Annex 1 pledges, accounting "loopholes", and implications for the global 2°C pathway[1]

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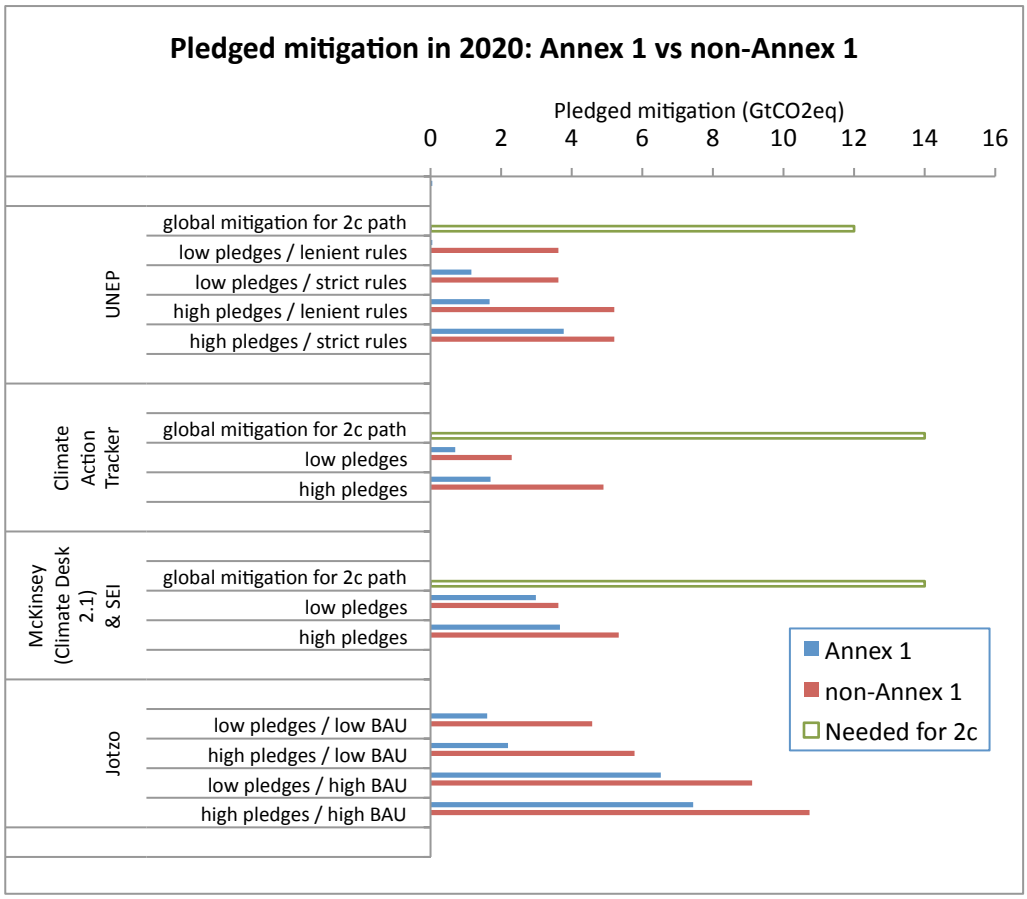
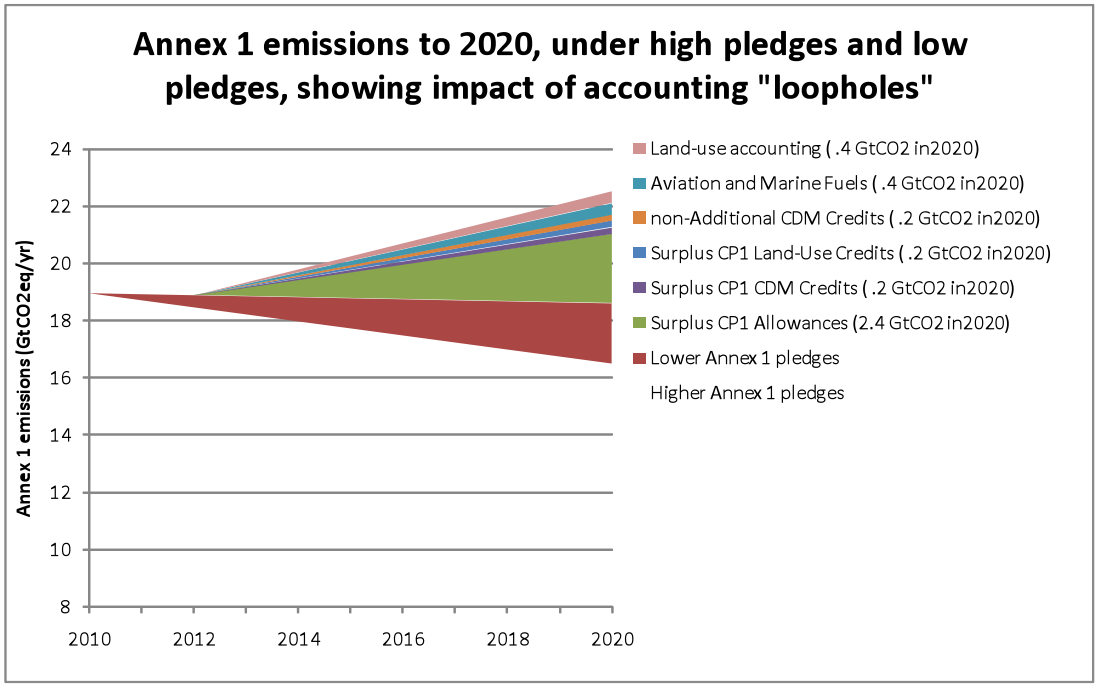
SEI has recently issued a report[i] that examines four recent detailed studies of countries' mitigation pledges under the Cancun Agreements, for the purpose of comparing developed (Annex 1) country pledges to developing (non-Annex 1) country pledges. It finds that there is broad agreement that developing country pledges amount to more mitigation than developed country pledges. 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.



[1] This is a preliminary version of a forthcoming Stockholm Environment Institute Policy Brief, to be distributed at www.sei-international.org

The Annex 1 pledges are further weakened by a series of accounting rules, methodologies, and other technical means, often referred to as "loopholes". The collective effect of these loopholes is to provide means by which Annex 1 Parties can comply with their reduction targets without actually undertaking mitigation. The following chart shows the emissions implications of the lower pledges and higher pledges of the Annex 1 countries (bounding the dark red wedge), and the sequential impact of six loopholes.



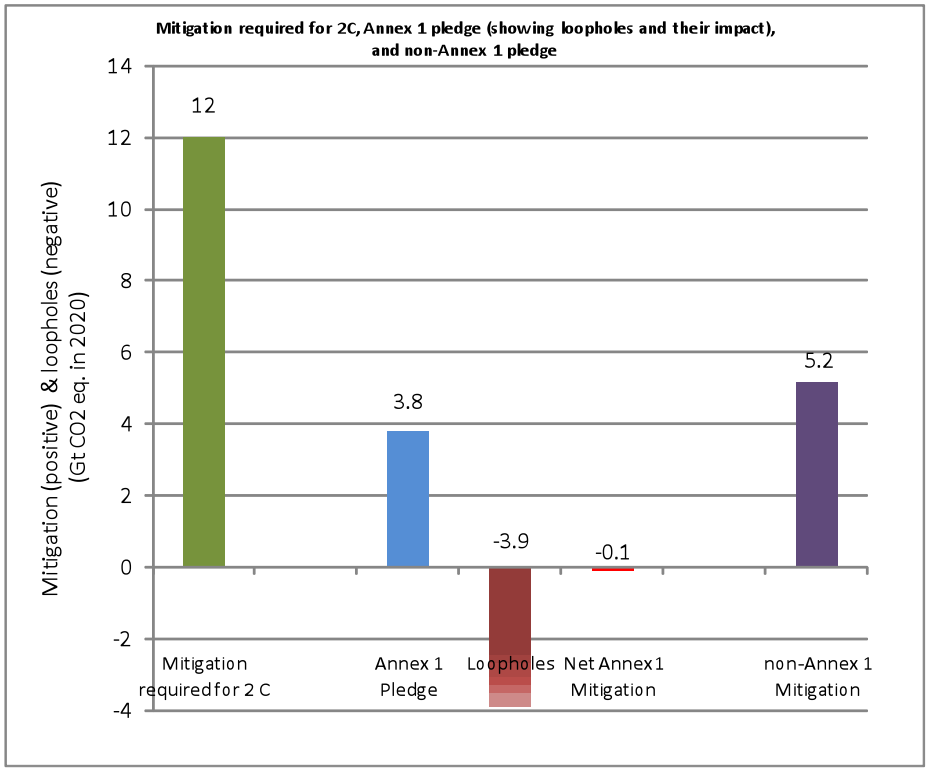
The loopholes amount to ~4 GtCO2eq in 2020.

1. Surplus allowances from 1st commitment period (11 GtCO2eq total, ~2.4 GtCO2eq in 2020)[ii]
2. Surplus CDM credits from 1st commitment period (1 GtCO2eq total, ~0.2 GtCO2eq in 2020)[iii]
3. Surplus land-use credits (removal units) from 1st commitment period (1 GtCO2eq, ~0.2 GtCO2eq in 2020)[iv]
4. non-Additional CDM credits during 2nd commitment period. (0.2 GtCO2eq/yr in 2020)[v]
5. Aviation and marine fuels (unaccounted growth in Annex 1) (0.4 GtCO2eq/yr in 2020)[vi]
6. Land-use accounting methods (e.g., projected emission levels) (0.4 GtCO2eq/yr in 2020)[vii]

We note that this is a relatively conservative estimate of the size of the accounting loopholes that would be available to Annex 1 Parties if rules are not changed to eliminate them. Some analyses conclude that surplus allowances, land-use accounting methods, and non-additional CDM credits are higher. Moreover, there is the prospect that new surplus AAUs could be generated, as some Annex 1 countries have put forward pledges that are higher than their expected BAU emissions. (This has been estimated as possibly another 1 GtCO2eq in 2020)[viii]. There is also the prospect of double counting of

CDM credits, which could add another 1 GtCO2eq/yr in 2020 worth of accounting loopholes[ix]. These two have not been included in the above figure.

These accounting loopholes, taken together, could more than negate the pledges of Annex 1 countries. Taking the estimates of the conditional (high) Annex 1 pledges[x], Annex 1 pledges amount to approximately 3.8 GtCO2eq in 2020. The loopholes together sum to approximately 3.9 GtC02eq in 2020, implying Annex 1 could comply with its pledge with no actual mitigation. In the figure below, this is compared to the total global mitigation consistent with a 2°C pathway (12 GtCO2eq), and the estimate of conditional (high) pledges put forward by non-Annex 1 (5.2 GtCO2eq) countries in the figure below.



As can be seen, the Annex 1 mitigation is more than negated by the six loopholes considered here, which were estimated conservatively and excluded two additional potential loopholes. On balance, this implies no net contribution by Annex 1 to meeting the 12 GtCO2eq required to remain consistent with a 2°C pathway.

This analysis suggests that to remain consistent with the 2°C goal would require:

i. Annex 1 countries to significantly increase the ambition of their pledges
ii. Annex 1 countries to negotiate a significant tightening of accounting rules to eliminate the loopholes
iii. Annex 1 countries to significantly expand their financial and technological commitments, to ensure non-Annex 1 countries can to fulfill their conditional pledges, and deepen them.

References

[i] Sivan Kartha and Peter Erickson, 2011. Comparison of Annex 1 and non-Annex 1 pledges under the Cancun Agreements. Stockholm Environment Institute Working Paper WP-US-1107. http://sei-us.org/publications/id/393

[ii] Rogelj, Joeri, J. Nabel, C. Chen, W. Hare, K. Markmann, M. Meinshausen, M. Schaeffer, K. Macey, N. Hohne (2010). "Copenhagen Accord pledges are paltry" *Nature*, Vol. 464, 22 April 2010, 1126-1128;
den Elzen MGJ, Hof AF, Mendoza Beltran MA, Roelfsema M, van Ruijven BJ, van Vliet J, van Vuuren DP , Höhne N, Moltmann S, 2010, Evaluation of the Copenhagen Accord: Chances and risks for the 2°C climate goal. Netherlands Environmental Assessment Agency. Report number 500114018.

[iii] UNEP Risoe CDM/JI Pipeline Analysis and Database http://cdmpipeline.org/ estimate of CERs issued by 2012.

[iv] Rogelj, et al, 2010; den Elzen et al. 2010.

[v] *Schneider, L., 2007. Is the CDM Fulfilling Its Environmental and Sustainable Development Objectives? An Evaluation of the CDM and Options for Improvement, Berlin: Öko-Institut.*
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[vi] Simon Terry, 2010. Integrity Gap: Copenhagen Pledges and Loopholes. Sustainability Council of New Zealand.

[vii] Climate Action Network analysis of LULUCF accounting rule impacts (461 MtCO2/yr);

[viii] United Nations Environment Programme (2010). *The Emissions Gap Report: Are the Copenhagen Accord Pledges Sufficient to Limit Global Warming to 2°C or 1.5°C? A Preliminary Assessment*. Available at http://www.unep.org/publications/ebooks/emissionsgapreport/pdfs/The_EMISSIONS_GAP_REPORT.pdf.

[ix] Erickson, P., Lazarus, M. and Larsen, J. (2011). The Implications of International Greenhouse Gas Offsets on Global Climate Mitigation. SEI Working Paper WP-US-1106. Seattle, WA: Stockholm Environment Institute-U.S. Center. Available at http://sei-us.org/publications/id/380.

[x] For Annex 1 and non-Annex 1 pledges, see Kartha and Erickson, 2011 cited in note 1. Specifically, these are the estimates from the *UNEP Emissions Gap Report: Detailed Information about Country Pledges*, and from *McKinsey Climate Desk v2.1* with pledge analysis by SEI.