

Copenhagen – a global responsibility





Informed companies want the United Nations climate change conference in Copenhagen (COP15) to end uncertainty. They understand that climate change must be addressed and they want to play a major part. However, they need more certainty about the future regulatory frameworks and a more predictable carbon price.

If progress is made on these fronts, capital markets are ready to deliver what's needed for business to create the transformation and new technologies, and to benefit from the process. At the same time, don't expect Copenhagen to be neat and to provide all the solutions. Assuming that meaningful targets are put in place, then the real work starts after the summit. Come January 2010, the momentum must be maintained.

A transparent understanding of the equity of any numerical targets, success stories about how reductions are already being achieved without compromising profits, and an open monitoring, reporting, and verification regime, would all encourage and maintain that momentum.

Here, we include data recently published by the European Environment Agency and augmented by our own analysis, which shows the success of some countries in reducing their emissions in line with their commitments set under Kyoto. While this gives confidence about what is possible post-Kyoto, large over- and under-achievements raise key questions around equity and ambition which will dominate the COP15 discussion.

The background

At COP15, delegates will come together to try to agree a successor to the Kyoto Protocol, which comes to an end in 2012.

Climate science tells us that we need to keep the amount of carbon dioxide (CO₂) in the atmosphere below 450 ppm to stand a reasonable chance of limiting average temperature rise to 2°C and, hence, avoid the most dangerous effects of climate change. The urgency of cutting emissions cannot be overstated. Potsdam Institute for Climate Impact Research estimate that fewer than 700 Gt more of CO₂ can be emitted to keep the rise below 2°C. In 2005, according to the World Resources Institute, annual global emissions of CO₂ were 27 Gt. Therefore, at this rate, most of us will start to experience dangerous climate change in our lifetimes. We are already seeing the signs of a warming world – in melting ice sheets, sea-level rise and an increase in extreme weather events. Yet, the prospects of an agreement in December remain uncertain.



The challenge

While there is now global agreement on the science, the politics of a new climate deal look exceptionally challenging. The Intergovernmental Panel on Climate Change has said that the developed world needs to make cuts in greenhouse gas (GHG) emissions of 25-40% compared with 1990 levels by 2020. The G8 group of industrialised countries has committed to reductions of 80% by the middle of the century. However, so far, the interim targets for 2020 announced by the United States and the European Union (EU) equate to cuts of 20% or less. The UK is targeting a 34% reduction in emissions by around 2020 against 1990 levels.

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Yvo de Boer

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The UK, EU and Japan have said they will increase their targets if a deal is successfully concluded, but worldwide, it is clear that we are not yet in the range that the science tells us is needed. At the pre-Copenhagen meeting in August, Yvo de Boer, Executive Secretary of the UN Climate Change Secretariat, said ‘Negotiations will need to considerably pick up speed for the world to achieve a successful result at Copenhagen.’

There are a number of sticking points to a deal, many of which revolve around the issue of equity. On the one hand, most emissions historically came from the industrialised countries as they drove their development with fossil fuels. This gives them a responsibility to cut their own emissions first. On the other hand, the developing world will soon overtake the industrialised countries as the dominant emitters.

Ambition deficit

Many industrialised countries will need to move to higher mid-term emission reduction targets. However, this is a complicated business. Many nations have pledged major targets for 2050, which is far enough away to not have severe political consequences now. But, what is important is the trajectory. It is no good getting to 2049 and then making cuts because it is cumulative emissions that drive climate change. There must be a clear pathway to the eventual aim, with tough interim goals. Business likes transparency, but understanding countries' proposed targets is not simple.

Different countries, different approaches, different numbers

It is easy to see how even policy makers get confused in trying to ascertain the intentions of different governments.

Russia has offered to make cuts of about 15%. Initially, so did Japan, but Japan's new PM has since indicated that his country will cut GHG emissions by 25% below 1990 levels by 2020, contingent on a deal in Copenhagen. Japan is also following the UK's lead in terms of implementing policy plans to help achieve the reduction. Japan will create a domestic emissions trading market and introduce a 'feed-in' tariff – financial rewards for industries that expand their use of renewable energy sources.

Japan's initial commitment was derided for being insufficient. However, Japan is one of the world's most energy efficient countries already, so making further improvements will be a real challenge. Furthermore, unlike US and UK targets, its initial proposals included only domestic emissions reductions, with no international 'offsetting' of emissions.

Russia, meanwhile, has one of the least efficient economies and improvements would be cheap to make. On top of that, because it has chosen 1990 as its baseline year – before the country's economy collapsed in the 1990s – the target actually implies a substantial increase, rather than decrease, in emissions from present-day levels.

Meanwhile, the UK is part of EU efforts to cut emissions by 20% by 2020 from 1990 levels, but it also has a domestic commitment for a 34% reduction by around 2020. Both the UK and the EU have pledged more stringent targets if a successful deal

is struck in December, with the EU reduction target increasing from 20% to 30%, and the UK from 34% to 43%.

The US has a proposal for a 17% cut against 2005 levels. This is a cut of only a few percent relative to 1990 (although if it leads to passing a Climate Bill in the US, it will be a huge step forward). China has offered a 45% carbon intensity reduction target (per unit of GDP, relative to 2005) rather than an absolute target.

The WRI has estimated that the commitments made by China and the US are broadly comparable in terms of reductions in carbon intensity from current levels of 2.85 and 0.54 tonnes/\$1,000 GDP respectively¹. However, many would argue that cumulative emissions or emissions per capita would be better comparators to measure equitable action.

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1. 2006 data from www.eia.doe.gov/pub/international/iealf/tableh1gco2.xls

Demonstrating success

One of the main sticking points for a deal is the fear that this will slow economic growth. China, for example, has to weigh continued high economic growth against reducing climate risk. It is often said that the EU and the UK are leaders in the climate debate with their stringent targets, carbon markets and, in the UK's case, the world's first climate change law. But, the way to make this leadership count is to demonstrate that it is possible to decarbonise the economy without destroying growth. It is the task of the EU and climate allies to communicate to the rest of the world that they have made significant successful strides already and reassure others that cutting carbon can be achieved in parallel with continuing growth.

A recent publication from the European Environment Agency (EEA), for which AEA was a contributing author, demonstrates just this and what is possible. In Ref 1, the EEA assesses achievements to date in EEA countries and projects likely compliance with Kyoto targets. It states that:

- + In 2008, EU emissions decreased for the 4th consecutive year, reaching their lowest level since 1990.
- + EU-27 has 'achieved significant success' in decoupling its emissions from economic growth.
- + EU-15 is making good progress towards achieving its Kyoto target; France, Germany, Greece, Sweden and the UK have already achieved average GHG emissions below their Kyoto target.
- + EU-15 could achieve 6% reductions against baseline with existing measures and is expected to achieve just over 8% (8% being its Kyoto target) when planned new measures are taken into account.
- + EU-15 might go significantly further ahead of its Kyoto target if enhanced use is made of carbon sinks and if use of Kyoto international mechanisms is taken into account.

Annex 1 (page 7) shows our analysis of progress towards Kyoto. It extends to all countries with a Kyoto target and draws on EEA data, but adds our analysis of other non-EEA countries. Under the Kyoto Protocol, 38 Parties agreed to emission reduction or limitation targets with a view to reducing their overall GHG emissions by at least 5% below 1990 levels in the commitment period 2008 to 2012. The analysis shows that latest emissions are already 16% below base-year levels.

The EU and the UK have the longest legacy of trying to tackle climate change and they are clearly starting to make real progress. As a result, their trials and errors should provide useful lessons for others, not least that no single policy will work. The policy landscape that is required is complex. However, there are lots of success stories here too.

Behind these national success stories lie individual business success stories. Business should showcase these more; that's really what other businesses will listen to.

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The measure of success

One of the keys to an effective agreement is to have an effective monitoring, reporting and verification (MRV) regime in place for all signatories – developing and developed countries. This presents another obstacle - even if governments have agreed to monitor and report their progress, they are not always keen on external verification. Yet, this is an important building block for the integrity of the system and, again, in giving business confidence that they are playing on a level international field.

At the moment, there is no standard calculation of global emissions. We have to rely on top-down estimates and incomplete data from individual countries, many of which do not follow the guidelines of the United Nations Framework Convention on Climate Change (UNFCCC). It is vital that the quality of data is improved over time.

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Copenhagen, is not an endpoint, merely another staging post along the road.

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The road from copenhagen

An enormous amount of expectation has been placed on Copenhagen. It is vital that significant progress towards a new climate agreement is made there.

A transparent understanding of any numerical targets and their meaning, and a subsequent open and objective MRV regime, will help develop and maintain that momentum. Business can play a major role in highlighting the need for these. Business also has the success stories to show how progress can be made towards a low carbon economy, while continuing to create wealth; it should shout loudly about those success stories.



Annex 1: Assessment of progress to Kyoto

Under the Kyoto Protocol, 37 industrialised countries and the EU-15 committed to reduce their emissions by an average of 5% against 1990 levels over the five-year period 2008/12. For this group of countries, emissions in 2007 were 16% below base-year emissions. Emissions are expected to be 15% below base-year levels in the first Kyoto commitment period from 2008 to 2012, provided policies and measures planned by these countries are put in place.

The projections presented in the table below reflect domestic emissions only. Many countries will also make use of the Kyoto Protocol's Flexible Mechanisms and enhancement of carbon sinks to reach their individual emission goals.

Cells highlighted in orange indicate Parties whose latest emissions (2007) are not below their Kyoto target and Parties who do not expect to meet their target through domestic measures alone. Such countries may make use of the Kyoto Protocol's Flexible Mechanisms and accounting for carbon sinks to meet their target.

Cells highlighted in green indicate Parties whose latest emissions (2007) are already below their Kyoto target and Parties who expect to meet their target through domestic measures alone. A more detailed analysis of progress to Kyoto in Europe can be found in the EEA's GHG Trends and Projections in Europe 2009 report (Ref 1).

Country	Kyoto target compared with base year	2007 emissions compared with base year	2010 projections compared with base year**
Annex 1*	-5%	-16.4%	-15.3%
Australia	8%	-1.2%	6.4%
Bulgaria	-8%	-42.8%	-34.9%
Canada	-6%	25.8%	38.0%
Croatia	-5%	-10.0%	-12.8%
Czech Republic	-8%	-22.4%	-28.2%
Estonia	-8%	-48.3%	-65.7%
EU-15	-8%	-5.0%	-8.5%
Hungary	-6%	-34.2%	-25.4%
Iceland	10%	34.9%	3.9%
Japan	-6%	9.0%	-2.4%
Latvia	-8%	-53.4%	-46.0%
Liechtenstein	-8%	6.1%	3.8%
Lithuania	-8%	-49.9%	-30.4%
Monaco	-8%	-9.2%	Not available
New Zealand	0%	22.0%	22.3%
Norway	1%	10.9%	13.5%
Poland	-6%	-29.2%	-28.4%
Romania	-8%	-45.3%	-35.3%
Russian Federation	0%	-34.0%	-27.4%
Slovakia	-8%	-34.8%	-21.6%
Slovenia	-8%	1.8%	-2.2%
Switzerland	-8%	-2.9%	-4.3%
Ukraine	0%	-52.7%	-47.6%



Notes

*38 of the 41 Annex I Parties have specific emissions targets inscribed in Annex B to the Kyoto Protocol. 15 EU countries have a joint target under the 'EU-15 bubble'. Targets are set relative to emissions of GHG in the base year. 'Annex 1' emissions and projections displayed in the table above are the sum of emissions and projections for the 38 Parties with emissions targets.

Although listed in the Convention's Annex I, Turkey is not included in the Protocol's Annex B as it was not a Party to the Convention when the Protocol was adopted. The US has not ratified the Kyoto Protocol; its -7% target is not, therefore, binding. Belarus does not yet have a binding target for reducing its GHGs; a proposed -8% target has not yet been approved by the necessary number of Parties (source: <http://unfccc.int/resource/docs/2009/idr/blr04.pdf>).

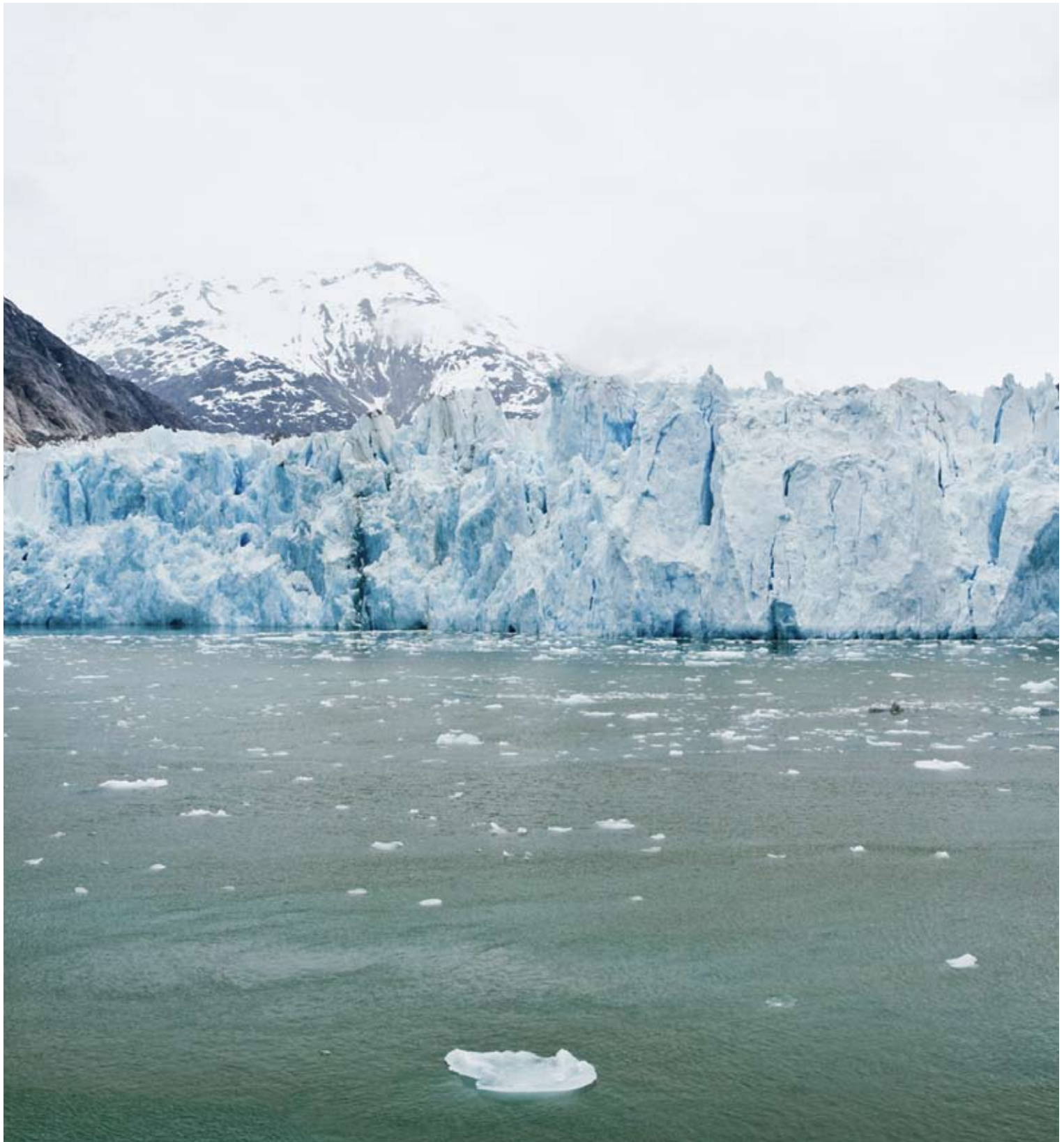
** GHG projections are taken from the most recent publically available reports. The year for which projections are provided varies by Party: in some cases projections are for the year 2010, in other cases projections are for the average of the commitment period 2008-12. The GHG projections presented are for the 'best-case' scenario, typically the 'with additional measures' scenario which incorporates all implemented and planned policies and measures. The projections presented reflect domestic emissions only. Many countries will also make use of the Kyoto Protocol's Flexible Mechanisms and enhancement of carbon sinks to reach their individual emission goals.

Sources

Base-year emissions - http://unfccc.int/ghg_data/kp_data_unfccc/base_year_data/items/4354.php.

2007 emissions - EEA 32 countries: EEA GHG Trends and Projections in Europe 2009 (www.eea.europa.eu/publications/eea_report_2009_9); non EEA countries: National inventory reports (http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/4771.php).

Projections - EU-15 and non-EU EEA countries: EEA GHG Trends and Projections in Europe 2009 (www.eea.europa.eu/publications/eea_report_2009_9); other EU countries: EEA GHG Trends and Projections in Europe 2008 (www.eea.europa.eu/publications/eea_report_2008_5); Tracking to Kyoto and 2020 Australia's Greenhouse Emissions Trends 1990 to 2008-2012 and 2020: www.climatechange.gov.au/~media/publications/projections/tracking-to-kyoto-and-2020.ashx; Canada's Energy and GHG Emissions Projections (www.ec.gc.ca/doc/virage-corner/2008-03/pdf/nat_eng.pdf) March 2008; Japan's 4th National Communication; New Zealand's 2009 Net Position Report (www.mfe.govt.nz/publications/climate/net-position-report-2009/html/page4.html); Russia's Demonstrable Progress Report; Ukraine's 2nd National Communication. National Communications and Demonstrable Progress Reports: (http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/3625.php).



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