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**COMMUNICATION FROM THE COMMISSION**

**FOURTH NATIONAL COMMUNICATION FROM THE EUROPEAN COMMUNITY  
UNDER THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE  
(UNFCCC)**

(required under Article 12 of the United Nations Framework Convention on Climate Change)

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## Table of Contents

1.	Executive Summary .....	3
1.1.	National Circumstances .....	4
1.2.	Greenhouse Gas Inventory .....	4
1.3.	Policies and measures .....	4
1.4.	Projections.....	5
1.5.	Vulnerability assessment, climate change impacts and adaptation measures.....	6
1.6.	Research and Systematic Observation .....	7
1.7.	Financial Resources and Transfer of Technology.....	7
1.8.	Education, Training and Public Awareness .....	7

## 1. EXECUTIVE SUMMARY

The Fourth National Communication from the European Community is prepared under Article 12 of the United Nations Framework Convention on Climate Change (UNFCCC).<sup>1</sup>

The European Union, with its 25 Member States, is for a number of years already making considerable efforts to tackle climate change, despite being responsible for only 14% of global greenhouse gas emissions. Robust domestic policy-making supports the EU's role to lead by example, with a comprehensive package of policy and legislative measures at the EU level, introduced through the European Climate Change Programme (ECCP). Each Member State also puts into place a series of further domestic actions, discussed in their own reports. The ECCP reaches out to all sectors of the economy, defining policy relevant to the household, industrial, commercial and transport sectors.

The EU's climate policy does not stop in 2012. Many of the EU policies that are already in place will have an important impact beyond the Kyoto Protocol's first commitment period. The EU's greenhouse gas emissions trading scheme will continue after 2012. The second phase of the European Climate Change Programme was already launched in October 2005 and will include carbon capture and storage, passenger road transport, aviation and strategies to adapt to the effects of climate change. These policies provide strong, long-term signals to industry, Member State governments and the wider international community that the EU is committed to tackling climate change and expects all of its institutions, businesses and citizens to play their part.

The European Commission is committed to the implementation of these measures to combat climate change, whilst also considering the impacts on the economic development of the EU and its citizen's well being. Specifically, the Commission will review progress and explore new actions to systematically exploit cost effective emission reduction options in synergy with the Lisbon strategy<sup>2</sup>

The European Commission's proposed strategy for further action post 2012 highlights the need for broader participation by countries and sectors, the development of low-carbon technologies, the continued and expanded use of market mechanisms, and the need to adapt to the inevitable impacts of climate change.

The EU is also working internationally to help countries outside of the Union to reduce their greenhouse gas emissions. It is currently working with countries all over the world to assist in the implementation of renewable energy sources and energy efficiency, with the aim of improved quality of life and sustainable development. The EU provides financial support to programmes including using solar energy to provide clean drinking water in the Sahel, improved energy efficiency and use of renewables in China, forest-planting projects to generate clean development mechanism incomes in South America and strengthening institutional capacity on climate change in India.

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<sup>1</sup> On the basis of Council Decision 94/69/EC of 15 December 1993 concerning the conclusion of the United Nations Framework Convention on Climate Change (OJ L 033 of 07/02/1994)

<sup>2</sup> COM(2005)35 final of 09.02.2005 - Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: "Winning the Battle Against Global Climate Change"  
[http://europa.eu.int/comm/environment/climat/pdf/comm\\_en\\_050209.pdf](http://europa.eu.int/comm/environment/climat/pdf/comm_en_050209.pdf)

The EU has made good progress so far. Further progress depends on the speed and thoroughness of the implementation by Member States of Community legislation and domestic measures. The total of the projections for the EU-15 Member States show that the Kyoto targets can be met if Member States implement planned additional domestic measures and use flexible mechanisms.

Delivering on the Kyoto commitments does not mark the end of the EU's efforts. The EU is advocating deeper emission reduction cuts in the next decades to put a halt to global climate change. The EU is committed to taking its fair share of the global efforts to reduce human interference with the climate system.

### **1.1. National Circumstances**

- The European Union's institutional system is unique, with 25 Member States delegating sovereignty for some matters to independent institutions.
- The Gross Domestic Product (GDP) of the EU-15 has increased by 18% in real terms from 1995 to 2002 (average annual increase of over 2%), putting an upward pressure on greenhouse gas emissions.
- The energy intensity has considerably decreased since 1990.
- Renewable energy currently contributes 6% to energy supply and is expected to grow significantly in the next few years.
- Agricultural land use is decreasing and the forestry area is increasing steadily.

### **1.2. Greenhouse Gas Inventory**

- Total GHG emissions in the EU-25 (without land use change and forestry) decreased by more than 5% from 1990 to 2003. In the EU-15 they decreased by nearly 2% over the same period.
- Averaged over the latest five years, EU-15 emissions stood nearly 3% below their 1990 level.
- Emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases rose by 1.3% in the EU-15 in 2003 compared with 2002. This was primarily due to a rise in coal use for electricity generation in 2003.

### **1.3. Policies and measures**

- In 2005, the world's first international CO<sub>2</sub> emissions trading scheme came into operation in the EU.
- The large majority of policies and measures identified by the Commission as a priority for the EU as a result of the work undertaken in the European Climate Change Programme (ECCP) I are now implemented.
- The ECCP continues to provide the main policy framework for meeting the challenge of climate change focusing in its second phase in particular on the transport sector (including

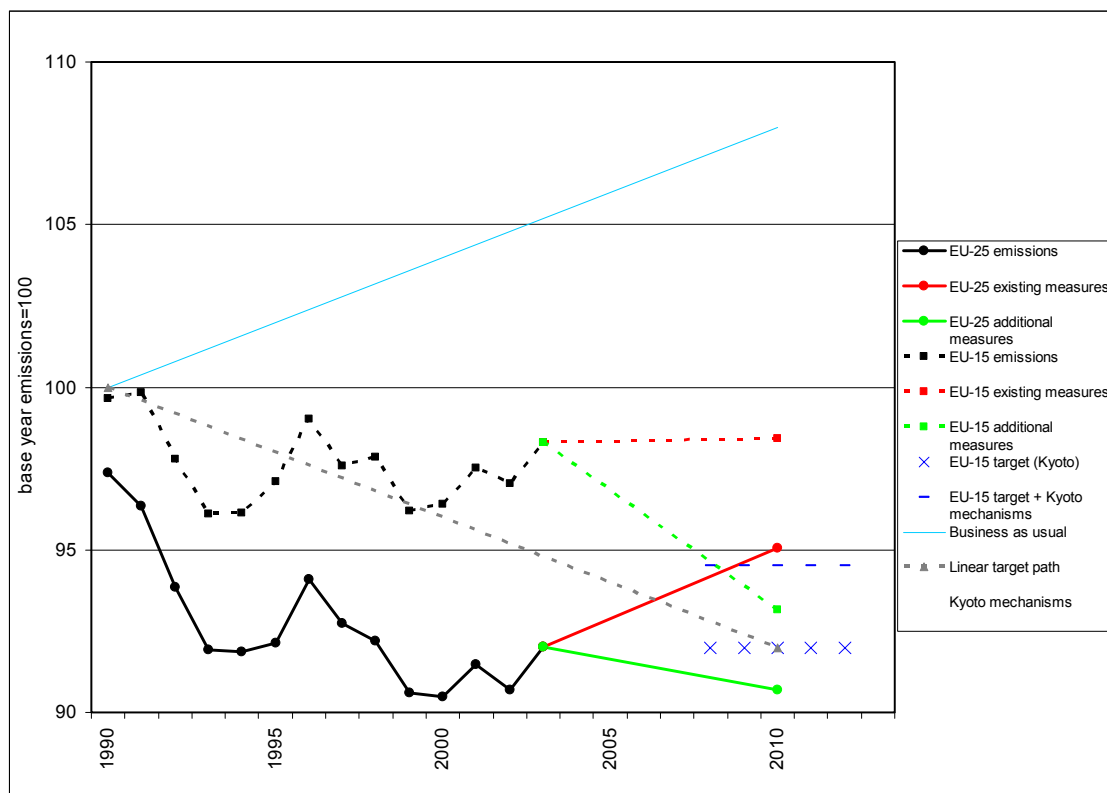
aviation and vehicle emissions), carbon capture and storage and the role of the EU in reducing vulnerability and promoting adaptation.

- The European Community has new policy actions in most sectors.
- Links to the Kyoto Mechanisms will ensure that the EU emissions trading scheme will also contribute to technology transfer to developing countries.
- Action by the European Community strengthens and supports a multitude of national measures to reduce climate change.

#### **1.4. Projections**

- Emissions of greenhouse gases in the EU-25 are projected to be 5% below 1990 levels in 2010 as a result of measures already under implementation.
- In the EU-15 emissions of greenhouse gases without LULUCF are projected to be 1.6% below base year emissions in 2010 as a result of measures already under implementation. If one includes the reductions that Member States forecast they will achieve through the use of Kyoto mechanisms, then projected emissions in 2010 will be 4.1% below base year emissions.
- Just the implementation of existing and additional proposed measures is projected to reduce EU-25 GHG emissions to 9.3% below 1990 levels by 2010 and in the EU-15 reduce emissions to 6.8% below base year emissions by 2010. The use of Kyoto mechanisms will ultimately bring total emissions for the EU-15 to below -8% by 2008-2012 compared to the base year, thus meeting the collective Kyoto targets.

**Figure 1: Actual and projected emissions (without LULUCF) for the EU-15 and the EU-25.**



**Notes:** The index on the y axis refers to the base year. This is 1990 for most Member States for CO<sub>2</sub>, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) but 1995 for fluorinated gases, with the following exceptions: The base year for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O for Hungary is the average of 1985-1987, for Slovenia 1986 and for Poland 1988; the base year for fluorinated gases is 1990 for France and Finland. This means that for EU-15 and EU-25, the value for 1990 is not exactly 100. Business as usual describes the projected emissions without climate related policies and measures

### 1.5. Vulnerability assessment, climate change impacts and adaptation measures

- Predicted sea level rises could impact up to 68 million people in the EU.
- Temperatures are expected to increase leading to more deaths due to high temperatures during summer but fewer cold related deaths in the winter.
- Northern Europe is expected to have increased precipitation, Southern Europe less with potentially more droughts.
- The European Commission is already involved in some adaptation related activities, through the running of EU wide early warning systems for floods and forest fires.
- New work on adaptation is planned under the next phase of the European Climate Change Programme.

## **1.6. Research and Systematic Observation**

- The budget for the thematic area that covers climate change in the 6<sup>th</sup> Framework Programme is €2.12 billion. This effort will also be supported under the 7<sup>th</sup> Framework Programme.
- International co-operation is an integral part of the priority thematic areas.
- A wide spectrum of projects related to climate science, impacts, adaptation and mitigation have been supported by the European Union.
- The European Commission's Joint Research Centre (DG JRC) has focused its research activities around main policy areas, including climate change.
- The EU as part of the Group on Earth Observations (GEO) is working towards an unprecedented level of coordination and harmonisation of Earth Observation Systems, aimed at the creation of the Global Earth Observation System of Systems (GEOSS).

## **1.7. Financial Resources and Transfer of Technology**

- The European Union is a very significant donor in the field of development cooperation.
- A specific strategy has been proposed and an action plan is currently implemented to assist EU development partner countries in meeting the challenges proposed by climate change.
- Nearly 200 projects with a total budget of €300 million have been identified as having a climate change relevant element.
- Research and scientific technological co-operation with developing countries are key instruments for the implementation of the EU strategy on climate change and development. All partner countries can participate in the Community research programme (6th Framework programme).

## **1.8. Education, Training and Public Awareness**

- The European Commission is committed to the principles of open government and provides a large amount of information to the public in a variety of forms.
- The European Commission internet site provides a comprehensive source of information on Community actions and concerns including climate change.
- The European Awards for the Environment given by the European Commission are designed to recognise and promote companies that make an outstanding contribution to sustainable development.
- Green Week 2005 was entirely devoted to climate change and brings together environmental stakeholders to 'think aloud' about how we can change our behaviour.

- EU Member States support activities conducted by the UN under Article 6 of the UNFCCC (Education, training, and public awareness). These activities have included, since 2002, several regional workshops and the preliminary development by the UN of an internet based information clearing house, as well as activities undertaken nationally by individual Member States.