
The EU and Climate Change in the lead up to Cancún: Impacts, Policies and Positions (ARI)

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Theme: This paper analyses the main consequences of climate change for the EU, the mitigation and adaptation policies it has undertaken and the negotiating stance it will adopt in the international climate-change negotiations..

Summary: On 29 November the world comes together at Cancún in Mexico to discuss the development of global frameworks to, together, deal with climate change. Looking towards that meeting, in this paper we look at what a changing climate means for the EU in terms of its environmental and security impacts, we look at what the EU is currently doing or proposes to do to mitigate or adapt to climate change and, lastly, we look at what position the EU is likely to take in the negotiations at Cancún. The article considers that the EU's strong stance on climate change in international negotiations is fundamentally driven by the significant environmental, social and security implications of climate change for Europe and that even in the face of difficult economic circumstances the EU is unlikely to alter its strong stance at the upcoming Cancún round of negotiations.

Analysis:

Climate Change and the EU

Impacts

Climate change will impact significantly upon Europe's environment, economy and society. The effects will be diverse, ranging from the somewhat beneficial to the catastrophic. The most vulnerable regions in Europe are Southern Europe, the Mediterranean basin, the Outermost regions and the Arctic. These are the findings of a recent report commissioned by the European Union (EU) Joint Research Centre, into the impacts of climate change across Europe (the PESETA report).¹

The PESETA report projects possible climate change impact scenarios for Europe in relation to areas of key concern, including agriculture, river floods, coastal systems, tourism, human health and economic impacts. The PESETA report uses global IPCC

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¹ Project PESETA (Projection of Economic Impacts of Climate Change in Sectors of the European Union Based on Bottom-up Analysis) (2009), funded by the European Commission (EC) and Joint Research Centre (JRC) in response to the April 2009 EC White Paper 'Adapting to Climate Change: Towards a European Framework for Action'.

statistics to project a temperature and impact scenario for 2020 (which the report treats as largely nominal) and four different scenarios for 2080 (ranging from a 2.5°C to a 5.4°C rise in temperatures for Europe from pre-industrial levels).

Without mitigation or adaptation, PESETA estimates that by 2080 coastal flooding will increase dramatically, affecting between 775,000 people (under a 2.5°C best case scenario) and 5.5 million people (under a 5.4°C worst case scenario) in the EU. The British Isles and Central, Northern and Southern European regions will be the most affected by coastal floods. An increase in mean temperature has a positive linear relationship with the number of people affected by river floods. It is estimated that river flooding in Europe will affect between 250,000 and 400,000 additional people per year by 2080, again these are best and worst case scenario statistics. The increased flooding would mainly occur in the Central European region and the British Isles at an estimated cost of between €7.7 and €15 billion.

The PESETA report suggests that many European regions may experience moderate yield improvements in agriculture (around 5%) in 2020 with the exception of some areas in Central and Southern Europe. However, over time, a worst-case scenario Europe-wide temperature increase of around 5.4 °C by 2080 would see high agriculture yield losses across the EU, with up to 25% yield loss in Southern Europe.

In contrast, tourism in some areas may benefit from the effects of climate change, especially in the warmer seasons in the Mediterranean region. Good to ideal conditions are expected for Spain in spring by 2020, with conditions for the tourism industry improving further by 2080. However, tourism is likely to be adversely affected in alpine regions due to declining snowfall.

Strategic Interests

Unprecedented security scenarios are likely to occur if climate change is left unmitigated beyond 2°C. Climate change is likely to exacerbate existing trends, tensions and instabilities, especially in fragile and conflict-prone economies. Direct risks to the EU encompass humanitarian, political and security threats resulting from regional responses to climate change and international security issues, raising the need for cooperation with third countries in accordance with mitigation strategies.² The most pressing issues that concern the EU include environmentally-induced migration, tension over energy and natural resource supplies, energy security and associated pressures on international governance.

Ensuring access to clean, affordable and secure sources of energy supply and tackling climate change are interlinked and have become central policy tenets in the EU, as reflected in Directive 2005/89/EC 'concerning measures to safeguard security supply and infrastructure investment'. Indeed, Europe's heavy reliance on imported fossil fuels is widely recognised as a security risk that can, to some extent, be mitigated through the promotion of new and renewable energy sources.

By 2020 the UN predicts there will be millions of 'environmental' migrants from countries that are most vulnerable to the effects of climate change. It is to be expected that migration to Europe will substantially increase. This is likely to increase societal pressures

² 'Climate change and international security', paper from the High Representative and the European Commission to the European Council, 14/III/2008.

in European cities as more people compete for access to public resources. Civil infrastructure in areas such as health, energy, transport and education will need to be shared with an increasing population. Spain in particular is likely to see a disproportionate increase in environmental refugee numbers due to its proximity to Africa, and the likely desertification of that continent.

In light of the above, the EU has a significant strategic interest in efforts to mitigate and adapt to climate change. Indeed, this may help to explain the EU's traditionally strong stance in international forums on efforts to avert dangerous climate change.

EU Policies on Climate Change

Mitigation

In terms of climate change mitigation and the restriction of greenhouse gas (GHG) emissions, the EU has committed to an integrated approach to climate and energy policy that aims to combat climate change and increase the EU's energy security, while at the same time strengthening its competitiveness. The EU climate change mitigation strategy includes mobilising action through the EU Emissions Trading Scheme (EU ETS),³ increasing the level of renewable energy consumed in the EU and increasing the energy efficiency of the economy. In that regard, the EU has set targets to reduce GHG emissions to at least 20% below 1990 levels by 2020, consume 20% renewable energy by 2020 and improve energy efficiency by achieving a 20% reduction in primary energy use levels against BAU projections by 2020. These are often collectively referred to as the '20-20-20 targets'.

The EU target of reducing emissions by 20% by 2020 will be increased to 30% in the event that a binding global deal is reached where other developed countries take on similar commitments and major developing countries also make meaningful commitments. The EU is presently internally discussing a proposal to increase its target to 30% even in the absence of a binding global deal. However, further consideration of this has been deferred until after the conclusion of negotiations in Cancún.

Regulation to meet these targets is made at the EU level through Directives, which then must be transposed into the laws of Member States and their aims implemented through supporting national legislation. Indeed, often only targets are set at the EU level, which are to be met by Member States in any way they see fit or nationally appropriate. As a result, there is often a significant difference between the approach taken in one Member State to that taken in another. However, greater levels of guidance at the EU level can result in improved harmonisation and implementation of regulation across the Union.

EU policy to mitigate dangerous climate change is aimed at limiting climate change to at or below 2°C, and is designed to mobilise the efforts of both the public and private sectors to achieve this. The IEA estimates that to achieve the 2°C target globally, cumulative power-sector investment alone over the period 2008-30 must amount to US\$13.7 trillion (in 2008 US dollars).⁴ The EU Commission has estimated that the cost of meeting its commitments to reduce emissions by 2020 is currently around €48 billion (although it was

³ Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community'.

⁴ See *World Energy Outlook: 2009*, International Energy Agency.

over €70 billion before the global financial crisis).⁵ Regardless, the public purse alone is not deep enough in the EU to deploy the capital sufficient to reach its 2020 emission reduction goals, particularly with many EU countries experiencing high national-debt levels. It is only the private sector, with its trillions under management, which has the capital available to be deployed in the low-carbon economy at scale.⁶ Any regulatory efforts aimed at mitigating climate change will therefore ultimately be measured against their ability to mobilise private sector capital at scale.

Below we outline the current efforts being taken at the EU level to meet the 20-20-20 targets, focusing in particular on the EU ETS and efforts to promote renewable energy and energy efficiency.

Emissions Trading

The underlying premise of the EU ETS is that emissions from energy-intensive industries are capped at an overall limit set at the EU level and emissions are traded between covered installations within that limit. Installations covered are those carrying out any of the activities listed in Annex I to the Emissions Trading Directive (currently including activities in the energy sector, iron and steel production and processing, the mineral industry and the wood pulp, paper and board industry) and emitting the specific GHGs associated with that activity. Installations are required to obtain a permit to emit GHGs from the relevant authority within the Member State in which the installation is located. Once permitted, individual installations are then issued with –or have to purchase– a certain number of tradable allowances (known as EU Allowances, or EUAs).

At present the European Commission is developing or has developed rules for Phase III of the EU ETS (2013-20). There is a general consensus that the rules for Phase III of the EU ETS will be more robust and will ultimately result in a more stable and effective market. Major developments as we move from Phase II to Phase III include:

- The setting of a provisional cap for 2013 and the outlining of a linear cap reduction pathway (reducing the cap by 1.7% each year from 2013 through to 2020 and beyond).
- The inclusion of the aviation sector (all flights within, leaving and entering the EU) from 1 January 2012 and the inclusion of new gases and industry sectors in the scope of the EU ETS from 1 January 2013.
- Allowing the banking of credits between Phase II and Phase III (and subsequent phases).
- The agreement to scale up the auctioning of allowances and scale back the free allocation of allowances by 2027, which represents a substantial step-change moving from free to paid-for allowance allocation, and also the finalisation of the Auctioning Regulation that will centralise the auctioning platform (with limited exceptions).
- Ensuring that linking to international markets is maintained (which prevents price spikes and promotes stability), allowing the use of offsets such as Certified Emission Reductions (CERs) (exact limits for Phase III are yet to be defined).

⁵ See <http://ec.europa.eu/environment/climat/pdf/2010-05-26communication.pdf>.

⁶ For a good overview of how and why private sector capital is required to deal with climate change globally, see http://www.gtriplec.co.nz/assets/Uploads/papers/psi_final_of_main_report_full_version_31_may.pdf.

Renewable Energy

European energy policy currently seeks to create an EU-wide competitive electricity market and to increase substantially the generation of electricity from renewable sources. The legislative framework for the promotion of renewable energy and energy infrastructure supportive of renewables in the EU is made up of a number of diverse and complementary legislative instruments at the EU level, often requiring further legislative implementation at the Member-State level. However, obligations to promote renewable energy are principally governed by the Renewable Energy Directive (RED).⁷ Article 1 of the RED states that the Directive:

‘... establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport. It lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bioliquids’.

The RED therefore sets out the targets for Member States to reach in terms of the consumption of renewable energy in each Member State and the obligations to reach those targets. Each Member State, however, is left to determine for itself the way in which it meets those obligations. This has led to the proliferation of a broad range of renewable energy promotion measures across Europe.

Energy Efficiency

There have been major developments in energy efficiency policy in the EU in recent times. Many long-lasting directives are being recast or replaced due to the recent passing of the Energy Efficiency Action Plan adopted by the EU Council in March 2007. The Plan outlines a series of measures aimed at reducing energy consumption by 20% across the EU by 2020. The Commission estimates that this will result in more than twice the reductions of carbon dioxide emissions needed by the EU to meet its target under the Kyoto Protocol.

The Commission has made it clear that meeting the 20% target by 2020 is going to require a ‘paradigm shift/step-change in energy consumption. The Plan will be implemented in EU legislation over the course of the six years 2007-12 (with many aspects already having been passed into law) and is divided into 10 priority actions, which include:

- Setting standards for the mandatory and voluntary labelling of products.
- More stringent requirements in respect of energy performance in buildings.
- Improved efficiency in the generation and distribution of power.
- Improved fuel efficiency in cars.
- Additional financing of energy efficiency investments for SMEs and energy service companies.
- Encouraging energy efficiency in new Member States.

⁷ ‘Directive 2009/28/EC - The Renewable Energy Directive for the promotion of the use of energy from renewable resources. Assent date 23 April 2009, amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC’.

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- A better use of taxation.
 - Raising energy efficiency awareness.
 - Encouraging energy efficiency in built-up areas.
 - Encouraging energy efficiency worldwide.

Adaptation

We describe above what the environmental, social and economic implications of climate change are likely to be for Europe. We now turn from policies to mitigate the causes of climate change to the policies that the EU is considering to implement in order to adapt to the consequences of climate change. The EU's framework here, as outlined in its White Paper on Adaptation, adopts a phased approach.⁸ The intention is that Phase 1 (2009-12) will lay the ground-work for preparing a comprehensive EU adaptation strategy to be implemented during Phase 2, commencing in 2013.

Phase 1 will focus on four pillars of action: (1) building a solid knowledge base on the impact and consequences of climate change for the Europe (through both research and integrated knowledge sharing); (2) integrating adaptation into key policy areas; (3) employing a combination of policy instruments (market-based instruments, guidelines, public/private partnerships) to ensure effective delivery of adaptation policies; and (4) stepping up international cooperation on adaptation. For Phase 1 to be a success, it is a priority that EU level, national, regional and local authorities cooperate closely.

At present the EU is developing its knowledge base and capacities to deal with adaptation. Most of the policy recommendations for Phase 1 of the action plan to deal with adaptation (relating largely to the gathering and sharing of information and the building of institutions) are due to be finalised by the end of 2011, after which time the findings from Phase 1 can begin to be integrated into EU and Member States' policies and then implemented as is envisaged by Phase 2.

The proposals set out in the White Paper have begun to be implemented, with an EU-wide bottom-up analysis of impacts of climate change on Europe having already been conducted (this is project PESETA referred to above) funded by the European Commission Joint Research Centre.⁹ This publication maps what and where the impacts will be for Europe and provides some guidance on the adaptation issues that will be critical to deal with.

Research & Development

A key plank of EU policy dealing with climate change is the support and development of new and innovative low-carbon technologies. Since 2004 this policy aim has been pursued through the Environmental Technologies Action Plan (ETAP). ETAP aims to overcome the many barriers (such as the complexity of switching from traditional to new technologies and insufficient access to capital) that hinder the development of new environmental technologies. This is being achieved through a series of measures to promote eco-innovation and the take-up of environmentally friendly and low-carbon technologies.

⁸ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0147:FIN:EN:PDF>.

⁹ See <http://ftp.jrc.es/EURdoc/JRC55391.pdf>.

ETAP operates in three distinct but interrelated areas of policy: (1) getting from research to markets; (2) improving market conditions; and (3) 'acting globally'. In relation to getting from research to markets, ETAP puts forward actions to attract more private and public investment for the development and demonstration of environmental technologies in line with the EU objective of 3% of GDP for research. The actions aim to improve the innovation process and to take inventions out of laboratories and into the market. In relation to the improvement of market conditions, ETAP aims to promote and utilise market-based incentives for business to increase the uptake of sustainable and low-carbon technologies. This includes the creation of funds and grants programmes, the promotion of emissions capping, renewable energy and energy-efficiency market-based mechanisms, and other forms of support such as public/private partnerships. Lastly, the policy objective of 'acting globally' concerns the promotion of technology transfer and the uptake of sustainable and low-carbon technologies globally, through all available means (such as UNFCCC negotiations and bilateral relationships).

The EU is supportive of the establishment of a Technology Mechanism, as agreed under the Copenhagen Accord, designed to accelerate the development, deployment and diffusion of environmentally-safe and sustainable low-carbon technologies, based on the needs of developing countries for adaptation and mitigation. In that regard, the EU will push for a decision of the UNFCCC at Cancún that brings the Technology Mechanism into operation, including the creation of the relevant institutions that are preconditions to a fully functioning mechanism.

A recent policy development is the EU consideration of an Eco-Innovation Action Plan (EIAP) which is set to build upon ETAP. Discussions under the EIAP are set to culminate in the release of a draft plan in late 2010 which will detail the scope of support for eco-innovation going forward. The EIAP aims to:

1. Exploit the full potential of eco-innovation to protect the environment, while contributing to competitiveness, economic growth and job creation.
2. Establish the framework conditions supporting eco-innovation and a roadmap to set those conditions in place.
3. Develop horizontal EU instruments and well-targeted actions to spur the development, adoption and wider diffusion of eco-innovations, also addressing the main barriers affecting them.
4. Promote the adoption of sector policies and actions for shifting to a low-carbon, resource-efficient economy.

Transfers and Relationships

The EU has committed under the Copenhagen Accord to provide €2.4 billion annually in 'fast-start' financing over 2010-12 to help developing countries mitigate their greenhouse gas emissions and adapt to climate change. This represents around one third of all fast-start finance pledged to date by developed countries. Commissioner Hedegaard, the EU's top public servant dealing with climate change, has proffered the international community the assurance that the EU will deliver on its fast-start finance commitments and has noted that the EU will report on the progress of its commitments at Cancún, along with other developed countries. The EU has already decided that 63% of this funding will go towards the mitigation of climate change and 37% has been earmarked for adaptation projects.

In the wake of Copenhagen, bilateral arrangements have become increasingly important in terms of international cooperation to deal with climate change. There is an increased focus on the development of sectoral carbon markets with arrangements being made bilaterally or regionally, rather than solely through the UNFCCC. Further, nationally appropriate mitigation actions for developing countries are to be funded through bilateral arrangements between developed and developing countries, with much of the fast-start finance under the UNFCCC therefore flowing through bilateral relationships directly from developed to developing countries (and likely to be registered and monitored at the international level).

The EU and Member States within the EU have been at the forefront of such relationships and transfers of funds, forging relationships in all major regions. The EU has existing relationships with China, the Republic of Korea, India, Indonesia, South America, South Africa and throughout sub-Saharan Africa.

Negotiating Position for COP16

Regional Perspective

The EU acts as a single negotiating bloc of all 27 Member States at UNFCCC negotiations. In line with the break-down of voting within the EU, the States with the most influence on EU climate policy are Germany, the UK, Italy, Spain and Poland. Traditionally, the EU has been a strong advocate in international forums for ambitious actions to tackle climate change, and has not shirked its responsibilities to take on binding commitments to reduce emissions, as is evidenced by its Kyoto Protocol obligations.

With a number of European states suffering from high rates of public debt and with its private sector still slow to recover from the global financial crisis, it remains to be seen whether there will be any material difference in the EU's traditionally strong stance in international climate negotiations. There are some indications, however, that things will not change, with domestic austerity measures in many EU Member States impacting climate change policies less than other areas. In light of this and the strong strategic interests in –and threats posed by– climate change for the EU as outlined above, in our view it is likely that the EU will continue to be a strong leader in efforts to form a binding global climate change deal under the UNFCCC rubric and in other international forums.

EU Position

The EU is committed to finding a path to an agreement on a binding post-2012 global deal on climate change. The EU is therefore not content with the non-binding outcome of the Copenhagen Accord, but rather sees the Accord as an important step and 'a basis for further progress' towards reaching a binding global deal. The EU has expressed that any post-2012 agreement should aim to keep global warming below 2°C above pre-industrial temperatures, equivalent to below 1.2°C above today's level, as outlined in the EU's publication 'Background on Impacts, Emission Pathways, Mitigation Options and Costs'.¹⁰ The EU is also committed to the negotiation of a global deal that covers all of the matters covered by the Bali Action Plan.¹¹

¹⁰ See http://ec.europa.eu/clima/policies/international/docs/brochure_2c.pdf.

¹¹ For the Bali Action Plan see http://unfccc.int/meetings/cop_13/items/4049.php.

In a communication dated March 2010 (the communication), the EU Commission outlined its views on international climate policy post-Copenhagen and the need for action to reinvigorate global action.¹² The communication outlines the view that the UN process is essential to catalyse global action to combat climate change and that the primary objective must be to 'reach a robust and legally-binding agreement under the UNFCCC'. In the lead up to Cancún this means, in short, integrating the political commitments outlined in the Copenhagen Accord into the negotiating texts for a global deal.

In that same communication the EU notes that it is important to address any remaining gaps in a global climate deal. This includes the need to ensure the environmental integrity of the deal, implying that it is necessary for broad participation and stronger levels of emission reduction ambition from countries outside the EU. It is also stated that possible weaknesses in a global deal will also need to be dealt with, including the need to strengthen the rules for the accounting of forestry emissions, the handling of surplus emission budgets from the 2008-12 Kyoto commitment period and the need to build a robust and transparent emissions and performance accounting framework.

On 14 October 2010 the EU Commission released its negotiating position document in anticipation of the Cancún talks (the EU position paper).¹³ In a communication dated 29 October 2010 the European Council endorsed that document.¹⁴ The EU position paper reiterates and expands upon much of what was outlined in the communication. Some important points from the EU position paper that help to define and clarify the EU's negotiating position at Cancun, however, are that the EU:

- Supports an environmentally robust global deal in line with what science considers necessary. Of prime importance will be an agreement on rules for monitoring, reporting and verification (with robust rules for developed countries and developed country support for robust MRV in developing countries).
- Considers that any global deal must both increase the level of commitments of parties and also increase the number of countries with obligations. The EU here stresses the need to 'anchor' the Copenhagen pledges of countries into the context of UNFCCC negotiations. In particular, a global deal will require developed country parties to collectively reduce emissions to around 30% below 1990 levels by 2020.
- Considers that it is important that decisions need to be made at Cancún that will ensure that there is no gap between the end of Kyoto commitments and the start of a comprehensive global deal. In that regard, the EU is willing to consider a second commitment period under the Kyoto Protocol.
- Is committed to the continuation of the Kyoto Protocol flexibility mechanisms (CDM and JI), but considers that Cancun should provide the basis for the introduction of new sectoral or other scaled-up market mechanisms, including pilot schemes, and the recognition of units resulting from such mechanisms.
- Is committed to the creation of both a REDD+ mechanisms and the Technology Mechanism as agreed at Copenhagen.
- Emphasises the importance of both 'fast-start' (2010-12) and ongoing (out to 2020) finance commitments in the context of the mitigation of –and adaptation to–

¹² See http://ec.europa.eu/environment/climat/pdf/com_2010_86.pdf.

¹³ See http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/envir/117096.pdf.

¹⁴ See http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ec/117496.pdf.

climate change in developing countries. In particular, the EU emphasises the role of this finance for the most vulnerable and least developed countries.

Conclusion: In the lead up to Cancún a number of negotiating sessions were convened at Bonn and Tianjin charged with defining and clarifying the matters that could be agreed at Cancún. It became apparent at these sessions that there is little hope for the finalisation of a single legally-binding global climate agreement at Cancún, in large part because of the stalemate positions of some major parties to the agreement (particularly the US and China). It is clear that the EU understands the nature of the difficulties that will need to be overcome before a global deal can be reached and because of this the EU has set relatively modest targets for what should be achieved in Cancún. The EU's communication on post Copenhagen climate policy states:

'we should first focus on the adoption of a balanced set of concrete, action-oriented decisions in Cancun at the end of 2010. This should be as comprehensive as possible, but given remaining differences among Parties, the EU must be ready to continue the work for the adoption of a legally binding agreement in South Africa in 2011'.

Regardless of the faltering hopes for agreement upon a single global and legally binding climate deal at Cancún, there is real hope for agreement on a number of discreet issues that have the support of the EU and other parties. These issues include, principally, agreement on a REDD+ mechanism, on technology-sharing arrangements, including a Technology Mechanism, and on ongoing financing arrangements. The EU considers it important that progress made in these areas be locked into decisions made at Cancún as the basis for further negotiations. Indeed, this incremental approach to the development of international climate policy has become the norm, and was summed up well by the new Secretary of the UNFCCC, Christiana Figueres, when she noted earlier in the year, 'we will not cross the ocean on a single breath of wind'.

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