

STERN REVIEW: The Economics of Climate Change

Preface

This Review was announced by the Chancellor of the Exchequer in July 2005. The Review set out to provide a report to the Prime Minister and Chancellor by Autumn 2006 assessing:

- the economics of moving to a low-carbon global economy, focusing on the medium to long-term perspective, and drawing implications for the timescales for action, and the choice of policies and institutions;
- the potential of different approaches for adaptation to changes in the climate; and
- specific lessons for the UK, in the context of its existing climate change goals.

The terms of reference for the Review included a requirement to consult broadly with stakeholders and to examine the evidence on:

- the implications for energy demand and emissions of the prospects for economic growth over the coming decades, including the composition and energy intensity of growth in developed and developing countries;
- the economic, social and environmental consequences of climate change in both developed and developing countries, taking into account the risks of increased climate volatility and major irreversible impacts, and the climatic interaction with other air pollutants, as well as possible actions to adapt to the changing climate and the costs associated with them;
- the costs and benefits of actions to reduce the net global balance of greenhouse gas emissions from energy use and other sources, including the role of land-use changes and forestry, taking into account the potential impact of technological advances on future costs; and
- the impact and effectiveness of national and international policies and arrangements in reducing net emissions in a cost-effective way and promoting a dynamic, equitable and sustainable global economy, including distributional effects and impacts on incentives for investment in cleaner technologies.

Overall approach to the Review

We have taken a broad view of the economics required to understand the challenges of climate change. Wherever possible, we have based our Review on gathering and structuring existing research material.

Submissions to the Review were invited from 10 October 2005 to 15 January 2006. Sir Nicholas Stern set out his initial views on the approach to the Review in the Oxonia lecture on 31 January 2006, and invited further responses to this lecture up to 17 March 2006.

During the Review, Sir Nicholas and members of the team visited a number of key countries and institutions, including Brazil, Canada, China, the European Commission, France, Germany, India, Japan, Mexico, Norway, Russia, South Africa and the USA. These visits and work in the UK have included a wide range of interactions, including with economists, scientists, policy-makers, business and NGOs.

STERN REVIEW: The Economics of Climate Change

The report also draws on the analysis prepared for the International Energy Agency publications “Energy Technology Perspectives” and “World Energy Outlook 2006”.

There is a solid basis in the literature for the principles underlying our analysis. The scientific literature on the impacts of climate change is evolving rapidly, and the economic modelling has yet to reflect the full range of the new evidence.

In some areas, we found that existing literature did not provide answers. In these cases, we have conducted some of our own research, within the constraints allowed by our timetable and resources. We also commissioned some papers and analysis to feed into the Review. A full list of commissioned work and links to the papers are at www.sternreview.org.uk

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STERN REVIEW: The Economics of Climate Change

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