

Trade and Environment Briefings: Environmental Services



International Centre for Trade
and Sustainable Development

Introduction

The market for environmental services is substantial and growing, driven in part by increasing environmental regulation and changing consumer preferences. If well managed, liberalisation of trade in environmental services can provide substantial benefits to the private sector as well as the general public through enhanced market opportunities, improved health and environmental sustainability, particularly in developing countries.

Trade in environmental services sectors can assist countries in the transition to a green economy by promoting more widespread use of efficient and cost-effective environmental technologies. Furthermore, the green economy itself will provide opportunities for exporters of environmental services whose expertise will increase in demand.

Background

The Organisation for Economic Co-operation and Development (OECD) has defined the environmental goods and services industry as: “activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air, soil, as well as problems related to waste, noise and eco-systems.”

Environmental Services, as discussed in this paper, are different from the discussion on *Payments for Environmental Services (PES)*, a market-based conservation approach, which focuses on establishing voluntary payment mechanisms for environmental services. One example of PES is the Reducing Emissions from Deforestation and Forest Degradation (REDD) scheme under the United Nations Framework



Convention on Climate Change, which works to create financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.

In general, environmental services can be divided into two categories:

- 1) Infrastructure services (e.g. wastewater treatment, refuse collection and disposal), which are often associated with public services and can be provided fully or partially by the public sector, and
- 2) Non-infrastructure (e.g. engineering design and environmental consultancy services), which are

mostly business-to-business transactions and are usually provided by the private sector.

At the international level, trade in environmental services is governed by the World Trade Organization (WTO)'s General Agreement on Trade in Services (GATS). The agreement categorises trade in all services according to the way it is supplied, as explained in the following table:

GATS modes of supplying services

Mode of Supply		Examples of Environmental Services
Mode 1	Cross-Border Supply	Company in Country A monitors wastewater treatment in Country B online
Mode 2	Consumption Abroad	Scrap metal produced in Country A is sent for recycling in Country B
Mode 3	Commercial Presence	Waste management company in Country A establishes a subsidiary office in Country B
Mode 4	Movement of Natural Persons	Environmental consultant from Country A temporarily moves to Country B to provide advisory services to a wastewater treatment company

As a part of the WTO Doha Round, members are working to reduce or eliminate, as appropriate, tariff and non-tariff barriers to environmental goods and services. However, the lack of a detailed and internationally accepted classification for environmental services has proven to be a challenge to progress in the negotiations. In making liberalisation commitments, countries must instead rely on general service classifications, such as sewerage services, refuse disposal services, sanitation and similar services, or other (e.g. environmental services not classified elsewhere, such as cleaning services for exhaust gases, noise abatement services, and nature and landscape protection services). Because these categories include both environmental and non-environmental services, statistics on environmental

services are scarce and often not comparable, making it difficult to analyse the market.

Opportunities

The market for environmental goods and services is already very large (comparable in size to the pharmaceutical and aerospace sectors) and demand is expected to grow significantly in the near future. In 2006, the global market for environmental goods and services was valued at US\$690 billion, with some analysts expecting it to rise to US\$1.9 trillion by 2020. Within the environmental industry, environmental services represent the most important component, accounting for 65 percent of total market value. The sizes of the different segments of the environment services market are shown below.

Segment	\$billion (2004)
Solid Waste Management	120.7
Water treatment	78.6
Consulting and engineering	31.5
Site remediation	29.4
Hazardous waste management	17.8
Analyses	3.8

Source: B. Sinclair-Desgagne (2008), citing *Environmental Business International (EIB)*

The environmental services industry is dominated by the European Union and the United States (accounting for over 60 percent of exports), while currently only 14 percent of overall environmental revenues are generated by developing countries and economies in transition.

The sector is expected to increase in importance in the coming years, with the biggest growth potential to be found in developing countries. The environmental goods and services market is already well established in developed countries. Many developing countries, on account of their developmental stage, are now

beginning to invest more in environmental infrastructure and to put in place stronger regulatory frameworks. In China, for example, during the period of 2006-10, the Ministry of Environmental Protection indicated that the investment demand for environmental pollution controls reached RMB1.4 trillion, accounting for 1.23 percent of GDP during the same period. Combined with internationally increasing environmental awareness, these trends are creating new and constantly evolving markets for environmental services.

Trade in environmental services can offer several opportunities. Domestic enterprises can benefit from joint ventures with foreign firms. The investment and expertise brought in by larger foreign firms can enable job creation as well as skills and technology transfers. Domestic firms in other related sectors, such as engineering, construction and tourism, can also benefit from growing environmental services trade. For example, a precondition with regard to developing a sustainable tourism sector is adequate water, energy

and waste management, which is often insufficient in developing countries.

In terms of exports, the greatest opportunities for developing country firms lie in non-infrastructure services (for example, certain types of environmental consulting services). These are more commonly supplied by small- and medium-sized enterprises (SMEs) and provide more possibilities for developing an export niche.

Given that trade in services is often facilitated by a common language, culture and history, developing country firms may also find a particular potential for exports at the regional level. There are already many examples of developing country firms providing environmental services in neighbouring countries, such as EnviroServ, a South African company providing waste collection services in Angola, Mozambique and Namibia; and Manantial, a Chilean firm providing wastewater treatment services in Argentina and Peru.

New Opportunities for Trade in Services related to Climate Change

A recent OECD paper *Trade in Services Related to Climate Change: An Exploratory Analysis*, found that with the growing need for climate change adaptation and mitigation, demand for environmental services related to climate change can be expected to increase substantially in the near future. Climate change-related services include business services, energy services, financial services, and research and development services, among others.

An example of the market potential of this sector can be seen in the Clean Development Mechanism (CDM) originating from the Kyoto Protocol. The CDM market was estimated to be worth US\$19.8 billion in 2010. Some examples of services that have sprung up in relation to this market include: management of registries to record and track the creation and movement of “reduction units” or “carbon credits” generated by greenhouse gas mitigating projects, carbon trading services, services to provide the necessary verification and certification of GHG emission reductions and carbon finance expertise.

Challenges

There are, however, a number of challenges to enhanced trade in environmental services. A major one is access to markets. Although it is generally accepted that gradual liberalisation of the sector can provide substantial benefits for sustainable economic development, the services sector remains relatively closed off. Since commercial presence (e.g. establishing a subsidiary office in a foreign country) is the most common form of trade in environmental services, restrictions, such as those on foreign investment or limitations on foreign equity participation, are particularly detrimental to trade. Likewise, the movement of natural persons is often hindered by immigration policy or particular labour

market requirements (e.g. country specific standards and certification for engineering services).

Moreover, because many infrastructure environmental services are provided by the public sector, liberalisation is not always straight forward. The full or partial privatisation of these sectors has enabled some trade in environmental services. However, the success of such initiatives depends to a large degree on the quality of the regulatory environment in place, which in most developing countries needs to be strengthened. Likewise, in a liberalised market, a key concern for many developing country firms is the challenge of competing with more established environmental services firms from developed countries.

What's next?

The market for environmental services looks set to grow substantially over the coming years. The successful conclusion of the on-going WTO Doha Round could offer a number of potential opportunities to support growth in the environmental services market, including through enhanced market access. In addition, a number of other factors at the national, regional and international levels can also help create the right conditions for developing countries to expand their presence in this market, such as:

- Build up **expertise in niche segments** of the market. This can be particularly beneficial for SMEs involved in non-infrastructure related services;
- Tap into growing **regional markets**;
- Seek **joint venture opportunities** with foreign firms;
- Liberalise environmental services through **regional and bilateral trade agreements**;
- **Build appropriate regulatory frameworks** to support the development of infrastructure related environmental services; and
- **Promote transparency and recognition of qualifications and certifications** to reduce obstacles to trade in services linked to the movement of natural persons.

Resources

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About the United Nations Environment Programme (UNEP), www.unep.org/

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