

Project Developer Forum: Engaging global carbon markets for cost effective mitigation and globally inclusive economic growth

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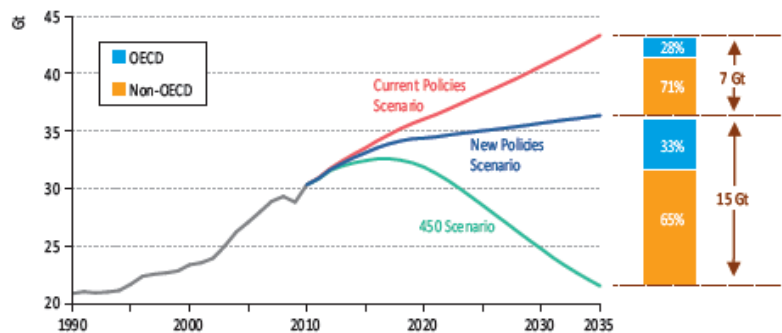
Project Developer Forum (PD Forum) is an association of companies that develop and finance greenhouse gas (GHG) emission reduction projects around the globe. Our collective technical knowledge and broad experience with global instruments including the Clean Development Mechanism (CDM), Joint Implementation (JI), Voluntary Standards, Climate Finance, country specific initiatives and NAMAs, make PD Forum a unique platform for discussions about policies and mechanisms to mitigate climate change.

In this paper, PD Forum presents its expectations for the outcome of COP 21 in Paris.

Carbon Markets in the Future Climate Agreement

COP 21 gives us the opportunity to define the fundamental design elements and mechanisms to achieve cost effective mitigation and globally inclusive economic growth.

While the Kyoto Protocol (KP) established the Clean Development Mechanism (CDM) as a global carbon market tool, its impact has been limited as only industrialized countries that ratified the KP had binding targets. Global GHG emissions since 2000 have actually grown by 2.2% per year, close to twice the average rate of growth observed prior to the Kyoto Protocol. The result, as calculated by the International Energy Agency (IEA)¹, is that in order to limit the average global temperature increase to 2°C, we must also limit future global carbon emissions to about 1000 Gt (the remaining global Carbon Budget). This is equivalent to only 20 years of current emissions. Allocating this Carbon Budget in terms of time, economic sectors and geography is the daunting challenge that the global climate architecture must meet.



Due to growing population and energy demand the IEA projects that 2/3 of global GHG mitigation has to be achieved in developing countries.

Developing countries face other challenges. For example, 90% of the world's population growth occurs within developing countries at the same time that their energy demand is increasing as people are lifted out of poverty. With urgent challenges in health and education as well, these nations lack the capital to finance costly clean infrastructure, even though such investments offer long term sustainable benefits. The need to focus on immediate demands means, in many cases, that these societies will end up with GHG intensive infrastructure that will be expensive to remove in the future.

To overcome this, the IEA calculates that carbon prices in the OECD should converge at \$120/tCO₂, while prices in advanced developing countries should rise from \$10/t in 2020 to \$95/t in 2035. While direct linking of carbon markets in the short term is difficult, indirect linking based on the use of common emission reduction crediting instruments would promote price convergence and capital flows. The UNFCCC has been discussing a new market mechanism, but without concrete progress so far, Parties are again looking at the possibility of relying on a reformed CDM.

To date, more than 7,500 CDM projects have been registered with the Executive Board and were financed by at least USD 360 billion of mostly private sector capital. The result has been the avoidance of up to one billion t CO₂e per year, representing about 6.5% of developing country emissions. With an estimated average abatement cost of 12 USD per t of CO₂, the CDM has also demonstrated its cost effectiveness, especially when compared to the high intrinsic cost of European GHG abatement subsidies as set forth in Box 1 below.

Box 1: Economic efficiency of global market mechanisms

While the CDM was successful in leveraging private sector finance to develop GHG mitigation projects in developing countries, its global benefit is poorly understood. To evaluate the economic impact of the CDM, the PD Forum supported a studyⁱⁱ to determine the intrinsic GHG abatement cost across different technologies and project types:

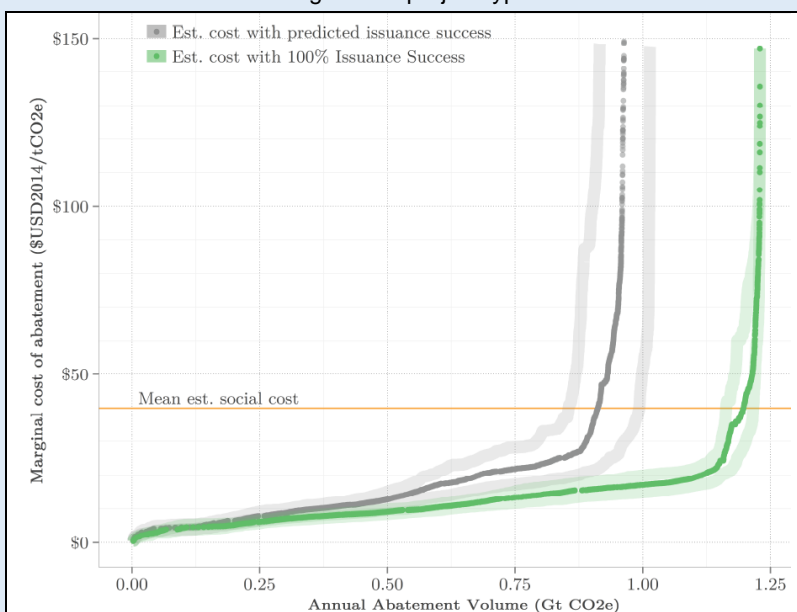
The study found that the average abatement cost is about 12 USD/tCO₂ for all CDM projects, but increases to 16 USD if performance and issuance risks are considered.

Costs are significantly lower than the Social Cost of Carbonⁱⁱⁱ, estimated at 40 USD/t CO₂, a fact that demonstrates the CDM's global benefit.

The abatement cost is significantly lower than the implicit cost of GHG mitigation subsidies offered by some OECD countries^{iv} that often exceed 100 USD/t CO₂

Countries with strong enabling environmental and domestic support policies have a lower abatement cost and are more competitive in the use of global carbon market instruments.

The study also found that abatement costs are increasing over time, which is in line with the findings of the International Energy Agency.



The CDM as a Flexible Mechanism in Domestic and Global Contexts of the Paris Accord

Together with the evolution of the CDM, the fundamental principle of the Paris Accord has also evolved such that all countries will now define Nationally Determined Contributions and appropriate domestic policies. While the CDM's original function was to provide flexibility to industrialized nations, it is now being used by developing and newly industrialized countries to promote domestic private sector GHG mitigation investments:

- China's seven pilot Emission Trading Schemes (ETS) use a CDM based domestic crediting mechanism to transfer the ETS price signal to new installations and sectors that are not covered by the systems.
- South Korea uses CERs from domestic projects in its ETS and announced that it will "use carbon credits from international market mechanisms to achieve its 2030 mitigation target".
- Mexico and South Africa have drafted legislation to establish a carbon tax that can be offset by CDM carbon credits. Once operational, these schemes are expected to establish a domestic floor price for GHG abatement projects, while investors could still be free to export credits if better prices are offered.

The individual policies of some countries offer a new role for the CDM; as a flexibility mechanism to achieve nationally defined commitments. They are also consistent with two fundamental elements for the development of an international carbon market. First, the definition of domestic demand leads to effective net mitigation that can be measured, reported and verified transparently for national and global stakeholders. Second, the definition of adequate NDCs is equivalent to emission caps that can act as references for international transfer and accounting of mitigation units. The Harvard Project on Climate Agreements^v concludes that the Paris accord can facilitate such international linkage with the definition of adequate rules.

In a scenario where units for international transfer are adequately credited or debited to the domestic targets of buyers and sellers, the CDM could be a universal tool for globally consistent Measurement, Reporting and Verification as well as a mechanism capable of promoting the private sector investment that is needed. Investors know that there is urgent demand for GHG mitigation, but to act they need an assurance that the results of early action before 2020 will be recognized by future domestic and international climate change policies. Our vision and elements of its practical implementation will be discussed at a side event described in Box 2 below.

Box 2: Side Event: Carbon Tax: A Catalyst for Regional Integration in Southern Africa?

Project Developer Forum Side Event at COP 21 on 10 December 2015 - Africa Pavilion/ Salle 1
Regional cooperation can accelerate early action, attract immediate support and prepare the region for participation in more comprehensive global climate change market mechanisms and mitigation efforts. South Africa, with its innovative Carbon Tax proposal, provides for the use of carbon credits from qualifying existing and new investments and therefore has the capacity to catalyze early action and stimulate economic development. Meanwhile, other countries in the region, such as Swaziland, have made great strides in the area of renewable energy. The Project Developer Forum brings together a distinguished panel presenting public and private sector perspectives from several Southern African countries. The panel will examine the South African Carbon Tax Scheme and the Swaziland Renewable Energy Plan and compare them to other regional initiatives and engage the audience in a discussion about the opportunities and obstacles that these Southern African approaches present.

Our Panelists: Mr. Phillip Hauser; Ms. Khetsiwe Khumalo; Mr. Washington Zhakata; Ms Catherine Lee

Project Developer Forums Recommendations for COP21

Reform of CDM and JI to establish an effective global project-based mechanism

While the CDM was created to allow the verification of internationally tradable GHG mitigation units in uncapped jurisdictions, we are moving into a world where all countries will have domestic mitigation objectives. Based on the iNDCs that have been put forward, especially those that establish economy wide and quantifiable targets, an effective reference is created to measure domestic mitigation as well as to account for the effect of international transfers. In this new context, the question of environmental integrity can easily be solved by accurate accounting of international transfers in relation to national inventories and the targets established by definitive NDCs, similar to the concepts that define Joint Implementation. In this way, internationally recognized project mechanisms can be used on domestic and international levels to leverage the private sector investments that are needed to achieve and exceed the GHG mitigation objectives that have been established. The reform of the Modalities and Procedures both for CDM and JI need to take these new circumstances into account. These mechanisms must be reinforced to expand their demonstrated capacity to leverage private sector finance.

Now in addition to the need of building on the CDM and JI to establish universal, project-based mechanisms, PD Forum also proposes concrete actions to overcome the current market crisis and promote early action:

Attract new sources for new demand by offering legal certainty for early action

The scientific necessity for significant GHG reduction is widely recognized, as is the fact that early action is significantly more cost effective than further delay. The lack of demand for existing and new GHG mitigation is clearly a result of political uncertainty about the future of existing mechanisms, as well as the absence of alternative mechanisms. Once this uncertainty is eliminated, broad and diversified demand will emerge as the private sector will anticipate investments. To overcome the current stalemate three conditions must be met:

- Investors must be provided with legal certainty and assurance that their pre-2020 efforts will be recognized by future domestic and international climate change policies. As the flexible mechanisms that were created and have been successfully deployed under the Kyoto Protocol, are the only fully developed tools we urge that they be recognized and strengthened under the Paris Accord.
- The CDM must be made available to a wider audience. This can be done through the Voluntary Cancellation tool, which allows the exchange of CERs for units in other emission reduction schemes, such as the South Korean and South African proposed carbon tax schemes.
- The CDM can provide a universal and streamlined framework for monitoring and tracing of international transfers or in combination with Climate Finance. Moreover, jurisdictions are free to define additional criteria to prioritize certain sustainability aspects or to promote the transfer of specific technologies.

Engage ICAO and IMO as multilateral actors and catalysts for global integration

ICAO and IMO are supra-national bodies that can promote international cooperation and trade as fundamentals of sustainable and equitable economic growth. In line with this vision, ICAO has already agreed on GHG neutral growth as of 2020. This commitment will be met, at least in part, through energy efficiency and sustainable biofuels. It will also require the use of market based instruments. ICAO is analyzing various options such as the purchase of emission allowances from established Emission Trading Schemes, voluntary and REDD+ based mechanisms as well as the CDM as an existing tool with distinct advantages:

- The recognition of CDM Certified Emission Reductions by the UNFCCC, as well as by the host country, ensures a high level of legal certainty and avoids double counting that would inevitably occur with mechanisms that are not recognized or accounted for by the host country or other relevant actors.
- The target of carbon neutral growth exposes ICAO's members to significant uncertainty in terms of volumes and long-term price increases. While the CDM has demonstrated it is capable of rapid response to demand for emission reductions, its investors remain vulnerable to price decay. A partnership between project investors and airlines would eliminate price risk for both sides.
- While societies of industrialized countries prefer domestic action over capital flows to other countries, airlines and shipping operators take a vital interest in the prosperity of their home markets. This interests are well aligned with social and economic development objectives of developing countries.
- The demonstrated ability of CDM investors and developers to ensure stakeholder engagement and to demonstrate social and environmental co-benefits, is a valuable advantage for the aviation industry, which seeks to ensure positive engagement with its clients and home markets.

In summary, we believe that the ICAO and IMO have a vital interest in ensuring the continuity of the CDM as it is an essential tool that can translate their environmental commitments into tangible early action that is aligned with their strategic necessities. Nevertheless, a decisive push from ICAO and IMO also depends on the continuity of the CDM and on the establishment of an adequate framework for tracking and accounting of international transfers of mitigation outcomes.

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ⁱ World Energy Outlook Special Report 2015: Energy and Climate Change, available at:

<https://www.iea.org/publications/freepublications/publication/weo-2015-special-report-energy-climate-change.html>

ⁱⁱ University of Freiburg; Faculty of Environment and Natural Resources in cooperation with ZEE – Centre for Renewable Energy; "The Cost-effectiveness of Abating Carbon Emissions Through the Clean Development Mechanism"; Master thesis by Michael Hayne, 31/3/2015

ⁱⁱⁱ United States Interagency Work Group, 2013. Technical Update of the Social Cost of Carbon for regulatory Impact Analysis, available at: http://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf

^{iv} OECD (2013), "Climate and Carbon: Aligning Prices and Policies", OECD Environment Policy Papers, No. 1, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/5k3z11hcg6r7-en>

^v Bodansky, Daniel, Seth Hoedl, Gilbert E. Metcalf, Robert N. Stavins. "Facilitating Linkage of Heterogeneous Regional, National, and Sub-National Climate Policies Through a Future International Agreement." Discussion Paper, Harvard Project on Climate Agreements, Belfer Center for Science and International Affairs, Harvard Kennedy School, November 2014.