

Statement by the Chair of the Intergovernmental Panel on Climate Change (IPCC) at the opening session of the 16th Conference of the Parties, Cancun, Mexico, November 29, 2010

Check Against Delivery

Your Excellency, President of Mexico, Mr Filipe Calderon,
First Lady of Mexico. Madame Margarita Zavala,
Your Excellency Foreign Secretary, Madame Patricia Espinoza Cantellano
Your Excellency, Secretary of Environment Mr Juan Rafael Elvira Quesada,
Executive Secretary of the United Nations Framework Convention on Climate Change Madame Christiana Figueres
Ms. Simona Gomez,

Excellencies,
Distinguished ladies and Gentlemen,
Members of the media and colleagues,

It is a great privilege for me to speak at the opening of this Conference, in the beautiful city of Cancun, Mexico - a country with a rich cultural heritage and contemporary dynamism. I speak, as I have done before, on behalf of the scientific community that carries out assessments of all aspects of climate change under the collective direction of all the governments of the world, which are members of the IPCC. The assessments of the Panel involve a mammoth human effort. To appreciate the scale and complexity of this effort may I mention that the Fourth Assessment Report (AR4) of the IPCC completed in 2007 involved approximately 3750 experts including lead authors, contributing authors and expert reviewers, all of whom volunteered their time without compensation by the IPCC. The AR4 referred to approximately 18,000 items of published literature and dealt with about 90,000 comments provided at various stages of drafting by reviewers from governments and the scientific community.

Let me highlight two important findings of the AR4: "Warming of the climate system is unequivocal as is now evident from observations of increases in global average air and ocean temperature, widespread melting of snow and ice and rising global average sea level;" and "Most of the observed increase in global average temperatures since the mid twentieth century is very likely due to the observed increase in anthropogenic GHG concentrations. It is likely that there has been significant anthropogenic warming over the past 50 years averaged over each continent (except Antarctica)"

The AR4 found that the resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change and other global change drivers. Over the course of this century, net carbon uptake by terrestrial ecosystems is likely to peak before mid century and then weaken or even reverse thus amplifying climate change.

Approximately 20 to 30 percent of plant and animal species assessed so far are likely to be at increased risk of extinction if increases in global average temperatures exceed 1.5 to 2.5 degrees Celsius.

Anthropogenic warming could lead to some impacts that are abrupt or irreversible depending upon the rate and magnitude of the climate change. Partial loss of ice sheets on polar land could imply meters of sea level rise, major changes in coast lines and inundation of low-lying areas, with greatest effects in river deltas and low-lying islands.

It is noted that the Copenhagen Accord aimed “to hold the increase in global temperatures below 2 degrees Celsius” and recognized “that deep cuts in global emissions are required” and countries “should cooperate in achieving the peaking of global and national emissions as soon as possible”. In fact, the least cost trajectory for stringent mitigation assessed in the AR4 clearly estimated that global emissions should peak no later than 2015 and decline thereafter.

The AR4 assessed a wide range of impacts based on past observations and projected those that are likely to occur in the future for different levels and magnitudes of climate change. Some of these are extremely important to bear in mind, because indeed the ultimate objective of the UNFCCC as stated in Article 2 is to prevent dangerous anthropogenic interference with the climate system. Science cannot determine what constitutes “dangerous”, but it can provide substantial scientific evidence and insights on the basis of which negotiators can determine how to integrate this information in the context of Article 2.

To achieve that goal, mitigation efforts and investments over the next 2 to 3 decades will have a large impact on opportunities to achieve lower stabilization levels. Delayed emissions reduction significantly constrains the opportunities to achieve lower stabilization levels and increases the risk of more severe climate change impacts. Neither adaptation nor mitigation alone can avoid all climate change impacts; however they can complement each other and together can significantly reduce the risks of climate change. Responding to climate change therefore involves an iterative risk management process that includes both adaptation and mitigation and takes into account climate change damages, co-benefits, sustainability, equity and attitudes.

Changes in lifestyle and behavior patterns can contribute to climate change mitigation across all sectors. Policies that provide a real or implicit price of carbon could create incentives for producers and consumers to significantly invest in low GHG products, technologies and processes.

Mitigation options are associated with a range of co-benefits, which include lower levels of air pollution and associated health benefits, higher levels of energy security, higher levels of employment and higher levels of agricultural production. The AR4 has assessed that for a stabilization level of between 445 to 535 ppm of CO₂ equivalent the reduction of average annual GDP growth rates up to 2030 would be less than 0.12 percent. The range of global GDP reduction in 2030, therefore, would be less than 3 percent as part of a least cost trajectory towards different long term stabilization levels. The association of co-benefits, such as those related to the objectives of development, sustainability and equity should also be seen in the context of estimated costs.

The AR4 has assessed a number of mitigation portfolios for achieving stabilization of GHG concentrations, and energy conservation and efficiency are some of the most attractive options available. It was also found that the buildings sector among others had substantial potential for emissions reduction, which remained relatively unaffected by different levels of cost associated with GHG emissions. Another area that has significant potential is the forestry sector, and perhaps in the short term this would provide some attractive opportunities.

Mitigation therefore presents a range of benefits, which can be achieved at very low, and sometimes even negative, costs. In the negotiations to follow during the coming days, it is important for those involved to remember that delay in mitigation actions would only increase costs globally and unfairly for some regions of the world.

The second, perhaps even more important point to remember is that delays in action would only lead to impacts of climate change which would be much larger and in all likelihood more severe than we have experienced so far. Again, these impacts are likely to be most severe for some of the poorest regions and communities in the world. Significantly, in most cases these communities have hardly contributed to the cumulative emissions of GHGs in the past.

Furthermore, even if we could limit global average temperature increase to between 2 – 2.4 degrees Celsius above pre industrial levels at equilibrium, some impacts would be unavoidable and global average sea-level rise on account of thermal expansion alone would lie between 0.4 – 1.4 meters. To this we should add the contribution to sea-level rise from melting of ice across the globe.

The year 2010 has been a challenging period for the IPCC and we have learnt many valuable lessons. In March this year the UN Secretary General and I requested the InterAcademy Council (IAC) to carry out a review of IPCC procedures and processes and provide recommendations for strengthening the organization and its functioning. The IAC submitted its report in August 2010, and the last IPCC plenary held in Busan, Republic of Korea, in October 2010 deliberated on the IAC report, and initiated prompt action to consider and implement its findings. We are confident that the IPCC will emerge stronger as a result of this exercise and live up to the expectations of the global community and stand up to intense public scrutiny of its work. Work on IPCC's Fifth Assessment Report (AR5) is well in hand, and the scientific community has responded splendidly to the Panel's request for its dedicated involvement. A record number of around 3000 nominations of outstanding scientists were submitted for the AR5, and from these a total of 831 have been selected by the IPCC as lead authors and review editors.

The scope of the AR5 has also been expanded over and above previous reports, and would include, for instance, focused treatment of subjects like clouds and aerosols, geo-engineering options, sustainability and equity issues, and much greater focus on the economics and social

implications of climate change. The next four years will be marked by intense activity in the IPCC, with two important special reports on renewable energy and extreme events, respectively, due to come out within the next year. In September 2013, the Working Group 1 report as part of the AR5 would be completed, followed rapidly thereafter by the reports of Working Groups II and III respectively. The Synthesis Report of the AR5 will be completed in November 2014, marking the culmination of the AR5 cycle.

In this context, Mr. Prsident, may I salute you for the support you have provided personally along with your government to the scientific community.

As an organization whose relevance to climate change policy is treated as a sacred trust by those working for the IPCC, every effort is being made to ensure that the AR5 is robust, strong and comprehensive, advancing our knowledge and understanding of climate change significantly beyond what we already know. But it is important to remember that what we know already on the basis of the AR4 is enough for us to justify adequate, timely and purposeful action to deal with the growing challenge of climate change. We hope Cancun signifies a major step in action to deal with the challenge of climate change. The available scientific knowledge in this field justifies it and the global community rightly expects it.

Thank you!

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