



Trade and Climate Change Briefing

Issue 1

UNFCCC COP 15, Copenhagen 2009

5 December

TECHNOLOGY AND FINANCE

Governments around the world will need to access and implement a host of new technologies to reduce their greenhouse gas emissions and adapt to the changing climate. But whether countries, especially poor countries, will be able to harness those technologies largely hinges on whether climate negotiators will be able to establish mechanisms to make those products readily available - and useable.

The development and transfer of clean-energy technologies, with the support of adequate financing, has the potential to multiply countries' emissions reductions. Such technologies have the added benefit of fuelling economic and social development by increasing investment flows and enhancing countries' capacity to develop and use technologies. As many rich-country politicians have stressed, massive investments in new climate tech can create new jobs in 'green' manufacturing and services.

If developing countries can gain access to both climate technologies and climate financing, they will be better equipped to both address climate change and promote sustainable development at home. Indeed, the potential synergies between technology and financing have been front and centre in the negotiations of the United Nations Framework Convention on Climate Change (UNFCCC). Although a legally binding deal is no longer expected to emerge from next month's meeting in Copenhagen, technology and financing will no doubt be major elements of the political agreement that is likely to emerge from the conference. Details will be further elaborated in future negotiations towards a legal treaty, when the time comes.

Technology - making it happen

Developing countries' access to and 'uptake' of mitigation and adaptation technologies will require a broad array of support systems. In particular, regulatory and financial policy tools are important first steps to ensuring that technologies and financing are delivered effectively and equitably. In the context of the UNFCCC negotiations, countries

have called specifically for the establishment of funds, mechanisms, and plans that 'enhance enabling environments' for climate technologies, including technology-specific policies and measures that generate adaptation or mitigation benefits.

Recent studies show that regulations and fiscal incentives can play an important role in creating markets for renewable energy and may in fact be more important than tariffs in affecting trade flows for a number of renewable energy goods. Thus, any tariff reductions on 'environmental goods' - like solar energy collectors and hydrogen fuel cells - will need to be supplemented by regulatory and fiscal policies that can help build markets for those products.

The role of international assistance in creating such an 'enabling environment' is particularly significant for developing countries, which may not yet have the resources or institutional capacity to do so on their own. Such assistance could come in the form of soft loans or financial incentives, including for research and development, which could help leverage private capital flows. (See section on financing below.)

In addition to finance and technology through the market-based mechanisms, parties have also put forward proposals that would aim to directly spur technology transfer and development. Some of these proposals - especially those on environmentally sustainable technologies (ESTs) - are strikingly similar to requests that have been made in the ongoing WTO negotiations on environmental goods and services (EGS).

One specific proposal in the climate talks, for example, would provide financial support through the UNFCCC to help developing countries build new EST manufacturing facilities fitted out with low-GHG emission technologies. Another relates to the creation of a 'technology mechanism' to accelerate the development, adoption and transfer of environmentally sound technologies. Both of these proposals directly echo demands that a number of developing countries have made in the

EGS negotiations at the WTO. In those talks, poorer countries have stressed that they will need help building their supply-side capacities for EGS, and that the transfer of technology must be one of the outcomes of the EGS negotiations.

Speaking informally, some delegates have pointed out that technology transfer and diffusion can only be meaningfully operationalised outside the WTO. At least as far as climate change is concerned, the UNFCCC certainly appears to be the forum where discussions have been most advanced. Meanwhile, WTO members are still haggling over how to give shape to a deal on technology transfer. Broader discussions on the issue have been going on within a Working Group on Technology Transfer, but critics say that the group has failed to deliver meaningful results.

Another trade issue — the development and application of international standards and testing procedures - has also arisen in the climate discussions, with notable links to WTO rules. Draft UNFCCC negotiating text includes proposals for countries to “...participate, to the extent possible, in international programmes that support the development and use of common performance standards, testing, verification and certification programmes.” Such standards and testing procedures are particularly important with regard to trade in energy-efficient products. Standards that do not conform to the procedures set out in the WTO’s Agreement on Technical Barriers to Trade (TBT) could be considered illegal non-tariff barriers. The language in the UNFCCC text has echoes of Article 2.4 in the TBT Agreement, which calls on members to base their national standards on international ones, with some limited exceptions.

Financing is key

Financing will play a critical role in helping developing countries make use of any new technologies they might gain through a global climate deal. Proposals in the UNFCCC negotiations address this question by, for example, suggesting that the UNFCCC provide financial support to cover technology-related incremental costs borne by developing countries, including research and development and patent-related costs.

Another particularly constructive proposal in the draft text on financing would establish a global fund to support a global ‘feed-in tariff’ programme. Financing for feed-in tariffs in developing countries would more readily incentivise utilities and

consumers to switch to renewable energy sources. Many countries and regions have already carried out national- or state-level versions of such a programme. Recent research by Jha (2009) indicates that feed-in tariffs are particularly important in the creation of a market for renewable energy.

The Kyoto Protocol’s Clean Development Mechanism provides a telling example that can offer lessons for future offset and technology transfer initiatives. The CDM is a flexibility mechanism that allows developed countries to offset their Kyoto-based emissions commitments by purchasing carbon credits from developing countries. These credits are created from new carbon reduction projects that typically involve the purchase and introduction of new technologies for the sector in question.

During recent climate negotiations, Argentina pointed out that its most significant barrier to developing CDM projects has been a lack of access to up-front investment finance. Private sector investment specialists point out that investment naturally flows to the projects with the largest mitigation potential; this is the ultimate objective of the offset mechanism, they say. However, as the CDM is the UNFCCC’s only source of finance and technology, and as offset mechanisms will certainly play a significant role in a future regime, it is critical that a wide range of countries be able to make use of the mechanism.

To address such concerns, some parties have suggested engaging the business and financial sectors by providing national-level incentives to mobilise private capital. Such incentives could come in the form of concessional loans, risk guarantees, tax exemptions or subsidies for the owners of patented environmental technologies who willingly make their products available to developing countries. Notably, this recommendation has echoes of Article 66.2 of the WTO’s Agreement on Trade-Related Aspects of Intellectual Property, which states that rich country members “shall provide” incentives for domestic businesses to “promote and encourage” technology transfer to least developed countries. Critics note that Article 66.2 has yet to be meaningfully operationalised. It is possible, however, that the gravity of the climate crisis could act as a catalyst for the effective implementation of both the WTO and UNFCCC commitments.

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