

WELCOMING CEREMONY AT COP 15/CMP5 ON DECEMBER 7, 2009

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Your Excellency, Prime Minister of Denmark Mr. Lars Lokke Rasmussen; Executive Secretary of the UN Framework Convention on Climate Change Secretariat, Mr. Yvo de Boer; Mayor of Copenhagen, Madame Ritt Bjerregard; excellencies; colleagues; members of the media; distinguished ladies and gentlemen.

It is a great privilege for me to address this august gathering at the beginning of a historically important meeting, which we all hope would lead to action – action which is required urgently on the basis of the scientific assessment of climate change presented in the Fourth Assessment Report (AR4) of the IPCC. This report was completed a few weeks before COP 13 held in Bali in December, 2007, and undoubtedly had a profound impact on the deliberations there. Since then the global community has had adequate opportunity to further study, debate and discuss the findings of the AR4 and determine actions that are required to be taken globally. This conference must, therefore, now lead to actions for implementation by “all parties, taking into account their common but differentiated responsibilities”.

One of the most significant findings of the AR4 was conveyed by two simple but profound statements: “Warming of the climate system is unequivocal as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global sea level”; and “most of the observed increase in temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations”. In the twentieth century average global temperature increased by 0.74 degrees C while sea level rise resulting from thermal expansion of the ocean and melting of ice across the globe amounted to 17 cms. With this increase the Maldives Islands, several other small island states and low lying coastal nations like Bangladesh with land surface barely a metre or two above sea level, would find that every storm surge and major upwelling of the seas represents a serious danger to life and property. The global community thus has a moral and material responsibility to do all it can to limit the growing impacts of climate change on these and other vulnerable societies across the globe. Indeed we need to give practical expression to the provisions of Article 2 of the UNFCCC, which defines the ultimate objective of the Convention as the achievement of “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.

On the basis of the AR4 we know that climate change, in the absence of mitigation policies, would in all likelihood lead to:

1. Possible disappearance of sea ice by the latter part of the 21st century
2. Increase in frequency of hot extremes, heat waves and heavy precipitation

3. Increase in tropical cyclone intensity
4. Decrease in water resources due to climate change in many semi-arid areas, such as the Mediterranean Basin, western United States, southern Africa and north-eastern Brazil.
5. Possible elimination of the Greenland ice sheet and a resulting contribution to sea level rise of about 7 metres. Without mitigation, future temperatures in Greenland would compare with levels estimated for 125,000 years ago when palaeoclimate information suggests 4 to 6 m of sea level rise.
6. Approximately 20 to 30% of species assessed so far being at increased risk of extinction if increases in global average warming exceed 1.5 to 2.5 degrees C.
7. Climate change is expected to exacerbate current stresses on water resources from population growth and economic and land use change, including urbanization. Available research suggests a significant future increase in heavy rainfall events in many regions, including some in which the mean rainfall is projected to decrease. The resulting flood risk poses challenges to society, physical infrastructure and water quality. It is likely that 20% of the world population, which as a fraction could exceed two billion people, will live in areas where river flood potential could increase by the 2080s. In Africa, by 2020, between 75 and 250 million people are projected to be exposed to water stress due to climate change, and in some countries on that continent yields from rainfed agriculture could be reduced by up to 50%.

Another area facing serious impacts of climate change are the oceans wherein the uptake of anthropogenic carbon since 1750 has led to the ocean becoming more acidic with an average decrease in pH of 0.1 units. Increasing atmospheric carbon dioxide concentrations lead to further acidification, the consequences of which could be serious for all forms of marine organisms.

Societies must now respond to climate change by adapting to its impacts and reducing GHG emissions.. There are viable adaptation options that can be implemented in several sectors at low cost and/or with high benefit-cost ratios. Also, empirical research suggests that higher benefit-cost ratios can be achieved by implementing some adaptation measures at an early stage compared to long-lived infrastructure at a later date. Based on this reality this conference must put in place measures for financing adaptation projects in some of the most vulnerable regions in the world.

This conference must also lead to urgent initiation of large scale mitigation actions. As the UNFCCC lays down, this must involve action in the developed countries, because “the developed country Parties must take the lead in combating climate change and the adverse effects thereof”. Mitigation of emissions is essential, because the IPCC has assessed its costs as modest. To limit average temperature increase at 2.0 and 2.4 degrees C, the cost of mitigation by 2030 would not exceed 3% of the global GDP. In other words, the so-called prosperity expected in 2030 would be postponed by just a few months. Further, mitigation carries many co-benefits, such as lower levels of air pollution and associated health benefits, higher energy security, larger employment and stable agricultural production, as well as greater food security. It is gratifying that the G8 leaders have recognized the broad scientific view of limiting increase in global average temperature to 2° C. But, we have clearly specified in the AR4 that if temperature increase is to be limited to between 2.0 and 2.4° C, global emissions must peak no later than 2015. That is barely six years from now. And some may even question the goal of 2.0° as a ceiling because this would lead to sea-level rise on account of thermal expansion alone of 0.4 to 1.4 meters. This increase added to the effect of melting of snow and ice across the globe, could submerge several small island states and Bangladesh.

There is now adequate scientific and technological experience to show that there are a wide variety of national policies and instruments available to governments to create the incentives for mitigation action. There is no better real life laboratory in this field to learn from than our host country, Denmark. Through a series of actions and enlightened policies Denmark has brought about a revolution in wind energy technology and its deployment. Modern Danish wind turbines are now able to produce almost 100 times as much electricity as the first wind turbines that were manufactured in 1980. Based on the experience of Denmark and other countries like Germany it would be correct to assume that a move to renewable sources of energy would prove that employment generation would take place with enhanced economic output. If we look at the example of Denmark, global sales of Danish wind manufacturers have grown from about 200 MW a year to 3,600 MW a year over the last decade. The world has benefited, therefore, from technology that is economically attractive and state of the art while Denmark has generated jobs and revenues in this sector.

The evidence is now overwhelming that the world would benefit greatly from early action, and that delay would only lead to costs in economic and human terms that would become progressively high. The IPCC has been able to provide substantial evidence through its assessments that science provides us with a basis for

undertaking changes that this conference must urgently initiate. Given the wide-ranging nature of change that is likely to be taken in hand some naturally find it inconvenient to accept its inevitability. The recent incident of stealing the emails of scientists at the University of East Anglia shows that some would go to the extent of carrying out illegal acts perhaps in an attempt to discredit the IPCC. But the Panel has a record of transparent and objective assessment stretching over 21 years performed by tens of thousands of dedicated scientists from all corners of the globe. I am proud to inform this conference that the findings of the AR4 are based on measurements made by many independent institutions worldwide that demonstrate significant changes on land, in the atmosphere, the oceans and in the ice-covered areas of the Earth. The internal consistency from multiple lines of evidence strongly supports the work of the scientific community, including those individuals singled out in these email exchanges, many of whom have dedicated their time and effort to develop these findings in teams of Lead Authors in the series of IPCC Assessment Reports during the past 21 years. The IPCC assessment process is designed to ensure consideration of all relevant scientific information from established journals with robust peer review processes, or from other sources which have undergone robust and independent peer review. The entire report writing process of the IPCC is subjected to extensive and repeated review by experts as well as by governments. In the AR4 there were a total of around 2500 expert reviewers performing this review process. Consequently, there is full opportunity for experts in the field to draw attention to any piece of published literature and its basic findings that would ensure inclusion of a wide range of views.

My colleagues and I at the IPCC are conscious of the responsibility we bear and the expectations that we must deal with in providing fair, comprehensive and objectively produced assessments of climate change. I owe a tribute and a debt of gratitude to my predecessors as Chair of the IPCC and the tens of thousands of scientists who have established traditions that ensure high standards of intellectual endeavour and impeccable conduct in the diligent pursuit of our collective goals. In this tribute I find no basis for making any exceptions. Lastly, I also express my deep gratitude to this august body and the secretariat of the UNFCCC for the receptivity and appreciation that they have always displayed in accepting the results of our work in the IPCC. We give you our assurance of unflinching devotion to our duty and upholding the sacred trust you have bestowed on us.

Thank you!