## E.U. Environmental Policies: A Document – based Qualitative Research

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*Abstract:* - Climate change has become a reality with many consequences in different fields. The European Union (EU) has been at the forefront of international action to combat climate change since 1990, when the UN Intergovernmental Panel on Climate Change's (IPCC) first assessment report warned of rising global temperatures caused by emissions of greenhouse gases.

A post-2012 global agreement is needed between all major polluters after the Kyoto Protocol expires. A global agreement is necessary for the business community in terms of investments and technological innovations. The EU should show its determination to take on deeper and longer term reductions in its greenhouse gas emissions in the context of an international agreement on a future strategy post-2012 which will deliver global reductions commensurate with the 2°C target.

We chose this topic to demonstrate how the institutions of EU contribute to mitigate the effects of the climate change, and to what extent the EU institutions are committed to promote environmental security. In this regard we apply the qualitative research of the applicable European legislation, primarily European Commission and European Council documents.

*Key-Words:* - EU policy, climate change, environment, greenhouse gas emissions, qualitative research, European legislation.

### **1** Introduction

In a 40 years period, the environment has become an important component of the EU agenda, making the EU a major player in environmental policies. EU takes the lead in "protecting the common environment and development" (Bruyninckx, 2005), leaving to the United States the second place. EU Directives can and do influence national environmental policies. However, there are problems in implementing national environmental policies, so there must be a coherent environmental policy at the EU level.

Climate change is happening much too fast. Over the 20th century, the global average temperature has risen by about 0.6°C, and the mean temperature in Europe increased by more than 0.9°C.

Global warming is becoming increasingly present and threatening. At the moment, we experience the first effects of global warming, including weather deterioration around the world. Globally, the 10 warmest years on record occurred all after 1991. There is more precipitation than normal, temperatures are rising and extreme weather conditions are visible everywhere. In the 20th century the sea level rose 10 to 20 cm, but by 2100 it is expected to rise between 18 and 59 cm. High temperatures will cause glaciers to melt and ice cap will be destroyed.

Greenhouse gas concentrations are higher now than at anytime in the past 450,000 years, and are projected to keep rising. Greenhouse gases are necessary for our earthly life, but not in quantities that affect the temperature. Greenhouse gases have already destroyed some habitats of animals and some plant species have already disappeared.

## **2 Problem Formulation**

#### 2.1 The premise

The sources utilised in the present study are primarily European Commission and European Council documents. We analysed the European legal documents as a stand-alone method In this kind of study, as Uwe Flick aptly emphasized, "[...] your research will rely on what of the reality under study is documented in this kind of data. Once you start using them for your research you should always focus on these documents as a topic of research at the same time: what are the features of them, what are the particular conditions of their production, and so on." (Flick, 2006: 248).

For the purpose of the methodological approach chosen, we selected a few documents for this study and we tried to identify categories of ideas and to arrange them under thematic headings. We gave codes to the data presented as a text and we sorted the codes and grouped them in categories and themes.

Our research question is: What are the Recurrent Themes of EU Policy on Climate Change?

In order to answer to that question, we analysed and interpreted the data clustered in categories and themes for support the argumentation process focused on reducing climate change effects, as following:

#### Theme 1. **EU Takes up a Heading Role** Categories:

- 1.1.EU Maintains the Dynamic Generated by the Kyoto Protocol
- 1.2.EU Commitment to Preserve the 2°C target
- 1.3.EU and the Copenhagen Conference
- 1.4.How Far Is the EU Planning to Go

Theme 2. A Revised Energy Security Categories:

- 2.1.Energy Supply and Demand
- 2.2.Increased Efficiency
- Theme 3. An Integrated EU Policy Categories:
- 3.1.Reducing the UE Dependence on Imported Fossil Fuels
- 3.2.Revision of the EU Emission Trading System (EU ETS)
- 3.3. The Implementation Phases of the EU ETS
- 3.4.Effort Sharing Decision
- 3.5. Setting up Sustainable Energy Policy

3.6.Setting up a Legal Framework for Promoting and Developing Carbon Capture and Storage Tehnologies

#### Theme 1.EU Takes up a Heading Role

## EU Maintains the Dynamic Generated by the Kyoto Protocol

Environment, until the '70s, has been neglected in the European Communities. In the '70s the concept of environmental policy was born. Environmental issues were not mentioned in the EC Treaty as it relates to a "sustainable and balanced growth" (Bruyninckx, 2005: 201-211), i.e. growth and political stability target. In 1972 the UN organized the Stockholm Conference on Human Environment and also founded the UN Environment Programme. In this context, EU leaders have realized the importance of environmental policies in the EU institutional framework. Also, public opinion became increasingly present in the environmental-related debate. In 1972, at the Conference in Paris, the EU has realized the need for an environmental policy. The consequences were immediate: the European Parliament set up two committees on environment and consumer protection (Lenschow, 2005).

EU has contributed to the development of two major international treaties on climate change - the UN Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol in 1992 and 1997. In 2000 the European Commission set up the European Climate Change Programme (ECCP) as the key vehicle for identifying and developing, with Member State experts and other stakeholders, the most promising and cost-effective policies and measures that can be taken at EU level to reduce greenhouse gas emissions.

The Kyoto Protocol was a vital first step. Global warming is a global problem and only global action can be effective. A post-2012 global agreement is needed between all major polluters after the Kyoto Protocol expires. Technologies needed to reduce emissions of greenhouse type are or will become operational in the near future. A global agreement is necessary for the business community in terms of investments and technological innovations.

At the December, 11-12, 2008 European Council, Member States reached a political agreement on energy - climate change package, which was followed on December 17, 2008, by the adoption of package by the European Parliament. By adopting the package in the Member States, the EU has shown leadership in combating global climate change. As part of the future post-2012 global agreement, the EU committed itself to reduce emissions by 30% by 2020 if other developed countries will adopt similar goals.

The EU will continue to play a leading role in the multilateral approach to climate change, but wider participation on the basis of common but differentiated responsibilities is urgently required. Realistic progress towards the 2°C target is only within reach if more countries in the world take effective actions. Moreover, policies to tackle climate change must be consistent with and contribute towards other important objectives (e.g. poverty reduction), accommodating the rather diverse conditions of current and future major emitters.

#### EU Commitment to Preserve the 2°C Target

A European Commission report showed that the investment required to achieve a carbon-free economy would cost nearly 0.5% global GDP between 2013 and 2030. Reductions in emissions that would keep global warming below 2 ° C would reduce GDP by 0.12% annually by 2050 (European Commission EU action against climate change, 2008).

The European Union Member States have reached an agreement in March 2007 to reduce emissions 30% by 2020 compared to the 1990 level. Meanwhile, the EU leaders have determined that the European economy needs transformation into one based on less carbon and more efficient. To achieve this efficient economy three steps are required:

• A 20% reduction in energy use by improving energy efficiency;

• An increase in renewable energy market by 20%;

• A 10% of biofuel production in each Member State.

In 2007-2013, the EU has invested in environmental research, energy and transport, the final cost being  $\in 8.4$  billion. Reducing emissions of greenhouse gases such reduction will mean that air pollution causes 370,000 deaths in Europe annually. If by 2020 to reduce air pollution by 10%, EU will save  $\in$  27 billion annually. Eco-industries are the most dynamic sector of the European Union, rising 5% annually. Annually 3.4 million people are employed in this sector. Using renewable energy technologies have created 300,000 jobs and is estimated that 2020 jobs will increase to one million.

#### EU and the Copenhagen Conference

At the UN Conference in December 2009, the EU supported the Copenhagen agreement, considering it a first step to achieving a comprehensive legally binding treaty, to replace the Kyoto Protocol in 2013.

Environmentalists from the organization World Wide Fund for Nature (WWF) believe that the EU emissions reduction target should be more ambitious, more specifically 40% by 2020.

"The European Union could take a leading position in international negotiations and believe that they ought to go for a reduction of 40% target that would have to propose others. Because if we really want to keep global warming below 2 degrees Celsius target to begin negotiations should be a 40% reduction", said the president of Environmental WWF Danube-Carpathian Programme Romania.

#### How Far Is the EU Planning to Go

The 2020 Europe Strategy proposes three goals to be achieved by 2020:

1) Developing an economy based on innovation (smart growth);

2) Sustainable development - promoting an economy based on fewer greenhouse effect gas emissions;

3) Development of inclusion - promoting an economy with a high rate of employment, ensuring social cohesion.

Commission proposed five main objectives for the European Union.

- The first refers to the fact that 75% of the population aged 20 and 64 must have a job.

- The second objective relates to the fact that 3% of EU GDP to be invested in research and development.

- The 20-20-20 targets on climate and energy must be met.

- The fourth objective requires the school dropout rate to be reduced below 10% and 40% of the younger generation to be educated.

- The last objective refers to the fact that the number of people at risk of poverty must be reduced by 20 million (Europe 2020 Strategy).

#### Theme 2. A Revised Energy Security Energy Supply and Demand

The development of renewable energy sources is a central aim of EU energy policy due to the benefits of having clean, sustainable and secure energy supplies. The EU has set an indicative target that renewable energy sources should account for 12% of total energy consumption by 2010. In 2003, the share stood at almost 6%.

To encourage electricity generation from renewable sources, EU has passed a legislative act. This sets indicative national targets which together aim at achieving a 21% share for renewable sources in EU electricity consumption by 2010. The share was almost 12.8% in 2003.

Legislation to promote the use of agriculturederived biofuels in transport has also been adopted. An EU action plan to promote energy from all forms of biomass was launched in December 2006.

#### Theme 3. An Integrated EU Policy

In 2007, the Commission presented the energy and climate package. It has to increase renewables by up to 20% by 2020, to reduce greenhouse gas by 20% in 2020, and to use biofuels mainly in transport at least up to 10 % by 2020. Two strategic plans have been established: the Energy Technology Strategic Plan and the Action Plan for two years which established a common energy policy (EuRActiv, 08 January/06 July 2009).

## Reducing the UE Dependence on Imported Fossil Fuels

In January 2008 the European Commission proposed binding legislation to implement the 20-20-20 targets. The EU action was triggered by three inter-related factors: high oil and gas prices, dependence on external suppliers and the global warming crisis (EurActiv, 12 September 2008).

The December 2008 Summit approved the EU energy and climate package, consisting of four pieces of complementary legislation: a revision and strengthening of the <u>Emissions Trading System (EU ETS)</u>; an <u>'Effort Sharing Decision'</u> governing emissions from sectors not covered by the EU ETS, such as transport, housing, agriculture and waste; binding national targets for <u>renewable energy</u> which collectively will lift the average renewable share across the EU to 20% by 2020; and a legal framework to promote the development and safe use of <u>carbon capture and storage (CCS)</u>. This long-term change will reduce dependence on imported fuels. In the nuclear issue, the Commission has left to each

In the nuclear issue, the Commission has left to each Member State to decide what to do. EU leaders said they can reduce emissions by 30% provided that other developed countries with high emissions to adopt a global agreement to reduce their emissions.

### **3** Problem Solution

#### 3.1 The EU Commitment

The last Environmental Action Programme (2001-2010), entitled Our Future, Our Choice Action, proposes five major strategic directions: improved implementation of current legislation, integrating environmental concerns into other policies, environmental consideration in the use of planning - planning and management decisions.

*The 2020 Europe Strategy* proposes three goals to be achieved by 2020: developing an economy based on innovation (smart growth); sustainable development-promoting an economy based on fewer greenhouse effect gas emissions; and development of inclusion-promoting an economy with a high rate of employment, ensuring social cohesion.

2020 Europe strategy is based on two pillars: priorities and objectives and creating national reports that allow Member States to develop their own policies to ensure sustainability. The Commission will monitor progress by Member States in achieving their targets. The Council will be involved in this strategy and the European Parliament will mobilize citizens and will be colegislator.

# **3.2 The Main Actors in EU Environmental Policy Making**

Commission is present throughout the whole process of elaborating a policy, having the power of initiative, being responsible for implementing the EU legislation. The Commission is relying on committees composed of national officials, which were created for certain aspects of environmental policy. Environmental policies can be very delicate, affecting various economic sectors and therefore requires approval of several DGs, which makes it difficult for the Commission.

The EU Council is also characterized by segmentation, and there is no coordination between the Environment Council and other councils.

The European Parliament is the greenest of all three main decision-making bodies, therefore set up two committees on environment and consumer protection (Lenschow, 2005).

Other EU institutions with competences in the area include: the Committee of the Regions, the Economic and Social Committee and the European Investment Bank.

The EU has shown that economic growth is possible along with the reduction of greenhouse gas effect. Sustainable development must take into account the environment precisely because human welfare cannot be ensured if the environment that ensures it dies (Glenn, Gordon and Florescu, 2008: 12-13).

# **3.3 Benefits and Costs of Limiting Climate Change**

There is increasing scientific evidence that the benefits of strong, early action on climate change outweigh the costs. "Mitigation - taking strong action to reduce emissions - must be viewed as an investment, a cost incurred now and in the coming few decades to avoid the risks of very severe consequences" (Stern Review, 2007: 1).

The greenhouse gas emissions can be cut basically in four different ways: reducing demand for emissions-intensive goods and services; increased efficiency, which can save both money and emissions; action on non-energy emissions, such as deforestation; and switching to lower-carbon technologies for power, heat and transport. Policy frameworks to reduce emissions should be based on three essential elements: carbon pricing, technology policy and the removal of barriers to behavioural change. The Stern Review estimates the annual costs of stabilisation at 500-550 ppm Co2 to be around 1% of GDP by 2050 – a level considered to be significant but manageable and fully consistent with continued growth and development (Stern Review, 2007: 13).

## 4 Conclusion

In the context of the Lisbon strategy, a technology policy employing an optimal mix of 'push' and 'pull' policy instruments should be developed to underpin the restructuring process. Placing an emphasis on cost-effective emission abatement would be essential.

Successful structural elements of the Kyoto Protocol should be maintained in any new system post-2012. These include emissions trading, as introduced by the EU, on the basis of emission limitations and project based mechanisms as building blocks to a truly international carbon market, the rules for monitoring and reporting on emissions, and a multi-lateral compliance regime. Developing countries need to make huge investments into their energy infrastructure over the coming decades. Public funds that are channeled by the World Bank, EIB, EBRD and other development banks have to be used to leverage developing countries' own savings towards climate-friendly investments, particularly in the energy sector. The potential of a global low-carbon energy programme and technology transfer and diffusion funds focusing on major emerging economies needs to be explored.

More and better focused research should be directed to further improving knowledge on climate change, including the links to ocean processes, to addressing global and regional impacts, developing cost-effective adaptation and mitigation strategies, including non CO2 gases. This could be done through a significant increase in EU spending under the 7th Framework Programme for climate-friendly technology research and development, in particular in the energy and transport sectors, but also in agriculture and industry.

Stronger co-operation with third countries could be promoted through a strategic programme for enhanced technology transfer (incl. technology diffusion funds) and scientific R&D cooperation on low greenhouse gas technologies in the field of energy, transport, industry and agriculture. Climate friendly development policies should be drawn up in co-operation with developing countries, in particular in the areas of energy and air quality. In implementing these recommendations, coherence between the internal and external dimension of the EU climate change policies needs to be ensured. For instance, the European Neighbourhood Policy could emphasise early transposition and implementation of the climate related 'acquis' promoting convergence with the EU's climate policy. The same approach should be followed in the preaccession strategies. Strengthening the adaptive capacity, particularly of the most vulnerable developing countries, should become an integral part of development assistance.

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In building support for further multilateral action against climate change the EU should engage in real dialogue with its international partners. In bilateral contacts with interested countries, including the large emitters, actions should be identified that they are ready to take within specified time horizons and conditions. In this way, the EU should use its international leadership role on climate change to pursue an action oriented approach at the international level.

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