



Climate Change Research and Policy in the EU

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As the third largest CO₂ emitter in the world, the European Union (EU)'s activities in climate research and its climate policy have profound impacts on the global climate change and the related activities in other countries. The indications of climate change are already evident across Europe. According to the latest assessment (June 2010) of Global and European temperatures, Europe has warmed more than the global average. Changes in precipitation patterns across Europe have also been observed. According to the 2008 Precipitation Extremes in Europe Assessment, the intensity of precipitation extremes has increased over the past 50 years and has been linked to the warming of the atmosphere and increase of water vapour. The most recently (September 2008) published assessment on sea level rise states that European rates of sea level rise ranged from 0.3 mm/year to 2.8 mm/year during the 20th century. The European Union (EU) supports climate change research. In particular the EU has three priority areas in climate change: 1) Understanding, monitoring and predicting climate change and its impact; 2) Providing tools to analyse the effectiveness, cost and benefits of different policy options for mitigating climate change and adapting to its impacts; 3) Improving, demonstrating and deploying existing climate friendly technologies and developing the technologies of the future. Climate Research under the EU FP7 is divided into four themes: 1) environment, 2) energy, 3) transport, 4) Space and Global Monitoring for Environment and Security (GEMS). Under the present EU Framework Programme FP7 there are 205 funded research activities in Environment, 37 of which are linked to climate change research. Current climate change research projects are concentrated on the carbon cycle, water quality and availability, climate change predictors, predicting future climate and understanding past climates. Some of these projects although funded under the EU FP7, are related to regions outside Europe, e.g. Africa and South America. The extent of the impact of climate change on Europe is not fully understood; however by using model projections it is possible to estimate how the climate could change, and how this threatens the environment, and society. It is agreed that greater increase in global temperature will increase the magnitude of projected impact. For Europe, an increase of less than 2⁰C above pre-industrial levels will permit human systems to adapt at moderate economic, social and environmental costs. However with an increase greater than 2⁰C, the resulting major increase in vulnerability will have a greater impact, making adaption more costly. The European Union has long been committed to international efforts to tackle climate change and felt the duty to set an example through robust policy-making at home. At European level a comprehensive package of policy measures to reduce greenhouse gas emissions has been initiated through the European Climate Change Programme (ECCP). The EU recognises that developing countries need to strengthen their economies through industrialisation. However this needs to be achieved at the same time as protecting the environment and sustainable use of energy. The EU has committed itself to assisting developing countries to achieve their goals in four priority areas: 1) raising the policy profile of climate change; 2) support for adaption to climate change; 3) support for mitigation of climate change; and 4) capacity development.

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