

14 February 2009

Global costs of climate-change policies will amount to €175 billion in 2020, new JRC report says

The report "Economic assessment of post-2012 global climate policies", published today by the European Commission's Joint Research Centre (JRC), presents in detail the economic estimations upon which the recently released Commission Communication "Towards a comprehensive climate change agreement in Copenhagen¹" is based.

The research, carried out by the JRC's Institute for Prospective Technological Studies (IPTS), gives an estimate of some €666 billion to the global cumulative cost of mitigation policies, which aim to reduce the effects of climate change by curbing greenhouse gas emissions, for the eight year period following the Kyoto protocol (2013-2020). By 2020, annual costs in the energy and industrial sectors will be €150 billion, with additional costs of about €25 billion that would be borne by land use-related sectors, amounting to a total cost of €175 billion. The JRC's estimations mean that most countries would face costs ranging from 0.4 to 1.2% of their respective Gross Domestic Product (GDP)².

The report also highlights the strategic importance of technology deployment and flexible policy instruments as contributors to emission-reduction targets. The energy sector is pivotal for climate policies and the report gives evidence of the crucial importance of energy efficiency improvements in achieving the overall emission reduction targets. For the period 2020-2030, energy saving measures can account for 50% of the necessary emission reductions. In developing countries the contribution of these measures to the reduction has an even higher share, of up to two thirds.

In preparation for the establishment of the EU's position in the Copenhagen negotiations, the report builds a "central scenario" based on four criteria, confirming that the 2°C target can be achieved if, as a group, developed countries reduce their

¹ **COM(2009) 39 final**. This Communication prepares the way for the new UN Framework Convention on Climate Change agreement concerning global greenhouse gas emission reductions by 2020.

² While comparison with the costs of non-action in the mitigation of climate change lie beyond the scope of the JRC report, it should be noted that the abovementioned costs are significantly lower than the costs of non-action as demonstrated in the "**Stern Review on the Economics of Climate Change**" (http://www.hm-treasury.gov.uk/stern_review_report.htm).

emissions to 30% below 1990 levels by 2020, and developing countries reduce their emissions to a level 15% to 30% below that of today.

Finally, the report assesses the fundamental role that a global carbon market can play in implementing climate policies in a cost-efficient way. So far, the carbon market is limited to energy-intensive industries in the EU. In a "perfect carbon market" scenario where all emitting sectors and all (developed and developing) countries participate, climate change mitigation costs for the world economy would be half of what it would be were all countries to carry out the mitigation effort domestically. In terms of gross GDP, global annualised costs would fall from 1% to 0.5%.

Background

The successful conclusion of the international climate change negotiations at the UN conference in Copenhagen in December 2009 is a key priority for the EU.

The EU's agreed objective is to limit the average global temperature increase to 2°C compared to pre-industrial levels. However, if current emission trends continue, the 2°C threshold may already be crossed in 2050.

At the international level, the 2007 Bali Action Plan started a process to conclude a new international climate agreement for the period after 2012 at the Copenhagen summit. This agreement should set concrete new targets and actions to reduce greenhouse gas emissions and to provide the basis for sustainable development by strengthening countries' ability to adapt to inevitable climate change while triggering innovation and economic growth, reducing poverty and providing access to sustainable energy services.

Furthermore, the EU is willing to sign up to a 30% reduction target in the context of a sufficiently ambitious and comprehensive international agreement that provides for comparable reductions by other developed countries, and appropriate actions by developing countries.

Further information

The JRC report "Economic Assessment of Post-2012 Global Climate Policies" can be downloaded free of charge from: <http://ipts.jrc.ec.europa.eu>

More information on the EU future action on climate change:
http://ec.europa.eu/environment/climat/future_action.htm

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