



## More Small Steps for the Climate, This Time in China

The latest session of climate negotiations in Tianjin, China in the first week of October unfortunately showed that discussions are not on track to reach agreements that will reduce man-made climate change to sustainable levels. The hope for global climate must rely more on national actions, primarily of high-emitting countries, combined with international agreements to deal with other issues such as deforestation. The negotiations in China were the last before the climate COP16 in Cancun, Mexico.

## Some Progress on REDD, Technology, Financing, and Adaptation

As one of the good news, at least: progress was made at the climate negotiations in China on the forest proposals in REDD (Reduction of Deforestation and Degradation). Proposals that could lead to global reduction of deforestation could be agreed at COP16 in Cancun, Mexico this coming November - December. Unfortunately, the related negotiations on forest financing and the REDD+ partnership did not really move forward.

The issue of technology also advanced, with possibilities for agreement at COP16 on a "climate technology centre and network" (CTCN) and on a "technology executive committee" (TEC). There are, however, outstanding issues regarding the roles of these institutions, which probably will have to be solved after COP16.

On financing, a proposal for a new fund is gaining momentum, a fund with a balanced representation from North and South. Some progress was also made on adaptation. One of the proposals discussed was an adaptation committee, and it is possible that some decisions regarding adaptation can be made at COP16.

## Little Progress on Kyoto Protocol, MRV, Shared Vision

**On the Kyoto Protocol**, the developing countries are pressing for targets of developed countries in a coming commitment period, while the developed countries rather would like to discuss other issues, such as the length of a new commitment period and what would happen if no agreement were reached.

On one issue, some progress was made: inclusion of land-use changes (LULUCF) for developed countries. Unfortunately the proposals on the table are opening new, big loopholes in the accounting of national greenhouse-gas emissions; thus the best outcome, sad to say, would be not to reach any agreement on this issue.

**On limiting of emissions (mitigation)**, the USA continues to argue that developing countries should commit to action to limits emissions, which are Measurable, Reportable, and Verifiable (MRV), but does not itself commit to sufficient reductions. China and several other developing countries are critical towards strong MRV rules for developing countries.

**On a shared vision** for future climate targets and emissions, a text about the structure has been negotiated, but no numbers are agreed and some developed countries are trying to reduce the references to their historical emissions.

**The Copenhagen Accord** is referred to primarily by developed countries, but will not be the basis for negotiations. The basis is still primarily the **Bali Action Plan and Road Map** from 2007 with the two negotiation tracks: the Kyoto Protocol and the long-term cooperative action based on the Climate Convention itself.



## Next Stop Cancun

The climate negotiations will continue at the COP16, at Cancun, Mexico,

November 29 - December 10, 2010.

In spite of the slow negotiations, this is a chance to give the climate negotiations a boost, make an agreement to halt deforestation (in the REDD negotiations), and agree a mechanism for technology transfer, a framework for financing, and a shared vision to limit man-made global warming to 1.5 - 2°C as already stated in the Copenhagen Accord. Further, the countries could agree reductions of aviation and shipping as well as making CDM sustainable. Then the road would be clear for agreements in 2011 on the many other outstanding issues.

*Read on INFORSE's participation on UN FCCC conferences:  
W: [http://www.inforse.org/europe/UN\\_INFORSE.htm](http://www.inforse.org/europe/UN_INFORSE.htm)*

INFORSE is proposing a new CDM (Clean Development Mechanism) to replace the current scheme, which hardly contributes to poverty reduction and in which many of the CDM projects that receive support are ineffective in reducing greenhouse gas emissions. The new CDM scheme must follow a new set of criteria, including:

- Projects must lead to poverty reduction and to the fulfillment of the Millennium Development Goals.
- Projects must address directly the needs of poor people, increasing the welfare and/or incomes of the poor.
- Only reductions of CO<sub>2</sub> and CH<sub>4</sub> emissions may be included.
- Project organisers must be non-profit to avoid exploitation of the mechanism for profit.
- Project administration and verification must be proportional to the size of the project.
- Projects must be additional to business as usual, so they only happen because of the CDM support, but verification can be simpler for smaller, standardised projects.
- Project bundling should be allowed.
- CDM credits and evt. other external credits must only account for at most 10% of the total reduction target of a country.
- CDM income should be available for up-front investments, for instance via a fund and/or via an opportunity to sell a part of the certified emission reductions (CER) early in the project.

The current CDM scheme must be replaced with a new CDM scheme based on the above principles. Only then can the practice be justified of replacing emission reductions in the high-emitting developed countries with emission reductions in developing countries.

This change of CDM shall not change the historical responsibilities of developed countries and international institutions for past emissions as well as for dissemination of high-emission solutions. A fair, global climate regime shall include a mechanism for support for emission reductions in developing countries, based on historical responsibilities and on abilities to support, but that mechanism shall be different from the proposed CDM and shall not count towards meeting greenhouse-gas reduction targets of developed countries.

*Read the proposal at [www.inforse.org](http://www.inforse.org).*

# Climate Change Continues; Latest Science Reconfirms It



By Emil Bedi, INFORSE-Europe  
Coordinator

The 2007 Fourth Assessment report from the Intergovernmental Panel on Climate Change (IPCC) states that if dangerous climate change is to be prevented, global warming must be limited to 2 °C. To achieve this, the report tells us, global emissions must peak between 2015 and 2020 and then must decline rapidly. Specifically, the average annual per-capita emissions will have to be reduced to well under 1 ton of CO<sub>2</sub> by 2050. This is 80-95% below the per-capita emissions in developed nations in 2000.

Today it seems that the world will not be able to stop the increase in global greenhouse-gas emissions within the next 10 years. This places the 2 °C target, and the global ecosystem, in danger. Business-as-usual leads to atmospheric concentrations of CO<sub>2</sub> of almost three times pre-industrial levels by 2100. This would trigger global warming of 6 - 7 °C or more. The national reduction proposals following the Copenhagen Accord also lead to dangerous levels of warming of more than 4 °C.

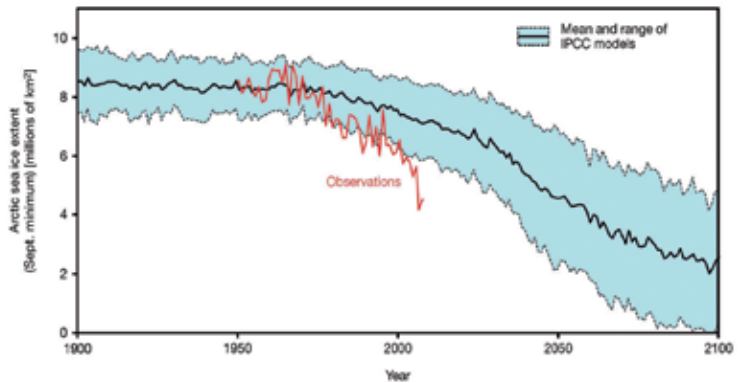
Since the publication of the IPCC's Fourth Assessment Report in 2007, a growing amount of scientific literature has appeared which not only supports the previous findings, but even says that the situation may well be much worse.

## GHG Emissions Surged by 40% from 1990 to 2008, and are still Climbing

Global CO<sub>2</sub> emissions in 2008 were 40% higher than those in 1990. The emissions growth rate since 2000 was greater than had been envisioned by the "highest" scenario of the 4th IPCC Report. As a matter of fact, CO<sub>2</sub> emissions are increasing ten times faster than any rate detected in ice core data over the last 22,000 years.

Emissions from worldwide fossil-fuel burning continue to accelerate at global rates rising from 1.1 % per year for 1990–1999 to 3.5 % per year for the period 2000–2007. Almost constant increasing trends have been observed in some developed as well as in developing countries. Growing use of coal combustion to produce power seems to be the major engine behind this increase.

Emission growth rates have been highest in the rapidly developing economies, particularly in China.



Observed (red line) and modeled September Arctic sea-ice extent in millions of km<sup>2</sup> (Copenhagen Diagnosis 2009, UNSW Climate Change Research Centre).

Concentrations of atmospheric CO<sub>2</sub> are increasing rapidly due not only to the rapid growth in fossil fuel CO<sub>2</sub> emissions, but also to declining efficiency of CO<sub>2</sub> sinks in oceans and on land in absorbing anthropogenic emissions.

The reduction in sink efficiency is in line with outcomes of climate carbon-cycle models, but the magnitude of the observed data is larger than that estimated by the models.

## No Action is NOT an Option

Regardless of the state of our understanding, regardless of disagreements within the scientific community, however, the planet continues to warm. Scientists predict that if we continue with "business as usual", the risk of catastrophic consequences is very high. The evidence is so overwhelming that taking no action to limit climate change is not a serious option.

References: see [www.inforse.org](http://www.inforse.org)

**Temperatures** - During the past 25 years, temperatures have increased at a rate of 0.19 °C per decade. This trend is in good agreement with predictions based on greenhouse-gas-emission increases. In just the past ten years, this warming continued despite a decrease in solar radiation. The last decade (2000-2010) was hotter than the 1990s, which were hotter than the 1980s, which again were hotter than the 1970s. The year 2010 is on track to be among the 3 hottest years on record. The 12-month running average of global temperature set new records three times in 2010, according to NASA GISS data.

**Ice Melting** - The melting ice in the Arctic and other parts of the world is emerging as an area of major concern. A wide array of satellite and ice measurements now demonstrates that both the Antarctic and Greenland ice sheets are losing mass at an increasing rate. Melting of Arctic sea ice in summer has increased far more than was expected in previous IPCC climate models. The area of sea ice melt during 2007-2009 was about 40% greater than that predicted by the 4th IPCC report. The thickness of Arctic sea ice has also declined during the last several decades.

Most models of seasonal ice loss have envisioned an ice-free September for the Arctic Ocean by the late 21st century. The decline of sea ice area in 2007 demanded new analyses and suggested new trends. Re-evaluations factoring in the latest observed trends have led to some predictions that the Arctic could be ice-free by September of 2037.

Melting of glaciers and ice caps in other parts of the world has also accelerated since 1990 and is projected to accelerate further. This will reduce water availability, limit hydropower potential, and change flows in regions dependent on melt water (e.g. Hindu Kush, Himalaya).

**Sea-Level Rise** - Satellite measurements show that sea-level rise is proceeding much faster than was expected. The average rate of rise for 1993-2008 was 3.4 millimeters per year, while the Fourth IPCC Report best estimate was 1.9 millimeters per year for the period. Sea level will probably rise much more by 2100 than the previously estimated range of 18-59 centimeters.

Climate models show that when CO<sub>2</sub> concentrations exceed 600 ppm (expected in the 21st century), sea levels can rise by 0.4 to 1.0 meters just due to expansion of the water as it warms. If concentrations reach 1000 ppm, this rise could reach 1.9 meters, again just from the expansion of the water. The melting of the ice shelf will raise it a great deal further.

**Abrupt Change** - Recent scientific findings point to the possibility that the Earth will face abrupt changes in local, regional and global climate systems. Thermohaline circulation patterns are considered to be at risk, although poorly understood. Other effects of concerns in abrupt-change risk scenarios include ice-albedo feedback, losses of forest cover through burning, freshwater pulses from melting ice sheets, sudden infusions of freshwater from catastrophic draining of glacial lakes, vast releases of methane trapped in ice, permafrost and ocean mud, and others.