

# synthèses

## CLIMATE

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### Developed Countries 2020 Pledges Fall Short of IPCC Target

# What can we do

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**W**ith the recent announcement by President Obama of the US emission reduction target, the map of developed countries pledges<sup>1</sup> is now full. The US will come to Copenhagen with a -17% target in 2020 compared to 2005 levels that translates into a -4% compared to 1990 levels (together with a -42% target in 2030 that translates into a -33% compared to 1990

levels). Other pledges are presented in table 1. Some countries have put forward multiple pledges. They will only commit to the highest pledge if the Copenhagen agreement is deemed satisfactory. For example, the European Union (EU) stated it would move from -20% (the lower pledge) to -30% (the higher pledge) in 2020 compared to 1990 levels if developed countries undertake comparable emission cuts and if major developing countries undertake adequate mitigation actions. Countries also choose different base years in quantifying their pledges. When translated into a single 1990 baseline, developed

1. A "pledge" is used here as synonymous with "announcement". The use of this term does not prejudice the legal form of the final agreement.

**Table 1. Mitigation pledges by developed countries**

Country	Status	Low range	High range	Baseline
Australia	Announced	-5%	-25%	2000
Canada	Announced	-20%		2005
EU	-20% adopted -30% announced	-20%	-30%	1990
Japan	Announced	-15%	-25%	25% / 1990 15% / 2005
Russia	Announced	-25%		1990
US	Announced by the President, adopted by the House of Representatives, not by the Senate	-17%		2005
Belarus	Announced	-5%	-10%	1990
Norway	Announced	-30%	-40%	1990
Ukraine	Under consideration	-20%		1990
New Zealand	Announced	-10%	-20%	1990

**Table 2. Mitigation pledges by developed countries based on 1990 level**

Country	Emissions in 1990	Emissions in 2020 (low range)	Emissions in 2020 (high range)
Australia	453794	384712	303294
Canada	540227	540227	607636
EU	5222374	4177899	3655662
Japan	1195370	1081418	896528
Russia	3359567	2519676	
US	5257278	5046987	
Belarus	107101	101746	96391
Norway	37406	26184	22444
Ukraine	852887	682310	
New Zealand	43714	39343	34972
Total	17069718	14600502	13865900
Percent Reduction		- 14%	- 19%

Source: UNFCCC GHG inventories.

country pledges add up to the emission reductions laid out in table 2.

These mitigation pledges by developed countries result in aggregate emissions of -14 to -19% in 2020 compared to 1990 levels, which fall well below the range established by the IPCC (Intergovernmental Panel of Climate Change). According to the IPCC, developed countries need to reduce their emissions by -25 to -40% in 2020 compared to 1990 levels to have approximately a 50% chance to limit the temperature increase to 2°C above pre-industrial levels.

It should be noted that some targets presented here (such as EU and US pledges) account for international offsets. To be consistent with IPCC figures, this fraction of expected reductions should not be accounted for. Only the domestic component should be considered. But as specified now, certain pledges are expected to fall further below target. For example, the EU's -20% target translates into -15%, with offsets excluded.<sup>2</sup>

This is quite problematic. First, from a climate point of view: developed countries are not making the emission reduction commitments necessary for stabilizing global temperatures at a level that averts dangerous climate change. Second, from a negotiation point of view: with developed countries this far from the range recommended by the IPCC, it is very hard to imagine that developing countries would agree to negotiate. In particular, with such a low level of ambition by developed countries in 2020, developing countries refuse to translate the long term goal of limiting the tem-

perature increase to 2°C above pre-industrial levels into a global 50% emission reduction target in 2050, or into a 2020 global peak of emissions. Indeed, they rightly consider that, because developed countries 2020 targets are too low, their emission reduction pathways towards an 80% emission reduction target in 2050 are not credible. Committing to a global 50% emission reduction target in 2050, or to a global peak, would then mean that they have to make up for developed countries lack of action. They are understandably not ready to do so.

Nevertheless, given the internal political debates going on currently in all developed countries regarding their emission cuts, it is hard to imagine that current pledges will go beyond where they are now.

In this context, it is possible to envisage four – non exclusive – ways out:

### 2030 in addition to 2020

Developed countries should commit to 2030 emission targets, not in substitution of, but in addition to, 2020 emission cuts. While 2020 pledges are of critical importance in determining emission reductions required in the near term, the strengthening of 2020 targets is rather limited given the current lack of proper institutional arrangements and inertia of infrastructural change, and in light of potential technological improvement over the upcoming decades. Governments may be willing to implement more ambitious action, but effective outcomes in terms of CO<sub>2</sub> emissions reductions will partially be delayed. Thus, 2030 is a useful reference point in determining emission reduction pathways, since it allows countries to envisage deeper changes, and hence tougher emission

2. On this subject see the IDDRI publication "Climate and Energy Package: Would too many offsets hollow out the EU Package?", Analyses No 02/2009, available at <http://www.iddri.org/Publications/Collections/Analyses>

cuts. 2050 remains a useful target year in that it gives shape to the emission reduction pathway, by fixing its ending point, but it does not trigger immediate action.

### **Methane (CH<sub>4</sub>)**

Tougher 2030 targets may compensate for at least part of the additional emissions induced by weak 2020 emission cuts. But the current level of pledges will inevitably lead to a substantial overshoot during the forthcoming decades (2010-2030). In addition, it generates a debate on comparability of action amongst developed countries, discouraging some of making more ambitious pledges. An important contribution to both issues could be made through specific, additional pledges on methane emission reduction programs. Studies show that an important potential of additional and perennial abatement could be mobilized in the energy sector, waste treatment and water treatment. CH<sub>4</sub> reduction potential up to 2020 can be estimated at 2 Gtons of CO<sub>2</sub> equivalent, that could be achieved with a total cost of \$31 billion. Recent scientific publications also recognize the systematic undervaluation of the medium term impact of CH<sub>4</sub> emissions when expressed in CO<sub>2</sub> equivalent. The GWP (global warming potential) utilized by the UNFCCC (1 ton of CH<sub>4</sub> = 21 tons of CO<sub>2</sub>) takes into account a 100 year horizon for the climate impact. If we have reasons to worry about the 2050 impacts on climate change of current emissions, we shall acknowledge an equivalent of about 80: the mobilization of this short term potential would then be equivalent to an additional cut of about 8 G tons of CO<sub>2</sub>.

The GWP value currently utilized to aggregate the different GHG emissions represents a safe approach to the long term objective of stabilization, weighting the trade off between CO<sub>2</sub> action and CH<sub>4</sub> action with respect to their impact in 100 years. But the issue today is not about optimizing between CH<sub>4</sub> and CO<sub>2</sub> action under economic constraint, but about maximizing domestic climate program impacts under a set of economic, political and technical constraints: if further reductions on "energy" CO<sub>2</sub> emissions are quite difficult to achieve on the short term, additional

CH<sub>4</sub> cuts should be incentivized. But the current rules clearly discourage government from being more ambitious. Without changing the accounting rules, specific pledges on additional CH<sub>4</sub> actions could be made in addition to the current targets, valued with a higher equivalence for comparability purposes<sup>3</sup>.

### **Revision clause**

The Copenhagen agreement should include a revision clause for medium (2030) and long-term (2050) commitments by developed countries. These revisions should be based on the latest available science. There are two main drivers of low short-term pledges by developed countries.

- First, given the uncertainties surrounding the costs of new climate policies, governments tend to consider the upper cost range as risk precaution, and thus tend to make conservative pledges. Experience gained in implementing climate policies will progressively provide more accurate information on mitigation costs. It may lead to a re-evaluation of the level of ambition.
- Second, countries fear that other countries, sometimes being economic competitors, will not really do what they pledge to do. It triggers in particular fear of competitiveness loss. A robust MRV system developed in Copenhagen and after could suppress or at least diminish this fear by enhancing transparency, and by building confidence among countries. That too could lead to a re-evaluation of the level of ambition.

The Copenhagen agreement should therefore not irreparably fix targets at a low level of ambition. In fact, Copenhagen pledges should be seen as floor cuts and should be strengthened over time.

### **Additional support**

Developed countries should commit to larger financial and technological support to mitigation and adaptation actions in developing countries, be it through carbon markets or public finance. ■

3. See IDDRI Web page "Current Climate Policies underestimate the potential contribution of methane emission reductions" at <http://www.iddri.org/Themes/Climat/The-potential-contribution-of-methane-emission-reductions>

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## What can we do?

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# IDDRI

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