Architecture of a Global Climate Change Agreement

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THE °CLIMATE GROUP

Breaking the Climate Deadlock
Briefing Paper

About the 'Breaking the Climate Deadlock' Initiative

'Breaking the Climate Deadlock' is an initiative of former UK Prime Minister Tony Blair and independent not-for-profit organisation, The Climate Group. Its objective is to build decisive political support for a post-2012 international climate change agreement in the lead up to the 2009 UN Climate Change Conference in Copenhagen. Its particular focus is on the political and business leaders from the world's largest economies, particularly the G8 and the major developing countries. The initiative builds on Mr Blair's international leadership and advocacy of climate change action while in office, and The Climate Group's expertise in building climate action programmes amongst business and political communities.

This briefing paper and its companions were commissioned by the Office of Tony Blair and The Climate Group to support the first Breaking the Climate Deadlock Report – 'A Global Deal for Our Low Carbon Future' – launched in Tokyo on June 27th 2008. Written by renowned international experts and widely reviewed, the papers' purpose is to inform the ongoing initiative itself and provide detailed but accessible overviews of the main issues and themes underpinning negotiations towards a comprehensive post-2012 international climate change agreement. They are an important and accessible resource for political and business leaders, climate change professionals, and anyone wanting to understand more fully, the key issues shaping the international climate change debate today.

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Executive Summary

- The challenge facing the global community is to craft, agree and ratify a multilateral agreement that adequately addresses the scale of the climate change problem. Of necessity, any agreement will have to be both very comprehensive and very flexible.
- Recognising the timing imperatives, the agreement needs to build on the international climate change policy that exists and is working. The sheer complexity of the challenge also means that the agreement must additionally be open to innovation and diplomacy of the highest levels.
- Given these overarching context points, the architecture requires two broad classes of elements:
  - Commitments that are quantitative in emission terms for some countries, and some sectors in some other countries (This provides some certainty of emission outcomes over the near-medium term and the basis for an international carbon market which helps lower the cost of meeting commitments and helps to mobilise private capital for investments in low carbon technology and practices globally.); and
  - Other 'bigger picture' elements that, with the quantitative elements, lead to a comprehensive, balanced and equitable agreement, by (a) providing fuller management of global emissions; (b) helping to addressing key 'issues arising' from the quantitative elements of the agreement; and (c) addressing adaptation needs, especially for the most vulnerable populations and ecosystems.
- While it will be expected that the quantitative elements of the agreement would be part of the agreement struck under the United Nations Framework on Climate Change (UNFCCC) process, it is possible that some of the 'bigger picture' elements might occur outside the UNFCCC package, including to complement similar type elements inside the package. These for example might be elements agreed bilaterally between key countries or among smaller groups of countries, or even among key industries operating in some countries. They may also be elements agreed in other multilateral fora.
- Key mitigation 'deliverables' that should be sought are:
  - Fixed and binding targets accepted by all industrialised countries, setting the basis for open international emissions trading and the engagement of entities in this international system through compatible and linked domestic and regional emissions trading schemes
  - Sector-based commitments – e.g. sector no-lose targets and/or Sustainable Development Policies and Measures (SD PAMs) for some key sectors in some key developing countries – to help mobilise the 'scaling up' of investment in low carbon technologies and practices that is needed
  - Expanded and enhanced Clean Development Mechanism (CDM) and CDM-type elements
  - Cooperative technology diffusion and financing agreements (in particular for key sectors) – between countries and between private sector firms across countries

Recommendations

- In the near term, direction provided by Leaders should be:
  - To work towards an agreement by The fifteenth meeting of the Conference of the Parties to the UNFCCC to be held at Copenhagen (COP15) of this general two-sided architecture of 'quantitative' plus 'bigger picture' elements
  - To support, and where necessary establish, active work-streams within the UNFCCC and other bilateral and multilateral fora on both 'legs' of this architecture – including a programme of 'progress checking' milestone sessions (intergovernmental and including key industry and stakeholder representatives)
- For Copenhagen in December 2009 (COP15), the following should be sought:
  - An agreement of the basic elements of this architecture, in particular with detailed specifics on the industrialised countries' quantitative commitments, plus sufficient needed detail on commitments by key

developing countries and 'bigger picture' elements, to provide the basis for the agreement package to come together.

– An agreement to complete the detail on the commitments by key developing countries and the 'bigger picture' elements within one year so that the ratification of the agreement by key countries is achievable by the end of 2011.

The Architecture of a Global Climate Change Agreement

This paper explores the architectural mix of elements that will be needed to reach a global, multilateral agreement to address climate change. It covers:

- Key elements to constrain emissions
- A sectoral perspective
- Negotiation process issues
- Appropriate course for leaders

Meeting the needs

The challenge in front of the global community is to craft, agree and ratify a multilateral agreement that adequately addresses the scale of the climate change problem. The agreement must therefore be able to meet the needs and expectations of all countries and 'voting' publics. This also must be done in the context of other imperatives that are bearing on country leaders – in particular energy security, water security, food security and sustainable development.

To achieve, and be mindful of, these many objectives, of necessity, any agreement will have to be both very comprehensive and very flexible. Given the need for global emissions to peak by about 2020 (in the face of current emissions growth trends), the agreement needs also to build on the international climate change policy that exists and is working. There is not the time to start with a new page. However, the sheer complexity of the challenge also means that the agreement must additionally be open to innovation and diplomacy of the highest levels.

Key Elements of a Global Agreement

Taken together, these above points clearly signal the need for an agreement that has at its core both some quantitative elements and some 'bigger picture' elements.

By quantitative, we mean elements that constrain emissions in a predictable way. This means a cap on the aggregate emissions of industrialised countries. And it can mean other forms of targets or commitments – for example of a sectoral nature in some key developing countries, or covering international aviation and marine 'bunker' fuels. Importantly it is these quantitative elements that create the basis for the emergence of a more robust and broad-based international carbon market. This is generally seen by experts to be a needed fundamental element of a future climate change agreement because of its ability to engage the world's private sector and mobilise needed levels of investment worldwide in low carbon technologies and practices.

But these quantitative elements can be seen as 'threatening' in some circles. In industrialised countries they can be seen to exacerbate competitiveness concerns in key industry sectors, especially at a time of economic slow-down and job losses. And for developing countries, any suggestion that emission constraints might place a cap on their right to industrialise and address their priority development concerns is an anathema. They can rightly point to the fact that current levels of climate change have been caused by the emissions of the developed world, that emissions in developing countries are typically just a fraction of those in developed countries on a per capita basis and that growth in emissions in developing countries over the last few decades is frequently tied to the fact that emissions intensive manufacturing of products consumed in industrialised countries is now being done in their countries.

It is therefore unrealistic to expect agreement to be reached on a framework that is essentially just of a quantitative 'managed emissions' nature. Moreover, such quantitative elements and the carbon markets they engender do not, in themselves, ensure an adequate mitigation response. And dealing with the climate change challenge is not just about mitigation. There is a much bigger picture that an effective global agreement needs to address. Importantly, it is this 'bigger picture' side of the agreement that provides the possibilities for the needed innovations, leadership and diplomacy. Some of these 'bigger picture' elements will be important to help enable acceptance of the elements on the quantitative side of the agreement. In short, they are of the type

"We will be prepared to do this as long as, in return, you do that." The proposal by the EU in January 2008 – "we can unilaterally agree to taking on a -20 percent target by 2020, but could go to -30 percent as part of a broader multilateral agreement with others doing their part" – can be seen in this light, albeit what 'bigger picture' elements they are seeking of other countries, both industrialised and developing, are not yet clearly set out.

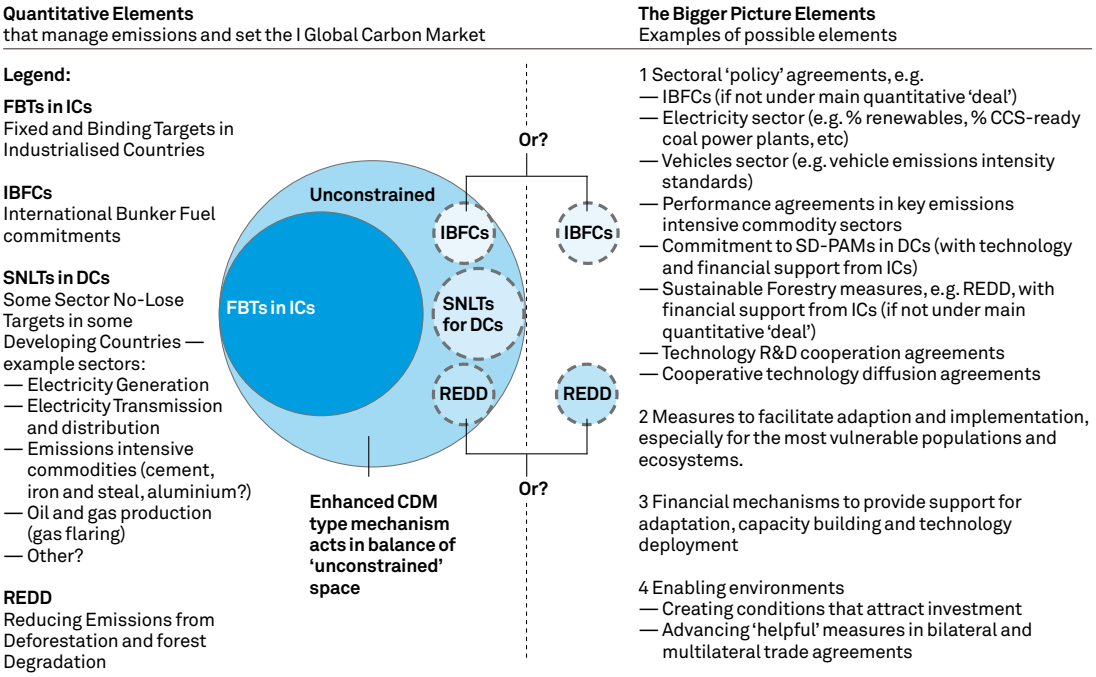
But there is much more to the 'bigger picture' side than just enabling the 'quantitative' side. By their nature, quantitative elements, especially those that rely on international carbon prices as a key driver for action, cannot be expected either to cover all sectors in all countries, or necessarily to achieve the full potential of emissions reductions in those sectors that are covered. In some circumstances it will be the 'bigger picture' measures that may play the greatest role in achieving the potential mitigation outcomes.

And as noted, it is not all about mitigation. The effects of climate change are large and increasingly looming, especially for some of the world's most vulnerable populations and ecosystems. An effective global agreement must now also take a firm stance on means to address adaptation needs.

Exhibit 1 provides a depiction of the two-sided architecture that is proposed here. However, especially on the 'bigger picture' side, it is not intended to be exhaustive of possible innovative ideas for needed and helpful elements. It should be seen as high-level and generally illustrative.

Exhibit 1

A depiction of the two-sided architecture of a comprehensive and flexible agreement



Quantitative elements

On the quantitative side, the emissions circles represent aggregate emission totals under the various forms of management. The difference in the edges of these circles, i.e. of the large blue circle compared with the smaller three circles, is intended to denote the fixed nature of the former and the likely rate-based nature of the latter. In an emissions trading context, the trading unit associated with the "FBTs in ICs" (Fixed and Binding Targets for industrialised countries) would be 'allowances' and for the other three it would be 'emission credits' where performance was better than the crediting baselines that these targets and commitments represent. In addition, as noted in the depiction the remaining light blue 'unconstrained' space is still where current and future enhanced CDM-type activities could be undertaken and provide a supply of credits into the "FBTs in ICs" circle to enable those countries to meet their targets at lower cost.

Further with respect to the "FBTs in ICs" circle, such a circle is made up of the aggregate of the allowed emissions represented by the industrialised countries' targets – e.g. the targets that Annex B countries took under Kyoto. This is shown as a single circle, and this may imply that this results from a single agreement that all industrialised countries

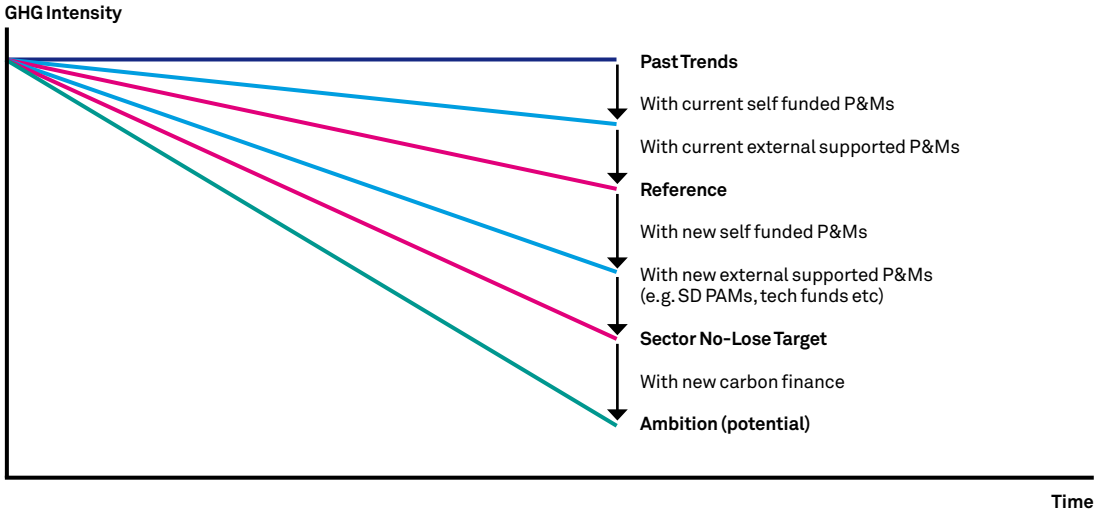
are party to. But in practice, this may be the sum of targets collectively negotiated by a group of countries under such an agreement, plus others targets that may sit outside the multilateral agreement but, nevertheless, represent self-imposed fixed and binding targets – for all or parts of their economy.

This situation may necessarily result in some different emissions trading scheme 'linkage rules' between those in the collective and those outside. However, the overall point is that there is a sum of allowed emissions stemming from the targets of all these industrialised countries, and these form the basis for international emissions trading of the cap-and-trade variety among them.

Sector No-Lose Targets (SNLTs) are expected to be of an intensity nature (e.g. carbon dioxide (equivalent) per Megawatt-hour of electricity (CO_2e/MWh), or per tonne of cement). The no-lose nature of these targets simply means that there is no compliance penalty if the targets (intensity baselines) are not met. However, because the purpose of such a mechanism is to significantly 'scale up' the inward flows of carbon finance-supported low carbon technology (compared with the current CDM), these targets would be something that can reasonably be expected to be met and beaten. But this is not to suggest that they should be seen as overly soft targets opening the door to large credit generation for 'likely to be done anyway' actions. Given that these targets will be negotiated as part of the quantitative agreement 'package', subsequent additionality assessments would not be required. This is one of the means by which this mechanism is different than any form of CDM.

In negotiating an acceptable intensity baseline, the process would be interested to know details of all relevant factors by which a country could improve its intensity in the sector prior to the point that carbon finance is to take over. This is depicted in Exhibit 2.

Exhibit 2



Development of sector no-lose targets

Source
Ward, M (2008)[1]

The nature of possible international aviation and marine bunker fuel commitments (IBFCs) is somewhat less discernible. It is for this reason that they are shown as possibly occurring on either side of the quantitative and 'bigger picture' divide line. If on the quantitative side, this would imply some means had been negotiated to have these sectors accept (and be held to) some form of a binding emissions target (whether of a fixed or intensity nature). This would set the stage for these two sectors to be sellers into the international carbon market if they met and beat their targets, and be buyers from it if they did not.

A possible scenario for their being on the 'bigger picture' side would be if they struck a deal with the international community to voluntarily reduce or offset a certain percentage of their emissions. Their activity might therefore occur in the voluntary carbon market, not the compliance market that occurs through the elements on the compliance side of this proposed agreement.

Similarly on the issue of Reducing Emissions from Deforestation and forest Degradation (REDD), opinions currently are still quite divided as to whether this sector in developing countries should be one which receives its needed financial support through public sector (or even voluntary carbon market) funds, hence on the 'bigger picture' side. Or is it feasible to have its potential supply of credits incorporated into the compliance carbon market – without the risk of perhaps swamping the market and severely lowering the cost of carbon?

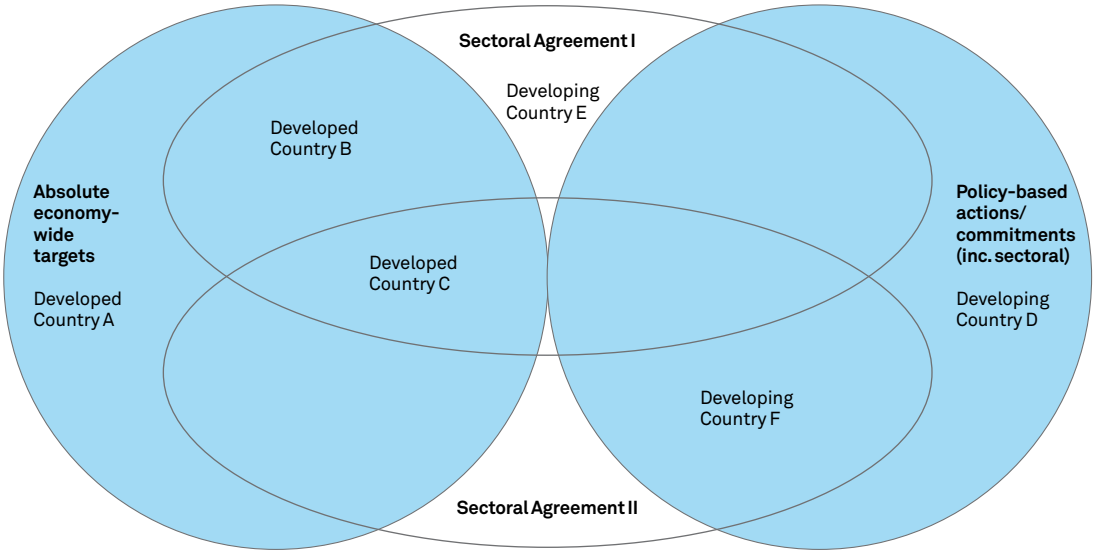
A sectoral perspective

When considering the proposed two-sided architecture from a sectoral perspective, a number of types of groupings and linkages become apparent. This has usefully been elaborated in work of the Pew Centre on Global Climate Change on what they refer to as an integrated multi-track climate framework[2]. In a subsequent Background Note on sectoral approaches[3] (from which Exhibit 3 below is taken), they note that

> *"...Sectoral approaches could sit alongside other types of action/commitments as elements of a comprehensive post-2012 framework. For example, the framework could include absolute economy-wide targets for some countries; policy-based actions/commitments (sectoral or economy-wide) for other countries; and one or more overlapping sectoral agreements (with different country groupings in each)."*

Exhibit 3

Possible means of engagement at a sector level



In the illustration in Exhibit 3 above:

- Developed Country A takes an absolute economy-wide target;
- Developed Country B takes a target and participates in one sectoral agreement;
- Developed Country C takes a target and participates in two sectoral agreements;
- Developing Country D takes a policy-based (possibly sectoral) action/commitment;
- Developing Country E participates in a sectoral agreement; and
- Developing Country F takes a policy-based (possibly sectoral) action/commitment and participates in a sectoral agreement.

The two-sided architecture depicted in Exhibit 1 is fully consistent with this sectoral concept helpfully set out here by the Pew Centre.

Negotiation Process Issues

Leaders have affirmed a number of times that the United Nations Framework on Climate Change (UNFCCC) is the proper forum within which to conclude a comprehensive climate agreement. This process is looking to achieve its primary outcomes at the fifteenth meeting of the Conference of the Parties to the UNFCCC to be held in Copenhagen (COP15) at the end of 2009. In particular, it would be expected that all of the quantitative elements of the agreement shown in Exhibit 1 would be negotiated under the UNFCCC process. However, it is quite feasible (indeed perhaps necessary) that some of the agreements

on the 'bigger picture' side might better be struck outside of the UNFCCC process per se, but then be recognised as existing as the overall 'package deal' is coming together in the UNFCCC process. These, for example, might be cooperative financing or technology sharing elements that complement those in the UNFCCC agreement, for example agreed bilaterally between key countries or among smaller groups of countries, or even among key industries operating in some countries. There might also be elements of the agreement, for example related to sustainable forest management or international trade, which might be struck in other multilateral fora.

Appropriate Course for Leaders

In the near term, the direction provided by Leaders should be to work towards an agreement by Copenhagen (COP15) of this general two-sided architecture of 'quantitative' plus 'bigger picture' elements; and to support, and where necessary establish, active work streams within the UNFCCC and other bilateral and multilateral fora on both 'legs' of this architecture – including a programme of 'progress checking' milestone sessions (intergovernmental and including key industry and stakeholder representatives).

For Copenhagen (COP 15), what should be sought is an agreement of the basic elements of this architecture, in particular with detailed specifics on the industrialised countries' quantitative commitments, plus sufficient needed detail on commitments by key developing countries and 'bigger picture' elements, to provide the basis for the agreement package to come together; along with an agreement to complete the detail on the commitments by key developing countries and the 'bigger picture' elements within one year so that the ratification of the agreement by key countries is achievable by the end of 2011.

Glossary of Terms

Allowances:	Units issued in 'cap-and-trade' type emissions trading schemes
Annex B:	The annex of industrialised country Parties with targets under the Kyoto Protocol
CCS:	Carbon Capture & Storage
CDM:	The Clean Development Mechanism – one of the Kyoto Protocol mechanisms
CO_2e:	Carbon dioxide (equivalent)
COP15:	The fifteenth meeting of the Conference of the Parties to the UNFCCC
Credits:	Units issued in trading schemes for performance better than an agreed baseline
DCs:	Developing Countries
EU:	European Union
FBTs:	Fixed and Binding Targets (for industrialised countries)
IBFCs:	International Bunker Fuel Commitments
ICs:	Industrialised Countries
Intensity (target):	A metric of emissions with a dynamic variable denominator, e.g. CO_2 per MWh
MWh:	Megawatt-hour, a unit of electricity
No-Lose (target):	Targets that have no binding consequences if they are not met
Rate based:	see Intensity
REDD:	Reducing Emissions from Deforestation and forest Degradation
SD:	Sustainable Development
SD-PAMs:	SD Policies and Measures – a new proposed policy instrument for developing countries
SNLTs:	Sector No-Lose Targets (for developing countries) – a new proposed mechanism
UNFCCC:	United Nations Framework Convention on Climate Change

Endnotes

[1] *Ward, M (2008) The Role of Sector No-Lose Targets in Scaling Up Finance for Mitigation Activities in Developing Countries, Ward M et al, for UK DEFRA, May 2008*

[2] *Pew (2007) Towards an Integrated Multi-track Climate Framework, Bodansky, D and Diringer,E; Pew Centre on Global Climate Change, December 2007*

[3] *Pew (2008) Background Note: Sectoral Approaches in a Post-2012 Climate Framework, Pew Centre on Global Climate Change, 2008*

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