

TOWARD A POST-2012 INTERNATIONAL CLIMATE AGREEMENT

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Negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) at Copenhagen in December 2009 did not produce a new international treaty with binding emissions commitments, but have defined a roadmap for dealing with global climate change in the post-2012 era. As countries continue to pursue new models for global agreement, it will be important to learn from the weaknesses of past approaches, while building on positive aspects of the experience with the Kyoto Protocol so far.

Lessons learned from the past

In assessing the effectiveness of the Kyoto Protocol, three main shortcomings must be considered:

1. Lack of a real global commitment. The countries that committed to quantitative emission-reduction targets under the Kyoto framework account for roughly 35 percent of global greenhouse-gas (GHG) emissions. Neither the United States nor the largest emerging countries were included in that group. This led to strong abatement efforts by a limited number of countries—many of which were already energy and emissions efficient—but only limited involvement by some of the top emitting economies. The result was no reduction in emissions at the global level.

2. Introduction of market distortions. The European Union's Emission Trading Scheme (EU ETS) is recognized worldwide as an innovative experiment in reducing GHG emissions by means of a cap-and-trade market. Nevertheless, the EU ETS has been hindered by top-down, politically-motivated objectives that fail to fully account for differences in the real situation of individual countries and sectors. This has had the effect of transferring to companies burdens that are not directly linked to their environmental performance. The power sector has been particularly susceptible to such distortions, on the generally incorrect assumption that it is less exposed to competition than other sectors.

3. Insufficient instruments for the development and deployment of low-carbon technologies. The Kyoto Protocol failed to establish adequate mechanisms for financing the development of innovative low-carbon technologies and for disseminating existing know-how. Insufficient emphasis was placed on technology transfer with the consequence that some tools, such as the Clean Development Mechanism (CDM),

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have not yet been deployed in such a way as to achieve their full potential and stimulate investment on a large scale.

At the same time, the direct involvement of private entities in achieving emissions reductions through the CDM and other mechanisms has proven to be successful. It is therefore essential that this element of the Kyoto Protocol be preserved in future agreements. (I return to the specific role of offsets below.)

Expectations for a future agreement

A renewed global agreement on reducing GHG emissions within the UNFCCC must reconcile the different positions and interests of different countries and geographical areas and must consider the numerous proposals tabled at Copenhagen. A successful future agreement must rest on five pillars:

1. A global approach. Climate change is a global challenge that requires an international effort. It will not be possible to limit the expected increase in global average temperature to 2°C (compared to pre-industrial levels) without engaging all countries in efforts to reduce GHG emissions. Developed countries have a pivotal role to play, but their efforts must be paralleled by an increasing and fundamentally active role on the part of emerging economies and by a fair distribution of resources and suitable financial mechanisms to support developing countries. As UN Secretary General Ban Ki-moon pointed out at the September 2009 Climate Change Summit in New York, the financing issue is in fact central to the solution of the problem.

To achieve global participation, different paths and different instruments could be designed to progressively increase the involvement of emerging countries with rapidly growing emissions—as distinct from the least developed countries, which are responsible for a very small share of global emissions while also being prone to the worst impacts of climate change.

A global approach is also required from the perspective of businesses in developed countries. They are concerned that asymmetric treatment of GHG emissions could cause emissions-intensive activities to relocate to other countries, with undesirable consequences in terms of carbon leakage and job losses.

2. Reasonable and achievable long-term targets, including clear interim milestones. A new international climate agreement must establish a long-term GHG reduction path up to 2050—one that respects the principle of common but differentiated responsibilities and capabilities. Effective action in the long term can only take place if investors can see clear targets over longer time periods. The concept of “commitment periods” could be maintained but with longer time spans than the present five years. This would also facilitate the inclusion of forestry and agricultural activities, in line with the time needed to verify net carbon up-take from activities in these sectors.

3. A global carbon market based on a clear and stable regulatory framework. The flexible mechanisms introduced by the Kyoto Protocol and the international carbon market have proven to be effective in achieving the dual objective of leveraging private-sector investment in developing countries and allowing developed countries to meet emission-reduction targets cost-effectively.

A recent communication from the European Commission (EC)—“*Stepping up international climate finance: a European blueprint for the Copenhagen deal*”¹—reports that an international carbon market, if properly designed, could potentially deliver as much as €38 billion per year in financial flows to developing countries by 2020. By comparison, the EC estimates that finance requirements for mitigation and

adaptation in developing countries could reach €100 billion per year in the same timeframe.

The positive performance of the EU ETS demonstrates that market-based solutions should be preferred over “command-and-control” approaches. Moreover, cap-and-trade systems, as opposed to carbon taxes, have the advantage of providing greater certainty that the desired environmental objective will be met.

The carbon market should be progressively expanded to include the largest possible number of countries, sectors, and gases. A first step could be to enable linkage between national and regional carbon markets by means of CDM-like mechanisms.

In sum, the market and investors should be able to rely on a stable regulatory framework—one that is capable of guaranteeing liquidity and generating clear price signals over the long term.

4. Technology push. Developing and deploying low-carbon technologies is crucial in the fight against climate change. Many such technologies already exist and can significantly reduce global emissions. However, achieving deep GHG reductions also requires new technologies and financing. Commercially available solutions need to be supported by removing legal and administrative barriers and should be encouraged by means of appropriate incentives. Setting a carbon price in a global market appears to be the best way to promote the rapid adoption of low-carbon technologies.

At the same time, cooperation between the private and public sectors is needed to develop new technologies. In particular, public funding is needed to accelerate progress along the learning curve for the most promising low-carbon technologies and to promote investments by companies that may be unwilling to take the first-mover risk.

Technology transfer via flexible mechanisms, such as CDM and joint implementation (JI), must also be enhanced. These mechanisms can help advance deployment in countries where technological capabilities and financial and energy markets are not yet fully mature.

5. Continued direct involvement of the private sector. Experience to date under the Kyoto Protocol framework shows that the largest share of emission reductions (approximately 85 percent) has been obtained through the direct involvement of private entities. A similar role needs to be preserved for private entities in any new regulatory framework established under a successor agreement. Moreover, administrative burdens need to be minimized to improve effectiveness and efficiency.

The potential role of offsets in a post-2012 framework

The remainder of this *Viewpoint* focuses on the specific role of carbon offsets in a post-2012 framework as a critical tool for (1) leveraging private-sector investment and facilitating international technology transfer and (2) enhancing flexibility and reducing overall mitigation costs. Offsets generally refer to emission-reduction credits that can be used to achieve GHG targets under both mandatory and voluntary schemes. Such credits are typically generated by implementing climate-change mitigation projects at sources or in jurisdictions that are not covered under a mandatory regime, and they are typically subject to independent quality verification.

Offset mechanisms, such as the CDM and JI programs, were introduced under the Kyoto Protocol as tools for facilitating the direct involvement of private entities in mitigation activities. Within the EU ETS, CDM and JI credits can be used by private entities to demonstrate compliance with the EU-wide emissions cap. Similar provisions for the use of both domestic and international offsets have appeared in recent U.S. legislative proposals (including the Waxman-Markey and Kerry-Boxer cap-and-trade bills) and in other countries' cap-and-trade systems.

The CDM in particular—though it requires improvement—has proven to be effective in mobilizing private capital for the implementation of emission-reduction projects in developing countries. Since the Kyoto Protocol entered into force in 2005, over 1,800 projects have been registered under the CDM. It is estimated that, together, these projects will generate approximately 1.7 billion tons of CO₂-equivalent emissions reductions by 2012. This success can largely be explained by the direct involvement of private entities, which were empowered by the CDM to deliver results. As noted, approximately 85 percent of the emission reductions achieved under Kyoto have resulted from activities carried out by private entities. Enel-Endesa is among the companies that have identified and undertaken CDM projects; its portfolio includes several dozen projects that have the potential to achieve emission reductions totaling nearly 200 million metric tons CO₂-equivalent in the 2008–2012 period.

There is a need to improve existing offset mechanisms, but some of the offset proposals tabled to date risk creating burdensome administrative processes. Any future architecture must maintain a role for the direct involvement of private entities.

Recommendations for improving and expanding offset mechanisms

A progressive global approach to mitigating climate change requires that current offset mechanisms be expanded and improved in ways that encourage financial flows from developed to developing countries, allow the active involvement of the private sector, and support the adoption of simplified procedures compared to past practices.

The most promising path forward focuses on improving the CDM. Crediting sectorial emissions reductions, including reductions from forestry activities, is currently also on the agenda of international negotiations. We believe that the possible introduction of such mechanisms should be carefully considered to ensure that it is compatible with delivering continued incentives for direct initiative on the part of private entities.

Clean Development Mechanism

Notwithstanding its weaknesses, the CDM has proven to be an innovative tool for promoting technology transfer to emerging and developing countries. If linked to cap-and-trade systems for limiting GHG emissions, mechanisms like CDM can encourage private-sector investment in emission-reduction activities and technologies worldwide, effectively contributing to global sustainable development. Ongoing negotiations over a post-Kyoto international climate agreement represent an opportunity to address the

weaknesses of the current CDM program and build on its strengths so as to better address several key objectives:

- improving, through technology transfer, the capability of emerging and developing countries to reduce emissions;
- leveraging private capital to finance sustainable development;
- reducing overall compliance costs; and
- offering an effective tool for linking different carbon trading systems, thereby creating a possible bridge to a truly global carbon market.

In sum, the continued development and use of CDM-like mechanisms makes sense:

1. The CDM should be enhanced, particularly with respect to assuring the environmental additionality and integrity of credited projects. Overall, however, the program has demonstrated its potential to contribute concretely to emissions reductions at the global level.

2. The private sector should continue to be directly involved, having proven through experience to date that it can deliver results under appropriate regulatory frameworks.

3. Quantitative and qualitative restrictions should be avoided. Environmental integrity must be guaranteed, but allowing for *a priori* lists of ineligible project types risks collapsing the potential for a new, effective offsets market—especially if such lists are unilaterally established by certain countries.

4. Retrospective application of new rules should be avoided as this would severely undermine the confidence of project developers and investors.

Finally, until new mechanisms have been proven to function, existing mechanisms should be kept in place to allow for a smooth transition to a new regime.

Joint Implementation

So far, the JI provisions of the Kyoto Protocol have not had the same success as the CDM. An important reason for this disparity is that the JI program started later than CDM. However, the JI mechanism could develop greater effectiveness in the future.

Sectorial crediting

Current negotiations seem to point towards the inclusion of sectorial approaches in a possible post-Kyoto agreement. Various proposals have been tabled: Some of them assume that a sectorial mechanism would generate credits (sectorial crediting mechanism); others that credit for sector-based GHG reductions would be eligible to be traded into the international carbon market (sectorial trading mechanism).

If current negotiations evolve toward the formation of a sectorial crediting and trading mechanism, it may be possible to overcome some of the weaknesses of the CDM's project-based approach.

To effectively implement a sectorial crediting mechanism, it should be designed with the following features:

- explicit recognition of the need for private-sector involvement, as noted in the Kyoto Protocol;
- provisions to reduce sovereign and counterparty risk by keeping the UN as the issuer of credits;
- certainty for private actors in the form of a guarantee that successful projects will receive credits even if those projects occur within sectors that do not succeed in achieving sector-wide targets; and
- assurance that local and international credits will be fungible.

NOTES

¹ European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, “Stepping up international climate finance: A European blueprint for the Copenhagen deal,” EC COM(2009) 475/3 (SEC(2009) 1172), 2009.

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ABOUT THE HARVARD PROJECT ON INTERNATIONAL CLIMATE AGREEMENTS

The goal of the Harvard Project on International Climate Agreements is to help identify and advance scientifically sound, economically rational, and politically pragmatic public policy options for addressing global climate change. Drawing upon leading thinkers in Australia, China, Europe, India, Japan, the United States, and other countries, the Project conducts research on policy architecture and key design elements of a post-2012 international climate policy regime. The Harvard Project also provides insight and advice regarding countries’ domestic climate policies, especially as these policies relate to the prospects for meaningful international action. The Project is directed by Robert N. Stavins, Albert Pratt Professor of Business and Government at the Harvard Kennedy School. Major funding for the Harvard Project on International Climate Agreements is provided by a generous grant from the Climate Change Initiative of the Doris Duke Charitable Foundation.

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