

Climate Circus Thermometer: Objective and methodology

Context

Climate negotiations, on the road to Copenhagen, are very technical. The risk is that, whatever the final outcome, world leaders will have the possibility to pretend that the Copenhagen Summit is a success or, at least, to pretend that they can not be held responsible for its failure given the ambition of their own position.

Objective

The objective of the Climate Circus Thermometer is to provide a clear assessment of the performance of key developed countries (and parties) on the road to Copenhagen. The performance of a country is measured in term of the global temperature increase that its position would lead to if all countries would have the same level of ambition. The two positions of a country we consider are:

1. its emission reduction target by 2020;
2. its finance commitment to assist developing countries in mitigating and adapting to climate change.

Methodology

The ultimate goal of Copenhagen should be to guarantee that global warming will remain well below 2°C. We rely on the most ambitious set of IPCC scenarios, although these would only give a 50% chance of keeping warming to below 2°C.

Regarding developed countries, this translates into a collective emission reduction target between 25 and 40% by 2020 compared with 1990. We assume that developed countries as a group should reduce their domestic emissions by 30%. Using a study from the Netherlands Environmental Assessment Agency to assess the comparability of efforts among these countries, this leads to a target for the EU27 around 40%, 13% for the US or 20% for Japan¹. If the EU were stick to its official 20% commitment, it would achieve only one-third of the emissions reductions required, compared with a business as usual scenario. In other words, the ambition level of the EU regarding its 20% 2020 target is one-third of what it should be. If the EU were to move to a 30% target, its ambition level would be around three-quarters of what it should be.

For global warming to remain below 2°C, developing countries as a group should deviate from business as usual by 15% to 30% by 2020². To account for their much higher responsibility and capacity, developed countries should support this mitigation effort through financial support of around €80bn per year by 2020. In addition, they should also provide around €40bn to finance developing countries' adaptation to the impacts of climate change. This €120bn bill can be shared among developed countries

¹ “Exploring comparable post-2012 reduction efforts for Annex I countries”, NEAA, Dec 2008. This study analyses various effort sharing methodology. We use the average target they would lead to. Moreover, this study does only provide figures for Europe as a whole. To share the mitigation effort within European countries, we rely on the Responsibility and Capacity index developed in the “Greenhouse Development Right Framework”, Baer and al., Nov 2008.

² According to an analysis led by IPCC authors, released after the fourth IPCC Assessment Report.

using their Responsibility and Capacity index, as developed in the Greenhouse Development Right Framework. The EU for example should provide over €30bn by 2020. Recently, the EU announced it could provide from €2bn to €15bn to support developing countries, i.e. between 7% and 50% of what it should do. In other words, the ambition level of the EU regarding its financial support is between 7% and 50%.

The ambition of developed countries regarding their domestic target is as important as their ambition regarding financial support; notably, because the emission reductions to be achieved in developed and in developing countries are similar. We then combine, for each developed country, these two ambition levels with an equal weight. This means that the combined ambition level of the EU is between 1/3 and 2/3.

If all countries were to have the same ambition level as the EU, this would mean that the world would achieve between 1/3 and 2/3 of the effort required to avoid a 6.1°C global warming and remain below 2°C. Assuming that global warming decreases linearly with the ambition level, this would mean that the EU position would lead to a temperature increase of between 3.5°C and 5°C, or 4.25°C on average.

