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The São Paulo Proposal for an Agreement on Future International Climate Policy

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THE HARVARD PROJECT ON INTERNATIONAL CLIMATE AGREEMENTS

The goal of the Harvard Project on International Climate Agreements is to help identify key design elements of a scientifically sound, economically rational, and politically pragmatic post-2012 international policy architecture for global climate change. It draws upon leading thinkers from academia, private industry, government, and non-governmental organizations from around the world to construct a small set of promising policy frameworks and then disseminate and discuss the design elements and frameworks with decision-makers. The Project is directed by Robert N. Stavins, Albert Pratt Professor of Business and Government, John F. Kennedy School of Government, Harvard University. For more information, see the Project's website: http://belfercenter.ksg.harvard.edu/climate

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THE SAO PAULO PROPOSAL FOR AN AGREEMENT ON FUTURE INTERNATIONAL CLIMATE POLICY[1,2]

Executive Summary

The São Paulo Proposal is designed to create a stable, long-term, universal regime based on the principles of equity and common but differentiated responsibilities and respective capabilities. Such a regime is required to encourage the technological change and structural shifts necessary to stabilize greenhouse gas concentrations. Richer countries adopt binding targets that become more stringent over time. Financial and institutional provisions to enhance developing country implementation of mitigation and adaptation actions are strengthened. Over time they "graduate" to binding commitments based on their individual circumstances. Adaptation and technology are given prominent roles and significantly increased funding. Coordination of key domestic policies, including national emissions trading systems, energy efficiency standards, and fossil fuel subsidies, is enhanced. Specified emissions – such as those from international bunkers, a specific industry or a sub-national region of a non-party – can be addressed through sectoral agreements. Parties would have the option to impose trade sanctions on non-parties.

[1] The provisions proposed in this paper were put forward by the Task 4 Team of the BASIC Project to advance future climate policy discussions and do not express the views or opinions of the funders or the BASIC Project Team as a whole. The Task 4 Team consisted of Gylvan Meira Filho, Institute for Advanced Studies, University of São Paulo, José Goldemberg, Instituto de Eletrotécnica e Energia, University of São Paulo, Jacques Marcovitch, Faculty of Economics, University of São Paulo with support from Erik Haites, Margaree Consultants, Niklas Höhne, Ecofys and Farhana Yamin, Institute of Development Studies, University of Sussex, UK.

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The São Paulo Proposal for an Agreement on Future International Climate Policy

The United Nations Framework Convention on Climate Change (UNFCCC) has as its ultimate objective "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." It also provides that developed country (Annex I) Parties should take the lead in combating climate change and the adverse effects thereof based on the principles of equity and common but differentiated responsibilities and respective capabilities.

To stabilize atmospheric concentrations at any level will require significant reduction of current global emissions. As a first step, the Kyoto Protocol limits the emissions of developed country (Annex B) Parties during the period 2008-2012. The United States, the world's second largest emitter, has not ratified the Kyoto Protocol.

The emission reductions needed to stabilize atmospheric concentrations can only be achieved through sustained efforts by all countries over several decades. The technological change and structural shifts needed require a comprehensive, long-term regime. But scientific knowledge, technology and the circumstances of individual countries will change significantly in unforeseen ways over this period.

The São Paulo Proposal presents a coherent package that covers all of the elements of the Bali Action Plan. Presenting a coherent package is intended to advance discussion beyond the suite of ideas and options that currently abound in the literature.[1] Each element of the Sao Paulo Proposal is accompanied by an explanation that indicates why it has been included and its salient implications.

The São Paulo Proposal reflects the principles of equity and common but differentiated responsibilities and respective capabilities. All Parties have common responsibilities, but the effective date, and legal nature, of the responsibilities are differentiated based on their capabilities. Richer (Annex I/B) Parties are expected to continue their leadership by using their economic and intellectual resources to reduce their emissions, develop new technologies, and ensure a stable stream of funding for adaptation by vulnerable developing country (Non-Annex I) Parties. Non-Annex I Parties are expected to adopt sustainable development policies. Over time, based on their individual circumstances, developing countries are expected to take on emissions limitation commitments.

The São Paulo Proposal is presented in the form of an amended Kyoto Protocol. The advantage of amending the Kyoto Protocol is that it allows improvements and innovations to be adopted with less risk of re-opening what has already been agreed or disturbing established institutional arrangements. The major disadvantages are that non-Parties to the Protocol can participate in the negotiation of amendments only as observers and would have to become parties to the Kyoto Protocol to be part of the new regime. Other options for putting the Proposal into legal effect are discussed later (Element 20).

The rest of the paper presents and explains the 20 Elements of the São Paulo Proposal.

Element 1: Medium and Long Term Goals

Parties agree on one or more medium- and long-terms goals which are used to assess progress toward the ultimate objective of avoiding dangerous anthropogenic interference with the climate system.

Explanation

Adoption of medium- and long-term goals enables the Protocol to be more closely tied to climate science and sustainable development. Examples of possible goals include:
(a) a maximum temperature increase of 2°C from pre-industrial levels by 2100
(b) a maximum atmospheric concentration of CO_2 of 450 ppmv by 2050
(c) greenhouse gas emissions by Annex I Parties at least 80% below their combined 1990 emissions in 2050
(d) global food supply sufficient to reduce hunger by [X] by [date]
(e) maximum loss of natural ecosystems of [X] by [date]

These goals have no direct consequences for Parties' commitments; rather they provide a basis for the Conference of the Parties serving as the Meeting of the Parties (COP/MOP) to assess progress during the five year reviews.

Element 2: Commitments of Annex I/B Parties[2]

Parties negotiate the annual emissions limitation commitments of each Annex I Party for each calendar year from 2013 through 2018 in tCO_2e/year. The commitments are to include the net emissions due to all land use, land-use change and forestry (LULUCF) activities on all lands within the Party's boundaries.

After the commitments have been agreed politically each Party may choose to convert its commitment into a combination of the following legal forms:

- an absolute emissions limit (tCO_2e/year) and
- an emissions intensity limit (tCO_2e/unit GDP in inflation-adjusted national currency units).

The rules for conversion and extension of the intensity component are designed to be as stringent as those for the absolute component.

Over time countries that currently are not Annex I Parties also negotiate such commitments. After a Non-Annex I Party has negotiated a commitment that is approved by the COP/MOP, Annex B is amended to show this Party's commitment for the initial six calendar years.

An Annex I/B Party may request COP/MOP approval for a change to the type and/or level of its commitment at any time.

Explanation

Each Annex I/B Party has a choice of expressing its annual commitments as any combination of absolute and GDP intensity emissions limits.[3] For example, a Party could decide to convert its

annual commitments to 50% absolute, 50% intensity.[4] A Party could choose an absolute commitment for all of its emissions or an intensity commitment for all of its emissions. The intensity component is intended to be as stringent as the absolute component over time.[5]

For ease of comparison and transparency the annual commitments for 2013-2018 would be *politically negotiated* on the basis of absolute emissions. After agreement is reached, the legal form of the commitments would be chosen by the Party concerned and then set out in the amended Protocol. The initial commitments are for each *calendar year* for the period 2013 through 2018. With unlimited carryover (banking) and assessment of compliance at five year intervals (as proposed below), this offers the same flexibility provided by Kyoto's five year commitment period.

The net emissions due to all land use, land-use change and forestry (LULUCF) activities on all lands within the Party's boundaries are included in the commitments. This differs from the Kyoto Protocol which allows each Party to choose LULUCF activities and/or areas for LULUCF activities that count toward meeting its commitment.[6] Including all LULUCF activities within Party boundaries provides comprehensive coverage of emissions and sinks.

When Annex B is amended to include commitments for another Party or an Annex I/B Party requests a change to type or level of its commitment, the request would be considered at the subsequent session of the COP/MOP. Adoption would require approval by three fourths of the Parties present and voting. Existing commitments, if any, remain in effect while the request is considered.

Element 3: Automatic Extension of Annex I/B Commitments

The commitments of all Annex I/B Parties after 2018 would automatically be extended annually rather than be politically negotiated. Commitments for 2019 would be set in 2013, those for 2020 in 2014, etc., based on the following formula.

The proposed formula specifies that if conditions during the year pervious to the decision (2012 for the 2013 decision on the 2019 commitment) indicate that compliance for *Annex I/B Parties as a whole* has not been burdensome, the commitments of all *Annex I/B Parties* for the next year (2019 for the 2013 decision) are made more stringent by the equivalent of 1.5% for absolute commitments. If compliance has been burdensome, the stringency of the commitments for the next year remains unchanged (2019 commitments of all *Annex I/B Parties* would be the same as those for 2018). The intensity component of the commitment is adjusted to maintain equivalent stringency.

Specifically, the commitments of *all* Annex I/B Parties for the next year will be made more stringent if *either* of the following conditions is met:

- the total quantity of compliance units in all registries carried over has increased from the same date during the year prior to the COP/MOP; or
- the international price of AAUs during the year prior to the COP/MOP has not increased by more than the rate of inflation.

Notwithstanding the extension procedure, a Party would be able to request an amendment to Annex B to change the type or level of its commitment at any time. The proposed change would need to be approved by three fourths of the Parties present and voting at a COP/MOP.

Explanation

The automatic extension of commitments is a key feature of the São Paulo Proposal. It provides economic and legal certainty far beyond the agreed targets for 2013-2018 whilst still giving Parties a high degree of assurance that the adjustments will not be economically burdensome. The extension procedure avoids the uncertainty created by commitments that "expire" every five years. Such uncertainty hampers the long-term investments, structural changes, technological development, and stable carbon markets needed to reduce emissions significantly.

The extension procedure ensures commitments are always known five years in advance and are predictable within a relatively narrow range (equivalent to 0 to -15% for absolute commitments) for the following ten years.[7] Annual adjustments to commitments are small (equivalent to 1.5% for absolute commitments) and occur only if compliance is not burdensome. This approach is more attuned to the 10-40 year investments typical of major carbon emitting sectors such as power generation, transport and industry than targets negotiated for five- year periods.

Commitments are made more stringent only if the trigger conditions demonstrate that compliance for Annex I/B Parties *as a group* has become easier or less costly during the previous year. The commitments of all Annex I/B Parties for the next year will be made more stringent if *either* of the following conditions is met:[8]

- the total quantity of compliance units in all registries carried over has increased from the same date during the year prior to the COP/MOP; or
- the international price of AAUs during the year prior to the COP/MOP has not increased by more than inflation.

If compliance is *not* becoming easier or less costly (neither condition has been met):[9]

- the absolute component of the commitment remains unchanged for the next year and
- the intensity coefficient is reduced by 3%.

If compliance *is* becoming easier or less costly, (one of the conditions has been met):

- the absolute component of the commitment is reduced by 1.5% for the next year and
- the intensity coefficient is reduced by 6%.

A reduction of 1.5% per year is at the low end of the range of the reductions countries are proposing unilaterally:

- Australia 5% to 25% below 2000 in 2020 from 7% above 1990 in 2012 (-1.5% to -4.07% per year);
- Canada 20% below 2006 emissions in 2020 (-1.43% per year);
- European Union 20% to 30% below 1990 in 2020 from 8% below in 2012 (-1.5% to -2.75% per year);
- Japan 15% below 2005 in 2020 (-1.0% per year) for domestic reductions only;

- New Zealand 10% to 20% below 1990 in 2020 from 24% above 1990 in 2008 (-2.83% to -3.67% per year);
- Norway 30% below 1990 in 2020 from 9% below 1990 in 2012 (-2.62% per year);
- Switzerland 20% below 1990 in 2020 from 8% below 1990 in 2012 (-1.5% per year); and
- United States 17% below 2005 in 2020 (-1.55% per year).
- Several of these countries also have targets of 50% to 80% emission reductions by 2050. The base year often is not specified, but taking it to be 2005, yields average annual reductions of (-1.11% to -1.78% per year).

The extension procedure applies to the commitments of all Annex I/B Parties i.e. if either of the trigger conditions is met, *all* Annex I/B Parties have their commitments made more stringent automatically by the same amount at the same time. This provides certainty that all are pulling together in the same direction under the same constraints even if their actual targets have a different legal form.

It is unlikely that a single Annex I/B Party could influence the trigger conditions. Even if this did happen, it would affect all Annex I/B Parties equally. So a Party that tried to manipulate the trigger conditions would not gain a competitive advantage over other Annex I/B Parties.

Element 4: Economic Hardship

An Annex I/B Party whose real GDP has declined by more than 1% during a calendar year may request a compliance exemption for that year. Then its commitment for the year would be deemed to be equal to its actual emissions during the year.

Explanation

The economic hardship provision addresses concerns associated with the economic risks of long-term commitments. An *individual* Annex I/B Party can request a compliance exemption for a calendar year if its real GDP has declined by more than 1% during that year. Then its commitment for the year will be deemed to be equal to its actual emissions during the year.[10] This means it will not bear an additional economic burden due to meeting its emissions limitation commitment for that year. The number of consecutive exemptions is not limited.[11]

Element 5: Non-Annex I Parties' Quantified Sustainable Development Actions and "No-Lose" Commitments

The stronger commitments by Annex I/B Parties are accompanied by a wider range of actions by developing countries to reduce their emissions in ways that enhance sustainable development. A Non-Annex I Party may:

- host Clean Development Mechanism (CDM), including programmatic CDM, projects;[12]
- quantify the emission reductions achieved by its sustainable development actions;
- implement mitigation measures supported by international financial incentives, such as policies to reduce forest degradation and deforestation (REDD), and CO_2 capture and storage (CCS); and
- adopt a sectoral, excluding LULUCF, or national "no lose" commitment.[13]

A Non-Annex I Party may adopt any combination of these options as long as it does not lead to double counting of emission reductions.

Non-Annex I Parties that volunteer to quantify the emission reductions achieved by their sustainable development actions must calculate the emission reductions achieved using methodologies agreed by the COP/MOP and report them regularly through their national communications. Quantified sustainable development actions under this option can *not* generate tradable credits. But Parties that quantify their emission reductions would be entitled to use simplified procedures to access funding from the Convention Fund (see Elements 12 and 13).

Non-Annex I Parties may choose to implement *mitigation measures supported by financial incentives* from the financial mechanism. Financial incentives would be offered for mitigation measures whose potential emission reductions are large relative to the size of the CDM and whose unit cost is somewhat lower or higher than the price of CERs. Energy efficiency, REDD and CCS would be addressed in this way.

Non-Annex I Parties may also adopt *a sectoral or national "no lose" commitment* which can earn certified emission reduction units (CERs) for the net emission reductions achieved. A proposed commitment must be approved by three fourths of the Parties present and voting at a session of the COP/MOP and be maintained until the Party becomes an Annex I/B Party and adopts a binding national commitment.

Explanation

The São Paulo Proposal gives effect to the principle of common but differentiated responsibilities by allowing developing countries to accelerate actions to reduce emissions consistent with their sustainable development priorities without taking on legally binding commitments.

Reductions Achieved by Sustainable Development Actions

A Non-Annex I Party may elect to quantify and report the emission reductions achieved by its sustainable development actions. At present, although all Parties have committed to implement and publish measures to mitigate and adapt to climate change, there is no clear institutional mechanism to measure and report the resulting emission reductions.[14] As a result the very significant contribution of developing countries to global climate protection is insufficiently acknowledged. Being able to report the reductions achieved by sustainable development actions addresses this gap and allows the contributions of developing countries to be counted and politically recognized. Quantified sustainable development actions do not generate tradable credits. A Non-Annex I Party that prefers to generate tradable credits can implement its sustainable development actions as programmatic CDM projects or adopt a "no lose" commitment that receives financial support or generates CERs.

The benefits of electing to quantify and report the emission reductions achieved by sustainable development actions are:

- international recognition for the emission reductions achieved;

- use of simplified procedures to access funding from the Convention Fund; and [15]
- by reducing per capita emissions, deferral of the date when the Party reaches its cap on transfers of CERs (see Element 6 below).

Quantified sustainable development actions by Non-Annex I Parties would not affect the existing UNFCCC commitment for Annex II Parties to provide new and additional funding for matters covered by Convention Articles 4.1, 4.4 and 4.5.

Methodologies for calculating emissions reductions due to implementation of sustainable development actions could be developed by an existing body such as the Consultative Group of Experts on National Communications from Non-Annex I Parties (CGE) for approval by the COP/MOP.[16] Results and emission reductions would be reported in national communications.[17] The UNFCCC secretariat would synthesize the information from national communications and report periodically to the COP/MOP.

Financial Incentives for Mitigation Measures

Financial incentives would be available to Non-Annex I Parties for implementation of specified mitigation measures, including energy efficiency, REDD and CCS. Measures eligible for financial incentives are those whose unit cost is expected to be higher than the market price for CERs, such as CCS, and those that could disrupt the CDM because their unit cost is expected to be below the market price for CERs and their potential supply is large relative to the size of the CDM, such as REDD. Implementation of energy efficiency is hampered by non-market barriers, so financial support is provided for development and implementation of appropriate national policies.

The CDM market will not lead to implementation of CCS and other higher cost measures on the scale needed. Due to its potential size, including REDD in the CDM will lower price of CERs and displace many mitigation actions that would be implemented as CDM projects. As the low share of emission reductions from energy efficiency in the CDM demonstrates, a market incentive is not the most effective policy to stimulate energy efficiency. Funding is provided for policies, such as appliance, equipment and vehicle standards and building codes. Funding would be provided by the financial mechanism and other sources as decided by three fourths of the Parties present and voting at a session of the COP/MOP.

Non-Annex I Parties with large areas of forest or large emissions due to deforestation or forest degradation could agree to implement nationally appropriate, measurable, reportable and verifiable REDD mitigation actions. A Party would establish a national baseline, a scenario that is likely to have occurred in the absence of the REDD activities, such as a historical deforestation level.[18] For countries that have already lost most of their forests, the baseline would be near zero emissions.

"No lose" Commitments

Provided there is no double counting with other options, a Non-Annex I Party 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. A proposed commitment must be reviewed by the CDM Executive Board to ensure that the:[19]

- commitment is more stringent than the emissions that would otherwise occur;
- methodology for monitoring the actual emissions of sources covered by the commitment is appropriate;
- possible increases in emissions by other sources and double-counting of reductions claimed by CDM projects are identified and incorporated into the calculation procedure; and
- procedure for calculating the net emission reduction achieved by the commitment is reasonable.

Given a recommendation for approval by the CDM Executive Board, a proposed "no lose" commitment would be approved by three fourths of the Parties present and voting at a session of the COP/MOP.[20] Once the COP/MOP had approved a "no lose" commitment, it would be treated as registered by the CDM Executive Board.

The Non-Annex I Party government with a "no lose" commitment periodically would retain an accredited Designated Operational Entity to verify and certify the net emission reductions achieved since the previous verification. The CDM Executive Board would issue CERs for the certified emission reductions into the Party's account in the CDM registry. The CERs would be subject to the 2% levy for the Convention Fund. To avoid instability, a "no lose" commitment would need to be maintained until the Party becomes an Annex I/B Party with a national emissions limitation commitment.

Element 6: Graduation by Non-Annex I Parties

A Non-Annex I Party is expected to become an Annex I/B Party and adopt a national emissions limitation commitment when its cumulative transfers of CERs since 1 January 2005 reach its share of the global cap on such transfers.[21] Each Non-Annex I Party's share of the global cap is based on its population and an index that reflects its responsibility, capability, and potential to mitigate. The shares, and hence the transfer limit for each Party, would be recalculated at five year intervals to reflect changing developing country circumstances. The global cap and formula for calculating the share for each Non-Annex I Party would be agreed as part of the political negotiations.

Once the cumulative transfers of CERs since 1 January 2005 by a Non-Annex I Party reach its cap, the Party is expected to become an Annex I/B Party and accept a national emissions limitation commitment, bearing in mind that this commitment is negotiated and so can reflect national circumstances and that the Party may choose the form of its target; absolute or intensity.[22] A Non-Annex I Party that does not adopt a national emissions limitation commitment when it has reached its cap is deemed to have withdrawn from the Protocol.

Explanation

A stable, universal regime to address climate change must include a provision for determining when a Non-Annex I Party is expected to adopt an emissions limitation commitment.[23] In the

São Paulo Proposal this mechanism is a cap on the cumulative transfers of CERs by each Non-Annex I Party.[24] This means that a Non-Annex I Party "graduates" when it meets agreed criteria, in the form of its limit on cumulative transfers of CERs, rather than at an arbitrary date.

A global cap on transfers of CERs would be shared among Non-Annex I Parties based on each Party's population multiplied by an index that reflects three factors: responsibility, capability, and potential to mitigate.[25] Responsibility is quantified as cumulative CO_2 emissions per capita since 1990,[26] capability as GDP per capita for the most recent year available, and potential to mitigate as total greenhouse gas emissions, excluding emissions from land use change and forestry, per capita for the most recent year available. Higher cumulative emissions per capita, GDP per capita and GHG emissions per capita yield a lower value for the index and hence a smaller share of the global cap. A larger population produces a higher share of the cap.

The limits on transfers of CERs determine when a Non-Annex I Party graduates based on its individual circumstances in an equitable and balanced manner that:

- ensures that Annex I/B Parties undertake significant emission limitation commitments (including purchases of CERs) *before* Non-Annex I Parties are expected to adopt commitments. Weak commitments by Annex I/B Parties reduce the quantity of CERs they purchase, which delays the date when each Non-Annex I Party reaches its cap. Conversely, stronger commitments by Annex I/B Parties advance the dates when Non-Annex I Parties accept binding obligations.
- allows Non-Annex I Parties to benefit from participation in the carbon market and receive increased funding for adaptation and technology development *before* being expected to adopt binding emission limitation commitments.
- creates an incentive for every Non-Annex I Party to pursue a less emissions-intensive development path even if it does not earn CERs, since that increases its cap and its benefits from participation in carbon markets. A Non-Annex I Party also could earn CERs for reducing its emissions, but retain some of those units to delay the date at which it reaches its limit and to help it comply with its subsequent commitment.
- provides an equitable geographic distribution of the benefits of participating in the Protocol in the long run. As individual Non-Annex I Parties graduate, the share of CERs the remaining Non-Annex I Parties can supply to carbon markets is increased.
- recognizes the changing circumstances – population, per capita GDP, per capita GHG emissions – of individual Non-Annex I Parties over time.

It is important to remember that CERs do not reduce net emissions to the atmosphere. The emissions reduction in the Non-Annex I Party is offset by the emissions of an Annex I/B Party. Both Parties benefit economically, but there is no climate change benefit. Ultimately, therefore, transfers of CERs must be limited and Non-Annex I Parties must adopt emission reduction commitments.

Procedurally, the size of the global cap and an agreed process for how this cap would be shared among Non-Annex I Parties and be periodically recalculated would be negotiated. Responsibility for implementing the process would be given to the Facilitative Branch of the Compliance Committee. The data would be obtained from Non-Annex I national communications.

When a Non-Annex I Party reaches its transfer limit, it negotiates a national commitment that reflects its national circumstances. The annual commitment for each of the first six years is negotiated and is approved by three fourths of the Parties present and voting at the next COP/MOP. Once approved, the Party may choose the form of its target; absolute, intensity or a combination of the two.

A Non-Annex I Party that did not adopt a quantified commitment when it reached its transfer limit would be deemed to have withdrawn from the Protocol (although it would remain a Party to UNFCCC).[27] Withdrawal from the Protocol would mean loss of access to benefits such as transfers of CERs, access to the financial support for mitigation and adaptation, and possible imposition of trade restrictions (see Element 17 below).

Element 7: Clean Development Mechanism

The Clean Development Mechanism continues to function with the following refinements:

- afforestation and reforestation project activities will continue to be eligible; and
- project activities that reduce emissions of gases other than CO_2 will be limited to a single crediting period and be eligible only if the host government requires the measures implemented to remain in operation after the end of the crediting period.

If a Non-Annex I Party does not ratify the amended Protocol by 30 September 2012, CERs, lCERs and tCERs held in accounts of the Party and legal entities approved by the Party would be ineligible for transfer to other accounts after 31 December 2012.

Explanation

The CDM is of fundamental importance to developing countries and an important element of Annex I/B Parties compliance efforts. The provisions of Article 12 of the Kyoto Protocol, all decisions of the COP and COP/MOP relating to the CDM, and all decisions of the Executive Board remain in effect.

Limiting CDM projects that reduce gases other than CO_2 to one crediting period would provide more support for renewable energy and other emission reduction projects and implicitly widen the geographic benefits of the CDM – to the likely benefit of LDCs and smaller countries. Afforestation and reforestation projects, currently limited to the Kyoto Protocol's first commitment period, remain eligible indefinitely, again benefiting a wider range of Non-Annex I Parties.

To provide stability and security for the carbon markets it is important there be no gap between the end of the Kyoto Protocol and the start of the new regime. To create an incentive to ratify the amended Protocol in time for it to enter into force on 1 January 2013 and so provide economic security for existing CDM investments, CERs, lCERs and tCERs in the accounts of a Non-Annex I Party and those of its approved legal entities could not be transferred after 31 December 2012 if it did not ratify the revised Protocol by 30 September 2012. Similar provisions would apply to ERUs, RMUs and AAUs to encourage Annex I/B Parties to ratify the revised Protocol by 30 September 2012 as well.

A transitional issue that arises when a Non-Annex I Party adopts quantified emissions limitation commitments is the fate of the CERs, lCERs and tCERs that could be issued for reductions achieved prior to the end of the current crediting period for each project registered prior to the effective date of the commitment.[28] The São Paulo Proposal is that each existing project continue to earn CERs, lCERs and tCERs for verified emission reductions for the balance of its current crediting period and that those units *not* be deducted from the host country's national commitment.[29] Since the emission reductions achieved by those projects help the Party achieve its newly adopted commitment this would create some double counting, but it has the benefit of providing security for existing CDM investments.

Element 8: Joint Implementation

Joint Implementation would continue to function unchanged except that ERUs transferred from the national registry of the host Party would be subject to a share of proceeds equal to 2% for the Convention Fund.

Explanation

The São Paulo Proposal carries forward the provisions of Article 6 of the Kyoto Protocol, all decisions of the COP and COP/MOP relating to Joint Implementation, and all decisions of the Joint Implementation Supervisory Committee into the amended Protocol.

The Proposal provides that a 2% share of proceeds be applied to any transfer of ERUs out of the national registry where they are issued. This is a one time tax unless the unit is sent back to its initial registry and then exported a second time. This share of proceeds would go to the Convention Fund.

Element 9: Emissions Trading

Emissions trading would continue to function under the São Paulo Proposal unchanged except that:

- AAUs and RMUs transferred from the national registry into which they were issued will be subject to a share of proceeds equal to 2% for the Convention Fund; and
- carry overs of AAUs, CERs, tCERs, lCERs, ERUs, RMUs or VERs are not restricted.

Explanation

Emissions trading is a crucial part of the system of global cooperation to lower the costs of compliance. The provisions of Article 17 of the Kyoto Protocol and all decisions of the COP and COP/MOP relating to Emissions Trading are reaffirmed and given legal effect under the São Paulo Proposal.

The 2% share of proceeds is applied to any transfer out of the national registry where an AAU or RMU was issued. This would be a one time tax on units traded internationally as traders would

avoid transferring units back into the national registry where the units were issued and out a second time.

A further improvement is removal of the current restrictions on banking or carryovers of units. These restrictions are mainly of an historic interest as in practice they are readily circumvented.

Element 10: Domestic Policies

All Parties agree to implement and, as appropriate, coordinate their domestic policies in the following areas:

- linking of domestic emissions trading systems;
- phasing out subsidies for production and consumption of fossil fuels;
- adopting internationally agreed energy and water efficiency standards; and
- implementing design standards for infrastructure to incorporate the projected impacts of climate change.

Explanation

Most Annex I/B Parties have already implemented or plan to implement a domestic emissions trading system to help meet their national commitment. All of the existing and planned systems allow regulated entities to use CERs, and sometimes other units, for compliance. The quantity or types of CERs and other units used are restricted by most systems. While there is expressed interest in bilateral links, none has yet been implemented. Parties would agree, at a minimum, to link with international compliance units, such as CERs, to loosen restrictions on the use of those units, and to adjust the caps to ensure a net inflow of units. That would make CERs the marginal supply for all systems and yield a common market price across all systems.

Subsidies for production and consumption of fossil fuels exceed $200 billion annually, mainly in Non-Annex I Parties. Removing the subsidies would reduce greenhouse gas emissions and improve welfare. Technical assistance would be offered to countries to phase out the subsidies and introduce measures that support the real incomes of targeted social groups in more direct and effective ways.

A process modeled on the Japanese “top runner” program would be implemented internationally to progressively update energy and water efficiency standards for virtually all appliances, equipment and vehicles. The revised standards would need to be incorporated into relevant legislation and regulations by all Parties. Non-Annex I Parties may request funding for the revision and implementation of standards.

To minimize future adaptation costs, all Parties agree to review, and revise as necessary, design parameters and standards for infrastructure to incorporate the projected impacts of climate change. The review of design parameters and standards will cover, inter alia, port facilities, sea walls, canals, dams, water systems, irrigation systems, storm and sanitary sewer, residential buildings, commercial and industrial buildings, roads, railways, bridges, communication systems, and electricity grids. The revised parameters would be incorporated into the relevant legislation, regulations, professional standards, etc. to ensure that they are used in the design of

new facilities and changes to existing facilities. Non-Annex I Parties may request funding for the review, revision and implementation of design parameters and standards.

Coordination of domestic policies would be a responsibility of the Facilitative Branch of the Compliance Committee. However, cooperation and technical work might be done under the aegis of other organizations, such as the International Carbon Action Partnership for emissions trading systems, the World Bank for phasing out subsidies, and the International Standards Organisation for the development of energy and water efficiency standards.

Element 11: Enhanced Implementation of Adaptation

A permanent Adaptation Committee of Experts (ACE) is established immediately to provide advice to on adaptation activities and funding. ACE would also act as a focal point for institutional and policy linkages with international and national bodies charged with achievement of development goals and with disaster risk reduction and relief.

ACE is mandated to consult with relevant experts and international organizations to define appropriate roles for adaptation, risk reduction, and risk management by COP 15 in 2010. Parties commit to adopt an appropriate legal instrument to give effect to a risk management or insurance mechanism to address the impacts of climate change by 2012.

Funding for adaptation is enhanced by supplementing the Adaptation Fund with resources from the Convention Fund.[30] ACE will be charged with providing advice to the Convention Fund Board on the amount of funding needed for adaptation and strategies for delivering adaptation funding.

Explanation

Adaptation is an immediate, as well as an on-going long-term, challenge that merits a permanent, institutionalized form of oversight and encouragement and a higher, better funded profile in the post 2012 regime. Currently, adaptation issues are dealt with in a piecemeal, ad-hoc manner without proper institutional support. To redress this, a new, permanent Adaptation Committee of Experts (ACE) is established by a COP/MOP decision without the need for the amended Protocol to enter into force. This is similar to the prompt start of the CDM, which was set up in 2001 under the auspices of the COP before the Kyoto Protocol entered into force.

The composition of the ACE could be similar to that of the Consultative Group of Experts on National Communications from Non-Annex I Parties (CGE).[31] ACE would act as a focal point within the Protocol for institutional and policy linkages with international and national bodies charged with achievement of Millennium Development Goals and with disaster risk reduction and relief, such as International Strategy for Disaster Reduction, and national platforms for disaster risk reductions established under the Hyogo Framework for Disaster Risk Reduction.

ACE is specifically mandated to consult with relevant experts and international organizations to define appropriate roles for adaptation, risk reduction, and risk management. The results of these consultations are expected to provide the basis for a legal instrument to give effect to a risk

management or insurance mechanism to address the impacts of climate change, including losses due to extreme weather events, no later than the end of 2012.[32]

ACE would be responsible for developing tools and techniques to assess vulnerability and adaptation options for human populations and natural ecosystems and recommend them to the Boards of the Adaptation and Convention Funds. The Boards of these Funds would use these tools and techniques to focus their financial resources primarily on programmatic approaches and projects in developing countries that help people and ecosystems particularly vulnerable to the adverse effects of climate change to adapt to climate change.

Disbursement of substantially larger amounts for adaptation will raise important delivery issues. Adaptation spending will need to be divided among provision of health care, support for irrigation systems, coastal protection, reduction of the impacts of extreme weather events, and other needs. Every allocation decision will implicitly involve a regional distribution of spending. Every allocation decision will implicitly have a temporal dimension as well. Funding measures to reduce the impacts of extreme weather events should yield savings in the future, but it may reduce the money available to deal with immediate health care needs. These implicit choices can not be avoided.

ACE will provide advice to the Boards of the Adaptation and Convention Funds on strategies for delivering adaptation funding. One option is to allocate most of the funds to Parties and allow each national government to indicate how the funds will be used either as a separate plan or as part of its economic development or poverty alleviation plan. Another option is to allocate funds among different needs and then fund implementation programs delivered by specialist public and private agencies.

Element 12: Technology Transfer

Technology transfer is assisted by enhancing systems to provide information on available technologies, helping to build capacity or reduce barriers to use new technology, and by resolving disputes over technology transfer.

Explanation

Technology transfer is a commercial transaction. The São Paulo Proposal believes the amended Protocol can best assist such transactions by enhancing systems to provide information on available technologies, helping to build capacity or reduce barriers to use new technology, and by resolving disputes over technology transfer.

The Proposal is to enhance the information available in databases such as TTClear clearinghouse operated by the UNFCCC secretariat and the Climate Technology Initiative of the International Energy Agency, with expert advice available to entities in Non-Annex I Parties.

Non-Annex I Parties could submit plans to build capacity or reduce barriers to the use of new technologies as identified by their Technology Needs Assessments. The Convention Fund would

share the cost of implementing such plans in a manner similar to that of the Multilateral Fund under the Montreal Protocol.

Some developing countries believe that developed countries restrict the transfer of needed technologies. And some developed countries believe that developing countries impose barriers that restrict the transfer of appropriate technologies. The São Paulo Proposal encourages a Party that believes another Party is restricting the transfer of a technology to present its case to the Facilitative Branch of the Compliance Committee.[33]

Element 13: Technology Research and Development

Annex I/B Parties commit to doubling support for research, development and demonstration of energy efficiency and renewable energy technologies within five years and maintaining it at least at that level.

The technology "window" of the Convention Fund would consider requests from Non-Annex I Parties for funds to:

- participate in international efforts to develop mitigation and adaptation technologies;
- share the cost of plans to build capacity or reduce barriers to the use of new technologies (see Element 12); and
- enhance diffusion of relevant technologies by buying down their cost.

The Convention Fund could also decide to participate in international technology research and development efforts directly. The Board of the Convention Fund would recommend to the COP/MOP how best to use the intellectual property rights acquired by itself or by Non-Annex I Parties as a result of research it has helped to fund.

Explanation

Most energy RD&D occurs in Annex I/B Parties. Significantly more RD&D for energy efficiency, renewable energy and other technologies for climate change mitigation and for adaptation to climate change is needed. Doubling government support for such RD&D in Annex I/B Parties would be a major contribution to meeting that need.

A number of channels to support collaborative of research and development already exist under the Convention (the GEF and the Special Climate Change Fund) and through a variety of bilateral and multilateral channels. The São Paulo Proposal aims to enhance the ability of Non-Annex I Parties to participate in such collaborative research and development efforts.

The Expert Group on Technology Transfer (EGTT) would be made permanent and be given a mandate to advise the Board of the Convention Fund on technology issues, including the amount of funding needed for technology and strategies for delivering technology funding. In addition, the Board could establish permanent and "ad hoc" panels to assist with independent screening of funding proposals or to provide advice on specific issues.

The technology window of the Convention Fund would operate mainly in a responsive mode, inviting requests for research funding from Non-Annex I Parties and consortia they wanted to be involved in. Requests would have to indicate how the share of the Party's total cost of participation is to be funded and how ownership of any intellectual property developed by the research program would be handled. Requests for funding to enhance technology diffusion would have to indicate the anticipated reduction in the cost of the technology and the emissions reduced.

Modalities for the Fund's operation could be modeled on a number of public and private research funds that disburse significant monies for research, development and diffusion at the national and international level. Requests for funding would have to undergo robust screening by independent experts before being considered by the Fund. Whilst no procedure can guarantee that the Fund will only pick "winning" technologies, its disbursement modalities would aim to ensure that requests are based on merits and cost effectiveness, rather than political criteria.

Element 14: Financial Mechanism

The financial mechanism of the convention is enhanced by the establishment of a Convention Fund. The Fund would be managed by a Board with balanced representation from all Parties and be responsible to the COP/MOP. The Fund would have adaptation, mitigation and technology "windows".[34]

The Convention Fund would receive funds from the following sources:

- auctioned allowances for international aviation and shipping emissions;
- a 2% levy applied to international transfers of units under joint implementation and international emissions trading; and
- contributions by Parties, except least developed countries, in accordance with a scale of assessment that reflects population, historic responsibility (cumulative emissions per capita since 1950), and ability to pay (GDP per capita).

The initial level of assessed contributions is $10 billion.

Existing financial mechanisms – the Global Environment Facility, Least Developed Countries Fund, Special Climate Change Fund and Adaptation Fund – remain in place. Parties may also provide financial resources through bilateral, regional and other multilateral channels.

Parties agree that funds contributed in accordance with the scale of assessment will not be reported as official development assistance. Parties that fail to contribute the amount specified by the scale of assessment are subject to non-compliance penalties.

Explanation

A Convention Fund is established to enable the COP/MOP to better raise and manage the financial resources needed to address climate change. At present funds are raised and managed by different institutions. All money generated from new sources would go to the Convention Fund, so it would be the largest financial mechanism for climate change.

The Board would consist of four representatives from each of the five UN regions plus one from small island developing states. This is very similar to the composition of the Compliance Committee – the most balanced of the existing bodies – but without the designated representatives for Annex I/B and Non-Annex I Parties because those groups will change over time.

The Convention Fund Board would recommend to the COP/MOP a proposed allocation of funds among adaptation, mitigation and technology on a two year cycle given other activities under and outside the Convention. The Board would receive advice on these matters from ACE, EGTT and any other advisory panels it established.

The Board would be responsible for overseeing the disbursement of funds through the various windows. Disbursement could be delegated to implementing agencies, or be performed by the secretariat, or both at the discretion of the Board. The Board would receive advice on disbursement from ACE, EGTT and any other advisory panels it established. The Board would be responsible for ensuring that the results achieved are measured, verified and reported to the COP/MOP.

Contributions by Parties are established on a four year cycle by the COP/MOP based on recommendations by the Convention Fund Board on the replenishment level and shares of Parties as calculated by the Facilitative Branch of the Compliance Committee.

Existing financial mechanisms remain in place. Parties may also provide financial resources through bilateral, regional and other multilateral channels. A Party that provides funds through other mechanisms and channels is responsible for reporting the amounts provided and ensuring that the results achieved are measured, verified and reported to the COP/MOP using approved methodologies.

Parties agree that funds contributed in accordance with the scale of assessment will not be reported as official development assistance. This helps ensure that the funds contributed are new and additional. Developing countries will also make assessed contributions; having developed countries, but not developing countries, report the contributions as Official Development Assistance is inconsistent.

Parties that fail to contribute the amount specified by the scale of assessment are subject to non-compliance penalties. Penalties could include loss of voting rights, loss of the right to have citizens appointed to boards and bodies (CDM Executive Board, Compliance Committee, Convention Fund Board, etc), and, ultimately, loss of AAUs. The financial shortfall could be converted to an equivalent quantity of AAUs using the market price at the compliance deadline and lead to the loss of 130% of that quantity of AAUs as in the case of excess emissions.

Element 15: Memoranda of Understanding Extending the Scope of the Agreement with Non Parties

The COP/MOP, with the support of three fourths of the Parties present and voting, may approve a memorandum of understanding (MOU) with national or sub-national government(s) of a country that is not a Party to the Protocol.

Explanation

The São Paulo Proposal is designed to appeal to current non-Parties by, for example, encouraging universal participation, providing more flexible forms of targets and recognizing economic hardship implications. But this may not be sufficient to encourage all UNFCCC Parties to join the revised Protocol in a timely fashion. The provision on MOUs enables, in special cases, the COP/MOP to extend the geographic scope of the revised Protocol. Special situations could include a country that has a difficult ratification process but which is eager to cooperate with the international effort[35] or one or more sub-national governments of a non-Party.[36]

Element 16: Memoranda of Understanding Extending the Scope of the Agreement to special sectors and sources

The COP/MOP, with the support of three fourths of the Parties present and voting, may approve a memorandum of understanding (MOU) with:

- an entity with legal authority to limit emissions outside the boundaries of Parties (such as international aviation and shipping emissions); or
- an entity with legal authority to limit the emissions of specified sources located in more than one Party (such as global emissions of a specific industry).[37]

All Parties agree to cooperate in the development of MOUs to cover international aviation and shipping emissions. Appropriate international bodies, such as ICAO and IMO, would establish emissions trading systems for these sectors with caps that decline in the same manner as those for Annex I/B Parties and auctioning of an increasing share of the allowances over time. The international emissions trading provisions would apply so the sectors would be linked with the international mechanisms and through them to the domestic trading systems. Parties agree to exempt international aviation and shipping emissions covered by an MOU from domestic policies.

Explanation

Some sectors may justify special treatment due to legal issues about jurisdiction or concerns about global competitive effects. An MOU offers a mechanism for bringing such sectors into the international framework.

International aviation and shipping emissions are too large and growing too rapidly to be ignored. These emissions can be regulated by treating them as separate sectors and implementing a global emissions trading system for each sector. The emissions trading systems can be implemented in ways that minimize adverse impacts on vulnerable developing countries.

The emissions trading systems would be implemented by a suitable entity, such as ICAO in the case of international aviation and IMO for international shipping under a MOU with the

COP/MOP. Each MOU would specify the emissions covered, establish an emissions cap for those sources, indicate how the emissions cap would be adjusted, specify the share of the allowances to be auctioned, and indicate how the auction revenue would be used. The emissions cap would be subject to the same automatic extension and adjustment as the national commitments of Annex I/B Parties.

An increasing share of the allowances would be auctioned with most of the proceeds going to the Convention Fund. This could generate revenue of the order of $25 billion per year.[38] Most of the funds would come from developed countries and would benefit developing countries. Parties agree to exempt international aviation and shipping emissions covered by an MOU from domestic policies, such as the EU ETS.

Sectoral or industry agreements to limit emissions, such as a global agreement with the aluminum industry, are also possible although they would be more complex due to the need to ensure compatibility with national emissions inventories.

Element 17: Compliance

Although the quantified emission limitation commitments of Annex I/B Parties apply to specified calendar years, compliance is determined at five year intervals as in the case of the Kyoto Protocol.

The non-compliance penalty would remain unchanged; the loss of 1.3 AAUs for each metric ton of excess emissions. The penalty would be deducted from the first annual commitment after a final decision by the Enforcement Branch of the Compliance Committee.

Explanation

Current compliance procedures and mechanisms are fundamental to the integrity of the Protocol and the functioning of carbon markets. Accordingly, the provisions of Article 18 of the Kyoto Protocol, all decisions of the COP and COP/MOP relating to Article 18, and all decisions of the Compliance Committee remain in effect until entry into force of the amended Protocol. The compliance mechanisms and procedures would be included in the amendments to incorporate them into the new regime in a legally binding form.

Additional modalities for the Enforcement and Facilitative Branches to cover the functions set out in this Proposal would also need to be agreed. The COP/MOP would, for example, need to decide whether the date for determining compliance is the same for all Annex I/B Parties (for example, 2013-2018 for all) or differs by Party (2013-2016 followed by 2017-2021 for some; 2013-2017, followed by 2018-2022 for others; etc.). The COP/MOP also would need to decide how to deal with non-payment of the financial component of a Party's commitment.[39]

Element 18: Trade Restrictions

Three fourths of the Parties present and voting at a session of the COP/MOP may approve trade restrictions to be applied by Parties and countries with approved MOUs against countries that are not a Party to the revised Protocol and that do not have a MOU approved by the COP/MOP.

Explanation

To encourage universality, and as successfully included in several environmental agreements such as the 1987 Montreal Protocol, this provision of the amended Protocol would allow:

- negotiation of a memorandum of understanding (MOU) with a non-Party; and
- regulation of trade with non-Parties in goods and services which if left unregulated could undermine achievement of the objectives of the Protocol

Countries that refuse to become Parties and do not have an agreed MOU with the COP/MOP could free ride on the efforts of others gaining competitive advantages at the expense of the climate and other Parties. This could be a justifiable reason for imposition of trade restrictions against that non-Party. Trade restrictions are expected to be applied infrequently, if ever, and to target goods and services that directly undermine achievement of the objectives of the Protocol, such as fossil fuels. Under a few environmental agreements with such provisions, trade restrictions have been applied against some countries.[40] No instance of a trade restriction under an environmental agreement has yet been appealed to the World Trade Organization.[41]

Element 19: Review

To ensure the regime remains responsive to climate science and advances in technology as well as Parties' changing circumstances, the Protocol would be reviewed every five years starting in 2017.

Explanation

The review of the Protocol could lead to adoption, with the approval of Parties, of more stringent targets than agreed in the initial negotiations. This happened in the 1987 Montreal Protocol on several occasions when the costs of reductions proved lower than expected and Parties were happy to accelerate their phase out schedules.

Element 20: Legal Form of the Post 2012 Agreement

The São Paulo Proposal is presented in the form of an amended Kyoto Protocol. The new elements could be incorporated in accordance with Articles 20 and 21 of the Protocol taking into account the review provisions in Articles 3.9, 9 and 13.

Explanation

A post 2012 agreement could be legally implemented in a number of ways. The advantage of amending the Kyoto Protocol to include the São Paulo elements is that it allows improvements and innovations to be adopted with less risk of re-opening what has already been agreed or disturbing the established institutional arrangements (CDM, JI, International Transaction Log,

Compliance Committee, Expert Review Teams, inventories, and reporting). The major disadvantage is that non-Parties to the Protocol would have to become parties to the Kyoto Protocol to be part of the new regime.[42]

The São Paulo Proposal also could be incorporated into a new protocol adopted pursuant to Article 17 of the UNFCCC. A new protocol allows all UNFCCC Parties to participate in the negotiations and it can differ significantly from the Kyoto Protocol. However, a new protocol risks undermining what has been agreed under the Kyoto Protocol and may involve creation of new institutions that duplicate those established by the Kyoto Protocol until the latter are no longer needed.

A third option is to divide the São Paulo Proposal elements into those that need to be incorporated into a revised Kyoto Protocol and those that can be advanced through actions under the current provisions of the UNFCCC. This would be more complex than amendment of the Kyoto Protocol or a new protocol.

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NOTES

[1] See Bodansky, 2004: Gupta, Tirpak, et al., 2007; Kameyama, 2004; and Philibert, 2005 for summaries of proposals.

[2] Since the São Paulo Proposal is presented in the form of an amended Kyoto Protocol, a country is an Annex I/B Parties or a Non-Annex I Party. When a Non-Annex I Party meets the "graduation" criteria, it becomes an Annex I Party (Element 6). Some of the richer Non-Annex I Parties would become Annex I Parties immediately.

[3] Ellerman and Wing, 2003, p.5 notes that linear combinations of an absolute and an intensity target are possible. The intensity coefficient (tCO2e/unit GDP in constant national currency units) would be calculated by dividing the Party's annual commitment for 2013 by its GDP (in national currency units) for 2013 when this figure is reported. Thereafter, the intensity coefficient declines by 3% per year through 2018. When assessing compliance, the intensity coefficient for a given year, say 2017, would be multiplied by the Party's actual GDP for that year (in constant national currency units) to get the allowable emissions for that component of the commitment. Possibilities for "gaming" – a Party choosing less stringent forms of commitments for itself – are limited.

[4] Jotzo and Pezzy, 2005, Table V suggest that absolute commitments would be best for Australia, Canada and New Zealand while intensity commitments would be best for Europe, Japan, Russia and the United States.

[5] Intensity targets are sometimes seen as inherently less environmentally stringent than absolute targets. Herzog, et al., 2006 indicates that the form of the target does not determine its environmental effectiveness.

[6] Articles 3.3 and 3.4 would be deleted and Annex A of the Kyoto Protocol (coverage) would be amended to include LULUCF activities.

[7] The five year reviews could lead to changes that affect the latter part of this period.

[8] These conditions would involve agreeing international procedures to determine the total quantity of compliance units in all registries carried over and the change in the international price of AAUs. Based on these procedures, assessment of whether the trigger conditions have been met would be undertaken by a technical, independent body such as the Enforcement Branch of the Compliance Committee.

[9] Analyses reported in papers on the São Paulo Proposal available on the BASIC website compare absolute and intensity targets for some Annex I/B Parties over different time periods. These analyses suggest that the proposed adjustments to intensity coefficients yield commitments of comparable stringency to the corresponding absolute commitments.

[10] A Party would be required to notify the Enforcement Branch of the Compliance Committee of its wish to use this provision for a given year before compliance for that year is assessed. The provision is invoked ex post; if, for example, publication in 2019 of a Party's economic data for the year 2018 indicate a decline in its real GDP of more than 1% during 2018, the Party may notify the Enforcement Branch that it wishes to have its actual commitment for 2018 deemed to be equal to its actual emissions during 2018.

[11] This provision also ensures that a Party suffering economic hardship stays within the regime rather than withdrawing and threatening the long term stability of the regime.

[12] The CDM could include "sectoral" projects that are approved by the Executive Board. They differ from the "no lose" sectoral commitments in that these commitments are politically negotiated.

[13] A "no lose" commitment (also called "non-binding" or "one way" commitments) entails no compliance obligation if actual emissions exceed the commitment, but allows the surplus credits to be sold if actual emissions are lower than the commitment.

[14] Formulation, implementation, publication and regular updating of national (and where appropriate regional) programmes containing measures that mitigate and adapt to climate change is mandatory for all Parties under Article 4.1 (b) of the UNFCCC and Article 10 (b) of the Kyoto Protocol.

[15] The entitlement is to (i) fast tracking of funding requests and (ii) for these to be on the basis of simplified procedures.

[16] The CGE's mandate would need adjustment to allow this.

[17] Reporting the achievements of quantified sustainable development actions would create more legal certainty about the regularity of national communications without altering the legal provisions in the Convention that these must be financed by Annex II Parties.

[18] A national baseline is needed to reduce leakage to the extent possible. Sub-national activities would be allowed only on an exceptional basis and for an initial period of time.

[19] The CDM Executive Board would adopt a procedure for reviewing proposed commitments. The procedure could include review by the Meth Panel and an accredited Designated Operational Entity as in the case of CDM projects, or a new procedure involving different experts.
[20] The role of the CDM Executive Board is limited to recommending approval (or rejection) of proposed "no lose" commitments to the COP/MOP.
[21] If additional compliance units that can be generated by Non-Annex I Parties are created they would be included in the calculation as well. For example, if a new mechanism is agreed for generating credits for reduced deforestation cumulative transfers of those units would also be counted against the limit.
[22] Annex B would be amended to list the first six years of the commitment proposed by such a Party and approved by three fourths of the Parties present and voting at a session of the COP/MOP.
[23] A system of short, 5 year, commitments that are periodically renegotiated, implicitly assumes that groups of Non-Annex I Parties adopt commitments as part of each renegotiation.
[24] CERs would include lCERs and the maximum number of tCERs transferred during any five year period.
[25] By way of example, a global limit of 20 billion tCO2e is likely to mean a lag between adoption of commitments by Annex I/B and Non-Annex I Parties of 16 to 40 years, much longer than the 10 year grace period for developing countries provided in the amended 1987 Montreal Protocol on Substance the Deplete the Ozone Layer for developing countries. Of course, the lag would be shorter for some Non-Annex I Parties and much longer for others.
[26] The index is used only for Non-Annex I Parties, so a relatively recent start date is reasonable.
[27] The COP/MOP would need to adopt a procedure for such a determination and implementation of the consequences.
[28] A "no lose" commitment adopted by a Non-Annex I Party is replaced by its national emissions limitation commitment when it becomes an Annex I/B Party, so VERs can no longer be issued.
[29] The crediting period could not be renewed. At the end of the crediting period the host country could decide to allow the project to register as a Joint Implementation project.
[30] The Adaptation Fund continues to exist and be funded by the 2% levy on CERs. Funds from other sources go to the Convention Fund which has adaptation, mitigation and technology "windows". The money available from the adaptation window of the Convention Fund is expected to be much larger than the Adaptation Fund. ACE advises the Boards of both Funds and so helps coordinate financial support for adaptation activities. Ultimately, the Adaptation Fund could be merged with the adaptation window of the Convention Fund.
[31] 24 experts drawn from a government-nominated roster of experts with 5 each from Asia, Africa, GRULAC, six from Annex I including one EIT plus 3 experts from international organizations.
[32] Emergency response to extreme weather events – medical assistance, food, water, shelter, etc. – is better addressed by institutions such as the International Red Cross/Red Crescent and hence is excluded from this revised Protocol.
[33] This is already possible (see Decision 27/CMP.1, Annex, Section XIV Consequences applied by the Facilitative Branch).
[34] Additional windows could be created by a vote of three fourths of the Parties present and voting at a COP/MOP.
[35] In the US ratification of a treaty requires a two-thirds majority in the Senate. However, most international agreements are approved by "congressional executive agreements" which only require a simple majority in both houses of Congress.
[36] For example, with states that have/will have emissions trading schemes such as the states participating in the Regional Greenhouse Gas Initiative (RGGI) and the Western Climate Initiative.
[37] Parties might also agree to implement one or more sectoral agreements themselves. Relevant governments would adopt and agree to enforce the sectoral commitment.
[38] UNFCCC, 2007, Annex IV.
[39] The Proposal is that if this is not received in full by 31 March of the following year, the case be referred to the Facilitative Branch of the Compliance Committee. If full payment for all five years has not been received when its compliance is assessed, the Party would be deemed out of compliance.
[40] Some experts have concluded that the threat or application of trade restrictions has increased participation in some instances.
[41] A non-Party that appeals to the WTO faces the challenge of arguing that countries trying to protect the environment should be punished for trying to induce non-Parties to do their share. Of course the non-Party could still win on legal grounds.

[42] A number of mechanical options are available to enable the USA to rejoin Kyoto. For example, the proposal to amend Kyoto could include revisions to Annex B to facilitate ratification of the Kyoto Protocol by non-parties at the time of adoption of these amendments.