



Présidence luxembourgeoise
du Conseil de l'Union européenne

Seminar of Governmental Experts (16-17 May 2005)

Supporting material* for the presentation by the United Kingdom on behalf of the European Community and its Member States

The Climate Change Challenge

1. Impacts and the urgency of addressing climate change

Assessment of the impacts associated with climate change has developed significantly over recent years, and is paving the way for identification of impacts that would be severe enough to classify as dangerous. Many impacts will occur due to increased frequency or intensity of extreme events which pose significant risks to human well-being and this area requires greater clarification to quantify the risks more thoroughly. A number of thresholds have been identified provisionally, beyond which irreversible climate change could occur, such as the melting of the Greenland ice-sheet (which could be initiated at a global mean temperature increase of between 1 and 2C above pre-industrial levels) and Amazonian forest dieback. Without urgent action it is likely that there will be enough greenhouse gases in the atmosphere by the middle of the century to pass some of these thresholds. Adaptive capacity is critical in determining the potential dangerous effects of climate change, in particular because in some sectors and systems there may be limited capacity in terms of delaying or avoiding damages.

2. EU temperature increase limit of 2 degrees Celsius

The EU has argued consistently since the mid 1990s that the impacts of climate change associated with a temperature increase of 2C or greater, compared to pre-industrial levels, would be severe enough to be classified as dangerous and that therefore, with a view to meeting the ultimate objective of the UNFCCC, this temperature level should not be exceeded. The basis for this classification was the body of work on impacts available at the time. More recent research provides further evidence that such a limit would enable the world to avoid most, though not all, significant impacts of climate change.

3. Lessons from the Exeter conference on stabilisation

The international scientific symposium, 'Avoiding Dangerous Climate Change', held at the UK Met Office in Exeter earlier this year, considered the impacts associated with stabilisation of greenhouse gases at a range of different levels, and the emissions pathways required to meet those stabilisation targets. It was concluded that the risks are likely to be greater and the impacts more severe than previously anticipated. It was shown that to achieve a 2C temperature limit it is likely that greenhouse gas levels would need to be kept below about 450 ppm CO₂ equivalent and that consequently significant emission reductions would be required by the middle of the century. It was shown that delays in action could necessitate greater emissions reductions at a later date to meet the same temperature target.

* this paper does not reflect a formal EU position but is intended as a contribution to the debate

It was also shown that many technological options for reducing emissions significantly over the long term already exist and would be most effective if applied as part of a portfolio of options. The challenge therefore is how to use this evidence in policy development, taking into account not only the new material on risks, but also better qualification of the co-benefits and improved modelling techniques on issues such as induced technological change.

4. The climate change challenge

Recent research indicates that to keep temperatures from rising beyond 2C above pre-industrial levels requires global greenhouse gas emissions to peak within the next two decades, followed by substantial global reductions relative to 1990. These would need to be of the order of at least 15% and perhaps as much as 50% by 2050.

The EU Council of Ministers, in March 2005, thus concluded that the mitigation challenge needs to be addressed urgently. This can only be realized with a broad participation of Parties. Finding the optimal solutions would create benefits for all Parties participating in accordance with the principle of common but different responsibilities, and respective capabilities. The Council also concluded that to limit temperature rises to 2C the developed countries should be prepared to make greater reductions than required globally. The EU looks forward to exploring with other Parties strategies for achieving necessary emission reductions and believes that, in this context, reduction pathways for the group of developed countries in the order 15 – 30 % in 2020 and 60 – 80% in 2050 (relative to 1990), should be considered.