

27 Conclusions: Building and Sustaining International Co-operation on Climate Change

Key Messages

- **Very strong reductions in carbon emissions are required** to reduce the risks of climate change. They are likely to provide benefits well in excess of the costs. Indeed the costs of not acting strongly are likely to be very high.
- **Action is urgent** since stocks of GHGs are rapidly approaching dangerous levels, there will be heavy investment in energy infrastructure that could lock in future emissions, and it will take time to develop technologies that deliver zero emissions at low cost.
- Without a clear perspective on **the long-term goals for stabilisation** of greenhouse gas concentrations in the atmosphere, it is unlikely that action will be sufficient to meet the objective.
- **Action must include mitigation, innovation and adaptation**, and there are many opportunities to start now, including where there are immediate benefits and where large-scale pilot programmes will generate valuable experience
- **Countries should agree a broad set of mutual responsibilities** to contribute to the overall goal of reducing the risks of climate change. These responsibilities should take account of costs and the ability to bear them, as well as starting points, prospects for growth and past histories.
- **The challenge now is to broaden and deepen participation across all the relevant dimensions of action** – including co-operation to create carbon prices and markets, to accelerate innovation and deployment of low-carbon technologies, to reverse emissions from land-use change and to help poor countries adapt to the worst impacts of climate change,

27.1 Introduction

This Review has considered the economics of climate change, and has come to some clear and strong conclusions.

That the science of climate change is robust, and that the risks of a “business as usual” path for climate change are very serious.

What happens in the next 10 or 20 years will have a profound effect on the climate in the second half of this century and in the next. Actions now and over the coming decades could create risks of major disruption to economic and social activity, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century. And it will be difficult or impossible to reverse these changes.

Second, and in contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP.

Third, prompt and strong action is, therefore, clearly warranted. Because climate change is a global problem, the response to it must be international. And it must be based on a shared vision of long-term goals and agreement on frameworks that will accelerate action over the next decade.

Fourth, the economics can provide a strong foundation for developing policy frameworks to guide action, reducing the costs by providing flexibility over how, when and where emissions are reduced. The costs of acting on climate change will be manageable if the right policy

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frameworks are in place. There are also benefits along the way, if policy is designed well, for energy security, environmental quality, health and access to energy for poor people. These policy frameworks must deliver on three fronts: creating a price for carbon, via, taxes, trading or regulation; promoting the development and deployment of new technologies; and deepening understanding of the problems, thus changing preferences and behaviour and overcoming market barriers that might inhibit action, notably on energy efficiency.

This final chapter considers the next steps that could be taken to bring about more effective and better co-ordinated international action on climate change.

The key building blocks for any collective action include

- Developing a shared understanding of the long-term goals for climate policy
- Building effective institutions for co-operation
- Creating the conditions for collective action

27.2 Developing a shared understanding of the long-term goals for climate policy

The voluntary nature of collective action means that each individual country has to be committed to playing their part in responding to the challenge. Commitment ultimately comes from the understanding that climate change is a serious and urgent issue, and that through co-operation the risks can be reduced to the benefit of all.

There is an urgent need for public and international debate on the appropriate range for stabilisation of greenhouse gases in the atmosphere. A broad consensus on the long-term goals for the stabilisation of greenhouse gases in the atmosphere, or for comparable measures including cumulative emissions over long time scales, would underpin a shared understanding of the scale of the challenge for both mitigation and adaptation. Without a long-term goal, there are grave risks that a series of fragmentary or short-term commitments would lead to inconsistent policies that would raise the costs of action and fail to make a significant impact in reducing emissions.

The IPCC plays a vital part in assessing the scientific evidence and providing clear non-technical summaries that allow the issues to be widely debated. Long-term goals should be regularly revised in the light of its findings, and other developments, particularly concerning the development of technologies.

An improved understanding of the likely impacts of climate change on each region and country, and the impacts on the most vulnerable, should inform the international response. More research is required on key regional weather systems including the impact on monsoon rains, and funding is essential to fill the gaps in the Global Climate Observation System including over Africa. It will also be very important to deepen understanding of the implications of sea level rise for vulnerable people in low-lying countries and small island states.

Shared assessments of the potential of technologies for mitigation and adaptation are also essential to guide policy-makers in developing effective approaches to co-ordinate increases in national and international support.

27.3 Building the institutions for effective co-operation

The current institutions for monitoring, reporting and verification of emissions, established under the UNFCCC and Kyoto Protocol are basically sound. They have laid important foundations and should form a key element of continuing co-operation. But they are just a beginning: the challenge now is to expand the scale of activities and put them on a secure footing for sustained and long-term action. In a number of dimensions this will require that the world advances strongly and develops and adapts to institutional structures and methods of collaboration.

The Kyoto Protocol has also established an effective basis for the registration of formal intergovernmental trading in emissions. The development of parallel regional emissions trading schemes, including some which are outside the Kyoto framework, presents a new set of challenges. Trading between these schemes requires further development of institutions and mechanisms.

A transformation of flows of carbon finance, linked to strong and effective national policy in developing countries, will be required to support the transition to a low-carbon global economy. Other sources of finance are also required to work alongside the carbon markets, including the Global Environment Facility and the range of instruments available to the IFIs. The IFIs can play a valuable role in accelerating the process: the establishment of a Clean Energy Investment Framework by the World Bank and the regional development banks offers significant potential to do this.

Both multilateral and co-ordinated action could be enhanced by building a stronger institutional base for monitoring and reporting policy action to reduce greenhouse gas emissions and support innovation. This could include developing an enhanced role for institutions such as the IMF, World Bank, OECD and IEA in monitoring and reporting on relevant policy implementation.

The challenges of mitigation and adaptation are becoming a core part of the management of the economy, and it is essential that economic and finance ministries develop their capacity to shape effective policy responses.

27.4 Creating the conditions for collective action

Effective action to reduce global emissions to a level consistent with the stabilisation of greenhouse gases in the atmosphere will require the broadest possible participation. Achieving effective and co-ordinated action on climate change will require international frameworks that allow countries to establish mutual responsibilities across the full range of dimensions of action.

But this does not mean that no action can begin in advance of agreement on the next phase of multilateral co-operation. Pilot programmes could and should begin early, building on the recent initiatives by the multilateral development banks to develop frameworks for investment in clean energy and energy efficiency. This process will depend on early signals from developed countries about the likely role of carbon finance mechanisms beyond 2012.

The negotiating process could be designed to support energetic and mutually reinforcing action, bringing forward increasingly ambitious responses as countries begin to make tentative offers. It may be helpful to begin a dialogue on the basis of pre-commitments: offers from countries which do not become binding unless reciprocal offers are made. The EU has already begun to do this: the European Council declared in March 2005 that it was ready to begin exploring with other developed countries the scope for targets in the range of 15-30% reduction of emissions by 2020.

Creating the conditions for collective action will require a step change in political leadership. The first commitment period of the Kyoto Protocol ends in 2012. This is already too short a time horizon for those who are making investment decisions in long-lived capital stock. Uncertainty on the international framework makes it more difficult for national policy-makers to give clear signals to investors. Agreement on the key elements of international frameworks for action should be an urgent priority for all areas of government policy – extending beyond the remit of environment ministries to include heads of state, foreign ministers and ministers of finance

Some of the elements of future international co-operation are becoming clear. At a minimum, they should include

- *Emissions trading*: Expanding and linking the growing number of emissions trading schemes around the world are powerful ways to promote cost-effective reductions in emissions and to bring forward action in developing countries: strong targets in rich

countries could drive flows amounting to tens of billions of dollars each year to support the transition to low-carbon development paths. And it is these decisions by private investors that will, over time, drive emissions down. Governments must create the frameworks but it will be largely the private sector that makes the investments. For them to act effectively the market signals must be credible.

- *Technology co-operation:* Informal co-ordination as well as formal agreements can boost the effectiveness of investments in innovation around the world. Globally, support for energy R&D should at least double, and support for the deployment of new low-carbon technologies should increase up to five-fold. International co-operation on product standards is a powerful way to boost energy efficiency.
- *Action to reduce deforestation:* The loss of natural forests around the world contributes more emissions each year than the transport sector. Curbing deforestation is a highly cost-effective way to reduce emissions; large-scale international pilot programmes to explore the best ways to do this could get underway very quickly.
- *Adaptation:* The poorest countries are most vulnerable to climate change. It is essential that climate change be fully integrated into development policy, and that rich countries honour their pledges to increase support through overseas development assistance. International funding should also support improved regional information on climate change impacts and research into new crop varieties that will be more resilient to drought and flood.

27.5 Conclusions

This Review has focused on the economics of risk and uncertainty, using a wide range of economic tools to tackle the challenges of a global problem with profound long-term implications. Much more work is required, by scientists and economists, to tackle the analytical challenges and resolve some of the uncertainties across a broad front. But it is already very clear that the economic risks of inaction in the face of climate change are very severe.

There are ways to reduce the risks of climate change. With the right incentives, the private sector will respond and can deliver solutions. The stabilisation of greenhouse gas concentrations in the atmosphere is feasible, at significant but manageable costs. Delay would be costly and dangerous.

The policy tools exist to create the incentives required to change investment patterns and move the global economy onto a low-carbon path. This must go hand-in-hand with increased action to adapt to the impacts of the climate change that can no longer be avoided.

Above all, reducing the risks of climate change requires collective action. It requires co-operation between countries, through international frameworks that support the achievement of shared goals. It requires a partnership between the public and private sector, working with civil society and with individuals. It is still possible to avoid the worst impacts of climate change, through strong collective action starting from now.