

THE SÃO PAULO PROPOSAL FOR AN IMPROVED INTERNATIONAL CLIMATE AGREEMENT

BY ERIK HAITES

JANUARY 2010



An effective international climate agreement poses formidable challenges. Existing agreements, naturally, have some good features. Further improvements are being discussed in the current negotiations. But the cost and uncertainty associated with regular renegotiation of commitments is not being addressed. The São Paulo Proposal suggests mechanisms that would avoid the need for regular renegotiation of commitments and suggests other ways to make international climate agreements more effective.

The United Nations Framework Convention on Climate Change (UNFCCC) enjoys almost universal participation. The Kyoto Protocol to the UNFCCC also enjoys almost universal participation, with the notable exception of the United States. Under the Protocol, thirty-eight developed countries take the lead in combating climate change by accepting national emissions-limitation commitments of greenhouse gases (GHG)¹ for the period 2008–2012. The Protocol established three emissions-trading mechanisms² to help developed countries meet their commitments: two mechanisms for trades between countries with commitments and the Clean Development Mechanism (CDM), which allows developed countries to purchase credits generated by emission-reduction projects in developing countries.

The Kyoto Protocol is not a long-term agreement and so does not provide the predictable framework needed for long-lived capital investments and for research on and development of lower-emission technologies. Rather it assumes successive commitment periods with revised national commitments reflecting the most recent scientific evidence. Changing the responsibilities of countries over time is implicitly assumed to be part of the periodic renegotiation of commitments.

It is widely recognized that a five-year commitment period does not establish a predictable framework for long-lived investments. But longer commitment periods require that countries agree to larger emission reductions and to an explicit process for changing country responsibilities. Due to the relationship between emissions and economic growth, countries are reluctant to agree to the larger reductions in national emissions commitments needed to stabilize atmospheric concentrations when the commitment

Viewpoints present policy proposals, considered opinions, and commentary by distinguished policymakers, leaders from business and nongovernmental organizations, and scholars. The Harvard Project on International Climate Agreements does not advocate any specific climate change policy proposals. Statements and views expressed in *Viewpoints* are solely those of the authors and do not imply endorsement by Harvard University, the Harvard Kennedy School, or the Harvard Project on International Climate Agreements.

periods are longer. Each country tends to be optimistic about its future economic growth and reluctant to agree to an emissions commitment that may be perceived as a constraint on its growth, even though the emissions-trading mechanisms loosen that constraint. National commitments that are politically acceptable for longer periods do not yield reductions on the scale needed to stabilize atmospheric concentrations.

The current negotiations are intended, among other things, to establish commitments for the period after 2012. Negotiations are proceeding simultaneously under the auspices of the UNFCCC and the Kyoto Protocol, where the United States and a few other non-signatory countries do not participate. The Copenhagen Accord may constitute a third track. Ideally, there would be a single agreement that covers all countries that is implemented through one or more legal instruments, such as an amendment to the Kyoto Protocol, a new protocol or, perhaps, a new treaty growing out of the Copenhagen Accord. Multiple legal instruments would, however, complicate ratification and future negotiations.

At present, the mechanism for changing the responsibilities of countries is the periodic renegotiation of commitments. Additional countries accept commitments—possibly different types of commitments—as part of the renegotiation. This approach is reasonable for a five-year commitment period. But for any longer period, an explicit process for changing country responsibilities during the course of the agreement is needed.

Regular renegotiation of commitments creates uncertainty. Renegotiation means that the future commitment of each country is unknown. The stringency of the future commitment is not known, the form of the commitment may change, additional countries may agree to a commitment of some form, and some countries may drop out of the agreement. As in any negotiating process, some participants resort to brinkmanship as a tactic, thus adding to the uncertainty. After a new agreement has been reached, cases in which countries that have not yet ratified their new commitments by the time their existing commitments expire are likely.

The São Paulo Proposal eliminates the cost and uncertainty associated with periodic renegotiation of commitments while retaining desirable features—including the principle of common but differentiated responsibilities, national emissions commitments, and emissions-trading mechanisms—of the Kyoto Protocol. It establishes a predictable long-term framework through small annual adjustments to national emissions commitments. And as any long-term agreement must, it includes a mechanism for changing country responsibilities.

Terms of the São Paulo Proposal

Developed countries negotiate annual emissions limitation commitments for the years 2013–2018. These commitments are automatically extended each year based on the following rules. The commitment of each developed country for the next year becomes more stringent if either of the following conditions is met for the year prior to the decision (during 2012 for the 2013 decision on the 2019 commitments, etc.):

- there has been a net increase in the total quantity of compliance units in all registries carried over during the year; or
- the international price of compliance units has not increased by more than inflation during the year.

If one of these conditions is met, compliance becomes easier or less costly, and the commitment of each developed country for the subsequent year (2019 for the 2013 decision) is reduced by 1.5 percent from that of the previous year (2018 for the 2019 commitment). A reduction of 1.5 percent per year is at the low end of the range of the reductions that developing countries are proposing unilaterally and consistent with the rate needed to stabilize atmospheric concentrations. If neither of the conditions is met, each country's commitment for the next year remains unchanged (2019 commitments would be the same as those for 2018).

Automatic extension of commitments provides economic and legal certainty far beyond the agreed targets for 2013–2018 while giving countries a high degree of assurance that the adjustments will not be economically burdensome. The extension procedure ensures commitments that are always known five years in advance and are predictable within a relatively narrow range (equivalent to 0 – negative 15 percent for absolute commitments) for the following ten years and with a wider range thereafter.

To further reduce the economic risks of this structure for developed countries, each country may choose to express its national commitment as any combination of (1) an absolute emissions limit (tCO₂e/year) and (2) an emissions-intensity limit (tCO₂e/unit GDP in inflation-adjusted national currency units). The rules for extension of the intensity component are as stringent as those for the absolute component. In addition, a country whose real GDP declined by more than 1 percent during a calendar year could request a compliance exemption for that year. In which case, its commitment for the year would be deemed to be equal to its actual emissions during that year.

A developing country may implement any combination of the following options that does not lead to double counting of emission reductions:

- host Clean Development Mechanism (CDM) projects;
- quantify the emission reductions achieved by its sustainable development actions (no credits);
- implement mitigation measures supported by international financial incentives; and
- adopt a sectoral or national “no lose” commitment.

A developing country may choose to implement mitigation measures, including policies to improve energy efficiency, reduce forest degradation and deforestation (REDD), and CO₂ capture and storage (CCS), supported by international financial incentives. A developing country may also adopt a sectoral (such as electricity generation) or national “no lose” commitment. A commitment may take the form of an absolute limit or a limit on the emissions per unit of output for the sources covered. Emission reductions beyond the commitment would earn CDM credits.

A developing country is expected to adopt a national emissions limitation commitment when it reaches its allocated limit on cumulative transfers of CDM credits. Each developing country would be allocated a limit on its cumulative transfers of CDM credits since 2005. Each country's limit would be a share of an agreed global limit on credit transfers. A country's share would be determined by its population multiplied by an index that reflects its responsibility, capability, and potential to mitigate. Responsibility is quantified as cumulative CO₂ emissions per capita since 1990, capability as GDP per capita for the most recent year available, and potential to mitigate as total GHG emissions per capita for the most recent year

available. Higher cumulative emissions, GDP, and GHG emissions per capita yield a smaller share of the global cap. A larger population produces a higher share of the global cap.

This method of determining when a developing country adopts a national emissions commitment:

- ensures that developed countries take significant emission limitation commitments (including purchases of CDM credits) before developing countries adopt commitments;
- allows developing countries to benefit from participation in the carbon market and receive funding for adaptation and technology development before adopting emission commitments;
- creates an incentive for every developing country to pursue a less emissions-intensive development path, even if it does not earn CDM credits, since that increases its limit and its benefits from participation in carbon markets; and
- recognizes the changing circumstances of individual developing countries over time.

When a developing country reaches its transfer limit, it would be considered a developed country and expected to negotiate annual national emissions commitments for each of the next six years. These commitments are then extended annually using the procedure described above. A developing country that did not adopt an emissions limitation commitment when it reached its transfer limit would be deemed to have withdrawn from the agreement.

The São Paulo Proposal also includes several other provisions that would make a more effective international climate agreement, including:

- national commitments include the net emissions due to all land use, land-use change, and forestry (LULUCF) activities within the party's boundaries;
- options for international sectoral agreements to address emissions leakage and economic competitiveness concerns in energy-intensive, trade-exposed industries;
- coverage of emissions from international aviation and shipping through emissions trading systems operated by the International Civil Aviation Organization and International Maritime Organization, respectively, with auctioned allowances; and
- transition provisions for CDM projects and sectoral agreements when a developing country adopts a national emissions commitment;
- the ability to use revenue generated by mitigation measures, such as auctioned allowances for international aviation and shipping, to complement contributions by developed country governments favors addressing adaptation and mitigation in the same agreement.

Universal participation is encouraged by flexible accession provisions and the possible application of trade sanctions on non-parties.

CONCLUSION

The São Paulo Proposal puts forth a predictable framework of criteria for ensuring long-lived capital investments and for research and development of lower-emission technologies. The proposal incorporates and adapts elements of proposal design currently under consideration by negotiators, such as sectoral agreements and managing international aviation and shipping emissions, while creating a more robust, scientifically sound, economically rational, and politically-feasible policy architecture that may inform and shape international efforts to reduce climate-related environmental degradation.

NOTES

¹ National commitments by developed, but not developing, countries give rise to concerns about possible leakage—shifting activities and their emissions to developing countries—and the associated adverse economic impacts on developed countries. Modeling indicates that leakage is likely to be relatively small (less than 10 percent) overall, but can be significant for a few energy-intensive, trade-exposed industries such as cement and steel. This leads to various proposals, including border tax adjustments, to limit leakage and the adverse economic impacts of differentiated commitments.

² The emissions trading mechanisms reduce the cost of meeting the overall emissions limitation commitment. They also separate responsibility for emission reductions (who pays) from implementation of the emission reductions. This means that national commitments can be based on an equitable sharing of responsibility without being constrained by the cost or feasibility of achieving the emission reductions in each country.

AUTHOR AFFILIATION

Erik Haites, *President*, Margaree Consultants

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.

Project Email: climate@harvard.edu

Project Website: <http://belfercenter.ksg.harvard.edu/climate>