**Topic: Liberalization of Trade in Environmental Goods and Services (EGS)**

**Overview**

Rapid diffusion of clean technologies will be key to climate change mitigation. For the unprecedented diffusion of technology needed to take place, all avenues will be needed, and the most efficient mover of goods and technologies around the globe is trade.

Primarily developed country producers and exporters have proposed, at the WTO, to single out environmentally-friendly technologies, and among these, climate-friendly technologies, and ask countries to bring down tariff barriers to aid their diffusion.

Many developing countries are, however, reluctant to make such blanket commitments. They are concerned that they might, unintentionally, end up liberalizing far more goods than just those with an environmental end use. They are also concerned about competition for their own small and medium-sized enterprises (SMEs) or possible future companies producing the same goods. However, the picture is rapidly changing with the emerging economies growing most quickly and becoming the new producers and exporters on the clean technology market.

Furthermore, as developing and LDC countries have, in general, higher tariffs on environmental and energy-efficient goods than OECD countries, tariff cuts have large implications not only on the market potential in developing countries but also on government revenue from import taxes.

For many developing countries, adaptation is a higher priority than undertaking mitigation measures. However, adaptation goods and technologies are diverse and diffuse and often involve low-tech local solutions and materials. For these reasons they have not yet been a priority in discussions on EGS liberalization.

Overall, trade liberalization by itself may not be sufficient to promote the diffusion of climate friendly goods. A whole host of complementary measures—regulatory, capacity building, financial and technology-related—will be required.
Key issues

Negotiations on the liberalization of environmental goods and services (including climate mitigation goods) within the WTO Doha Round face some specific challenges. Definitional issues related to environmental goods remain unresolved. Complexities also exist with regard to their classification for customs purposes, making selective liberalization of climate-friendly goods challenging. The modalities of liberalization also remain contentious.

The negotiations on environmental goods have progressed much further than those on environmental services. However, the two will eventually need to be liberalized hand-in-hand, as environmental services (such as environmental engineering) often are closely linked to environmental goods.

Climate mitigation and EGS: The US-EU proposal

The most focused discussions to date on liberalization of EGS for climate change have been based on a proposal by the U.S. and EU, dated November 30, 2007. The two trade partners proposed accelerated liberalization of goods and services relevant to climate change mitigation, including zero tariffs by 2013 for 43 products identified as being relevant to climate-change mitigation by the World Bank from an existing list discussed within the negotiations. This list included a wide variety of products such as solar collectors and system controllers, wind-turbine parts and components, stoves, grates and cookers and hydrogen fuel cells. Related climate mitigation services such as engineering, maintenance and technical testing were also, in principle, to be included, although they were not detailed. There were to be longer phase-in periods for liberalization by developing countries and participation was made optional for least developed countries.

The list was supposed to be a starting point for discussions rather than an exhaustive one.

Despite the U.S. pointing out that it was a net importer of these 43 goods and that developing countries such as China, Mexico, Malaysia, Chinese Taipei and Indonesia were among the top exporters, many developing countries questioned the “development dimension” of the proposed list. Brazil criticized the exclusion of ethanol from the list. Many developing countries were concerned that the “climate goods” list, as with most other environmental goods proposed in the WTO, included dual-use products.

Liberalization beyond the Doha Round and the WTO

Since the Doha Round is unlikely to yield immediate and substantial gains for EGS, WTO Members might wish to consider initiatives similar to the Information Technology Agreement (ITA). The ITA was open to voluntary participation—but concessions were
extended on a most favoured nation basis to all WTO Members. The agreement could come into effect when a certain number of Members, constituting a minimum percentage of trade in these products and services, joined. Such an agreement could lie within the WTO Framework and could be tied to the timeline for conclusion of Doha Round talks.

Another option is a plurilateral agreement similar to the WTO Government Procurement Agreement, which members could opt to join or to stay outside of. The trade concessions would extend only to participating Members. Such an agreement could also eventually be made multilateral (with benefits extending to the entire membership) once a minimum number of countries, constituting a certain percentage of trade in these products and services, joined.

Another possibility would be to pursue liberalization of “climate mitigation” goods and services through regional trading agreements or bilateral free trade agreements.

*Flanking measures*

Whatever the forum for liberalization, it will be important to include it within a broader package consisting of complementary initiatives such as special and differential treatment and technical and financial assistance. The impact of trade liberalization for climate change mitigation efforts, as with most other sustainable development objectives, will be only be as effective as the broader enabling framework within which it is put into play.
Related WTO agreements

Paragraph 31(iii) of the Doha Declaration, agreed by all WTO Members in 2001, calls for a reduction or, as appropriate, elimination of tariffs and non-tariff barriers on environmental goods and services.
Further reading


Sub-topic: Liberalization of trade in environmental goods and services – Environmental goods

Overview

Trade is an important channel for the diffusion of many climate mitigation technologies and goods. Few countries have the domestic capacities or know-how to produce all that they need. This is particularly true for developing countries, and although building domestic capacities may be their long-term goal, trade liberalization can provide rapid access to key technologies. Trade liberalization can also lower the costs of environmental goods by allowing consumers (industries or households) to purchase them at world market prices.

Examples of possible climate-related environmental goods include renewable energy technology, efficient lighting, and even products such as bicycles (to replace fossil-fuel based transport options) have been proposed.

The Doha Round negotiations

Current negotiations on the liberalization of EGS at the WTO are progressing at a slow pace, as they are linked to the overall Doha Round, where key contentious issues related to agriculture and industrial goods need to be resolved before negotiations progress in other areas.

The approach to the negotiations on environmental goods also remains controversial. The “List Approach,” supported by traditional exporters, essentially consists of identifying and submitting lists of what members regard as environmental goods of interest for accelerated and permanent liberalization by reducing or eliminating bound tariffs. India’s “Project Approach” proposes liberalizing any good or service intended for a specific environmental project as approved by a Designated National Authority based on criteria developed by the WTO’s Committee on Trade and Environment. Such liberalization would be temporary, lasting for the duration of the project, and domestic implementation of the criteria would be subject to WTO Dispute Settlement.

The “Integrated Approach” proposed by Argentina resembles the project approach but with further identification of goods used in the various approved projects. Both approaches were driven by concerns of ensuring “environmental end-use” of products that are mainly dual-use. A third approach—the Request Offer Approach—has been proposed by Brazil whereby countries would request specific liberalization commitments from each other on products of interest to them and extend tariff cuts they deem appropriate equally to all WTO members.
Key issues

Defining climate-friendly goods

The lack of a universally accepted definition of environmental goods (EG) has slowed down agreement on product coverage in negotiations on environmental goods. Two broad categories of EGs have featured in the WTO discussions so far: traditional EGs, with the main purpose of addressing or remedying an environmental problem (e.g., carbon capture and storage technologies); and environmentally preferable products (EPPs), which include any product with certain environmental benefits arising either during the production, use or disposal stage relative to a substitute or “like” product.

Introducing an additional layer of complexity, products can be environmentally preferable, either due to improvements in embedded technology (e.g., more energy-efficient variants of the same good, such as a car) or as compared to a different product (such as solar cookers versus wood-burning stoves).

Classifying climate-friendly goods

In terms of classification, categories and sub-categories of goods are assigned a code within the Harmonized Commodity Description and Coding System (HS), allowing countries to track trade volumes and tariff levels. The more digits are included in a code, the more specific the description of the good is. At the WTO, countries have HS numbers for products only up to the six-digit level. Beyond that, as product descriptions get more specific, different members use different codes and descriptions. This makes it difficult to clearly identify EGs, including climate mitigation goods, at the six-digit level. They are often lumped together with other goods that are unrelated to the environment or climate mitigation. For example, one list of proposed products contains HS-8413.81: “pumps for liquids, whether or not fitted with a measuring device; other pumps.” Such pumps are often used by wind turbines for energy storage. But at the six-digit level of generality, it is impossible to separate those pumps used in this manner from pumps used in any number of other applications. While it is possible to identify and liberalize specific goods using “ex-outs” beyond the HS-6 digit level, Members need to agree on product codes, or at least product descriptions in the area of climate mitigation, which can be a time-consuming process.

Process and production methods (PPMs)

Most WTO Members have not accorded “environmental goods” status to otherwise “like” products that have been produced using methods friendlier to the environment. This is due to the difficulty of distinguishing such products based on PPMs within customs system, and challenges of harmonizing standards and labelling. Some Members also raise systemic concerns with regard to non-product-related standards making their way into the WTO system as a basis for differentiated treatment.
Relativity and evolving technology

Many environmental goods are only “relatively eco-friendly.” Hybrid cars, which can be compared to electric cars, provide one example. Moreover, technological change could make existing “relatively friendly” EGs obsolete tomorrow. How should trade negotiations respond to these challenges? Once lowered and bound, tariffs cannot be raised again for obsolete products. At the very least, newer products that emerge should automatically benefit from trade benefits accorded to the obsolete one. If relatively clean goods are accorded preferences, should we distinguish based on national-level baselines, or some internationally set baseline? Predominant methods of production differ dramatically across countries. Some experts argue that only truly “clean” technologies should benefit from EG liberalization—as opposed to “relatively cleaner” products, but then we are left with the challenge of defining truly clean—particularly challenging as one takes a longer-term perspective.

The dual-use problem

The dual use problem is one of most important challenges facing EG negotiators. It arises from the fact that most product categories proposed by WTO Members as EGs for rapid liberalization include, at the HS-6 digit level, other products that also have non-environmental uses. In other cases, a specific ex-out product, such as a pipe, may intrinsically be dual-use and used for environmental and non-environmental purposes. Pipes, for instance, are used as components of sewage treatment plants as well as for transporting oil and gas.

Most developing countries are hesitant to liberalize bound tariffs on dual-use products such as valves and pumps due to concerns about the impact of such overarching liberalization on their established domestic industries. Proponents of these liberalization efforts argue that the environmental benefits would be limited if liberalization was confined only to a handful of products used solely for environmental purposes.

The distribution question

A big challenge for the EG negotiations is to include products of export interest to developing countries. The perception so far has been that EGs—being capital- and technology-intensive—are of export interest only to developed countries and a few middle-income developing economies. Others see significant export opportunities for developing countries in a large number of lower-tech environmental goods, such as parts and components. However, these also happen to be the “dual-use” products with which most developing countries have concerns.

Undoubtedly, many developing countries such as China and India have emerged as leading producers in clean energy sectors such as wind and solar energy, and Brazil is a
world leader in biofuel manufacturing equipment. According to the World Bank, exports
of clean energy products such as efficient lighting are growing rapidly from many
developing countries. On the other hand, interest in the inclusion of agricultural products
by Latin American countries, and particularly ethanol by Brazil, has met with some
degree of resistance by traditional developed-country EG proponents.
Sub-topic: Liberalization of trade in environmental goods and services – Environmental services

Overview

Environmental services have always been considered within the WTO. They include services such as wastewater treatment and protection of ambient air and climate—even though there is disagreement as to whether to include services with an environmental end-use such as engineering or consultancy as a “pure” environmental service per se.

Trade in environmental services—though closely related to, and in many cases, integrated with trade in environmental goods—follows a separate track within the WTO negotiations. Environmental services, including those related to climate mitigation and adaptation, are being discussed within special sessions of the Council for Trade in Services.

There are some issues specific to environmental services, such as making classification relevant to market realities, and the fact that many services including sewage treatment or “water for human use” (the inclusion of which as an “environmental service” has proven controversial) touch upon essential services where equity and universal access considerations are important.

Climate-relevant environmental services may be part of broader services categories such as engineering, Research and Development (R&D) and consultancy. Further analysis will need to be undertaken to identify those of potential interest to developing countries.

Developed countries have generally been the demanders in the area of environmental services, pushing for further liberalization. The uncertainty of the impacts of liberalization, as well as an absence of domestic regulation to correct market failures, is an important reason why developing country WTO Members may not be rushing to liberalize environmental services despite perceived environmental gains. The perceived lack of significant export opportunities in environmental services, as in environmental goods, may also be a contributing factor to lukewarm developing country engagement.

The request-offer process

The liberalization of services under the WTO Agreement on Trade in Services (GATS) is based on a request-offer approach, and the same applies to environmental services. Countries offer up market entry within specific areas, and similarly request market access for their service provider. These requests and offers are then negotiated bilaterally (or plurilaterally) among countries, and consolidated in countries’ individual schedules of commitments. The commitments in the services area are made within four different “modes”: Mode 1 (Cross-border supply); Mode 2 (Consumption abroad); Mode 3 (Commercial presence); and Mode 4 (Presence of natural persons).
A number of developing countries have received plurilateral requests by the EU, Australia, Canada, Japan, Korea, Norway, Singapore, Switzerland, Chinese Taipei and the U.S. to open up key areas of environmental services. However, lack of meaningful progress in key Doha Round negotiating areas, such as agriculture and industrial goods, have not encouraged developing countries to be forthcoming with their commitments. Progress in developing adequate disciplines on domestic regulation, subsidies and emergency safeguards as well as procurement within the services negotiations will also influence the sustainable development impact of environmental services negotiations.
Key issues

Classification

Classification of environmental services is a major issue for the WTO negotiations. This refers to the environmental services cluster as a whole, not climate-related services specifically. There are three major existing classification systems for environmental services, referred to as the WTO Services Sectoral Classification List (W/120); the OECD/Eurostat list; and the United Nations Conference on Trade and Development (UNCTAD) list. The WTO’s Committee on Specific Commitments has been revising the existing General Agreement on Trade in Services (GATS) classification of environmental services. An existing EU proposal is based on the Eurostat/OECD one, and attempts a sub-division into 7 sub-sectors: (i) water for human use and waste-water treatment (water for human use was subsequently dropped); (ii) solid and hazardous waste management; (iii) protection of ambient air and climate; (iv) remediation and cleaning of soil and water; (v) noise and vibration abatement; (vi) protection of biodiversity and landscape; (vii) other environmental and ancillary services. This classification has support from several WTO members, with the significant exception of the first item—water for human use—which many countries do not see as an environmental service per se.

Linkages between environmental goods and services

A number of WTO Members have made submissions within the EGS negotiations stressing the linkages between environmental goods and services. Canada (TN/TE/W/50), Cuba (TN/TE/W/55) and India (TN/TE/W/51) highlighted the close linkage between EGS, noting that environmental services are often supplied through goods and the separation of environmental goods and services in a environmental activity is difficult, owing to their integrated nature. Canada (TN/TE/W/50) and the EU (TN/TE/W/47) have indicated that their lists of environmental goods have been informed by the type of products used in environmental services.

The disconnect between environmental goods and service negotiations, as well as the drawback of the “list” approach for defining environmental goods in taking account of their integrated nature, have been pointed out. The EU (TN/TE/W/47) has suggested parallel liberalization of EGS where appropriate. At present, Members have not agreed to adopt a coordinated strategy on EGS within the context of the WTO negotiations, but are likely to tailor individual strategies to respond to specific country interests in both goods and services negotiations. The submission on the project approach, suggested by India on environmental goods, points out the need to ensure synergy between environmental goods and services and includes both under its scope. Some experts have suggested that Para 51, calling upon the CTE and the Committee on Trade and Development to identify

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1 The letter and number series reference specific submissions made by WTO members.
and debate the environmental and developmental aspects of the Doha negotiations, should EGS.