



Green Goods: Opportunities for climate change mitigation and trade

By Pascal Lamy,
Director-General, World Trade Organisation

Climate change mitigation and the race for alternatives to fossil fuel energy pose unique challenges to the international community. Multilateral cooperation and increased efforts in different fora are required to meet these challenges. The WTO has much to contribute. In this context, the WTO offers an important forum for multilateral co-operation. It also provides disciplines to facilitate global trade and to guard against protectionism. At the same time, WTO rules ensure Members have the necessary flexibilities they need to pursue environmental objectives and the WTO serves as the venue to promote greater trade opportunities, including for green goods.

In the Marrakesh Agreement establishing the WTO, Members drew a clear link between sustainable development and trade in order to ensure that market opening goes hand-in-hand with environmental and social objectives. Furthering trade opening and market access for green technologies can make a substantial contribution to global climate and energy concerns and improve the overall allocation of the limited resources of our planet.

The Intergovernmental Panel on Climate Change (IPCC) has highlighted in its Fourth Assessment Report that many mitigation technologies are currently commercially available

and more are expected to be commercialised soon. From an environmental perspective however, the development and deployment of renewable energy technologies and the use of more energy-efficient goods may not be occurring at a rate fast enough to respond to environmental challenges. In part, this is due to the weak cost competitiveness of green goods and renewable energy technologies relative to traditional goods and fossil-fuel energy technologies. Deepened trade opening in green goods could improve their cost competitiveness and deployment, and also enhance market access to more efficient and diverse goods, including goods that can contribute to climate change mitigation.

Technologies for mitigation and adaptation in the field of renewable energy involve a number of different products. Trade therefore has an important role to play in the deployment of green technologies and there may be substantial room for technological improvement through this process. For instance, in the wind energy sector, the installation of a wind farm requires access to equipment such as electrical generators, blades, and gearboxes. Likewise, in the solar energy sector, a wide range of goods are necessary for commercial and residential application of solar panels; another set of goods would also be required

for the deployment of solar energy directly to consumers, such as solar ovens or solar water cookers, which are important to both climate change mitigation and promoting sustainable development in communities without access to an electrical grid.

The elimination or reduction of tariff and non-tariff barriers to trade in green goods can lead to a so-called “triple-win-situation”: a win for the environment, a win for trade and a win for development. Firstly, the availability of environmental goods at lower costs may increase deployment of environmental technologies, promoting technology transfer and innovation, and may lead to welfare improvements and reduced “negative externalities” of goods or practices damaging the environment. If increased deployment leads to market growth and further maturation

Deepened trade opening in green goods could improve their competitiveness



of green technologies and goods, this may generate further cost reductions, deployment, and beneficial environmental outcomes. Secondly, trade wins because these products become less costly and efficient producers of such technologies can find new markets. Lastly, increased access to environmental goods may assist developing countries in realising sustainable development strategies.

Two positive environmental effects are expected from a reduction of tariff and other trade barriers. First, lowered trade barriers should lead to a reduction of prices of green products. Deployment of environmental products is therefore facilitated and occurring at the lowest possible cost. Although of course it should be noted that the price of climate-friendly goods is not the only factor that affects the diffusion of these technologies. Other important factors include a country's regulatory framework for climate change action and its level of foreign direct investment.

Since there are a number of high tariffs that remain in the renewable energy sector, tariff reductions would lead to improved access to these goods and to a wider diffusion of technologies. In the context of WTO work, a number of renewable energy products have been under discussion in the Doha Round of trade negotiations. The applied tariff rates on these lines range from 0 to 60 per cent in developing countries, 0 to 44 per cent in least-developed countries, and 0 to 10 per cent in developed countries. This illustrates the potential that trade can bring to the diffusion of technologies on a worldwide scale.

A second decisive element is the positive effect that trade opening of climate-friendly goods may have on producers, providing incentives to expand exports and production. Increased trade opportunities might lead to larger markets for climate-friendly goods, profits to producers from economies of scale and increased competition, fostering technological innovation.

Trade in environmental goods is an extremely topical issue given the boom in the demand for these products that we have witnessed in recent years.

Many developing countries, such as China, Republic of Korea, Malaysia, India and Indonesia, have emerged as leading producers in the clean energy sector, such as in wind and solar energy and efficient lighting. In fact, five developing countries, China, Hong Kong (China), Korea, Mexico and Singapore, are among the top ten exporters of renewable energy goods.

Overall, trade in climate-friendly goods has increased over the last few years. In the period from 2002 to 2007, exports of renewable energy goods represented 20 per cent of developing country export growth, 47 per cent of that of the least-developed world's, and 12 per cent of that of the developed's. Although the economic literature indicates that more open trade is likely at first to increase CO₂ emissions as a result of increased economic activity (the scale effect), trade opening will facilitate the adoption of technologies that reduce the emission-intensity of goods and their production process (the technique effect). Trade opening can also lead to a change in a country's mix of production from energy-intensive to less energy-intensive sectors, if the country has a comparative advantage in the latter (the composition effect). International trade can therefore serve as a conduit for the diffusion of key technologies. □

Trade has an important role to play in the deployment of green technologies

