ICTSD
International Centre for Trade and Sustainable Development

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Submission to the Open Working Group on Sustainable Development Goals

Climate Change, Trade and Sustainable Energy

Meeting the world's growing demand for energy for development and poverty reduction while keeping greenhouse gas emissions within safe limits will require a transition from the current reliance on fossil fuels towards sustainable energy generation from renewable sources. [1] The focus of ICTSD's work in this area is to explore ways in which trade can contribute effectively to efforts to address climate change, particularly the transition to a sustainable energy future.

International trade is essential to a sustainable energy future

Addressing climate change and improving energy access through a transition to sustainable energy will require the massive scaling-up of renewable energy production. The World Bank's 2010 World Development Report estimated that increasing global use of renewable energy from the current 13% to between 30 and 40% of consumption by 2050 will require the deployment each year of substantially more generating capacity, including an additional 17,000 wind turbines, 215 million square meters of solar photovoltaic panels and 80 concentrated solar power plants.[2]

International trade will be crucial to this scaling-up process. Carefully designed trade policies in synergy with other policy instruments can encourage innovation and provide larger markets for renewable energy products. They enable companies to invest in producing at a greater scale, which lowers the cost of each solar panel or wind turbine part. This can help lower the price of renewable energy, making it more competitive with fossil fuel alternatives and helping to de-couple energy generation from greenhouse gas emissions. Removing distortions in the markets for the goods and services involved in the production of renewable energy can support this scaling-up process and help to make renewable energy accessible to consumers and producers in countries at all levels of development.

Policies to support a transition to sustainable energy

Many governments seek to combine policies to bring down the cost of renewable energy with other objectives, including developing a domestic manufacturing base and generating employment. Balancing these objectives is difficult and often involves trade-offs. ICTSD has produced a series of research reports into some of these policy challenges, the key findings of which are outlined below.

[1] See: United Nations (2013) The High Level Panel of Eminent Persons Report on the Post-2015 Development Agenda, Goal 7 'Secure Sustainable Energy'. ICTSD defines sustainable energy as including solar, wind, geothermal, small-scale hydro and biomass-related fuels, technologies and services.

[2] The World Bank (2010) 'World Development Report 2010: Development and Climate Change'. The World Bank Group, Washington DC, p200, citing the International Energy Agency (2008) 'Empowering Variable Renewables: Options for Flexible Electricity Systems', IEA, Paris.

We hope they will be helpful as countries consider the role different policies could play in the transition to a sustainable energy future.

Many policy measures to bring down the cost of renewable energy production can be taken unilaterally, including lowering tariffs, increasing market access for renewable energy services and behind-the border measures. Countries can also cooperate, for instance by clarifying the scope provided in international trade rules for measures to support renewable energy through a Sustainable Energy Trade Agreement, clearing the way for coordinated scaling-up of global action.

- Subsidies

Subsidies to support the production of renewable energy often respond to two sustainable development imperatives: improving energy access, particularly for disadvantaged communities, and reducing greenhouse gas emissions by increasing the supply of energy from sustainable sources. New subsidy programmes need to be carefully designed so that they address these market failures without distorting trade and creating rent-seeking behaviour that can undermine their effectiveness.[3]

According to the IEA, subsidies provided to fossil fuels reduce the competitiveness of low-emission energy technologies. They also tend not to be an efficient tool for helping the poor: in 2010, the poorest 20% of the population received only 8% of fossil-fuel subsidies.[4] ICTSD research[5] has looked at how governments' use of international trade rules to retaliate against other countries' subsidisation, and companies' unfair pricing ('dumping'), of renewable energy exports may increase the cost of renewable energy and slow the transition from fossil fuels to sustainable energy. Clarifying how environmental and trade objectives should be balanced within these trade rules could enable governments to improve coherence between international trade and environmental policy.

- Local content requirements

Local content requirements (LCRs) are frequently applied to renewable energy generation projects in an effort to support the development of local industry. ICTSD research[6] has identified certain basic conditions under which LCRs can increase domestic production of renewable energy goods. However, the research also finds LCRs are likely to inflate retail power prices in the short term, are legally problematic, and that their potential medium-term spill-over benefits, including increased domestic innovation, have not yet been demonstrated.

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[3] See: Gosh, Arunabha and Himani Gangania (2012) 'Governing Clean Energy Subsidies: What, Why and How Legal?' International Centre for Trade and Sustainable Development, Geneva. Available at: http://ictsd.org/downloads/2012/09/governing-clean-energy-subsidies-what-why-and-how-legal.pdf

[4] International Energy Agency (2011) 'World Energy Outlook 2011 Factsheet : How will global energy markets evolve to 2035?' International Energy Agency, Paris. See also the work by the Global Subsidies Initiative of the IISD and the OECD on this issue.

[5] Jonas Kasteng (2013) 'Trade Remedies on Clean Energy: A new trend in need of multilateral initiatives' E15 Initiative Background Document, International Centre for Trade and Sustainable Development, Geneva. Available at: http://issuu.com/ictsd/docs/e15_trade_and_innovation_-_kasteng_d9b3a359fd6128/1?e=4233984/5547144

[6] Kuntze, Jan-Christoph and Tom Moerenhout (2013) 'Local Content Requirements and the Renewable Energy Industry – A Good Match?' International Centre for Trade and Sustainable Development, Geneva. Available at: http://www.ictsd.org/downloads/2013/06/local-content-requirements-and-the-renewable-energy-industry-a-good-match.pdf

- Public procurement [7]

Governments' substantial purchasing power provides an opportunity to create or expand markets for environmental goods and services. Purchases of sustainable energy goods and services, in particular, can support compliance with international climate change mitigation obligations. Many governments balance these objectives with the goal of using public procurement to support domestic industry. Depending on the obligations that countries have taken on under the Government Procurement Agreement in the WTO and any other agreements, ICTSD research has found that there can be space for public purchases to promote environmental objectives.

- Innovation, Technology and Intellectual property

Innovation and technology play a key role in addressing climate change and in the transition to a sustainable energy future. Research undertaken by the United Nations Environment Programme, the European Patent Office[8] and ICTSD show that political decisions setting adequate international frameworks are important for stimulating clean energy innovation, as reflected in the 20% annual increase in patenting of clean energy technologies after the adoption of the Kyoto Protocol (1997). The same study included a licencing survey of clean energy technologies, and found that over 70% of technology holders surveyed would be prepared to offer more flexible terms to developing country-based entities with financial constraints.

Further ICTSD research on how trade policy can support a transition to a sustainable energy future, including through a sustainable energy trade agreement, can be found on the website of ICTSD's Global Platform on Climate Change, Trade and Sustainable Energy: http://ictsd.org/programmes/climate-change/.

[7] These arguments are drawn from Herve, Alan and David Luff (2012) 'Trade Law Implications of Procurement Practices in Sustainable Energy Goods and Services', International Centre for Trade and Sustainable Development, Geneva. Available at: http://ictsd.org/downloads/2012/10/trade-law-implications-of-procurement-practices-in-sustainable-energy-goods-and-services.pdf

[8] United Nations Environment Programme (UNEP), European Patent Office (EPO) and ICTSD (2010) 'Patents and clean energy: bridging the gap between evidence and policy', International Centre for Trade and Sustainable Development, Geneva. Available at: http://ictsd.org/downloads/2010/09/summarypatentscleanenergyenglish2.pdf