

## Responding to Climate Change: A Brief Comment on International Emissions Reduction Pledges

### *The Copenhagen Accord: a step in the right direction*

The IEA welcomes the Copenhagen Accord, which provides guidance on the next steps towards a legally-binding agreement on climate change. The Accord:

- provides a clear environmental goal of limiting the increase in global temperature to 2 degrees Celsius
- calls for emissions to peak as early as possible as well as a collective commitment by developed countries to financially support developing country actions in mitigation and adaptation
- lays out the foundation for support to developing country actions, over and above their unilateral actions.

### *But more is needed*

However, IEA calculations show that **emission reduction pledges to date fall short of what is needed** to limit the long-term concentration of greenhouse gases in the atmosphere to 450 parts per million (ppm) of CO<sub>2</sub>-equivalent, in line with a 2 degrees C increase.

The IEA has produced a blueprint to reach the 450 ppm goal in the energy sector (see *World Energy Outlook 2009*). In the first half of 2010, the Agency will assess the possible gap between countries' commitments and actions under the Copenhagen Accord and this goal. Preliminary analysis indicates that current pledges put us on track for a 550 ppm scenario, which is likely to see a long term temperature rise of around 3 degrees Celsius (see figure 1).<sup>1</sup>

### *The International Energy Agency will play its role*

The Agency will work with all countries to ensure that best energy policy practice is widely shared and implemented to reach a higher level of ambition at least cost for society. The IEA will continue its ground-breaking work in areas such as energy efficiency, carbon pricing through market mechanisms, and research, development and deployment of low-carbon energy technologies. The Agency's annual flagship publication, the *World Energy Outlook 2010*, to be released in November this year, will include a new scenario that analyses the implications for the energy sector of the financial and emissions reductions pledges

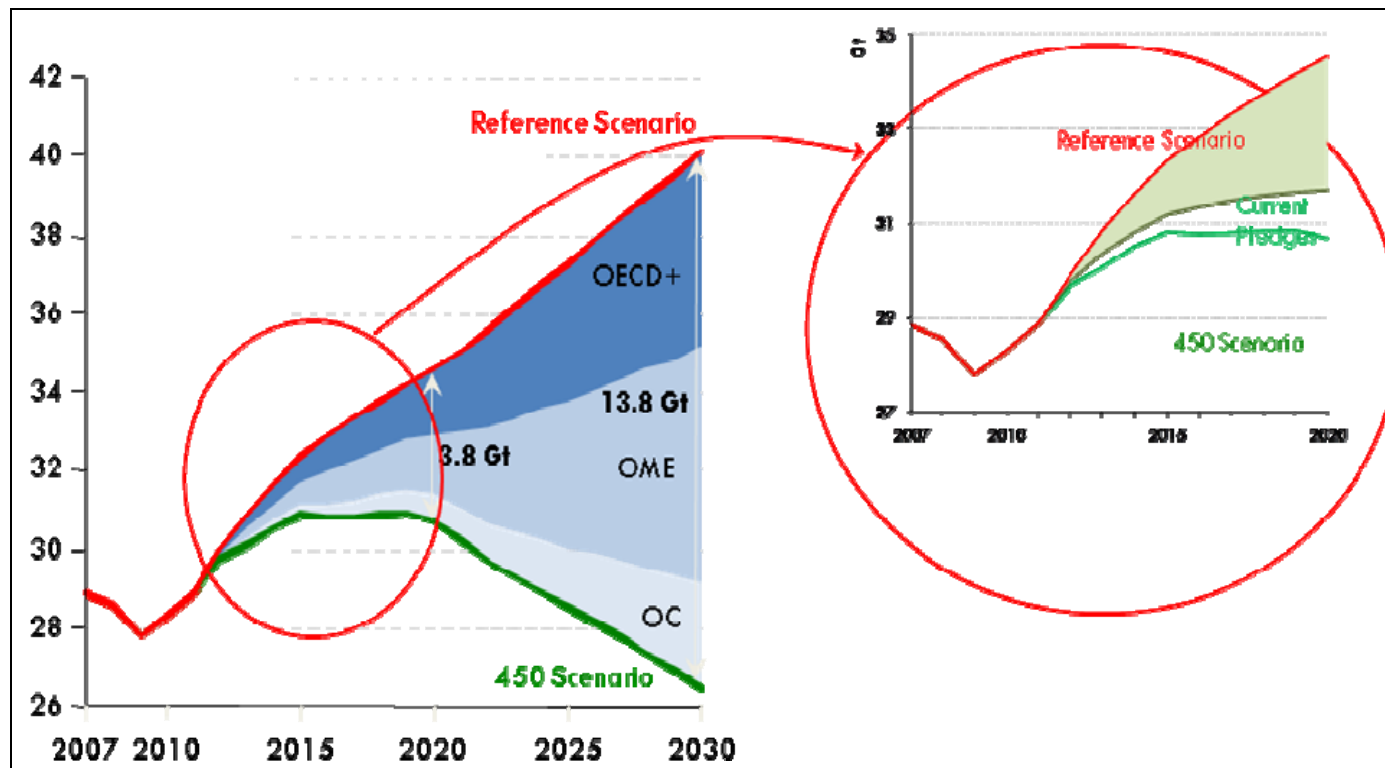
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<sup>1</sup> Note the Business as Usual baseline chosen by parties is not always clear thus the IEA makes certain assumptions in conducting this analysis.

announced as part of the Copenhagen Accord. The scenario will further analyse the implications post-2020 for the energy sector, investment, technology development and deployment to put the world on track to a 2 degrees Celsius temperature rise in the longer term. Meanwhile, *Energy Technology Perspectives 2010*, to be released in July 2010, and the IEA energy technology roadmaps will show precise policy pathways for ensuring that the key low-carbon energy technologies play their role in putting us on track for a 2 degree C temperature increase.

**Figure 1: World Abatement Emissions in the 450 Scenario and Current Emissions Reduction Pledges**

(IEA analysis based on pledges as of 8 February 2010, and *World Energy Outlook 2009*)



## Annex: List of pledges as of end of March 2010 as part of the Copenhagen Accord

### Quantified economy-wide emissions targets to 2020 submitted to the UNFCCC (Annex I):

- **Australia** (5% reduction from 2000 levels, outlines conditions under which prepared to go to -15% or -25% in a footnote)
- **Belarus** (5-10% reduction from 1990 levels, premised on access to Kyoto flexible mechanisms, intensification of technology transfer, capacity building and experience enhancement for Belarus)
- **Canada** (17% reduction from 2005 levels, to be aligned with the final economy-wide emissions target of the United States)
- **Croatia** (5% reduction from 1990 levels; temporary target until member of the EU)
- **EU** (20% reduction from 1990 levels) – note still committed to going to 30% under certain conditions
- **Iceland** (30% from 1990 levels, in a joint effort with the EU, as part of a global and comprehensive agreement with comparable commitments by developed countries and participation by developing countries)
- **Lichtenstein** (20% from 1990 levels, increasing to 30% if comparable reductions from developed countries and contribution by emerging economies)
- **Japan** (25% reduction from 1990 levels, premised on the establishment of a fair and effective international framework)
- **Kazakhstan** (15% reduction from 1992 levels)
- **Monaco** (30% from 1990 levels, using Kyoto flexibility mechanisms, particularly the CDM)
- **New Zealand** (10-20% reduction from 1990 levels if there is a comprehensive agreement (conditions listed))
- **Norway** (30% reduction from 1990 levels) – still committed to going to 40% under certain conditions
- **Russia** (15-25% reduction from 1990 levels if appropriate accounting of Russian forestry and legally binding targets for all major emitters)
- **Switzerland** (20% from 1990 levels, going to 30% if comparable reductions from developed countries and contribution by emerging economies)
- **Turkey** has not submitted its target and appears interested to register with nationally appropriate mitigation actions (NAMAs)
- **United States** (the range of 17% reduction from 2005 levels, in conformity with anticipated U.S. energy and climate legislation, with final target to be reported in light of enacted legislation)

### Nationally appropriate mitigation actions (which for some countries takes the form of an economy-wide target) to 2020 submitted to the UNFCCC (non-Annex I):

- **Argentina** (List of principle actions being undertaken in energy efficiency, renewable energy, biofuels, forest management and solid waste management)
- **Armenia** (List of actions includes implementation of the National Program on Energy Saving and Renewable Energy, expanding use of clean transport fuels, decreasing methane emissions from waste, and several measures in forestry and land-use)
- **Benin** (Develop collective transport system; methane recovery from municipal waste; sustainable forest management and forest plantations)
- **Botswana** (Provides examples of emission reduction, energy conservation and efficiency actions it will undertake; will undertake a long-term mitigation strategy and a baseline against which to measure actions against)
- **Bhutan** (Pledges that its emissions will never exceed its sequestration capacity)
- **Brazil** (List of eleven measures mostly in forestry and land-use sectors, but also including energy efficiency and use of alternative energy sources, which are expected to result in a reduction of 36.1%-38.9% from business-as-usual emissions by 2020)
- **China** (40-45% reduction in CO<sub>2</sub> intensity of GDP by 2020 from 2005 level; increase the share of non-fossil fuels in primary energy consumption to around 15 percent by 2020 and increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic metres by 2020 from the 2005 levels)

- **Costa Rica** (Will undertake actions to significantly deviate from projected business-as-usual emissions up to 2021 and beyond)
- **Ethiopia** (Detailed list of measures in renewable energy, transport, waste, forestry and agriculture)
- **Gabon** (List of measures in forestry, renewable energy, buildings, industry, transport and waste)
- **Georgia** (Will develop low-carbon growth plan and strategy, and establish a baseline against which deviations due to nationally appropriate mitigation actions will be measured)
- **Ghana** (Detailed list of measures in electricity, transport, metal production, oil and gas production, industrial and residential sectors, agriculture, forestry and waste. Measures presented alongside the BAU situation.)
- **Indonesia** (26% reduction from business-as-usual levels by 2020)
- **India** (20-25% reduction in CO<sub>2</sub> intensity of GDP by 2020 from 2005 levels)
- **Israel** (20% reduction from business-as-usual levels by 2020, achieved primarily through: 10% of renewable energy in electricity generation by 2020 and 20% reduction of electricity consumption by 2020)
- **Ivory Coast** (List of actions in energy, transport, industry, agriculture, and national risk reduction strategy)
- **Jordan** (List of actions in energy sector, including renewable energy; transport; waste; agriculture and forestry)
- **Macedonia** (List of actions, appears to be taken from National Communication, largely in electricity, energy transformation and heating, and transport)
- **Madagascar** (List of actions to promote renewable energy, low-emission transport, energy efficiency, and measures in agriculture and forestry)
- **Maldives** (Will achieve carbon neutrality” by 2020)
- **Marshall Islands** (40% reduction by 2020 from 2009 level)
- **Mauritania** (List of measures to increase forest cover, reduce domestic energy consumption and improve public transport, rationalise use of wood and traditional energy, and promote renewable energy)
- **Moldova** (25% reduction from 1990 levels by 2020)
- **Mongolia** (List of actions in renewable energy, coal (improving quality), energy efficiency (residential, industry, appliances and equipment), transport, agriculture, forestry; some actions include estimated emission reductions)
- **Morocco** (Detailed list of actions, most with estimated emission reductions, including in energy sector (both supply and demand), industry, waste, buildings and urban planning, as well as some measures in agriculture and forestry)
- **Mexico** (Up to 30% reduction from business-as-usual emissions in 2020)
- **Namibia** (Will continue to implement mitigation actions using renewable energy potential and Kyoto Protocol mechanisms)
- **Papua New Guinea** (Reduction of at least 50% before 2030 while becoming carbon neutral before 2050)
- **Republic of Congo** (List of 32 measures drawn from 1996 and 2000 National Communications)
- **Sierra Leone** (Description of sectors and types of measures to be developed and implemented, largely in agriculture and forestry but also including in clean energy, waste, energy efficiency and transport. Institutional measures also described (e.g. establishment of Climate Change Secretariat))
- **Singapore** (Will begin implementation of mitigation actions and energy efficiency measures that will lead to a 16% reduction from business-as-usual emissions in 2020 – though full implementation to achieve 16% reduction contingent on a legally binding global agreement being reached)
- **South Africa** (34% reduction from business-as-usual emissions by 2020; 42% reduction by 2025)
- **South Korea** (30% reduction from business-as-usual levels by 2020)
- **Togo** (List of measures to improve energy efficiency in urban and rural environments, promote renewable energy, manage the use of traditional energy sources, and increase forest cover)

**Countries without pledged actions or economy-wide targets that are associated with or support the Copenhagen**

**Accord:** Albania, Algeria, Bahamas, Bangladesh, Bosnia and Herzegovina, Cambodia, Chile, Colombia, Central African Republic (supports), Democratic Republic of the Congo, Djibouti, Fiji, Guatemala, Guinea, Guyana, Kiribati, Lao PDR, Lesotho, Malawi, Mali, Montenegro, Nepal, Palau, Panama, Peru, Philippines (supports), Rwanda, Samoa, San Marino, Serbia, Swaziland, Tanzania, Trinidad and Tobago, Tunisia, United Arab Emirates, Uruguay, Zambia.