Comparison of Annex 1 and non-Annex 1 pledges under the Cancún Agreements

It is now well understood that the mitigation actions pledged by countries under the Copenhagen Accord and Cancún Agreements are not sufficiently ambitious to avoid dangerous climate change. This was well documented in the United Nations Environment Programme’s *The Emissions Gap Report* (2010), which concluded that “the range of 2020 emission levels from the Copenhagen Accord pledges tends to be consistent with … pathways that have “likely” temperature increases of 2.5°C to 5°C up to the end of the twenty-first century.” Other sources have come to similar conclusions: Climate Action Tracker calculates a range of 2.6°C to 4.0°C. Climate Interactive calculates a range of 2.9°C to 4.3°C.

Keeping warming below the 2°C objective reflected in Cancún Agreements – or below the 1.5°C target advocated by approximately 100 countries and many civil society groups – will require ambition to be ramped up substantially. This leads naturally to questions such as, who has pledged to do how much, and who should do more?

To shed light on these questions, we examined four recent detailed studies of the mitigation pledges, for the purpose of comparing developed (Annex 1) country pledges to developing (non-Annex 1) country pledges:

- Climate Action Tracker (Climate Analytics et al. 2010; Chen et al. 2011; Höhne et al. 2011).
- Frank Jotzo, advisor to the Garnaut Review (Jotzo 2010).

As is shown Figure 1, there is broad agreement that developing country pledges amount to more mitigation, on an absolute basis, than developed country pledges. (Note that the red bars, which show developing country pledged mitigation, are consistently longer than the blue bars, which show developed country pledged mitigation.) That conclusion is robust, in that it applies across all four studies and across all their various cases, despite the diversity of assumptions and methodologies employed and the substantial differences in their quantification of the pledges.
The length of the red and blue bars thus reflects actual mitigation that is being pledged, i.e., the quantity of GHGs that the country is committing to keep out of the atmosphere. It excludes extraneous factors such as the choice of base year for expressing the pledge, or whether the pledge has been presented to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat as a reduction in emissions or emissions intensity.

Across the four studies, 12 cases were examined, and all showed the developing countries’ pledged mitigation is greater than the developed countries’ pledged mitigation.

The different cases

Three main factors distinguish the various cases considered by the four studies:

Conditionality: All four distinguish in some way between ‘low’ ambition and ‘high’ ambition pledges, reflecting the fact that several countries or regions have made lower pledges that are unconditional, plus higher pledges if specific conditions are met, such as comparable action by other Parties (e.g., EU), or adequate financial and technological support (e.g., Indonesia). In some cases, the range reflects not conditions, but uncertainty about future mitigation potential (e.g., China).

Some countries (e.g. the United States, Japan and Canada) have only one target, which is conditional on comparable action by other Parties. The various studies treat these pledges differently: some (Climate Action Tracker, McKinsey/SEI, Jotzo) include them in the low and high pledges case, and some (UNEP) include them only in the high pledges case.

Accounting rules for Annex 1 countries: The UNEP cases further distinguish between scenarios with ‘lenient’ and ‘strict’ implementation of rules affecting land use, land-use change and forestry (LULUCF) accounting, the use of surplus emission allowances (AAUs) from the Kyoto Protocol’s first commitment period after 2012, and the creation of additional surplus AAUs in the second commitment period. There are additional possibilities for ‘lenient’ interpretation of the rules, including the prospect of Clean Development Mechanism (CDM) double-counting and non-additionality.

Future economic growth: The Jotzo cases further distinguish between high economic growth and low economic growth scenarios. The BAU ranges are determined by high and low GDP growth scenarios of the U.S. Energy Information Agency, coupled with emission intensity projections from the EIA, the Australian Treasury, and Garnaut. These BAUs tend to be higher than the others (hence also inferring higher required levels of mitigation), because they explicitly factor out existing climate policy that some other reports tend to include in their BAU projections.

Four studies, one conclusion

All the reviewed studies conclude that developing country pledges amount to more absolute mitigation than the developed country pledges.

Thus the blue and red bars in Figure 1 show the difference between each study’s assumed BAU and its calculation of the pledged emission levels, and reflect the actual amount of mitigation to be achieved in the year 2020, in gigatonnes of carbon dioxide equivalent (GtCO₂e). The length of the red and blue bars thus reflects actual mitigation that is being pledged, i.e., the quantity of GHGs that the country is committing to keep out of the atmosphere. It excludes extraneous factors such as the choice of base year for expressing the pledge, or whether the pledge has been presented to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat as a reduction in emissions or emissions intensity.

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and use of surplus allowances), then Annex 1 countries pledges will be able to formally comply with their pledges with very little actual mitigation, and possibly with none at all. Raising the environmental effectiveness of the climate regime thus requires not only deeper mitigation commitments, but also a good-faith effort to tighten the accounting rules.

Is it fair to compare pledges in terms of reductions below BAU?

One could argue that this approach is biased against Annex 1 countries, which have already curbed their BAU emissions growth by working to ‘decouple’ their economic growth from carbon emissions, and thus comply with their Kyoto Protocol targets. Hence, one might argue, Annex 1 pledges are being judged relative to a stricter standard than non-Annex 1 pledges. However, this argument cannot be made about Annex 1 countries (such as United States, Canada) that have made only minimal efforts to cut their emissions, nor does it apply to countries (e.g. Russia, Ukraine) that negotiated Kyoto targets that were well above their projected emissions paths and required no mitigation effort for compliance. Moreover, many actions taken by countries under the Kyoto Protocol involved ‘no-regrets’ mitigation – past investments from which they are already reaping the net economic benefits of lower fuel costs, reduced pollution, improved public health, etc. And most notably, as recent research confirms, Annex 1 countries have not, in fact, ‘decoupled’ their consumption from emissions, but rather they have shifted many of those emissions to developing countries where goods are now produced. Finally, it appears that the country against which a comparison to BAU is biased is China, which has very substantial emission-reducing policies that are taken for granted in the standard BAU projections that many other studies have relied on (see Jotzo 2010).

How should emission reductions be distributed?

Some may claim that it does not reflect inequitable effort-sharing for developed countries to have pledged less mitigation than developing countries, both because developing country pledges are conditioned, at least in part, on developed country support, and because the majority of global emissions now arise from developing countries.

However, as Figure 1 shows, when one compares developed country pledges to the low pledges of developing countries, which studies tend to interpret as the unconditional pledges, it turns out that developing countries’ low pledges are either much larger than developed countries’ high pledges (UNEP ‘lenient rules,’ Climate Action Tracker, Jotzo ‘low BAU’ and Jotzo ‘high BAU’) or essentially equal to them (UNEP ‘strict rules’ and McKinsey/SEI).

The second argument, that mitigation should be greater in developing countries, confuses the need to efficiently distribute mitigation with the need to equitably distribute effort. As is well known, the two can be decoupled. Much of the period since Kyoto has been devoted to developing mechanisms (such as the CDM and the European Emissions Trading System) that are designed to enable one country to pay for mitigation in another country. Similarly, much of the attention in the current round of negotiations is devoted to designing and operationalising the Green Climate Fund, also to enable one country to pay for mitigation (and adaptation) in another country. To suggest that developing country mitigation pledges should be greater than developed country is to unnecessarily conflate efficiency and equity.

So, what would be an equitable allocation of mitigation effort? The UNFCCC’s own foundational principle is that countries should protect the climate ‘in accordance with their common but differentiated responsibilities and respective capabilities’. And in allocating responsibilities, it is important to consider not just developed countries’ direct emissions, but also the emissions in developing countries that arise from producing goods for consumption in developed countries. Under a ‘consumption-based’ accounting of emissions, developed countries are responsible for about 60 per cent of global emissions. If you gauge emissions on a cumulative basis, which is after all what today’s atmospheric GHG levels reflect, developed countries are responsible for more than 75 per cent of historical emissions.

In terms of countries’ capability to solve the climate problem, it is clear that the great majority of financial and technological wherewithal resides in the global North. The developed world controls approximately three-quarters of the world’s GDP. If one takes into account that a much higher fraction of GDP goes toward meeting very basic needs, such as food, shelter, and medical care, then the North controls more like six-sevenths of the world’s discretionary GDP.
Policy conclusions

• Accounting for much greater responsibility and capacity of the developed world, it seems self-evident that the developed world should take responsibility for much more mitigation effort than the developing world, and that this effort must have both a domestic and an international dimension. The effort undertaken domestically would demonstrate that low-carbon development is feasible and attractive, and that a rapid transition is possible. The equally important effort undertaken internationally would take the form of financial and technological support to developing countries, to enable them to design and shift to their own low-carbon development paths.

• As all the studies have noted, the mitigation pledged globally puts us on track toward much more than 2°C of warming – possibly as much as 5°C.

• Clearly, developed countries must raise their level of ambition to the levels demanded by science and equity. And, of course, they must fulfil those ambitions through actual mitigation, not through accounting loopholes.

• The uncompromising mathematics of the severely limited global carbon budget make clear, however, that developed countries alone cannot prevent dangerous climate change. While this analysis concludes that developed countries are not doing enough, it does not conversely imply that developing countries are doing too much. Developing countries must also raise their level of ambition. And, with the necessary institutions of technological cooperation and financial support in place, developed and developing countries must then work together to fulfil those ambitions.

This policy brief is based on SEI Working Paper No. 2011-06, Comparison of Annex 1 and non-Annex 1 pledges under the Cancún Agreements, published by the Stockholm Environment Institute in November 2011, and previously released as an SEI-US working paper in June 2011. The working paper includes a more comprehensive presentation with additional technical detail, including information on individual countries’ pledges.