pp)	M_{before} (1000 USD)	M_{after} (1000 USD)	% of $M_{after} > M_{before}$	$M_{after}/M_{before} * 100$
	A	B	C	D	E	F=D/C*100
All sample	8743 ^(a)	11.14	13,300	24,880	66%	187***
High income countries	968	7.23	15,327	24,372	71%	159*
Upper middle inc. count.	2298	16.44	5,619	8,418	63%	150**
Lower middle inc. count	3574	10.31	22,877	45,245	69%	198***
Low income countries	1903	8.28	1,302	2,347	62%	180

Notes: M_{after} is significantly different from M_{before} at 1% (***), 5% (**), 10%*** confidence levels.

^(a)The number of events differs from table V-B because we consider only those for which import data are available.

Source: Authors' calculations, TRAINS and COMTRADE data (see Annex IV).

Table V-E: Import Growth for the “Control Group”, all EGs
(i.e. For the HS-6 goods that did not have a tariff reduction event)

Country group	Av. Tariff Reduction (pp) ^(a)	M _{before} (1000 USD)	M _{after} (1000 USD)	% of M _{after} > M _{before}	M _{after} /M _{before} *100
	A	B	C	D	E=D/C*100
All sample	0.03	25,707	40,582	62%	158***
High income countries	-0.02	111,375	170,980	68%	154***
Upper middle inc. count.	-0.05	8,551	13,956	61%	163***
Lower middle inc. count	0	17,532	29,002	62%	165***
Low income countries	0.16	1,043	2,141	60%	205***

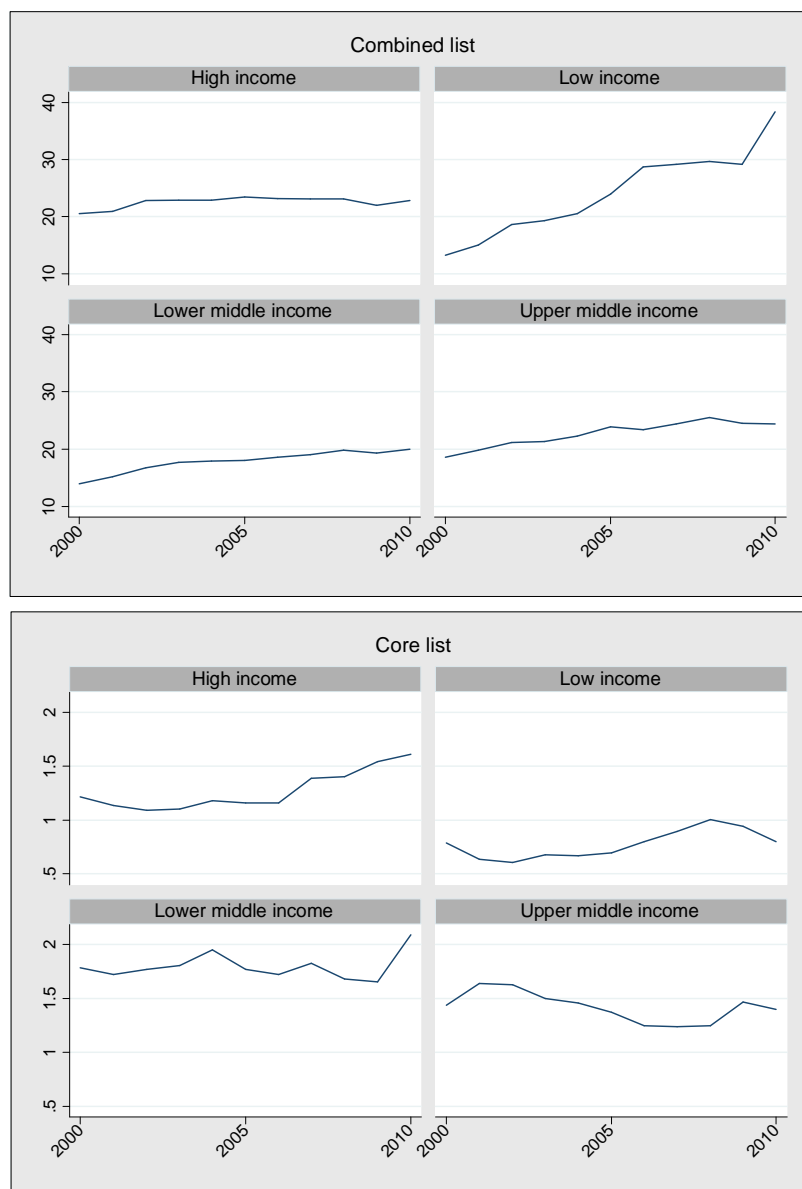
Notes: M_{after} and M_{before} defined as in eq. (1.1) above but for goods j which are not concerned by the event. This explains the negligible tariff change in column A. M_{after} is significantly different from M_{before} at 1% (***), 5% (**), 10*** confidence levels.

^(a) The average tariff reduction (tariff_n – tariff_{n-1}) is biased towards zero because missing tariff data are filled with nearest available data (see Annex IV).

Source: Authors’ calculations, TRAINS and COMTRADE data (see Annex IV).

11 Annex VI – Additional tables and figures

**Figure VI – A: Import shares by income group for the Core and Combined lists
2000-10**



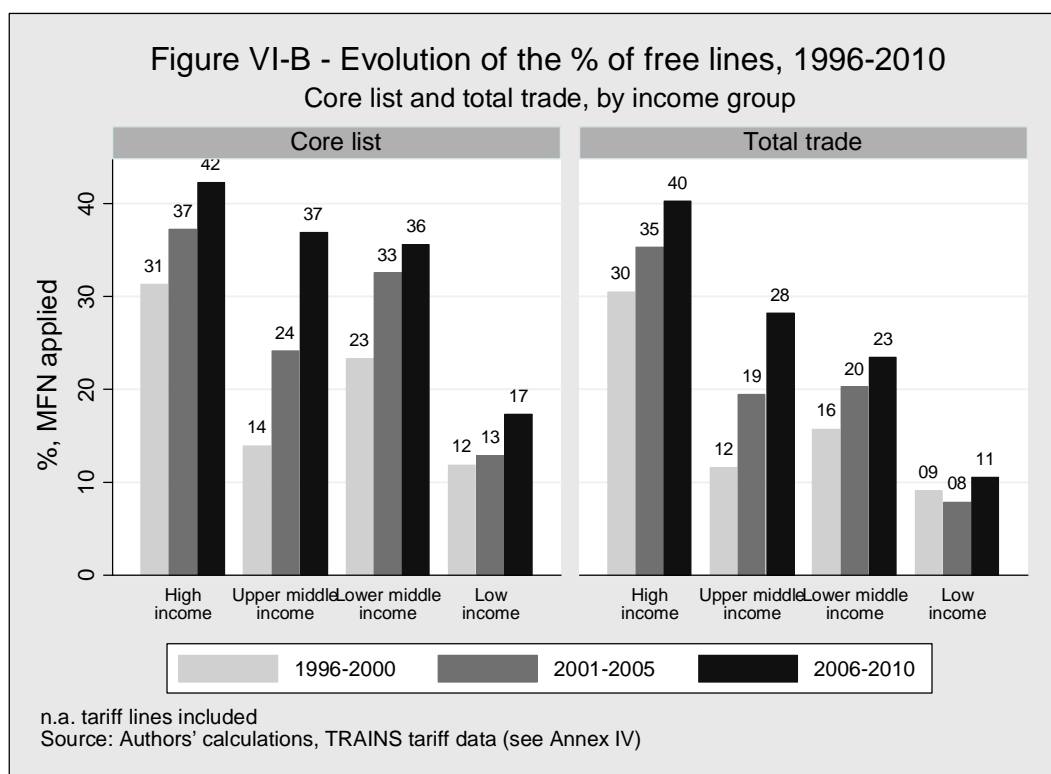
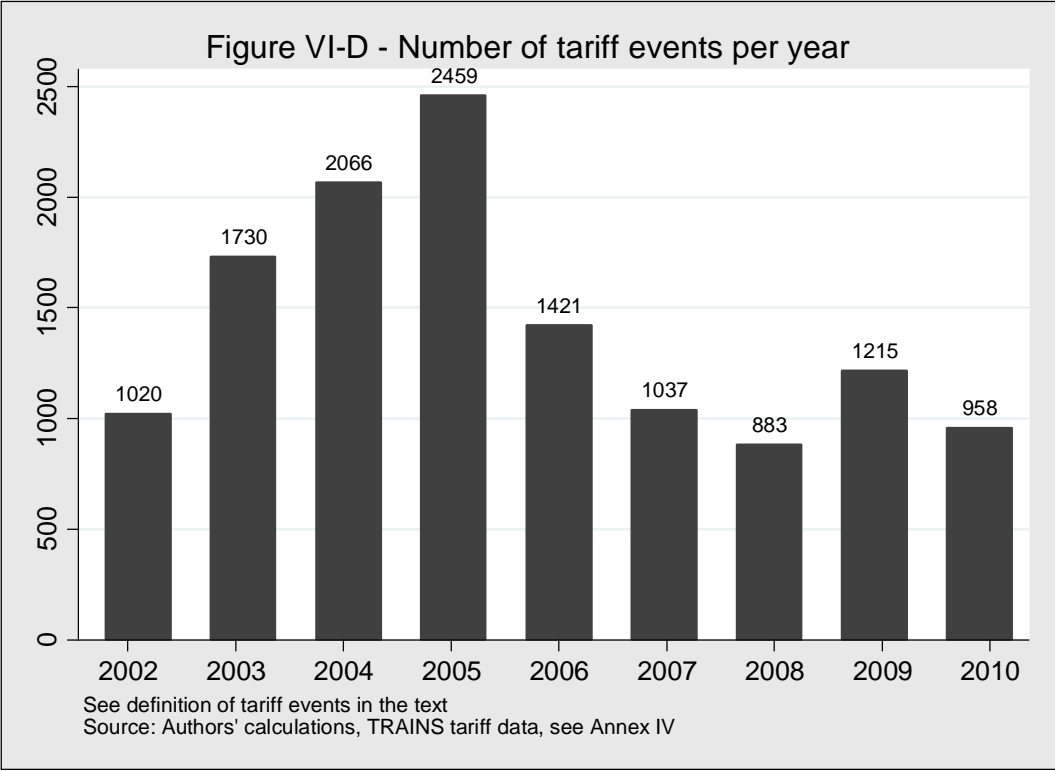


Table VI-C – Distribution of Average Tariff Reduction in EGs

	Total	High income	Upper middle	Lower middle	Low income
All EGs (411 HS-2002 six-digit product codes)					
Nb of reductions	54,450	8,614	18,344	18,521	8,971
Average Percentage Point (PP) reductions	-6.18	-2.13	-5.51	-6.31	-11.17
Core list products only (26 HS-2002 six-digit product codes)					
Nb of reductions	3,308	528	1,124	1,090	566
Average Percentage Point (PP) reductions	-6.09	-2.12	-5.43	-6.11	-11.08

Source: Authors' calculations, TRAINS tariff data (see Annex IV).





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