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http://www.unescap.org/esd/environment/lcgg/documents/roadmap/Policy-Papers/Promoting-Trade-and-Investment-in-Climate-Smart-Goods-Services-and-Technologies-in-Asia-and-the-Pacific.pdf

LOW CARBON GREEN GROWTH ROADMAP FOR ASIA AND THE PACIFIC

[Background Policy Paper]

Promoting Trade and Investment in Climate-Smart Goods, Services and Technologies in Asia and the Pacific

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…1. Introduction

The recent failure of both international trade and climate change negotiations (Doha Round and COP15, respectively) to produce a meaningful and agreed-upon framework for action speaks to the level of complexities surrounding them, but not to the urgency for action. The latter is more evident from the faster-than-predicted increasing global greenhouse gas (GHG) emissions, and in parallel, worsening signs of climate change.1

In lieu of a legally binding global climate agreement for post-2012 action, the most that could be salvaged from the recent Conference of Parties 15 (COP15) was a "noted" Copenhagen Accord, which reaffirms the importance of restricting global temperature rise to 2.0°C, but does not necessitate sufficient action to actually accomplish this goal.2 The Accord requires Annex I Signatories to submit quantified economy-wide emissions targets and non-Annex I Parties Nationally Appropriate Mitigation Actions (NAMA). Concerning, however, is the fact that the estimated sum of submitted targets by Annex-I countries falls markedly short of limiting CO2e concentrations to 450ppm and the associated rise in global average temperatures of 2.0°C (Levin 2010). If the proposed mitigation targets are in fact even achieved, by some estimates, this would still set the world on a course for a rise in the range of 3-3.9°C (Project Catalyst 2010; Sustainability Institute 2009). Limiting global average temperature rise to 2°C was, ironically, one of the few numerical targets set out within the Copenhagen Accord; and yet it appears that even this is beyond reach.

While the responsibility for the buildup of GHG emission concentrations in the atmosphere lies mainly on the shoulders of developed countries, this burden is increasingly being shared by large developing countries, including, for instance, China, Brazil, India and Indonesia. **By 2025, it is estimated that non-Annex I countries will account for more than 58% of global CO2 emissions from fuel consumption, an increase of 25% from the 1990 level (World Resource Institute 2009).** Against this background, successfully stabilizing CO2e concentrations and avoiding the more severe effects of climate change will, at the very least, necessitate substantial action from developing countries. It would be to the advantage of developing

countries to act quickly, as it is they who are expected to disproportionately bear the adverse impacts of climate change, many of which adaptation will not be an option.3

In recognizing the gravity of climate change inaction, and still in the absence of a legally binding global climate change agreement, many UNESCAP member developing countries are already working fast to foster Green Growth and transition to a climate smart development path. However, one of the major constraints of developing countries to make such a transition has been a lack of access to, and deployment of, renewable energy and other climate-smart technologies. Increased trade and investment in such technologies among developing countries is thus critical for not only mitigation, but also for expanding access and future supply of clean and reliable energy to the 1.68 billion people that still live without. The UNFCCC recognizes the existing chasm between developed and developing nations in terms of capacity to act against and *common but differentiated responsibilities* for climate change; and Annex I countries have agreed to offer assistance in terms of financing and technology transfer (UNFCCC 1998).

Thus far, two major trade-related measures, targeted at promoting mitigation action, have emerged: 1) border carbon adjustments (BCA), also referred to as climate-related border tax adjustments; and 2) liberalization of climate-friendly environmental goods and services. The former could pose a significant trade barrier for developing countries' firms wishing to export their products to BCA levying countries, and catalyze increased trade protectionism. Various recent studies also underline the "*environmental ineffectiveness*" of BCA, stating that while they may reduce the overall cost of climate change mitigation for OECD countries, such a savings comes "*at the expense of terms of trade changes which impoverish*(es) *non-OECD countries*" (Rutherford 2010).

In an effort to promote the transfer of technologies to developing countries and diffusion globally, various proposals for liberalizing the trade of selected climate-friendly environmental goods and services have been submitted before the World Trade Organization (WTO) Committee on Trade and Environment. More recently, organizations such as the World Bank and the International Centre for Trade and Sustainable Development (ICTSD) have been at the forefront of identifying specific climate-friendly technologies categorized by Harmonized System (H.S.) 6-digit codes.4 Their contributions have been of great value-added to the literature, as well as to furthering bilateral, regional and global trade negotiations on liberalizing climate-friendly environmental goods and services.

There already exists a number of publications and analysis pertaining to BCA. For example, the thematic background and effectiveness has been addressed by IISD (Cosbey 2009), its compatibility with WTO and GATT law by the WTO and UNEP (WTO & UNEP 2009), and even recent policies containing provisions for BCA impacts on ESCAP member countries by UNIDO (Crawford 2010). However, in terms of liberalizing CSGST, there exists a lack of recent and aggregated information on trade and investment in CFG in the Asia and Pacific. For ESCAP member policy makers are to effectively negotiate the terms of liberalization, it is critical for them to have a grasp of the recent trade and investment patterns both inter and intra-regionally. **In seeking to address this shortfall within the literature, this paper focuses on analyzing the trade of and investment in climate smart goods in Asia and the Pacific, as well policy options to promote such ends in the region**.
(pp. 6-7)

…6 Engineering a Policy Architecture Conductive to CSGST Deployment, Trade and Investment

Climate change poses a serious and urgent threat to inclusive development and environmental sustainability. Surmounting this threat will necessitate a paradigm shift towards climate smart development and a low carbon

economy. Shoring up increased investment in and expanding the trade of climate smart goods, services and technologies can work to such an end. **Experience has demonstrated, however, that the market alone has been unable to incentivize enough CSGST investment and trade to achieve a level of deployment that would limit global average temperature rise to 2°C. Realizing climate smart development will thus necessitate the engineering of a policy architecture that promotes energy efficiency and the deployment of climate smart technologies over that of inefficiency and fossil fuels-based technologies**. As individual country circumstances will be uniquely defined and not all policy makers will be dealt equal options for intervention, there will be no single panacea appropriate for fostering such a change. **It is thus essential for countries to develop nationally appropriate, comprehensive policy mixes that consist of mutually re-enforcing and noncounterproductive interventions and incentive structures**.
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… **6.1 Removing Barriers**

6.1.1 Tariffs and Non-Tariff Barriers

Import tariffs and non-tariff barriers on CSGST can seriously hamper their ability to compete cost-effectively with traditional carbon-intensive technologies, and thus their rate of diffusion. There has been significant recent progress among numerous Asia-Pacific countries in reducing both tariff and NTBs to CSGST, though many other UNESCAP member countries still maintain relatively high barriers.
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…6.1.2 Investment Barriers

Despite the recent increased investment in CST and capital market and energy sector reforms that have been undertaken in Asia and the Pacific over the past 30 years, there still exists a variety of barriers that are impeding investment in CST, particularly in developing markets. • Weak environmental regulation:

• **Weak environmental regulation:** Weak environmental and climate regulation, monitoring and enforcement favors polluting carbon-intensive energy technologies over CST.

• **High policy risk: Policy makers should avoid policy and regulatory changes that could adversely affect the profitability of climate smart investments.** As climate smart energy projects often require front loading investment and generally have a long return on investment (ROI) period, it is critical to ensure that prices and quotas (e.g. feed-in tariffs, renewable portfolio standards, and mandatory fuel mixing requirements) are locked-in for a set period of time to reduce risk and improve longterm certainty for investors.

• **Low level of competition:** Fostering a more competitive energy market through privatization and regulatory reform can greatly improve efficiency and allow for desperately needed private sector participation and commercial investment. Establishing an independent regulatory authority can safeguard tariff rates favorable to CSET from competing short-lived political interests.

• **Limited foreign ownership permitted**: Permitting greater foreign ownership can greatly incentivize foreign direct investment in CST. India, for example, has recently allowed for 100% FDI in the renewable energy sector. Whether a lender can legally take ownership of a renewable energy plant and generate revenue if that plant defaults on a loan is also very important.
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• **Poor transmission and grid interconnection:** Guaranteeing access of independent producers of CSE to the grid in order to feed in surplus energy is an essential component of a renewable energy policy. As CSE projects are often in remote locations, and the cost of interconnection high, subsidizing a portion of this cost can have a major impact.
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• **Limited access to local financing:** Improving access to local currency financing, particularly micro-financing, can drastically increase the diffusion of CSET, especially in remote rural areas where off-grid energy solutions such as wind and solar are already more cost-effective than the cost of extending the grid.

• **Few exit options:** In some markets, investors wishing to exit their venture may have limited options. Permission may be required to transfer shares or capital markets undeveloped reducing the potential for success of an initial public offering (IPO).

6.1.3 Trade Related Aspects of Intellectual Property Rights

Failing to fast track the transfer of critical CSTs to developing countries, such as drought-resistant crops and solar-powered slow-drip irrigation systems and small-scale desalination plants, could have huge health-related ramifications for the poor and delay climate change action**. One of the most critical impediments is the North-South stalemated negotiation over Trade Related Aspects of Intellectual Property Rights (TRIPS) as they pertain to climate smart technologies. The advancement of TRIPS has been largely spearheaded by developed nations**. **However, many have noted that it is not fulfilling objectives: "the promotion of technological innovation and transfer and dissemination of technology "*to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations*. (Roffe 2010)."**

The key question now is: how to foster climate smart technology transfer to developing countries at affordable prices without undermining entrepreneurship and investor confidence, and consequently, innovation and economic welfare? Studies indicate that it takes an average of 24 years for energy sector inventions to reach a level of wide-scale use in the market, and as much as 3 years simply to register a patent. Achieving the mitigation targets set within the Copenhagen Accord will necessitate reducing this timeframe for the diffusion of CST by at least half (Lee, Iliev and Preston 2009). It is against this background that some form of compromise and revision must be made. **There have been a number of proposals by UNESCAP members seeking to remedy this problem.** India's 2008 *CleanNet* proposal at Poznan, for instance, which garnered support from numerous G77 nations, calls for the establishment of climate technology development and diffusion centres in developing and least developed nations. It references the World Bank and UN jointly established Consultative Group on International Agricultural Research (CGIAR) as a paragon (Mathor 2008). In the Bangkok negotiations, Pakistan and India were especially vocal regarding relaxing IPR. Saudi Arabia pressed for countries to be allowed to issue compulsory licenses for climate smart technologies, and China emphasized a balanced approach (ICTSD 2008). **This line of thought was further supported at the more recent COP 15 in Copenhagen, when China, India and Brazil also proposed "*new green technologies be made subject to compulsory licensing*." Another option promulgated by India's climate change envoy was to establish a "*global fund that could buy out IPRs of green technologies, and then distribute these technologies free, in a way that is similar to what is done for HIV/AIDS drugs*" (Kogan 2010).**
(p. 53)

..**7. Bibliography**

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