

Melting Expectations

As the world gears up for the Climate Change Summit in Copenhagen, due to take place from 7 to 18 December 2009, it remains unclear whether the key players will be able to agree on measures to cut greenhouse gas emissions.

Hopes that Copenhagen will result in a legally binding agreement on climate change have already been dimmed following statements to that effect by US President Barack Obama and his counterparts at the Asia Pacific Economic Cooperation forum (APEC) in Singapore this November. But Copenhagen can still be helpful in producing a declaration of principles that will provide the foundation for a comprehensive treaty on climate change to be finalized next year.

The Copenhagen Summit constitutes the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), which was set up at the Earth Summit in Rio de Janeiro in 1992. Copenhagen follows the climate talks held in Bali in 2007, where delegations from 192 countries agreed to work toward a new global agreement on climate change, to be finalized in Copenhagen this year. The envisioned agreement is meant to replace the Kyoto Protocol, due to expire in 2012.

Participating governments hope that a new international agreement on climate change will be more wide ranging than Kyoto and also include commitments by wealthier developing countries to restrain their emissions.

1.1 Cuts

The Copenhagen agreement is supposed to set targets for **industrialized countries** to cut their greenhouse gas emissions by 2020. The **EU** has promised to cut emissions by 20 percent from 1990 levels by 2020. **Japan** has announced it is ready to cut emissions to 25 percent below 1990 levels if other countries make similar pledges. The **US** has so far resisted naming any numbers regarding its emission cuts. A climate bill including a (mere) 4 percent cut from 1990 levels is currently under Senate review. Despite Obama's pledge to take drastic measures on climate change during his election campaign, his administration has so far failed to take action. The recession may be part of the problem. Powerful and well-resourced lobby groups, determined to prevent any climate bill from passing, may be another reason for the administration's inertia. In the US, there are currently about five lobbyists opposing climate change legislation for every member of Congress. Powerful lobbying against climate legislation by multinationals and the traditional energy sector is also taking place in Australia, Canada and the EU.

Meanwhile, conflicting messages are coming out of **Russia**. On one hand, Russia has failed to make any pledges to cut greenhouse gas emissions ahead of the Copenhagen conference. Some voices in Russia even maintain that global warming will not harm, but benefit the country: The thawing of the permafrost in the Siberian tundra would make life in Siberia more livable and free up additional land for cultivation. Furthermore, the melting of the polar ice cap would open up a bounty of natural resources on Russia's northern frontier, including oil, gas and precious metals, which Russia is eager to exploit. On the other hand, President Dmitry Medvedev has publicly acknowledged the need to take drastic action on climate change and warned that failure to act would lead to catastrophic consequences. Observers doubt that Russia can generate the necessary political will to implement decisive measures on climate change, fearing instead that the country's emissions will increase considerably by 2020.

No developed country has so far agreed to cut its emissions to the level UN scientists recommend – 25 to 40 percent by 2020 – to prevent catastrophic climate change. According to the most comprehensive CO₂ study to date, global temperatures will increase by an average of 6 degrees Celsius by the end of the century if nothing is done to limit CO₂ emissions.

1.2 Restraints

A main weakness of the Kyoto agreement was that large developing countries like Brazil, China and India did not have to take any action under the treaty. This time, however, **wealthier developing countries** are expected to participate in concrete efforts to halt global warming. Although they may not be expected to make actual cuts, they will be asked to restrain the growth of their emissions. **Brazil** has indicated that it would be ready to reduce its emissions by up to 40 percent mainly by slowing down deforestation. **China** has stated its readiness to cut CO₂ emissions per unit of GDP by 2020 and may be able to determine a date when it expects its emissions to peak. **India** said it would limit the growth of its greenhouse gas emissions but refuses to commit to any binding targets.

Both China and India insist that climate change is a problem caused by rich, industrialized countries, and that they will have to make the necessary sacrifices to reverse global warming and help ameliorate its harmful effects around the world. India's environment minister has bluntly stated: "Internationally legally binding [greenhouse gas] reduction targets are for developed countries and developed countries only."

1.3 Transfers

New technologies that help reduce greenhouse gas emissions are mostly developed in industrialized countries. Developing countries argue that a comprehensive agreement on climate change should include a mechanism that ensures the rapid transfer of green technology to developing countries. China and India have called upon industrialized countries to heavily subsidize the development of wind turbines, solar plants and other clean technologies in developing countries. The suggested price tag for these subsidies: \$200 billion – about 0.5 percent of rich nations' economic output.

1.4 Adaptations

Countries that will be strongly affected by climate change will need to adapt their way of life to the changed environmental circumstances. Developing countries therefore demand that industrialized states help them pay for the changes they are forced to undertake. China has called for rich countries to provide 1 percent of their GDP to help developing countries adapt to changes caused by climate change. States with low coastlines will have to build sea defenses to protect coastal communities from frequent flooding. Countries that experience prolonged droughts as a result of climate change will need financial aid and technology to develop new crop varieties and to set up irrigation systems. A declaration drafted by a group of developing countries that are most vulnerable to climate change is asking developed states to commit 1.5 percent of their GDP to help them adapt to climate change and build low-carbon economies.

The Gulf States, whose economies are heavily dependent on the export of fossil fuels, are gearing up to demand financial compensation for the loss in income they will incur if an international treaty on climate change takes effect. The Gulf States have always considered cuts in carbon emissions by industrial powers a threat to their livelihood and hence demand considerable outside support to adapt their domestic economies to a less fossil fuel-based global economy.

1.5 Results

Although Copenhagen is unlikely to answer the participating countries' different demands and fully resolve the disagreements between rich and poor nations, the conference may still be deemed a partial success if countries can agree on a detailed statement of principles. These principles will hopefully find their way into a binding climate treaty in 2010. Failure is not an option.

By Sara Kuepfer

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1.6 Resources

1.6.1 International Organizations

The Intergovernmental Panel on Climate Change (IPCC)

The IPCC is the leading body for the assessment of climate change, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO). A scientific body, it reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide that is relevant to the understanding of climate change. Review of scientific work from around the world is an essential part of the IPCC process to ensure an objective and complete assessment of current information.

United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC, together with its Kyoto Protocol, is the primary international treaty addressing climate change. This site provides background on climate change and information on meetings sponsored by the Convention.

United Nations Climate Change Conference 7-18 December 2009

This is the official website of the Copenhagen conference on climate change. It features the latest news coming from participating countries, as well as in-depth articles on a broad range of issues related to climate change and the treaty-making process. 'Climate Thoughts' offers a visual representation of the different climate opinions and thoughts from well-known climate debaters and participants at the Copenhagen conference.

1.6.2 Research and Academia

Harvard Project on International Climate Agreements, Belfer Center for Science and International Affairs, Harvard University

This research project seeks to identify key design elements of a scientifically sound, economically rational and politically pragmatic post-Kyoto international policy architecture for global climate change. It draws upon leading thinkers from academia, private industry, government and nongovernmental organizations to construct a small set of promising policy frameworks, and then disseminates and discusses the design elements and frameworks with decision makers in the US, Europe and around the world. The website features a comprehensive collection of research papers on climate change policy issues.

Pew Center on Global Climate Change

Based in Arlington, Virginia, the Pew Center on Global Climate Change brings together business leaders, policymakers, scientists and other experts to bring new approaches to the debate on climate change. The Center produces reports and publications analyzing key climate issues that can be downloaded for free from its website. The Center also organizes regular meetings with policymakers and business leaders to discuss workable solutions to climate change.

Energy and Climate Change Program, by Worldwatch Institute

Worldwatch Institute's Energy and Climate Change Program aims at achieving a transformation of the global energy system in order to stabilize the climate and increase energy security. Through its research, Worldwatch shows that the transition to a low-carbon energy system would create vast economic opportunities, spur innovation and job creation, and assist efforts to reduce poverty while providing a more resilient and sustainable global energy system.

1.6.3 Non-Governmental Organizations

350.org

350.org is an international campaign dedicated to building a social movement to unite the world around solutions to the climate crisis. The number 350 is what scientists say is the safe upper limit for carbon dioxide in the atmosphere. On 24 October 2009, the campaign organized the

International Day of Climate Action, on which people in 181 countries came together for the most widespread day of environmental action in the planet's history.

Stop Climate Change, by Greenpeace

This Greenpeace website features a variety of reports and video clips dealing with climate change-related issues. It also provides links to projects where citizens can become actively involved in the campaign against climate change.

World Wildlife Fund (WWF) Climate Change Campaign

This website provides background information as well as news on climate change. It also provides information on how individuals, businesses and elected officials can take action to slow climate change.

Climate Law Institute, by Center for Biological Diversity

The Climate Law Institute works to change existing legislation and develop new laws to reduce greenhouse gas emissions and mitigate global warming impacts on biodiversity. Besides containing a series of scientific publications on climate change, the website also features a comprehensive list of species threatened by extinction due to climate change.

1.6.4 Media

Where countries stand on Copenhagen, by BBC News

This BBC website presents a table outlining the different positions taken by the key players at the upcoming Copenhagen conference. The table also indicates how serious a threat global warming is considered among the citizens of each country or political region featured.

The Climate Change Lobby, by Center for Public Integrity

This project collects information provided by reporters from the International Consortium of Investigative Journalists (ICIJ) uncovering the special interests attempting to influence negotiations leading up to the conference on climate change in Copenhagen. The ICIJ team involves reporters in eight of the major economies deemed essential to a successful treaty – Australia, Brazil, Canada, China, the EU, India, Japan and the US – exploring what interests will be pushed in Copenhagen.

Real Climate

RealClimate is a commentary site on climate science by working climate scientists for the interested public and journalists. The site aims to provide a quick response to developing stories and offer the context sometimes missing in mainstream commentary. The discussion on this website is restricted to scientific topics and does not involve political or economic implications of the science.

Global Climate Change, by CNN International

This website features up-to-date stories, videos and photos about global climate change from CNN.com.

Topic Guide on Climate Change, by the New Scientist

This website by New Scientist magazine contains a wide range of articles and special features around the topic of climate change.

