



COMPILATION OF INFORMATION ON THE MINIMIZATION
OF ADVERSE IMPACTS IN ACCORDANCE
WITH ARTICLE 3, PARAGRAPH 14
OF THE KYOTO PROTOCOL

Note by the secretariat

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I. Mandate

1. Under Article 3, paragraph 14, of the Kyoto Protocol, each Party included in Annex I to the Convention shall strive to implement the commitments mentioned in Article 3, paragraph 1, in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

2. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), by its decision 15/CMP.1¹, requested the secretariat to compile the supplementary information submitted annually by Parties relating to how it is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement its commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention, and any changes that have occurred compared with the information reported in its previous submission.

3. The compilation shall also include information on how Parties included in Annex II to the Convention, and other Parties included in Annex I to the Kyoto Protocol that are in a position to do so, give priority, in implementing their commitments under Article 3, paragraph 14, to the following actions, based on relevant methodologies referred to in paragraph 11 of decision 31/CMP.1²³:

(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities;

(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies;

(c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end;

(d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort;

(e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

(f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

4. In accordance with decision 15/CMP.1, where the information referred to above has been provided in earlier submissions, Annex I Parties shall include information on any changes that have occurred, compared with the information reported in its last submission.

¹ This decision is contained in document FCCC/KP/CMP/2005/8/Add.2, pages 54–66.

² This decision is contained in document FCCC/KP/CMP/2005/8/Add.4, pages 8–10.

³ Paragraph 11 of decision 31/CMP.1 requested the secretariat to organize a workshop that was held in Abu Dhabi, from 4 to 6 September 2006. The workshop report is contained in document FCCC/SBI/2006/27, but the SBI could not reach substantive conclusions on this item yet.

5. One of the purposes of this compilation is to facilitate the detailed examination by an expert review team of the supplementary information incorporated in the annual inventory during in-country visit, in conjunction with the review of the national communication, in accordance with paragraph 125 to the annex⁴ to decision 22/CMP.1⁵.

II. Approach

6. This document covers mostly information on the minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol, submitted in the National Inventory Reports (NIR) in the 2010 submission. It also covers information submitted before 2010, on a voluntary basis, and included in NIRs of previous submissions. It does not cover information provided in national communications under paragraph 36 of the annex to decision 15/CMP.1.

7. The information was reproduced verbatim from the NIRs submitted by Parties, and the secretariat did only some changes in format to present this information in a consistent way among Parties.

8. In the 2010 submission, 37 Annex I Parties submitted information on minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol. In the 2009 submission 7 Annex I Parties submitted information on this issue.

III. Compilation of information on minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol

9. Compilation of information on minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol by 2010 by Party is provided below.

⁴ The guidelines for review under Article 8 of the Kyoto Protocol, and contained in document FCCC/KP/CMP/2005/8/Add.3.

⁵ This decision is contained in document FCCC/KP/CMP/2005/8/Add.3, pages 51–83.

1. Australia

Annual inventory submission 2010

Measures taken to respond to climate change have the potential to impact all Parties. As with other major energy exporters, Australian exports are susceptible to fluctuations in demand based on a wide range of causes. Australia supports other countries to respond to the impact of response measures through national policies and measures, including diversifying economies, and building economic resilience, to place countries in a much better position to adapt to trends in the global economy.

Australia has in place a number of support programmes to assist vulnerable countries build economic resilience. For instance, Australia is providing AUD\$12.5 million for the International Finance Corporation's Pacific Enterprise Development Facility, which is improving the business environment for small and medium-sized enterprises in the Pacific, through targeted programs of technical assistance. The work covers access to finance, tourism, business enabling environments and rural export development.

Australia has also provided more than AUD\$3 million to support Pacific island countries in moving to closer economic integration through negotiation of a regional free trade agreement, the Pacific Agreement on Closer Economic Relations, known as PACE R Plus. Australia's support focuses on four components: capacity building; policy analysis and research; stakeholder consultation and engagement; and trade facilitation and promotion. Programs include expert training for trade officers and funding for countries to commission independent trade research.

In total, Australia provided around AUD\$391 million in 2008-09 in Aid for Trade-related activities, which are intended to support high and sustained trade-led growth, and which will, among other things, support developing countries build the economic resilience necessary to adjust to the impacts of climate change response measures.

In addition, Australia recently pledged at least AUD\$25 million over four years from 2009–10 for initiatives in clean and affordable energy in the Pacific region. An important focus of this funding will be to reduce dependence on fuel imports and therefore vulnerability to a carbon price.

2. Austria

Annual inventory submission 2010

23. Each Party in Annex I shall provide information relating to how it is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement its commitments mentioned in Article 3, paragraph 1 of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

The Kyoto Protocol is, in principle and in general, designed to minimize adverse effects on specific sectors, specific industries or specific trade partners of a Party, including the adverse effects of climate change, on international trade, and social, environmental and economic impacts on other parties. This is due to the fact that it does not limit action to a single gas or sector, that distributed on various fields of action, that the Clean Development Mechanism aims at both promoting sustainable development in countries with continuing development needs and at reducing greenhouse gas emissions, and that it requests action to support the least developed countries. By striving to implement all the features that the Protocol has integrated Austria is naturally working to minimize not only adverse effects of climate change but also any adverse effects due to the reduction of greenhouse gases.

Austria is strongly promoting long term sustainable development and will hence have scarcely direct or indirect negative effects. In cases where adverse effects could occur, the following measures are/were undertaken:

(a) Adverse effects of climate change

Emission Trading could lead to carbon leakage and higher emissions in countries which do not have comparable environmental standards. To minimise that risk, according to EU Directive 2003/87/EG emission allowances are granted for free to companies with specific characteristics.
(<http://www.eu-emissionshandel.at>)

(b) Social, environmental and economic impacts on developing countries

JI/CDM projects may in principle have negative side effects in the host countries. For example, projects for the production of biofuels might add to deforestation of forests and/or result in higher prices for food. The Austrian JI CDM Programme therefore has demanding social and environmental criteria to be eligible as an Austrian JI CDM project. The favoured project categories reflect the high priority that is given to technology transfer projects.
(<http://www.publicconsulting.at/de/portal/sterreichischesjicdmprogramm/>)

Ensuring that any consequences of economic affairs are addressed Austria is improving its policies to eliminate potential negative impacts.

24. Parties included in Annex II, and other Parties included in Annex I that are in the position to do so, shall incorporate information on how they give priority, in implementing their commitments under Article 3, paragraph 14, to the following actions, based on relevant methodologies referred to in paragraph 11 of decision 31/CMP.1

(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.

Austria strives to phase out market imperfections that run counter to the objective of the Convention.

Market imperfections

Austria has reformed to a large extent its energy markets. Several Directives and Regulations reflect the continuous EU effort to reduce market imperfections

- Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92EC
- Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30EC
- Council Directive 90/377/EEC of the 29 June 1990 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users
- Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions of access to the network for cross-border exchanges in electricity
- Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors

On the other hand Austria uses fiscal incentives etc. as important instrument to advance the objectives of the Convention.

Fiscal incentives

Energy prices for road transport do not yet sufficiently reflect externalities. In the course of the Ökologisierungsgesetz 2007 (ÖkoG 2007) the Mineral Oil Tax Act 2005 (Mineralölsteuergesetz 2005) and the Normverbrauchsabgabegesetz (NoVA) were changed.

- Mineral Oil Tax In July 2007 tax per liter diesel was raised at 5 Cent and is now 34.7 Cent per liter. Fuel was raised at 3 Cent and is now 44.2 Cent per liter.
- NoVA (from 1. July 2008, NoVA Ökologisierungsgesetz: BGBl. I Nr. 46/2008)

(1) newly authorized automobiles with a CO₂-emission of at most 120 g/km get a bonus of 300 Euro, (2) alternatively operated vehicles □ Hybrid, E 85, Methan in form of natural gas, hydrogen or liquefied gas - get a general bonus of 500 Euro and (3) newly authorized automobiles with a CO₂-emission of more than 160 g/km will have to pay 25 Euro for each gram over the threshold (until december 2009 the threshold was 180 g/km).

Consequences of the ecologisation of the NoVA for newly authorized automobiles are easily observable: (1) The shares of all alternatively operated vehicles have increased significantly, (2) From January 2008 until November 2009 the shares of small vehicles with emissions of less than 120 g/km have increased from 5% to 20% and (3) From January 2008 until November 2009 the shares of big vehicles with emissions over 180 g/km decreased from 21% to 11%.

Subventions Agriculture

ÖPUL 2007 (Österreichisches Programm für umweltgerechte Landwirtschaft)

Austria provides subsidies for farms according to the programme for the promotion of agriculture that is extensive, appropriate to the environment, and protective of nature. The subsidized measures also lead to decreasing greenhouse gas emissions.

<http://land.lebensministerium.at/article/articleview/62457/1/21409/>

(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies

No subsidies for environmentally unsound technologies have been identified.

(c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end

This technological field is not a high priority in the Austrian research policy.

(d) Cooperating in the development, diffusion and transfer of less-greenhouse-gas emitting, advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort

The Austrian CDM Purchase Programme is an ambitious player in the global carbon market -ambitious not only in economic terms, but also in a political sense: more than 50 CDM projects were already put in place all over the world. But also the promotion of sustainable development through CDM through an equitable distribution of CDM projects is one of our key policy goals.

In this light we launched “CDM in Africa” initiative with a view of busting CDM in Ethiopia, Ghana and Uganda. What makes the Austrian approach different from others is that it is holistic in scope. Austria addresses all issues - capacity, awareness, technical, methodological and financial restrictions - that are currently impeding the growth of the CDM in Sub Sahara Africa. <http://www.ji-cdmaustria.at/de/portal/aboutus/currentissues/workshopsinafrica/>

(e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

Actions has been taken in this regard via the Austrian initiative “CDM in Africa”. A new renewable energy and energy efficiency programme for Africa has been launched recently. As a part of this project, Austria will (1) finance the calculation of country emissions factors in the three host countries of the Austrian initiative; (2) hold project design workshops with a focus on the application of these emissions factors; (3) support the development of new methodologies for the energy sector; and (4) address financial issues impeding the realisation of concrete projects.

(f) Assisting developing county Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

Austria is a member of institutions and initiatives that have the exchange of research results and transfer of technology as a main target, e. g. the International Energy Agency and the Climate Technology Initiative. Bilateral assistance projects are another important means for transfer of technology which helps countries reducing their dependence on the consumption of fossil fuels.

- International Energy Agency (IEA)

Austria is a founding member of the International Energy Agency (IEA), which was founded in 1974. A lot of climate change issues are processed in so-called joint Implementation Agreements, where international partners collaborate on different research topics.

- Climate Technology Initiative

Austria is member of the Climate Technology, which was established in 1995 at the Conference of Parties to the UNFCCC and has a new status as an IEA Implementing Agreement since 2003. Its mission is to

promote the objectives of the UNFCCC by fostering international cooperation for accelerated development and diffusion of climate friendly technologies and practices for all activities and greenhouse gases. The main principles of CTI are close collaboration with developing countries and economies in transition and partnership with stakeholders, including the private sector, non-government organisations (NGOs), and other international organizations. CTI performs a. o. capacity building and technical assistance for technology needs assessments as well as technology implementation activities and organizes seminars, symposia and training courses. <http://www.climatetech.net>

The long-standing relationship with Bhutan must be particularly highlighted, too. Austria is collaborating with the Department of Energy in Bhutan since several years in the field of hydropower infrastructure, maintenance and management training, rural electrification and efficient use of biomass. Information on Austria's support for Bhutan and several other countries with respect sustainable energy supply can be found on Austria's National Communications under the Convention.

3. Belgium

Annual inventory submission 2010

Under Article 3.14 of the Kyoto Protocol and UNFCCC Decision 31/CMP.1, Annex I Parties are invited to report on how they are striving to implement their commitment while minimizing adverse social, environmental and economic impacts on developing country parties.

Actions taken in the framework of the Kyoto Protocol commitments are intended to contribute to preventing dangerous anthropogenic interference with the climate system. Adverse impacts of potential climate changes on developing countries are thus globally reduced when Annex I countries (and Belgium among them) take measures aiming to reduce GHG emissions through energy savings and the promotion of renewable energy sources. Furthermore, most of those actions contribute to reduce air pollution related to fossil fuels uses for the benefit of all countries.

Most actions taken by Belgium in order to respect its commitments present no direct or indirect adverse effects for developing countries. Belgian policies and measures address not only fossil fuel combustion but also emissions of all gases covered by the Kyoto Protocol, such as methane and nitrogen protoxide from agriculture and waste management or F-gases in refrigeration systems, thus ensuring a balanced distribution of efforts and limiting the potential impact of single too specific measures.

Belgium is a Member State of the European Union and, as such, designs and implements most of its policies in the framework of EC directives, regulations, decisions and recommendations. For instance, Belgium has implemented the European liberalisation of electricity and natural gas markets and is involved in the European Emission Trading Scheme, all actions aiming to address market imperfections and to better reflect externalities in energy/CO₂ prices.

Belgium has suppressed subsidies supporting the use of coal and other fossil fuels for energy production. It also applies strict rules in accordance to EC recommendations for State aid to environmental and energy saving measures, in order to maintain an undistorted free competitive market across Europe. It has never taken any action nor expressed any recommendation in favour of one energy carrier against the others and has always been very careful in collaborating equally with all actors of the energy production and distribution sectors.

The Belgian agricultural policies and the promotion of bio-fuels are developed within the European common policies. The new EC common policy for agriculture now tends to support quality products and environmental respect instead of large volumes of production, and should create market conditions more accessible to products from developing countries. Concerning bio-fuels, acknowledging that their development could create pressures on food prices and on land and forest management, notably in developing countries, the EC has established strict sustainability criteria which notably include not supporting bio-fuels from land with high biodiversity value (primary forest and wooded land, protected areas or highly bio-diversed grasslands), or from land converted from wetlands, peatlands or continuously forested areas., and will be very cautious about any broader environmental and social aspects such as air, water and soil quality and labour conditions.

Belgium also takes advantage of flexibility mechanisms , particularly in its participation to clean development mechanisms (CDM) projects. Those are typically designed with the aim of improving capacity building and implementing technology transfer in developing countries through mitigation and adaptation projects. Actions in that domain are direct funding of projects or participation to carbon credit funds. The selection of CDM projects applies sustainability criteria based the internationally recognized so-called “Gold Standards”, addressing environmental aspects (including bio-diversity), social sustainability and development, quality of life and labour, and techno-economic aspects including employment and technological autonomy .

The table hereunder presents a list of projects in which Belgium is involved.

Name	Type	Host Country	UNFCCC Ref
Olavarria Landfill Gas Recovery Project	CDM	Argentina	0140
La Esperanza Hydroelectric Project	CDM	Honduras	0009
Vertical Shaft Brick Kiln Cluster Project	CDM	India	0582
Biomass Heating in Rural Communities (Project Design Document No.1)	CDM	Moldova	0159
Biomass Heating in Rural Communities (Project Design Document No. 2)	CDM	Moldova	0160
Energy Conservation and Greenhouse Gases Emissions Reduction	CDM	Moldova	0173
Biogas Support Program (BSP-Nepal) Activity-1	CDM	Nepal	0136
Biogas Support Program - Nepal (BSP-Nepal) Activity-2	CDM	Nepal	0139
Santa Rosa	CDM	Peru	0088
Berlin Binary Cycle power plant	CDM	El Salvador	1218
Biomass based Cogeneration Power Project in Uttar Pradesh	CDM	India	0827
Carbon sequestration through reforestation in the Bolivian tropics by smallholders of "The federacion de Comunidades Agropecuarias de Rurrenabaque (FECAR)"	CDM	Bolivia	2510
Rice husk based cogeneration power plant-II at SBPML	CDM	India	0802
3MW Iruttukanam Small Hydro Electric Project, India	CDM	India	1514
Guangrun Hydropower Project	CDM	China	0904
FaL-G Brick and blocks Project No. 1	CDM	India	0707
Animal Manure Management System (AMMS) GHG Mitigation Project, Shandong Minhe Livestock Co. Ltd.	CDM	China	1891
Guyana Skeldon Bagasse Cogeneration Project	CDM	Guyana	1458
Olkaria II Geothermal Expansion Project	CDM	Kenya	
Optimisation of Kiambere Hydro Power Project	CDM	Kenya	
Redevelopment of Tana Hydro Power Station Project	CDM	Kenya	
Micro-hydro Promotion by Alternative Energy Promotion Centre (AEPC) Project	CDM	Nepal	
Laguna De Bay Community Waste Management Project: Avoidance of methane production from biomass decay through composting – 1	CDM	Philippines	1547

Palmas del Espino – Biogas recovery and heat generation from Palm Oil Mill Effluent (POME) ponds	CDM	Peru	1249
Substitution of coal with jute biomass residue (caddies) in the steam generating boiler for use on-site	CDM	India	1059
Yangxin Huaxin Cement 18MW Waste Heat Recovery as Power Project	CDM	China	2522
Chibi Huaxin Cement 7.5MW Waste Heat Recovery as Power Project	CDM	China	2907
Wuxue Huaxin Cement 18MW Waste Heat Recovery as Power Project	CDM	China	2521
Xiangfan Huaxin Cement 7.5MW Waste Heat Recovery as Power Project	CDM	China	2671
Xinyang Huaxin Cement 7.5MW Waste Heat Recovery as Power Project	CDM	China	
EL BOTE Small Hydroelectric Plant	CDM	Nicaragua	
Energía Ecológica de Palcasa S.A. EECOPALSA Biomass Project	CDM	Honduras	1877
Rice husk based Cogeneration Project at Shree Bhawani Paper Mills Limited (SBPML), RAE Bareilly, Uttar Pradesh	CDM	India	0195

4. Bulgaria

Annual inventory submission 2010

According to the Article 3, paragraph 14 of the Kyoto Protocol, Annex I countries shall provide information on how is striving to implement commitments in such a way as to minimize potential adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

Impacts on third countries are mostly indirect and frequently cannot be directly attributed to a specific policy. Therefore we cannot consider that there is an adverse social, environmental and economic impact on developing countries due to our national climate change policy.

The majority of bulgarian legislation measures in the climate change area, are connected mainly with transposing of the European legislation, as well as other activities on implementation of directives, connected with the politics on climate change.

The table below summarizes how the Party gives priority to selected actions, identified in paragraph 24 of the Annex to Decision 15/CMP.1.

Table 14.1 Selected actions, identified in paragraph 24 of the Annex to Decision 15/CMP.1.

Action	Implementation by the Party
<p>The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.</p>	<p>Market imperfection</p> <p>The Environmental Protection Act and Clean Air Act and related secondary legislation, including a permit system for meeting minimum standards in accordance with EU regulation on Large Combustion Plants (LPS), the introduction of the EU ETS and technical inspection (e.g. for cars) etc;</p> <ul style="list-style-type: none"> • The Energy Law in its part on combined heat and power generation introduces the requirements of the related EU directives and the use of instruments such as green certificates and preferential feed in tariffs and mandates the state regulations to the licensed activities in the power sector and purchase obligations for the Transmission and Distribution Companies to buy all electricity produced from high efficient cogeneration, and for district heating companies to buy all utilized waste thermal energy. • The Renewable and Alternative Energy and Bio Fuels Law introduces the requirements of the related EU directives and the use of instruments such as green certificates and preferential feed in tariffs, mandates the state regulations to the licensed activities in the power sector and purchase obligations for the Transmission and Distribution Companies to buy all electricity produced from renewable sources. It regulates the acceptance and realization of national indicative targets for consumption of bio fuels and other renewable fuels in the transport sector as a part of the total consumption of transport fuels.

	<ul style="list-style-type: none"> • The Energy Efficiency Law and related secondary legislation, including obligation to adopt municipal energy efficiency programs, requirements for energy efficiency labelling, the use of minimum standards resulting from the EU directive on energy efficient appliances, regulations for energy efficiency labelling of various types of products (appliances, cars), obligatory audits and amendments of the Energy Performance Standards for existing buildings; • The Law on Waste Management and the related secondary legislation including the obligation for collecting, management and usage (or combustion) of the omitted gases from the new waste deposits; <p>Fiscal policy</p> <p>A number of stimulating measures for the subjects of taxation were introduced in the Law on amendment and supplement of the Law on the Corporate Income Tax Act and also in the Law on amendment and supplement of the Personal Income Tax Law, regarding the activities of the newly established fund “Energy efficiency” The ongoing liberalization of energy market is in line with EU policies and directives.</p> <p>The main instrument addressing externalities is the emission trading under the EU ETS.</p>
<p>Removing subsidies associated with the use of environmentally unsound and unsafe technologies.</p>	<p>No subsidies for environmentally unsound and unsafe technologies have been identified.</p>
<p>Cooperating in the technological development of nonenergy uses of fossil fuels and supporting developing country Parties to this end.</p>	<p>Bulgaria doesn’t participate in such type of activities.</p>
<p>Cooperating in the development, diffusion, and transfer of less greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.</p>	<p>Currently advanced low carbon technology aren’t a focus area in Bulgaria.</p> <p>Our research and development is oriented on improving efficiency of currently available technologies.</p> <p>Preliminary survey according suitable geological structures and their potential are envisaged. At the moment, there is no CCS programme in Bulgaria.</p>
<p>Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities</p>	<p>Bulgaria doesn’t participate in such type of activities.</p>

relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.	
Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	Currently Bulgaria doesn't participate in such type of activities.

5. Canada

Annual inventory submission 2010

Canada's efforts to implement its commitments under Article 3, paragraph 1, of the Kyoto Protocol are undertaken in such a way as to minimize potentially adverse social, environmental and economic impacts on developing country Parties. The processes to establish and implement climate change response measures include consultations with

Federal Departments with international responsibilities, including the Department of Foreign Affairs and International Trade and the Canadian International Development Agency, which provide advice on international aspects of proposed measures.

Canada also consults with provinces and provides for extensive public consultation processes, during which domestic stakeholders and representatives of foreign stakeholders can raise concerns and issues about the proposed measures.

The Government of Canada regularly engages in trade, economic and political consultations with other governments through numerous economic fora, which provide opportunities to raise and address concerns about the possible impacts of Canada measures.

Canada maintains an open trading environment, consistent with the principles of free trade and investment, ensuring that both developed and developing countries can maximise opportunities in Canada's market regardless of the climate change response measures Canada undertakes. Canada also works with partner developing countries to strengthen their governance and enabling environments, improving their ability to respond to changing circumstances.

Canada also uses Strategic Environmental Assessments (SEA) to encourage government departments and agencies to incorporate environmental considerations into the review process of proposed policies, plans and programs on international development.

In terms of the progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities, Canada has undertaken a number of fiscal and tax measures, the details of which can be found in *Canada's Fifth National Communication on Climate Change*⁶, Section 4.5 (pages 43-58).

Information on Canada's adaptation assistance provided to developing countries can also be found in *Canada's Fifth National Communication on Climate Change*, Section 4.5 (pages 86-90).

In terms of activities related to the transfer of technologies, a detailed description of selected projects or programmes that have promoted practicable steps to facilitate and/or finance the transfer of, or access to, environmentally-sound technologies is provided in *Canada's Fifth National Communication on Climate Change*, Section 4.5 (pages 166-181).

⁶ Canada's Fifth National Communication on Climate Change is available online at:
http://unfccc.int/resource/docs/natc/can_nc5.pdf

6. Croatia

Annual inventory submission 2010

Parties included in Annex I are required to provide information relating to how it is striving under Article 3.14 to implement its commitments mentioned in Article 3.1. This section should provide an overview of its commitments under Article 3, paragraph 1, and how these are to be implemented to minimize adverse social, environmental and economic impacts on developing countries.

In its Fifth National Communication Croatia has elaborated on policy and measures for mitigation of climate change in order to fulfill its commitments under Article 3, paragraph 1.

The underlying policy elements are:

- Croatia has become a candidate country for the EU membership in 2004, accession negotiations are near the end, which means that Croatia has harmonized its legislation with the EU *acquis communautaire*, including the one referred to mitigation of climate change. Accession to the EU is expected by 2012.
- Regarding the development, Croatia had, within the last years prior to economical and financial crisis, high GDP growth rate, at the level of 3.8-5.5% (from 2001-2007). On such bases, with a purpose to come closer to the EU average, regarding that GDP is at this moment less than 50% of the EU average, Croatia was planning its development until 2020 with GDP growth rate of 5% per year. In line with such goal and assumption, the Energy Development Strategy of the Republic of Croatia (OG 130/2009) has been prepared, defining the goals and suggesting measures until 2020, with a view to 2030. The Strategy provides a framework for development without pretension to strictly define fuel structure and penetration of certain types of technology, except for renewable energy sources and energy efficiency.
- Climate change mitigation measures are determined by the Air Quality Protection and Improvement Plan of the Republic of Croatia for the period 2008-2011. Majority of measures has a long-term character and their implementation and effect will be clearly seen within the period after 2011.

Air Quality Protection and Improvement Plan determines 33 basic measures that are in a phase of implementation, while some of them in a phase of preparation, as it follows:

- Promoting the application of renewable energy sources in electricity generation
- Promoting the application of cogeneration (simultaneous generation of thermal and electrical energy)
- Reduction in fossil fuel consumption through utilization of biodegradable municipal wastes in district heating plants or landfill biogas
- Reduction in fossil fuel consumption through the use of biodegradable municipal wastes in cement industry
- Loan programme for the preparation of renewable energy sources projects in Croatia through the Croatian Bank for Reconstruction and Development
- Promoting the use of renewable energy sources and energy efficiency through the Environmental Protection and Energy Efficiency Fund

- Promoting energy efficiency through implementation of the project "Removal of Barriers to Energy Efficiency in Croatia"
- HEP ESCO energy efficiency programme
- Measures of energy efficiency upgrading in building sector
- Energy efficiency labelling of household appliances
- Setting up a framework for the establishment of ecological design requirements
- Raising attractiveness of rail transport
- Introduction of biofuel
- Promoting the use of low CO₂ vehicles
- Promoting the use of gas in vehicles
- N₂O emission reduction measure in nitric acid production
- Burning or thermal utilization of methane captured at landfills
- Action plan for the sector of agriculture from the aspect of adaptation to climate change and reduction of greenhouse gas emissions
- Decision on taking advantage of Article 3.4 of the Kyoto Protocol
- Establishment of the system of trading in CO₂ emission allowances
- Increasing CO₂ charge
- Reporting under the UNFCCC and the Kyoto Protocol
- Capacity building program for implementation of the UN Framework Convention on Climate Change and the Kyoto Protocol
- Active participation in international negotiations about the commitment period after 2012 («Post-Kyoto»)
- Preparation of plans, programmes and studies for efficient implementation and creation of the climate change policy
- Establishment of a research and development programme focusing on climate change issues
- National energy programmes
- Public education and information programme
- Support to programmes and projects of the technology and know-how transfer
- Establishment of infrastructure for application of flexible mechanisms under the Kyoto Protocol
- Implementation of JI projects in Croatia
- Facilitating investments in CDM and JI project activities in other countries

- Inclusion of Croatia into the European emission trading scheme

Beside these measures, ten more measures are in preparation or adoption phase. The most important is that the Croatian legislation is harmonized with the EU *acquis communautaire* and it performs the same climate change policy as other EU member states do. The formal termination of negotiations regarding the EU *acquis communautaire* is expected by the end of 2010. Strong stimulation of measures began with the establishment of the Environmental Protection and Energy Efficiency Fund in 2003. Long-term the most important measures were defined by new energy strategy from 2009, which determines 20% of renewable energy sources in gross final energy consumption in 2020 and stimulates energy efficiency in accordance with the relevant EU directives.

7. Czech Republic

Annual inventory submission 2010

The Czech Republic strives to implement its Kyoto commitments in a way, which minimizes adverse impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. The impact of mitigation actions on overall objectives of sustainable development is also given due consideration. As there is no common methodology for reporting of possible adverse impacts on developing country Parties, the information provided is based on the expert judgment of the Ministry of the Environment of the Czech Republic. The table below summarizes how the Party gives priority to selected actions, identified in paragraph 24 of the Annex to Decision 15/CMP.1.

Actions	Implementation by the Party
(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.	The ongoing liberalization of energy market is in line with EU policies and directives. No significant market distortions have been identified. Consumption taxes for electricity and fossil fuels were harmonized recently. The main instrument addressing externalities is the emission trading under the EU ETS. Introduction of new instruments is subject to economic modelling and regulatory impact assessment.
(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	No subsidies for environmentally unsound and unsafe technologies have been identified.
(c) Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end.	The Czech Republic does not take part in any such activity.
(d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.	Advanced low-carbon technologies are currently not a priority area in the Czech Republic's research, development and innovation system. Research and development is focused on improving efficiency of currently available technologies. Preliminary assessment of carbon storage potential was carried out. However, there is currently no significant CCS programme or demonstration project in the Czech Republic.
(e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.	The Czech Republic supports technology and capacity development through development assistance. Example of such activities is a project for modernization of powering and control of power plant block connected with establishment of a technical training centre at the University in Ulan Bator, Mongolia.
(f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	The Czech republic is cooperating in several bilateral development assistance projects focusing on reduction of fossil fuels dependence and

	<p>development of renewable energy sources, inter alia:</p> <ul style="list-style-type: none">- Introduction of a system of utilization of renewable energy sources through construction of mini-hydropower plants in Phillipines- Solar energy for schools in Kenya- Renewable energy sources for a remote village community in Angola- Development of renewable sources of energy in poor rural areas of Vietnam (solar and small hydropower projects)- Development of small and medium size energy sources and interconnecting networks in Palestine
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8. Denmark

Annual inventory submission 2009 (NIR page 814, Annex 10)

Referring to paragraph 23 of the annex to Decision 15/CMP.1, information on how Denmark is striving to implement commitments under the Kyoto Protocol in such a way to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention is available in Chapter 4.6.5 in Denmark's Fourth National Communication on Climate Change submitted on 30 December 2005vii.

Annual inventory submission 2010 (NIR page 549)

Referring to paragraph 23 of the annex to Decision 15/CMP.1, information on how Denmark is striving to implement commitments under the Kyoto Protocol in such a way to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention is included in this chapter.

In connection with Denmark's contribution to international climate efforts, in accordance with the Kyoto Protocol Denmark will endeavour to implement policies and measures under article 3 of the Protocol in such a way that adverse effects in other countries are minimised. However, Denmark does not consider that its contributions to international climate efforts have adverse effects in other countries as, on the contrary, the reduction of emissions of greenhouse gases in Danish commitments under the Protocol will in fact contribute to limiting dangerous climate change in all countries.

If nothing is done to limit emissions of greenhouse gases, climate scenarios from the IPCC indicate that developing countries in particular will experience the greatest changes in climate.

In its international efforts, Denmark will therefore continue to take the greatest possible account of special needs and concerns of developing countries and especially least developed countries. This also applies to adverse effects which can already be ascertained from changes in the climate. The existing strong Danish focus on the special vulnerability of developing countries to climate change underlines this as further described below.

15.1 Assistance to developing country parties particularly vulnerable to climate change.

The least developed countries are among the countries that are most vulnerable to climate change. Denmark therefore attaches particular importance to helping these countries adapt to climate change. A natural consequence of this is that Danish programme cooperation countries are among the least developed countries and/or the most vulnerable countries.

The climate screenings performed under the Climate Change and Development Action Programme are important instruments in ensuring that the most vulnerable countries and communities are assisted in an appropriate and integrated manner. The studies were carried out in 17 countries (programme countries and Niger and Cambodia) from December 2005 to June 2008. The 17 studies include critical information about the impact of climate change and constitute a first step to "operationalising climate proofing" of Danish bilateral development assistance. Although this form of "climate proofing" was only one of several elements in the action programme, it is the area that has been most intensively in focus since 2005.

Probably the most important issue emerging from the studies concerns the uncertainty about trends in temperature, rainfall patterns and "extreme events" and the impact of climate change on economic growth and poverty reduction. In this context, the CCS studies emphasised the need to improve knowledge, awareness and information at regional, national and community levels, through enhanced climate data

collection and analysis, refined scenarios and “downscaling” climate models to specific countries and regions. There is still a lot to learn and understand about the impact of climate change.

The projects launched based on the screenings were related to capacity building, mainstreaming of climate change, forest management, strengthening the link between climate change adaptation and disaster risk reduction as well as coastal and water resource management. The largest support to till date to a vulnerable country is the climate change adaptation and mitigation programme in Vietnam of 200 Mill. DKK. One third of the grant is allocated to climate change mitigation through energy efficiency and the remaining part is allocated to support the climate change adaptation.

15.2 EU-wide climate policies and measures

This section provides information on how Denmark through its role as a member state in the EU is also supporting the implementation of the commitments under Article 3, paragraph 14 of the Kyoto Protocol. The EU is well aware of the need to assess impacts, and has built up thorough procedures for EU-wide policies and measures in line with our obligations. This includes bilateral dialogues and different platforms in which the EU interact with third countries, explain new policy initiatives and receive comments from third countries.

Impacts on third countries are mostly indirect and can frequently neither be directly attributed to a specific EU policy, nor directly measured by the EU in developing countries. Therefore, the reported information covers potential adverse social, environmental and economic impacts that result from complex assessments of indirect influences and that are based on accessible data sources in developing countries.

15.2.1 Impact assessment of EU policies

In the EU a wide-ranging impact assessment system accompanying all new policy initiatives has been established. This regulatory impact assessment is a key element in the development of the Commission’s legislative proposals. The Commission is required to take the impact assessment reports into account when taking its decisions, while the impact assessments are also presented and discussed during the scrutiny of legislative proposals from the Council and the Parliament. This approach ensures that potential adverse social, environmental and economic impacts on various stakeholders (in the case on developing country Parties) are identified and minimized within the legislative process. In general, impact assessments are required for all legislative proposals, but also other important Commission initiatives which are likely to have far-reaching impacts. Below the impact assessment process implemented in the EU policy making is explained in more detail in order to better demonstrate how the EU is striving for all strategies and policies to minimize their adverse impacts. Specific guidelines for the impact assessment have been adopted (European Commission, 2009).

The impact Assessment Guidelines specifically address impacts on third countries and also issues related to international relations. In this area the following questions have to be addressed.

- Trade relations with third countries: some policies may affect trade or investment flows between the EU and third countries; the impact assessment should analyse how different groups (foreign and domestic businesses and consumers) are affected, and help to identify options which do not create unnecessary trade barriers.
- Impact on WTO obligations: it should be analysed which impact each proposed policy option has on the international obligations of the EU under the WTO Agreement; the impact assessment should examine whether the policy options concern an area in which international standards exist.
- Impacts on developing countries: initiatives that may affect developing countries should be analysed for their coherence with the objectives of the EU development policy. This includes an

analysis of consequences (or spill-overs) in the longer run in areas such as economic, environmental, social or security policies.

Key economic questions to be addressed in relation to third countries are:

- How does the policy initiative affect trade or investment flows between the EU and third countries? How does it affect EU trade policy and its international obligations, including in the WTO?
- Does the option affect specific groups (foreign and domestic businesses and consumers) and if so in what way?
- Does the policy initiative concern an area in which international standards, common regulatory approaches or international regulatory dialogues exist?
- Does it affect EU foreign policy and EU development policy?
- What are the impacts on third countries with which the EU has preferential trade arrangements?
- Does it affect developing countries at different stages of development (least developed and other low-income and middle income countries) in a different manner?
- Does the option impose adjustment costs on developing countries?
- Does the option affect goods or services that are produced or consumed by developing countries?

Key questions on social impacts in third countries are:

- Does the option have a social impact on third countries that would be relevant for overarching EU policies, such as development policy?
- Does it affect international obligations and commitments of the EU arising from e.g. the ACP-EU Partnership Agreement or the Millennium Development Goals?
- Does it increase poverty in developing countries or have an impact on income of the poorest populations?

Key questions on environmental impacts in relation to third countries are:

- Does the option affect the emission of greenhouse gases (e.g. carbon dioxide, methane etc) into the atmosphere?
- Does the option affect the emission of ozone-depleting substances (CFCs, HCFCs etc)?
- Does the option affect our ability to adapt to climate change?
- Does the option have an impact on the environment in third countries that would be relevant for overarching EU policies, such as development policy?

If third countries are likely to be affected, the impact assessment should analyse in greater detail what the specific impacts may be, how undesired effects can be avoided or minimised, or mitigated, how the policy options compare in this respect and what trade-offs have to be addressed in the final policy choice.

Consulting interested parties is an obligation for every impact assessment and all affected stakeholders should be engaged, using the most appropriate timing, forma and tools to reach them. Appropriate consultation tools can be consultative committees, expert groups, open hearings, ad hoc meetings,

consultation via internet, questionnaires, focus groups or seminars/workshops. Existing international policy dialogues are also be used to keep third countries fully informed of forthcoming initiatives, and as a means of exchanging information, data and results of preparatory studies with partner countries and other external stakeholders.

The EU's recent 5th national communication provides a detailed overview of the European policies and measures to mitigate GHG emissions in all sectors. All key strategies and climate policies have been subject to impact assessments as described above. All impact assessments and all opinions of the Impact Assessment Board are published online (see http://ec.europa.eu/governance/impact/ia_carried_out/cia_2010_en.htm). In addition to the general approach described above to address adverse social, environmental and economic impacts, more specific ways to minimize impacts depend on the respective policies and measures implemented. As the reporting obligation related to Article 3, paragraph 14

does not include an obligation to report on each specific mitigation policy, the EU chooses the approach to provide some specific examples for a more complete overview on the ways how the EU is striving to minimize adverse impacts.

Two major EU policies, the Directive on the promotion of the use of renewable energy (Directive 2009/28/EC as well as the extension of the EU emission trading scheme (ETS) to the aviation sector (Directive 2008/101/EC) are presented in more detail as examples in this chapter, because the related impact assessments identified potential impacts on third countries.

Example 1: Directive on the promotion of the use of renewable energy - Promotion of biomass and biofuels

The Directive on renewable energy (Directive 2009/28/EC), a part of the EU's climate and energy package, sets ambitious targets for all Member States, such that the EU will reach a 20% share of energy from renewable sources in the overall energy consumption by 2020 (with individual targets for each Member State) and a 10% share of renewable energy specifically in the transport sector, which includes biofuels, biogas, hydrogen and electricity from renewables. Biomass is one of the renewable energy sources promoted by this directive and biofuels will be important for the achievement of the renewable target in the transport sector.

The impact assessments related to enhanced biofuel and biomass use in the EU showed that the cultivation of energy crops have both potential positive and negative impacts. Positively, as the growing of EU demand for bioenergy generates new export revenues and employment opportunities for developing countries and boosts rural economies. Thus there could be clear economic and social benefits. At the same time, the new EU energy crop demand could increase the impact on biodiversity, soil and water resources and can have positive as well as negative effects on air pollutants. The extent of carbon reduction and other environmental effects from the promotion of biofuels can vary according to the feedstock employed, the way the feedstock and the biofuels are produced, how they are transported and how far. Growing future demand for biomass feedstock combined with growing global food consumption could add to the agricultural sector's pressure on land use and result in adverse land use change.

To address the risk of such adverse impacts, Article 17 of the EU's Directive on renewable energy sources creates pioneering "sustainability criteria", applicable to all biofuels (biomass used in the transport sector) and bioliquids. The sustainability criteria adopted are:

- establish a threshold for GHG emission reductions that have to be achieved from the use of biofuels;
- exclude the use of biofuels from land with high biodiversity value (primary forest and wooded land, protected areas or highly biodiverse grasslands),

- exclude the use of biofuels from land with high C stocks, such as wetlands, peatlands or continuously forested areas.

Developing country representatives as well as other stakeholder were extensively consulted during the development of the sustainability criteria and preparation of the directive and the extensive consultation process has been documented.

The Directive also ensures that the Commission will report every two years, in respect to both third countries and Member States which constitute a significant source of biofuels or of raw material for biofuels consumed within the Union, on national measures taken to respect the sustainability criteria for soil, water and air protection.

The criteria pursuant to Article 17 apply to biofuels and bioliquids, not to solid biomass which is also promoted by the Directive. With regard to the energy use of all biomass forms, Article 17, paragraph 9 of the Directive requires the Commission to report on “requirements for a sustainability scheme for energy uses of biomass, other than biofuels and bioliquids, by 31 December 2009.” A Commission communication on biomass sustainability including an impact assessment is forthcoming.

The Directive also required the Commission to examine and report on the potential adverse impact of biomass consumption and the need for sustainability criteria. This report and associated impact assessment addresses these issues (http://ec.europa.eu/energy/renewables/transparency_platform/transparency_platform_en.htm) and finds that as the overwhelming bulk of biomass energy is derived from European sources there is no need for sustainability criteria.

The Commission will also report on biofuels' potential indirect land use change effect and the positive and negative impact on social sustainability in the Union and in third countries, including the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues. Reports shall address the respect of land-use rights. The first reports will be submitted in 2012.

The EU's biofuel sustainability criteria form the first global initiative to address the climate change and sustainability issues surrounding crop production.

The biofuels scheme, by imposing environmental standards and requiring high greenhouse gas savings (35% rising to 60%), put also pressure on the production of the raw materials used for other purposes. Some examples of voluntary sustainability scheme out of the biofuels field are in the pipeline.

Any negative economic aspects will also be monitored by the Commission. In addition, Article 18(4) of the Directive provides that the Community shall endeavour to conclude bilateral or multilateral agreements with third countries containing provisions on sustainability criteria that correspond to those of this Directive. Where the Community has concluded agreements containing provisions relating to matters covered by the sustainability criteria set out in Article 17(2) to (5), the Commission may decide that those agreements demonstrate that biofuels and bioliquids produced from raw materials cultivated in those countries comply with the sustainability criteria in question.

In addition to the sustainability criteria, several initiatives have been taken to better channel and control biofuel and biomass expansion and thereby mitigate the most serious effects. With respect to palm oil production, the Roundtable on Sustainable Palm Oil (RSPO), an initiative by WWF, producers, traders and other NGOs, has recently announced the adoption of a set of criteria for the responsible production of palm oil, which would allow palm oil production without affecting the sustainability of tropical forests and endangered species. Other similar private and public initiatives will follow for other sectors and regions.

Another way the EU will strive to minimize potential adverse impacts of biomass use is to promote second generation biomass technologies. Within the renewable energy Directive, second generation biofuels are promoted through Article 21, paragraph 2 which establishes that the contribution made by biofuels produced from wastes, residues, non-food cellulosic material, and ligno-cellulosic material shall be considered to be twice that made by other biofuels for the purposes of demonstrating compliance with national renewable energy targets; and EU research also has a major focus on bioenergy technologies. The goal of second generation biofuel processes is to extend the amount of biofuel that can be produced sustainably by using biomass consisting of the residual non-food parts of current crops, such as stems, leaves and husks that are left behind once the food crop has been extracted, as well as other crops that are not used for food purposes (non food crops) and also industry waste such as woodchips, skins and pulp from fruit pressing. Second generation biofuels are expected to expand the biomass feedstock available for biofuel production. Further research and impact assessments in this area are necessary to assess e.g. the long-term effects of the energy use of non-food parts of crops compared to their existing use.

Example 2: Inclusion of aviation in the EU emission trading scheme

In 2005 the Commission adopted a Communication entitled "Reducing the Climate Change Impact of Aviation", which evaluated the policy options available to this end and was accompanied by an impact assessment. The impact assessment concluded that, in view of the likely strong future growth in air traffic emissions, further measures are urgently needed. Therefore, the Commission decided to pursue a new marketbased approach at EU level and included aviation activities in the EU's scheme for greenhouse gas emission allowance trading. The finally adopted legislation was the result of an extensive stakeholder consultation including an internet consultation and an Aviation Working Group of experts set up as part of the European Climate Change Programme that identified the integration of aviation in the EU ETS as the lowest cost option to address the challenge of reducing emissions from this sector. The impact assessment also specifically addressed the effects on developing countries (European Commission, 2006).

Aircraft operators from developing countries will be affected to the extent they operate on routes covered by the scheme. Data from Eurocontrol on the nationality of operators has been used to make an estimate of the aggregated costs for third country airlines from regions that include developing countries. As operators from third countries generally represent a limited share of emissions covered, the impact is also modest. For example, the total additional operating costs for all operators based in Africa would, at current activity levels, vary from year depending on allowance prices and the share of allowances auctioned. In terms of the economic impacts, a larger proportion of the compliance costs would naturally be borne by carriers from Annex I countries as they generally have a higher market share on the routes covered. However, carriers from developing countries that are able to operate in competition with Annex I carriers on such routes would need to be covered in order to avoid a) distortions of competition and b) discrimination as to nationality in line with the Chicago Convention.

For carriers with relatively old and inefficient fleets the impact may be higher as the effective proportion of allowances acquired for free through benchmarking is lower. However, as third country airlines would generally only have a fraction of their fleet operating in Europe, they may in some cases be able to reduce any negative effects by shifting their most efficient aircraft to operate on routes covered by the scheme.

To the extent that aviation's inclusion in the EU ETS creates additional demand for credits from JI and CDM projects, there will also be indirect positive effects as such projects imply additional investments in clean technologies in developing countries.

Similarly, additional finance for climate change mitigation and adaptation in developing countries should be raised through the auction of emissions allowances by EU Member States. The legislation provides a list of such areas by which the Member State should use the monies raised, and specifically mentions use for adaptation in developing countries.

There are further opportunities for developing countries to increase the demand for both CDM credits and future forms of sectoral mechanisms. The EU ETS legislation anticipates that third countries will take equivalent measures covering all flights departing their territory for the EU. In such circumstances, when equivalent measures are taken, the scope of the EU scheme can be reduced with the exclusion of these flights. Developing countries can thus benefit from additional demand for credits over and above the quantity that is allowed already for compliance by participants in the EU ETS.

Information on how the EU gives priority, in implementing the commitments under Article 3, paragraph 14, to specific actions

The EU reports activities that are related to the actions specified in the subparagraphs (a) to (f) of paragraph 24 of the reporting requirements in the Annex to decision 15/CMP.1. However, no decision was agreed yet that these actions form part of the commitment under Article 3, paragraph 14. For some of the actions specified in the reporting requirements, it seems rather unclear how they relate to the minimization of adverse social, environmental and economic impacts resulting from policies and measures to mitigate GHG emissions, e.g. information related to the cooperation activities requested are activities that help both Annex I and Non-Annex I Parties in reducing emissions from fossil fuel technologies, but they do not directly address the minimization of potential adverse impacts in Annex I Parties.

For the purposes of completeness in reporting, the all subparagraphs specified in the subparagraphs (a) to (f) of paragraph 24 of the reporting requirements in the Annex to decision 15/CMP.1 are addressed below. However the main ways how the EU is striving to minimize adverse impacts are described in the previous section.

a) The progressive reduction of phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for enenergy price reforms to reflect market prices and externalities.

The actions addressed in subparagraph a) also form part of the commitment to implement policies and measures requested under Article 2, paragraph 1(a) (v), however Article 2 specifies that Annex I Parties shall “implement and/or further elaborate policies and measures in accordance with national circumstances, such as progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention and application of market instruments.” Subparagraph a) in the reporting requirements lacks such objective and therefore seems somewhat inconsistent with the commitment under Article 2. The promotion of research, demonstration projects, fiscal incentives or carbon taxes is important instrument to advance the objectives of the Convention, e.g. the use of renewable energies. A progressive reduction of all fiscal incentives or subsidies in all GHG emitting sectors would run counter the objective of the Convention and counter the ability of the EU to meet its commitment under Article 3, paragraph 1 of the Kyoto Protocol. Therefore the EU interprets this reporting requirement in a way consistent with Article 2 paragraph 1(a)(v) that the EU should focus on the progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies that run counter the objectives of the Convention and application of market instruments.

The 2009 Review of the EU Sustainable Development Strategy assesses that "the Commission has been mainstreaming the progressive reform of environmentally harmful subsidies into its sectoral policies". For instance, environmental concerns have been gradually incorporated into the EU Common Agricultural Policy, including "decoupled" direct payments which have replaced price support; environmental cross compliance; a substantial increase in budget for rural development. As part of 2008 Common Agriculture Policy Health Check, additional part of direct aid has been shifted to climate change, renewable energy, water management, biodiversity, innovation; - transparency of agricultural subsidies has improved. It is

important to note that in the other areas most subsidies are within the competence of the Member States and not of the EU, within the limits established by EU state aid rules.

EU policies aim to address market imperfections and to reflect externalities. For example the EU has made significant efforts to liberalise the internal energy market and to create a genuine internal market for energy as one of its priority objectives. The existence of a competitive internal energy market is a strategic instrument both in terms of giving European consumers a choice between different companies supplying gas and electricity at reasonable prices, but also in terms of making the market accessible for all suppliers, especially the smallest and those investing in renewable forms of energy.

With the implementation of the EU Emissions Trading Scheme, the EU uses a market instrument to implement the objective of the Convention and its commitment under Article 3, paragraph 1 of the Kyoto Protocol which aims at creating the right incentives for forward looking low carbon investment decisions by reinforcing a clear, undistorted and longterm carbon price signal.

With respect to financial support provided by the Member States to undertakings, the EU Treaty pronounces a general prohibition of "State aid". This concept encompasses a broad range of financial support measures adopted at national or sub-national level (i.e. not at EU level), and which can take various forms (subsidies, tax relieves, soft loans...). The Treaty provides for exceptions to this general prohibition. When State aid measures can contribute in an appropriate manner to the furtherance of objectives of common interest for the EU, and provided that they comply with certain strict conditions, they may be authorised by the Commission. By complementing the fundamental rules through a series of legislative acts and guidelines, the EU has established a worldwide unique system of rules under which State aid is monitored and assessed in the European Union. This legal framework is regularly reviewed to improve its efficiency. EU State aid control is an essential component of competition policy and a necessary safeguard for effective competition and free trade.

State aid reform in the EU aims to redirect aid to objectives of common interest which are related to the EU Lisbon Treaty, such as R&D&I, risk capital measures, training, and environmental protection. Environmental protection, and in particular, the promotion of renewable energy and the fight against climate change, is considered one of the objectives of common interest for the EU which may, under certain circumstances, justify the granting of State aid.

Specific "Community Guidelines on State aid for Environmental Protection"⁷ have been established. The Guidelines foresee in particular the possibility to authorise the following types of State aid under certain conditions:

- Aid for undertakings which go beyond EU environmental standards or which increase the level of environmental protection in the absence of EU standards
- Aid for early adaptation to future EU standards
- Aid for energy saving
- Aid for renewable energy sources
- Aid for high-efficient cogeneration
- Aid for energy-efficient district heating (DH).

Directive 2003/96/EC on the taxation of energy products and electricity establishes EU-wide rules for the taxation of energy products used as motor or heating fuel, taxes on energy consumption, and common

⁷ Official Journal No C 82, 1.4.2008, p.1.

minimum levels of taxation. Under certain conditions the Directive allows for exemptions or reductions to promote renewable sources of energy.

Thus, the tax exemptions allowed under this directive further promote the objectives of the Kyoto Protocol.

b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies

There is no clear definition of environmentally unsound and unsafe technologies. However, in the context of the Kyoto Protocol, unsound and unsafe technologies could be interpreted as those increasing GHG emissions.

Council Regulation (EC) No 1407/2002 on State Aid to the Coal Industry lays down rules for granting state aid with the aim of contributing to restructuring of the coal industry. The regulation expires at 31st December 2010. The provision of state aid is limited to the following activities:

- Aid for reduction of activity where the production units receiving aid from part of a closure plan with a final deadline of 31 December 2007;
- Aid for maintaining access to coal reserves;
- Aid to cover exceptional costs arising from rationalisation and restructuring that are not related to current production such as environmental rehabilitation and social costs.

The authorised aid has to follow a downward trend and for the EU 15 it shall not exceed for any year after 2003 the amount authorised for 2001. A separate baseline of aid authorised in 2004 is set as the ceiling for the ten new Member States. Thus, state aid provided to the coal industry has to be and is being continuously reduced. Where aid is provided under this regulation it must not result in delivered prices for the EU coal being lower than the prices of coal of similar quality from third countries. In this respect the state aid provided will not have adverse economic impacts on developing countries being coal exporters.

The phase-out of subsidies to fossil fuel production and consumption by 2010 was also one of the objectives in the Communication from the Commission “A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission's proposal to the Gothenburg European Council, 2001)”⁸

c) Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end;

The technological development of non-energy uses of fossil fuels is not a current research priority in the EU, nor a priority of cooperation with developing countries because the EU is not a major producer of oil and gas. Given the long-term depletion of fossil fuel resources and the decline in coal production, the EU's priority in general is the replacement of the use of fossil fuels by renewable resources.

d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort;

In March 2005, the EU and China signed an Action Plan on Clean Coal, which included cooperation on carbon capture and storage. The subsequent 2005 EU-China Summit established the EU-China Climate

⁸ See http://eurlex.europa.eu/LexUriServ/site/en/com/2001/com2001_0264en01.pdf

Change Partnership, which includes a political commitment to develop and demonstrate in China and the EU advanced, near-zero emissions coal (NZEC) technology through carbon capture and storage (CCS) by 2020. Phase I of this cooperation will be completed in 2009. Phase II of NZEC will run from 2010-2012. It will examine the site-specific requirements for and define in detail a demonstration plant and accompanying measures.

It will include the technical and cost analysis of different options. Based on this analysis, the site of the power plant as well as the combustion technology (pulverised coal or IGCC), the capture technology and the transport and storage concepts will be determined. Phase II shall also include a detailed roadmap for the construction and operation of the demonstration plant as well as an Environmental Impact Assessment of the demonstration power plant and the carbon storage site. Phase III should commence thereafter and will see the construction and operation of a commercial-scale demonstration plant in China.

The Communication from the Commission entitled “Demonstrating Carbon Capture and Geological Storage (CCS) in emerging developing countries: financing the EU-China Near Zero Emissions Coal Plant project” from June 2009 sets out the plan of the European Commission to establish an investment scheme to co-finance the construction and operation of a power plant to demonstrate carbon capture and storage (CCS) technology in China. This investment scheme could serve as a model for other technology cooperation activities between developed countries and emerging/developing countries in the context of a post-2012 climate change agreement.

The EU is also cooperating with other Annex I and Non-Annex I Parties (Brazil, Saudi Arabia, China, Colombia, India, Korea, Mexico and South Africa) in the “Carbon Sequestration Leadership Forum (CSLF)”. The CSLF is a Ministerial-level international climate change initiative that is focused on the development of improved cost-effective technologies for the separation and capture of carbon dioxide (CO₂) for its transport and long-term safe storage. The mission of the CSLF is to facilitate the development and deployment of such technologies via collaborative efforts that address key technical, economic, and environmental obstacles. The CSLF will also promote awareness and champion legal, regulatory, financial, and institutional environments conducive to such technologies.⁹

e) Strengthening the capacity of developing country Parties identified in Article 4, paragraph 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, talking into consideration the need to improve the environmental efficiency of these activities.

In the oil and gas industry the upstream sector is a term commonly used to refer to the exploration, drilling, recovery and production of crude oil and natural gas. The downstream sector includes the activities of refining, distillation, cracking, reforming, blending storage, mixing and shipping and distribution. The EU contributes to strengthening of the capacities of fossil fuel exporting countries in the areas of energy efficiency via the work of the Energy Expert Group of the Gulf Cooperation Council (GCC)¹⁰, in particular in the working sub-group on energy efficiency. As part of the EU’s research programme, a project called “EUROGULF” was launched with the objective of to analyse EU-GCC relations with respect to oil and gas issues and propose new policy initiatives and approaches to enhance cooperation between the two regional groupings.

The European e-network on clean energy technologies, currently under development as part of the EU’s research and development, is also aiming at the objective: promote research and technical development of clean energy technologies in the GCC countries. The Commission has recently started a project with the specific objective to create and facilitate the operation of an EU-GCC Clean Energy Network during the

⁹ See <http://www.cslforum.org/> for more specific information

¹⁰ The Gulf Cooperation Council covers Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

next three years. The network is to be set up to act as a catalyst and element of coordination for development of cooperation on clean energy.

Energy efficiency activities in the upstream or downstream sector are also candidates for CDM projects. Thus, the development of the CDM under the Kyoto Protocol and the demand of CERs by Annex I Parties under the Kyoto Protocol as well as by operators under the EU ETS have fostered such activities performed by the private sector. Related CDM projects are for example:

- Rang Dong Oil Field Associated Gas Recovery and Utilization Project in Vietnam: The purpose of this project activity is the recovery and utilization of gases produced as a by-product of oil production activities at the Rang Dong oil field in Vietnam with the involvement of ConocoPhillips (UK).
- Recovery of associated gas that would otherwise be flared at Kwale oil-gas processing plant in Nigeria involves the capture and utilization of the majority of associated gas previously sent to flaring at Kwale OGPP plant. The Kwale OGPP plant receives oil with associated gas from oil fields operated by Eni Nigeria Agip Oil Company.
- Recovery and utilization of associated gas produced as by-product of oil recovery activities at the Al-Shaheen oil field in Qatar
- Flare gas recovery and utilisation project at Uran oil and gas processing plant in India which is handling the oil and gas produced in the Mumbai High offshore oil field.
- Flare gas recovery and utilisation project at Hazira gas and condensate processing plant in India.
- Flare gas recovery and utilisation project from Kumchai oil field in India
- Flare gas recovery and utilisation project at the Ovade-Ogharefe oil field operated by Pan Ocean Oil Corporation in Nigeria
- Flare gas recovery and utilisation project at Soroosh and Nowrooz offshore oil fields in Iran.
- Leak reduction in aboveground gas distribution equipment in the KazTransgaz-Tbilisi gas distribution system in Georgia where leakages at gate stations, pressure regulator stations, valves, fittings as well at connection points with consumers are reduced.
- There are currently 21 Coal Mine Methane Utilization Project in China which use coalmine methane previously released to the atmosphere.

Improved energy efficiency in the energy and the transport sector in a more general way is one of the priorities in the EU's development assistance as well as for the EIB (European Investment Bank) and the EBRD (European Bank for Reconstruction and Development). Related projects and specific activities can be found for example at <<http://www.eib.org/projects/topics/environment/renewableenergy/index.htm>> or <<http://www.ebrd.com/country/sector/energyef/>>

f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

The EU actively undertakes a large number of activities aiming at reducing dependence on the consumption of fossil fuels, in particular the EU support activities for the promotion of renewable energies and energy efficiency in developing countries contribute to reduction of dependence on fossil fuels, meeting rural electricity needs, and the improvement of air quality. As explained in more detail in Chapter 8 of the EU's 5th national communication, several support programmes exist in this respect. These include:

- *Renewable energy cooperation with the Mediterranean and Gulf countries*

The major objective of the cooperation between the EU and the Mediterranean and Gulf countries in the field of renewable energy is to contribute to sustainable energy and climate mitigation and to develop an integrated and interconnected 'Green Energy Market'.

Several initiatives are already being developed by the European Union in cooperation with the partners in the Gulf region to boost energy as well as renewable energy development. This includes the EU-GCC (Gulf Cooperation Council) Energy Expert Group, which started working at the beginning of 1990s and the EU-GCC Climate Change Expert Group that has met on a regular basis since 2007. In 2009 EU and GCC partners agreed on extending energy cooperation and more specifically on establishing an EU-GCC clean energy network thus bringing together the relevant EU and GCC stakeholders. The European Commission will support the establishment of a network of key actors from public and private sectors in the EU and the GCC with a view to deepening cooperate on clean energy. This network will act as a facilitator and identify projects in fields of common interest, such as solar and other renewable energies.

Given the importance of research to further development of renewable energy in the GCC region, the Commission is also contributing to the establishment of a specific large-scale platform to foster international R&D cooperation with partners of the Gulf region.

The expansion and deployment of renewable energy is currently a key element in cooperation between the EU and the Mediterranean countries. The most important initiative is the Mediterranean Solar Plan, endorsed in 2008. The objective is the creation of 20 GW of new generation capacity in solar and other renewable energy sources around the Mediterranean Sea by 2020. The Regional Centre of Excellence for Renewable Energy and Energy Efficiency (RCREEE) facilitates development of renewable energy sources and promotion of energy efficiency measures in the Southern Mediterranean partner countries. Since 2008, when the centre was established in Cairo, the European Union has provided a financial contribution to enable the launch and initial operation of the Centre.

Bearing in mind the importance of the infrastructures necessary for deployment and exports of green energy, the EU is contributing to the Maghreb Electricity Market Integration Project (IMME). The objective is to create a sub-regional electricity market between Morocco, Tunisia and Algeria and its progressive integration with the EU's electricity market. The Commission has so far provided a support of Euro 5.6 Euro million. These are only some examples from the cooperation with the Mediterranean countries.

- *Africa, Caribbean and the Pacific (ACP-) Energy Facility*

The ACP-EU Energy Facility is a contribution under the EU Energy Initiative to increase access to energy services for the poor. The Facility was approved by the joint ACPEU Council of Ministers in June 2005, with an amount of Euro 200 million. The main activity of the Facility is to co-finance projects that deliver energy services to poor rural areas.

The Energy Facility was mainly implemented through a € 198 million Call for Proposals which was launched in June 2006. Out of 307 proposals received, 74 projects have been contracted by the end of 2008 for a total amount of cost of € 430 million.

The main activities performed through Energy Facility projects can be classified into three different groups: (1) energy production, transformation and distribution, (2) extension of existing electricity grids and (3) "soft" activities such as governance, capacity building or feasibility studies. The sources of energy used for electricity generation were mainly renewable energies (77 % of the projects). Only one project using exclusively fossil fuels was funded. In total, € 81 million of commitments have been marked as climate change related under the Energy Facility, covering support to enhance use of renewable energies or increase energy efficiency. A replenishment of the ACP-EU Energy Facility has been decide under the

10th European Development Fund for the period of 2009-2013. Endowed with € 200 million, it will focus on improving access to safe and sustainable energy services in rural and peri-urban areas. The new Energy Facility will also contribute to the fight against climate change by emphasizing the use of renewable energy sources and energy efficiency measures and by taking into account impacts of climate change on energy systems. The new Facility would start being implemented by the end of 2009.

- *Euro-Solar Programme in Latin America*

The Euro-Solar Programme is aiming to reduce poverty, allowing remote rural communities currently without access to electricity, to benefit from renewable electric energy. Approved in May 2006 and extended in December 2008, the Programme's total budget amounts to € 35.8 million, of which € 6.9 million will be provided by the Programme's eight beneficiary countries.

- *Latin America Investment Facility (LAIF)*

The European Commission plans to establish the Latin America Investment Facility (LAIF). The LAIF will focus on energy, environment and transport investment, contributing to cleaner transport infrastructure, improved energy efficiency and energy savings, the use of renewable energy, low-carbon production and of climate change adaptation technologies.

The LAIF will operate by providing financial non-refundable contributions to support loans to partner countries from the European Investment Bank (EIB) and other European, multilateral and national, development finance institutions and will encourage the beneficiary governments and public institutions to carry out essential investments in the relevant sectors. The contribution of the Commission to the LAIF will be decided annually. For the year 2009, the Commission will allocate a budget of € 10.85 million.

- *Global Energy Efficiency and Renewable Energy Fund (GEEREF)*

The European Commission has launched an innovative pilot instrument to involve the private sector. The Global Energy Efficiency and Renewable Energy Fund (GEEREF), launched in 2007, is focused on energy efficiency and renewable energy projects in developing countries and economies in transition. GEEREF invests in regionally-orientated investment schemes and prioritizes small investments below € 10 million. In December 2008, the GEEREF Investment Committee approved two funds, and the first investments of a total value of €22.5 million were carried out in 2009 focusing on projects in Sub-Saharan and Southern Africa and in Asia:

- € 12.5 million investment in Bekerley Energy's Renewable Energy Asia Fund (REAF) for operationally and economically mature wind, hydro, solar, biomass, geothermal and methane recovery projects in India, Philippines, Bangladesh and Nepal.
- € 10 million investment in the Evolution One Fund, dedicated to clean energy investment in Southern Africa (SADC countries).

In the regions where the two funds operate, there is a lack of equity investment available through the market for these types of projects. It is envisaged that GEEREF will invest in regional sub-funds for the African, Caribbean and Pacific (ACP) region, Neighbourhood, Latin America and Asia. Together the European Commission, Germany and Norway have committed about € 108 million to the GEEREF over the period 2007-2011, the majority of which is provided by from the EU budget. It is envisaged that further financing from other public and private sources will be forthcoming. In 2007, the EU budget contributed € 5 million toward a support facility for the GEEREF and a further € 25 million in form of grants.

The EU also supports developing countries in diversifying their economies. However these activities are not limited to fossil fuel exporting countries, but open to all developing countries based on partnership

agreements such as the ACP-EU Partnership Agreement. Within this partnership agreement there are five areas of EU intervention for private sector development which are:

- • 1. The creation of enabling environment
- • 2. The promotion of investment and inter-enterprise co-operation
- • 3. Investment financing and development of financial markets
- • 4. Business Development Services
- • 5. Support for micro-enterprises (especially through the development of an effective microfinance market)

More specific information related to these activities can be obtained at:

http://ec.europa.eu/europeaid/where/acp/sectorcooperation/economic-growth/index_en.htm

9. Estonia

Annual inventory submission 2010

15.1. Information on how the Estonia is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention

European Union (EU) has agreed a forward-looking political agenda to achieve its core energy objectives of sustainability, competitiveness and security of supply, by reducing greenhouse gas emissions by 20%, increasing the share of renewables in the energy consumption to 20% and improving energy efficiency by 20%, all of it by 2020. Two major EU Directives, the Directive on the promotion of the use of renewable energy (Directive 2009/28/EC) and as well as the extension of the EU emission trading scheme to the aviation sector (Directive 2008/101/EC) are more related with potential impacts on third countries.

Inclusion of aviation in the EU Emission Trading Scheme

Aviation contributes to global climate change, and its contribution is increasing. Even though there has been significant improvement in aircraft technology and operational efficiency this has not been enough to neutralise the effect of increased traffic, and the growth in emissions is likely to continue in the decades to come. Aircraft operators from developing countries will be affected to the extent they operate on routes covered by the EU Emissions Trading Scheme. At the moment Estonia is not Administrative Member State for any aircraft operators from third countries but this might change in the future. Aircraft operators from developing countries will be affected to the extent they operate on routes covered by the EU Emission Trading Scheme. In terms of the economic impacts, aircraft operators with higher market share on the routes covered will have to pay larger proportion of the compliance costs.

Promotion of renewable energy

The Directive on renewable energy (Directive 2009/28/EC), a part of the EU's climate and energy package, sets ambitious targets for all Member States including Estonia.

Estonia supports regional and international development measures, encourages the exchange of best practices in production of energy from renewable sources between regional and international development initiatives and promotes the use of structural funding. For promoting the use of biomass and bio-energy, the Government approved in January 2007 the Development Plan 2007–2013 for Enhancing the Use of Biomass and Bioenergy. The objective of the plan is to create favourable conditions for the development of biomass and bio-energy production.

Co-operation projects with developing countries

One priorities of development co-operation in Estonia as stated in the Development Plan for Estonian Development co-operation and humanitarian aid 2006–2010 is supporting sustainable development and achieving internationally set environmental standards in developing countries.

Under this priority Estonia funds and implements bilateral development co-operation projects for supporting the development of environmental protection institutions, in particular in the field of water resource management and forestry.

In 2008 Estonia supported the following projects:

- Promoting integrated transboundary water management and stakeholder participation in Moldova with the help of Estonian expertise (20,365 EUR);

- Estonian-Moldovan co-operation project on forestry database development (2,342 EUR)
- Transfer of Estonian experience in establishing innovation support structures and making the technology transfer function to Georgian civil servants, representatives of research and development institutions and private enterprises (63,819 EUR)

Other method of supporting developing countries is through support of international environmental organisations – the United Nations Environment Programme and the Global Environment Fund – in their activities in supporting environmentally friendly development in developing countries.

In 2008 the contributions for these projects were 32,820 EUR and for 2009 the contribution is estimated to be 27,918 EUR.

15.2. Information on how Estonia gives priority, in implementing the commitments under Article 3, paragraph 14, to specific actions

Estonia reports activities that are related to the actions specified in the subparagraphs (a) to (f) of paragraph 24 of the reporting requirements in the Annex to decision 15/CMP.1.

a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities

Several fiscal measures have been introduced in Estonia to support sustainable energy consumption and reduce GHG emissions. For example excise duties on fuels and pollution charges. Current tax rates are stipulated in the Alcohol, Tobacco, Fuel and Electricity Excise Duty Act. The Environmental Charges Act (enforced in 2006) obliges the owners of combustion equipment to pay pollution charges for several pollutant emissions (e.g. sulphur dioxide, nitrogen oxides, etc.). At present, the CO₂ charge has to be paid by all enterprises producing heat, excluding firing biomass, peat or waste.

Estonia as a Member State of the EU has to comply with the EU requirements (Directive 2003/96/EC) for the taxation of fuels and energy. Estonia has been granted some transitional time for the introduction of relevant taxes. Regarding shale oil (oil produced from oil shale), Estonia is eligible to apply a transitional period until 1 January 2010 for adjusting the national level of taxation on shale oil used for district heating purposes to the EU minimum level of taxation. Estonia has already introduced the tax on shale oil.

Also the tax exemption for natural gas (methane) is permitted by Directive 2003/96/EC, which allows an exemption on natural gas in those Member States where the share of natural gas in energy end-use was less than 15% in 2000. The exemption applies for a maximum of ten years after the directive's entry into force or until the national share of natural gas in energy end-use reaches 25%, whichever comes first. Estonia imposed excise duty on natural gas on 1 January 2008.

More information about tax system and fiscal measures is presented in Estonia's Fifth National Communication under the UNFCCC and Kyoto Protocol.

b) Removing subsidies associated with the use of environmentally unsound and unsafe Technologies

No subsidies for environmentally unsound and unsafe technologies have been implemented. Estonia's tax system is presented shortly above (Paragraph 24a) and through this tax system Estonia promotes sustainable production and technologies. For instance according to the Environmental Charges Act (enforced in 2006) the CO₂/t pollution charge has been doubled between 2006 and 2009.

c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end

Estonia does not have any support activities in this field.

d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non- Annex I Parties in this effort

Estonia has done research for of enhancing technologies that emit less greenhouse gases but at the moment there is no cooperation with developing countries in this field.

e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

Estonia's development policy supports low carbon and sustainable development but at the moment there is no cooperation with developing countries in this field.

f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies

Estonia contributes 1,000,000 EUR over the years 2008-2010 to the Neighbourhood Investment Facility Trust Fund. Trust Fund supports strengthening of infrastructure interconnections between the EU and its neighbours in the areas of transport and energy, addressing common environmental concerns and supports other relevant activities. Estonia earmarked its contribution to the Eastern region of European Neighbourhood and Partnership Instrument (including Georgia and Republic of Moldova).

10. European Union

Annual inventory submission 2010

1.1 Information on how the EU is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

In this section the EU provides information on how it is implementing its commitment under Article 3, paragraph 14 of the Kyoto Protocol, i.e. how it is striving to implement its commitment under Article 3, paragraph 1 of the Kyoto Protocol in such a way as to minimize potential adverse social, environmental and economic impacts on developing countries. In order to strive for such a minimization, an assessment of potential positive and negative impacts – both of direct and indirect nature - is necessary with a double objective to maximize positive impacts and to minimize adverse impacts. The EU is well aware of the need to assess impacts, and has built up thorough procedures in line with our obligations. This includes bilateral dialogues and different platforms in which we interact with third countries, explain new policy initiatives and receive comments from third countries.

Impacts on third countries are mostly indirect and can frequently neither be directly attributed to a specific EU policy, nor directly measured by the EU in developing countries. Therefore, the reported information covers potential adverse social, environmental and economic impacts that result from complex assessments of indirect influences and that are based on accessible data sources in developing countries.

Impact assessment of EU policies

In the EU a wide-ranging impact assessment system accompanying all new policy initiatives has been established. This regulatory impact assessment is a key element in the development of the Commission's legislative proposals. The Commission is required to take the impact assessment reports into account when taking its decisions, while the impact assessments are also presented and discussed during the scrutiny of legislative proposals from the Council and the Parliament. This approach ensures that potential adverse social, environmental and economic impacts on various stakeholders (in the case on developing country Parties) are identified and minimized within the legislative process. In general, impact assessments are required for all legislative proposals, but also other important Commission initiatives which are likely to have far-reaching impacts. Below the impact assessment process implemented in the EU policy making is explained in more detail in order to better demonstrate how the EU is striving for all strategies and policies to minimize their adverse impacts. Specific guidelines for the impact assessment have been adopted (European Commission 2009).

The Impact Assessment Guidelines specifically address impacts on third countries and also issues related to international relations. In this area the following questions have to be assessed:

- Trade relations with third countries: some policies may affect trade or investment flows between the EU and third countries; the impact assessment should analyse how different groups (foreign and domestic businesses and consumers) are affected, and help to identify options which do not create unnecessary trade barriers.
- Impact on WTO obligations: it should be analysed which impact each proposed policy option has on the international obligations of the EU under the WTO Agreement; the impact assessment should examine whether the policy options concern an area in which international standards exist.
- Impacts on developing countries: initiatives that may affect developing countries should be analysed

for their coherence with the objectives of the EU development policy. This includes an analysis of consequences (or spill-overs) in the longer run in areas such as economic, environmental, social or security policies.

Key economic questions to be assessed in relation to third countries are:

- How does the policy initiative affect trade or investment flows between the EU and third countries? How does it affect EU trade policy and its international obligations, including in the WTO?
- Does the option affect specific groups (foreign and domestic businesses and consumers) and if so in what way?
- Does the policy initiative concern an area in which international standards, common regulatory approaches or international regulatory dialogues exist?
- Does it affect EU foreign policy and EU development policy?
- What are the impacts on third countries with which the EU has preferential trade arrangements?
- Does it affect developing countries at different stages of development (least developed and other low-income and middle income countries) in a different manner?
- Does the option impose adjustment costs on developing countries?
- Does the option affect goods or services that are produced or consumed by developing countries?

Key questions on social impacts in third countries are:

- Does the option have a social impact on third countries that would be relevant for overarching EU policies, such as development policy?
- Does it affect international obligations and commitments of the EU arising from e.g. the ACP-EU Partnership Agreement or the Millennium Development Goals?
- Does it increase poverty in developing countries or have an impact on income of the poorest populations?

Key questions on environmental impacts in relation to third countries are:

- Does the option affect the emission of greenhouse gases (e.g. carbon dioxide, methane etc) into the atmosphere?
- Does the option affect the emission of ozone-depleting substances (CFCs, HCFCs etc)?
- Does the option affect our ability to adapt to climate change?
- Does the option have an impact on the environment in third countries that would be relevant for overarching EU policies, such as development policy?

If third countries are likely to be affected, the impact assessment should analyse in greater detail what the specific impacts may be, how undesired effects can be avoided or minimised, or mitigated, how the policy options compare in this respect and what trade-offs have to be addressed in the final policy choice.

Consulting interested parties is an obligation for every impact assessment and all affected stakeholders should be engaged, using the most appropriate timing, forma and tools to reach them. Appropriate consultation tools can be consultative committees, expert groups, open hearings, ad hoc meetings,

consultation via Internet, questionnaires, focus groups or seminars/workshops. Existing international policy dialogues are also be used to keep third countries fully informed of forthcoming initiatives, and as a means of exchanging information, data and results of preparatory studies with partner countries and other external stakeholders.

The EU's recent 5th national communication provides a detailed overview of the European policies and measures to mitigate GHG emissions in all sectors. All key strategies and climate policies have been subject to impact assessments as described above. All impact assessments and all opinions of the Impact Assessment Board are published online (see http://ec.europa.eu/governance/impact/ia_carried_out/cia_2010_en.htm). In addition to the general approach described above to address adverse social, environmental and economic impacts, more specific ways to minimize impacts depend on the respective policies and measures implemented. As the reporting obligation related to Article 3, paragraph 14 does not include an obligation to report on each specific mitigation policy, the EU chooses the approach to provide some specific examples for a more complete overview on the ways how the EU is striving to minimize adverse impacts.

Two major EU policies, the Directive on the promotion of the use of renewable energy (Directive 2009/28/EC as well as the extension of the EU emission trading scheme (ETS) to the aviation sector (Directive 2008/101/EC) are presented in more detail as examples in this chapter, because the related impact assessments identified potential impacts on third countries.

Directive on the promotion of the use of renewable energy - Promotion of biomass and biofuels

The Directive on renewable energy (Directive 2009/28/EC), a part of the EU's climate and energy package, sets ambitious targets for all Member States, such that the EU will reach a 20% share of energy from renewable sources in the overall energy consumption by 2020 (with individual targets for each Member State) and a 10% share of renewable energy specifically in the transport sector, which includes biofuels, biogas, hydrogen and electricity from renewables. Biomass is one of the renewable energy sources promoted by this directive and biofuels will be important for the achievement of the renewable target in the transport sector.

The impact assessments related to enhanced biofuel and biomass use in the EU showed that the cultivation of energy crops have both potential positive and negative impacts. Positively, as the growing of EU demand for bioenergy generates new export revenues and employment opportunities for developing countries and boosts rural economies. Thus there could be clear economic and social benefits. At the same time, the new EU energy crop demand could increase the impact on biodiversity, soil and water resources and can have positive as well as negative effects on air pollutants. The extent of carbon reduction and other environmental effects from the promotion of biofuels can vary according to the feedstock employed, the way the feedstock and the biofuels are produced, how they are transported and how far. Growing future demand for biomass feedstock combined with growing global food consumption could add to the agricultural sector's pressure on land use and result in adverse land use change.

To address the risk of such adverse impacts, Article 17 of the EU's Directive on renewable energy sources creates pioneering "sustainability criteria", applicable to all biofuels (biomass used in the transport sector) and bioliquids. The sustainability criteria adopted are:

- establish a threshold for GHG emission reductions that have to be achieved from the use of biofuels;
- exclude the use of biofuels from land with high biodiversity value (primary forest and wooded land, protected areas or highly biodiverse grasslands),
- exclude the use of biofuels from land with high C stocks, such as wetlands, peatlands or continuously forested areas.

Developing country representatives as well as other stakeholder were extensively consulted during the development of the sustainability criteria and preparation of the directive and the extensive consultation process has been documented.

The Directive also ensures that the Commission will report every two years, in respect to both third countries and Member States which constitute a significant source of biofuels or of raw material for biofuels consumed within the Union, on national measures taken to respect the sustainability criteria for soil, water and air protection.

The criteria pursuant to Article 17 apply to biofuels and bioliquids, not to solid biomass which is also promoted by the Directive. With regard to the energy use of all biomass forms, Article 17, paragraph 9 of the Directive requires the Commission to report on “*requirements for a sustainability scheme for energy uses of biomass, other than biofuels and bioliquids, by 31 December 2009.*” A Commission communication on biomass sustainability including an impact assessment is forthcoming.

The Directive also required the Commission to examine and report on the potential adverse impact of biomass consumption and the need for sustainability criteria. This report and associated impact assessment addresses these issues (http://ec.europa.eu/energy/renewables/transparency_platform/transparency_platform_en.htm) and finds that as the overwhelming bulk of biomass energy is derived from European sources there is no need for sustainability criteria.

The Commission will also report on biofuels' potential indirect land use change effect and the positive and negative impact on social sustainability in the Union and in third countries, including the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues. Reports shall address the respect of land-use rights. The first reports will be submitted in 2012.

The EU's biofuel sustainability criteria form the first global initiative to address the climate change and sustainability issues surrounding crop production.

The biofuels scheme, by imposing environmental standards and requiring high greenhouse gas savings (35% rising to 60%), put also pressure on the production of the raw materials used for other purposes. Some examples of voluntary sustainability scheme out of the biofuels field are in the pipeline.

Any negative economic aspects will also be monitored by the Commission. In addition, Article 18(4) of the Directive provides that the Community shall endeavour to conclude bilateral or multilateral agreements with third countries containing provisions on sustainability criteria that correspond to those of this Directive. Where the Community has concluded agreements containing provisions relating to matters covered by the sustainability criteria set out in Article 17(2) to (5), the Commission may decide that those agreements demonstrate that biofuels and bioliquids produced from raw materials cultivated in those countries comply with the sustainability criteria in question.

In addition to the sustainability criteria, several initiatives have been taken to better channel and control biofuel and biomass expansion and thereby mitigate the most serious effects. With respect to palm oil production, the Roundtable on Sustainable Palm Oil (RPSO), an initiative by WWF, producers, traders and other NGOs, has recently announced the adoption of a set of criteria for the responsible production of palm oil, which would allow palm oil production without affecting the sustainability of tropical forests and endangered species. Other similar private and public initiatives will follow for other sectors and regions.

Another way the EU will strive to minimize potential adverse impacts of biomass use is to promote second generation biomass technologies. Within the renewable energy Directive, second generation biofuels are promoted through Article 21, paragraph 2 which establishes that the contribution made by

biofuels produced from wastes, residues, non-food cellulosic material, and ligno-cellulosic material shall be considered to be twice that made by other biofuels for the purposes of demonstrating compliance with national renewable energy targets; and EU research also has a major focus on bioenergy technologies. The goal of second generation biofuel processes is to extend the amount of biofuel that can be produced sustainably by using biomass consisting of the residual non-food parts of current crops, such as stems, leaves and husks that are left behind once the food crop has been extracted, as well as other crops that are not used for food purposes (non food crops) and also industry waste such as woodchips, skins and pulp from fruit pressing. Second generation biofuels are expected to expand the biomass feedstock available for biofuel production. Further research and impact assessments in this area are necessary to assess e.g. the long-term effects of the energy use of non-food parts of crops compared to their existing use.

Inclusion of aviation in the EU emission trading scheme

In 2005 the Commission adopted a Communication entitled "Reducing the Climate Change Impact of Aviation", which evaluated the policy options available to this end and was accompanied by an impact assessment. The impact assessment concluded that, in view of the likely strong future growth in air traffic emissions, further measures are urgently needed. Therefore, the Commission decided to pursue a new market-based approach at EU level and included aviation activities in the EU's scheme for greenhouse gas emission allowance trading. The finally adopted legislation was the result of an extensive stakeholder consultation including an internet consultation and an Aviation Working Group of experts set up as part of the European Climate Change Programme that identified the integration of aviation in the EU ETS as the lowest cost option to address the challenge of reducing emissions from this sector. The impact assessment also specifically addressed the effects on developing countries (European Commission 2006).

Aircraft operators from developing countries will be affected to the extent they operate on routes covered by the scheme. Data from Eurocontrol on the nationality of operators has been used to make an estimate of the aggregated costs for third country airlines from regions that include developing countries. As operators from third countries generally represent a limited share of emissions covered, the impact is also modest. For example, the total additional operating costs for all operators based in Africa would, at current activity levels, vary from €2 to €35 million per year depending on allowance prices and the share of allowances auctioned. In terms of the economic impacts, a larger proportion of the compliance costs would naturally be borne by carriers from Annex I countries as they generally have a higher market share on the routes covered. However, carriers from developing countries that are able to operate in competition with Annex I carriers on such routes would need to be covered in order to avoid a) distortions of competition and b) discrimination as to nationality in line with the Chicago Convention.

For carriers with relatively old and inefficient fleets the impact may be higher as the effective proportion of allowances acquired for free through benchmarking is lower. However, as third country airlines would generally only have a fraction of their fleet operating in Europe, they may in some cases be able to reduce any negative effects by shifting their most efficient aircraft to operate on routes covered by the scheme.

To the extent that aviation's inclusion in the EU ETS creates additional demand for credits from JI and CDM projects, there will also be indirect positive effects as such projects imply additional investments in clean technologies in developing countries.

Similarly, additional finance for climate change mitigation and adaptation in developing countries should be raised through the auction of emissions allowances by EU Member States. The legislation provides a list of such areas by which the Member State should use the monies raised, and specifically mentions use for adaptation in developing countries.

There are further opportunities for developing countries to increase the demand for both CDM credits and future forms of sectoral mechanisms. The EU ETS legislation anticipates that third countries will take equivalent measures covering all flights departing their territory for the EU. In such circumstances, when equivalent measures are taken, the scope of the EU scheme can be reduced with the exclusion of these

flights. Developing countries can thus benefit from additional demand for credits over and above the quantity that is allowed already for compliance by participants in the EU ETS.

1.2 Information on how the EU gives priority, in implementing the commitments under Article 3, paragraph 14, to specific actions

The EU reports activities that are related to the actions specified in the subparagraphs (a) to (f) of paragraph 24 of the reporting requirements in the Annex to decision 15/CMP.1. However, no decision was agreed yet that these actions form part of the commitment under Article 3, paragraph 14. For some of the actions specified in the reporting requirements, it seems rather unclear how they relate to the minimization of adverse social, environmental and economic impacts resulting from policies and measures to mitigate GHG emissions, e.g. information related to the cooperation activities requested are activities that help both Annex I and Non-Annex I Parties in reducing emissions from fossil fuel technologies, but they do not directly address the minimization of potential adverse impacts in Annex I Parties.

For the purposes of completeness in reporting, the EU addresses all subparagraphs specified in the reporting requirements, however the main ways how the EU is striving to minimize adverse impacts are described in the previous section.

1.2.1 The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.

The actions addressed in subparagraph a) also form part of the commitment to implement policies and measures requested under Article 2, paragraph 1(a) (v), however Article 2 specifies that Annex I Parties shall “implement and/or further elaborate policies and measures in accordance with national circumstances, such as progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention and application of market instruments.” Subparagraph a) in the reporting requirements lacks such objective and therefore seems somewhat inconsistent with the commitment under Article 2. The promotion of research, demonstration projects, fiscal incentives or carbon taxes is important instrument to advance the objectives of the Convention, e.g. the use of renewable energies. A progressive reduction of all fiscal incentives or subsidies in all GHG emitting sectors would run counter the objective of the Convention and counter the ability of the EU to meet its commitment under Article 3, paragraph 1 of the Kyoto Protocol. Therefore the EU interprets this reporting requirement in a way consistent with Article 2 paragraph 1(a)(v) that the EU should focus on the progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies that run counter the objectives of the Convention and application of market instruments.

The 2009 Review of the EU Sustainable Development Strategy assesses that *“the Commission has been mainstreaming the progressive reform of environmentally harmful subsidies into its sectoral policies”*. For instance, environmental concerns have been gradually incorporated into the EU Common Agricultural Policy, including “decoupled” direct payments which have replaced price support; environmental cross compliance; a substantial increase in budget for rural development. As part of 2008 Common Agriculture Policy Health Check, additional part of direct aid has been shifted to climate change, renewable energy, water management, biodiversity, innovation; - transparency of agricultural subsidies has improved. It is important to note that in the other areas most subsidies are within the competence of the Member States and not of the EU, within the limits established by EU state aid rules.

EU policies aim to address market imperfections and to reflect externalities. For example the EU has made significant efforts to liberalise the internal energy market and to create a genuine internal market for energy as one of its priority objectives. The existence of a competitive internal energy market is a

strategic instrument both in terms of giving European consumers a choice between different companies supplying gas and electricity at reasonable prices, but also in terms of making the market accessible for all suppliers, especially the smallest and those investing in renewable forms of energy.

With the implementation of the EU Emissions Trading Scheme, the EU uses a market instrument to implement the objective of the Convention and its commitment under Article 3, paragraph 1 of the Kyoto Protocol which aims at creating the right incentives for forward looking low carbon investment decisions by reinforcing a clear, undistorted and long-term carbon price signal.

With respect to financial support provided by the Member States to undertakings, the EU Treaty pronounces a general prohibition of "State aid". This concept encompasses a broad range of financial support measures adopted at national or sub-national level (i.e. not at EU level), and which can take various forms (subsidies, tax relieves, soft loans...). The Treaty provides for exceptions to this general prohibition. When State aid measures can contribute in an appropriate manner to the furtherance of objectives of common interest for the EU, and provided that they comply with certain strict conditions, they may be authorised by the Commission. By complementing the fundamental rules through a series of legislative acts and guidelines, the EU has established a worldwide unique system of rules under which State aid is monitored and assessed in the European Union. This legal framework is regularly reviewed to improve its efficiency. EU State aid control is an essential component of competition policy and a necessary safeguard for effective competition and free trade.

State aid reform in the EU aims to redirect aid to objectives of common interest which are related to the EU Lisbon Treaty, such as R&D&I, risk capital measures, training, and environmental protection. Environmental protection, and in particular, the promotion of renewable energy and the fight against climate change, is considered one of the objectives of common interest for the EU which may, under certain circumstances, justify the granting of State aid.

Specific "Community Guidelines on State aid for Environmental Protection"¹¹ have been established. The Guidelines foresee in particular the possibility to authorise the following types of State aid under certain conditions:

- Aid for undertakings which go beyond EU environmental standards or which increase the level of environmental protection in the absence of EU standards
- Aid for early adaptation to future EU standards
- Aid for energy saving
- Aid for renewable energy sources
- Aid for high-efficient cogeneration
- Aid for energy-efficient district heating (DH).

Directive 2003/96/EC on the taxation of energy products and electricity establishes EU-wide rules for the taxation of energy products used as motor or heating fuel, taxes on energy consumption, and common minimum levels of taxation. Under certain conditions the Directive allows for exemptions or reductions to promote renewable sources of energy. Thus, the tax exemptions allowed under this directive further promote the objectives of the Kyoto Protocol.

1.2.2 Removing subsidies associated with the use of environmentally unsound and unsafe technologies

¹¹ Official Journal No C 82, 1.4.2008, p.1

There is no clear definition of environmentally unsound and unsafe technologies, therefore the EU interprets this provision in the context of the Kyoto Protocol that unsound and unsafe technologies would be those increasing GHG emissions.

Council Regulation (EC) No 1407/2002 on State Aid to the Coal Industry lays down rules for granting state aid with the aim of contributing to restructuring of the coal industry. The regulation expires at 31st December 2010. The provision of state aid is limited to the following activities:

- Aid for reduction of activity where the production units receiving aid from part of a closure plan with a final deadline of 31 December 2007;
- Aid for maintaining access to coal reserves;
- Aid to cover exceptional costs arising from rationalisation and restructuring that are not related to current production such as environmental rehabilitation and social costs.

The authorised aid has to follow a downward trend and for the EU 15 it shall not exceed for any year after 2003 the amount authorised for 2001. A separate baseline of aid authorised in 2004 is set as the ceiling for the ten new Member States. Thus, state aid provided to the coal industry has to be and is being continuously reduced as shown in Table Error! **No text of specified style in document..1**. Where aid is provided under this regulation it must not result in delivered prices for the EU coal being lower than the prices of coal of similar quality from third countries. In this respect the state aid provided will not have adverse economic impacts on developing countries being coal exporters.

Table Error! No text of specified style in document..1 State Aid 2003-2008; amounts actually granted by Member States or authorised by the Commission for the relevant year

(Million €)						
Country	2003	2004	2005	2006	2007	2008
Germany						
- current production aid	2639	2483	2114	1472	1347	727
- aid related to exceptional costs	780	556	602	882	994	1055
Spain						
- current production aid	569	340	502	467	448	434
- aid related to exceptional costs	550	573	582	345	359	373
France						
- current production aid	202	119	0	0	0	0
- aid related to exceptional costs	715	769	0	0	0	0
United Kingdom						
- investment aid	22	30	36	14	1	2
- aid related to exceptional costs	14	0	0	0	0	0
Poland						
- aid related to exceptional costs	903	913	369	60	87	169
Czech Republic						
- aid related to exceptional costs	n/a	15	15	15	15	0
Romania						
- current production aid	n/a	n/a	n/a	n/a	112	93
Hungary						
- current production aid	n/a	44	39	38	36	34
Slovakia						
- investment aid	n/a	n/a	2	4	3	3
- aid related to exceptional costs	3	2	3	3	3	3
Slovenia						
- aid related to exceptional costs	2	2	15	17	17	18
Total EU27						
	6399	5846	4279	3318	3422	2911
- current production aid	3410	2986	2655	1977	1943	1288
- investment aid	22	30	38	18	4	5
- aid related to exceptional costs	2967	2830	1586	1323	1475	1618

Source: European Commission

The phase-out of subsidies to fossil fuel production and consumption by 2010 was also one of the objectives in the Communication from the Commission “A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission's proposal to the Gothenburg European Council, 2001)”.¹²

¹² See http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001_0264en01.pdf

1.2.3 Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end;

The technological development of non-energy uses of fossil fuels is not a current research priority in the EU, nor a priority of cooperation with developing countries because the EU is not a major producer of oil and gas. Given the long-term depletion of fossil fuel resources and the decline in coal production, the EU's priority in general is the replacement of the use of fossil fuels by renewable resources.

1.2.4 Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort;

In March 2005, the EU and China signed an Action Plan on Clean Coal, which included cooperation on carbon capture and storage. The subsequent 2005 EU-China Summit established the EU-China Climate Change Partnership, which includes a political commitment to develop and demonstrate in China and the EU advanced, near-zero emissions coal (NZEC) technology through carbon capture and storage (CCS) by 2020. Phase I of this cooperation will be completed in 2009. Phase II of NZEC will run from 2010-2012. It will examine the site-specific requirements for and define in detail a demonstration plant and accompanying measures. It will include the technical and cost analysis of different options. Based on this analysis, the site of the power plant as well as the combustion technology (pulverised coal or IGCC), the capture technology and the transport and storage concepts will be determined. Phase II shall also include a detailed roadmap for the construction and operation of the demonstration plant as well as an Environmental Impact Assessment of the demonstration power plant and the carbon storage site. Phase III should commence thereafter and will see the construction and operation of a commercial-scale demonstration plant in China.

The Communication from the Commission entitled "*Demonstrating Carbon Capture and Geological Storage (CCS) in emerging developing countries: financing the EU-China Near Zero Emissions Coal Plant project*" from June 2009 sets out the plan of the European Commission to establish an investment scheme to co-finance the construction and operation of a power plant to demonstrate carbon capture and storage (CCS) technology in China. This investment scheme could serve as a model for other technology cooperation activities between developed countries and emerging/developing countries in the context of a post-2012 climate change agreement.

The EU is also cooperating with other Annex I and Non-Annex I Parties (Brazil, Saudi Arabia, China, Colombia, India, Korea, Mexico and South Africa) in the "Carbon Sequestration Leadership Forum (CSLF)". The CSLF is a Ministerial-level international climate change initiative that is focused on the development of improved cost-effective technologies for the separation and capture of carbon dioxide (CO₂) for its transport and long-term safe storage. The mission of the CSLF is to facilitate the development and deployment of such technologies via collaborative efforts that address key technical, economic, and environmental obstacles. The CSLF will also promote awareness and champion legal, regulatory, financial, and institutional environments conducive to such technologies.¹³

1.2.5 Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

¹³ See <http://www.csforum.org/> for more specific information

In the oil and gas industry the upstream sector is a term commonly used to refer to the exploration, drilling, recovery and production of crude oil and natural gas. The downstream sector includes the activities of refining, distillation, cracking, reforming, blending storage, mixing and shipping and distribution.

The EU contributes to strengthening of the capacities of fossil fuel exporting countries in the areas of energy efficiency via the work of the Energy Expert Group of the Gulf Cooperation Council (GCC)¹⁴, in particular in the working sub-group on energy efficiency. As part of the EU's research programme, a project called "EUROGULF" was launched with the objective of to analyse EU-GCC relations with respect to oil and gas issues and propose new policy initiatives and approaches to enhance cooperation between the two regional groupings.

The European e-network on clean energy technologies, currently under development as part of the EU's research and development, is also aiming at the objective: promote research and technical development of clean energy technologies in the GCC countries. The Commission has recently started a project with the specific objective to create and facilitate the operation of an EU-GCC Clean Energy Network during the next three years. The network is to be set up to act as a catalyst and element of coordination for development of cooperation on clean energy.

Energy efficiency activities in the upstream or downstream sector are also candidates for CDM projects. Thus, the development of the CDM under the Kyoto Protocol and the demand of CERs by Annex I Parties under the Kyoto Protocol as well as by operators under the EU ETS have fostered such activities performed by the private sector. Related CDM projects are for example:

- Rang Dong Oil Field Associated Gas Recovery and Utilization Project in Vietnam: The purpose of this project activity is the recovery and utilization of gases produced as a by-product of oil production activities at the Rang Dong oil field in Vietnam with the involvement of ConocoPhillips (UK).
- Recovery of associated gas that would otherwise be flared at Kwale oil-gas processing plant in Nigeria involves the capture and utilisation of the majority of associated gas previously sent to flaring at Kwale OGPP plant. The Kwale OGPP plant receives oil with associated gas from oil fields operated by Eni Nigeria Agip Oil Company.
- Recovery and utilization of associated gas produced as by-product of oil recovery activities at the Al-Shaheen oil field in Qatar
- Flare gas recovery and utilisation project at Uran oil and gas processing plant in India which is handling the oil and gas produced in the Mumbai High offshore oil field.
- Flare gas recovery and utilisation project at Hazira gas and condensate processing plant in India.
- Flare gas recovery and utilisation project from Kumchai oil field in India
- Flare gas recovery and utilisation project at the Ovade-Ogharefe oil field operated by Pan Ocean Oil Corporation in Nigeria
- Flare gas recovery and utilisation project at Soroosh and Nowrooz offshore oil fields in Iran.
- Leak reduction in aboveground gas distribution equipment in the KazTransgaz-Tbilisi gas distribution system in Georgia where leakages at gate stations, pressure regulator stations, valves, fittings as well

¹⁴ The Gulf Cooperation Council covers Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

at connection points with consumers are reduced.

- There are currently 21 Coal Mine Methane Utilization Project in China which use coalmine methane previously released to the atmosphere.

Improved energy efficiency in the energy and the transport sector in a more general way is one of the priorities in the EU's development assistance as well as for the EIB (European Investment Bank) and the EBRD (European Bank for Reconstruction and Development). Related projects and specific activities can be found for example at <http://www.eib.org/projects/topics/environment/renewable-energy/index.htm> or <http://www.ebrd.com/country/sector/energyef/>.

1.2.6 Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

The EU actively undertakes a large number of activities aiming at reducing dependence on the consumption of fossil fuels, in particular the EU support activities for the promotion of renewable energies and energy efficiency in developing countries contribute to reduction of dependence on fossil fuels, meeting rural electricity needs, and the improvement of air quality. As explained in more detail in chapter 8 of the EU's 5th national communication, there exist several support programmes in this respect. These include:

- *Renewable energy cooperation with the Mediterranean and Gulf countries*

The major objective of the cooperation between the EU and the Mediterranean and Gulf countries in the field of renewable energy is to contribute to sustainable energy and climate mitigation and to develop an integrated and interconnected 'Green Energy Market'.

Several initiatives are already being developed by the European Union in cooperation with the partners in the Gulf region to boost energy as well as renewable energy development. This includes the EU-GCC (Gulf Cooperation Council) Energy Expert Group, which started working at the beginning of 1990s' and the EU-GCC Climate Change Expert Group that has met on a regular basis since 2007. In 2009 EU and GCC partners agreed on extending energy cooperation and more specifically on establishing an EU-GCC clean energy network thus bringing together the relevant EU and GCC stakeholders. The European Commission will support the establishment of a network of key actors from public and private sectors in the EU and the GCC with a view to deepening cooperate on clean energy. This network will act as a facilitator and identify projects in fields of common interest, such as solar and other renewable energies.

Given the importance of research to further development of renewable energy in the GCC region, the Commission is also contributing to the establishment of a specific large-scale platform to foster international R&D cooperation with partners of the Gulf region.

The expansion and deployment of renewable energy is currently a key element in cooperation between the EU and the Mediterranean countries. The most important initiative is the Mediterranean Solar Plan, endorsed in 2008. The objective is the creation of 20 GW of new generation capacity in solar and other renewable energy sources around the Mediterranean Sea by 2020. The Regional Centre of Excellence for Renewable Energy and Energy Efficiency (RCREEE) facilitates development of renewable energy sources and promotion of energy efficiency measures in the Southern Mediterranean partner countries. Since 2008, when the centre was established in Cairo, the European Union has provided a financial contribution to enable the launch and initial operation of the Centre. Bearing in mind the importance of the infrastructures necessary for deployment and exports of green energy, the EU is contributing to the Maghreb Electricity Market Integration Project (IMME). The objective is to create a sub-regional electricity market between Morocco, Tunisia and Algeria and its progressive

integration with the EU's electricity market. The Commission has so far provided a support of €5.6 million. These are only some examples from the cooperation with the Mediterranean countries.

- *Africa, Caribbean and the Pacific (ACP-E) Energy Facility*

The ACP-EU Energy Facility is a contribution under the EU Energy Initiative to increase access to energy services for the poor. The Facility was approved by the joint ACPEU Council of Ministers in June 2005, with an amount of € 220million. The main activity of the Facility is to co-finance projects that deliver energy services to poor rural areas.

The Energy Facility was mainly implemented through a €198 million Call for Proposals which was launched in June 2006. Out of 307 proposals received, 74 projects have been contracted by the end of 2008 for a total amount of €196 million from the Energy Facility, with a total project cost of €430 million.

The main activities performed through Energy Facility projects can be classified into three different groups: (1) energy production, transformation and distribution, (2) extension of existing electricity grids and (3) "soft" activities such as governance, capacity building or feasibility studies. The sources of energy used for electricity generation were mainly renewable energies (77 % of the projects). Only one project using exclusively fossil fuels was funded. In total, € 81 million of commitments have been marked as climate change related under the Energy Facility, covering support to enhance use of renewable energies or increase energy efficiency. A replenishment of the ACP-EU Energy Facility has been decided under the 10th European Development Fund for the period of 2009-2013. Endowed with € 200 Million, it will focus on improving access to safe and sustainable energy services in rural and peri-urban areas. The new Energy Facility will also contribute to the fight against climate change by emphasizing the use of renewable energy sources and energy efficiency measures and by taking into account impacts of climate change on energy systems. The new Facility would start being implemented by the end of 2009.

- *Euro-Solar Programme in Latin America*

The Euro-Solar Programme is aiming to reduce poverty, allowing remote rural communities currently without access to electricity, to benefit from renewable electric energy. Approved in May 2006 and extended in December 2008, the Programme's total budget amounts to € 35.8 million, of which € 6.9 million will be provided by the Programme's eight beneficiary countries.

- *Latin America Investment Facility (LAIF)*

The European Commission plans to establish the Latin America Investment Facility (LAIF). The LAIF will focus on energy, environment and transport investment, contributing to cleaner transport infrastructure, improved energy efficiency and energy savings, the use of renewable energy, low-carbon production and of climate change adaptation technologies. The LAIF will operate by providing financial non-refundable contributions to support loans to partner countries from the European Investment Bank (EIB) and other European, multilateral and national, development finance institutions and will encourage the beneficiary governments and public institutions to carry out essential investments in the relevant sectors. The contribution of the Commission to the LAIF will be decided annually. For the year 2009, the Commission will allocate a budget of €10.85 million.

- *Global Energy Efficiency and Renewable Energy Fund (GEEREF)*

The European Commission has launched an innovative pilot instrument to involve the private sector. The Global Energy Efficiency and Renewable Energy Fund (GEEREF), launched in 2007, is focused on energy efficiency and renewable energy projects in developing countries and economies in transition. GEEREF invests in regionally-orientated investment schemes and prioritises small

investments below €10 million. In December 2008, the GEEREF Investment Committee approved two funds, and the first investments of a total value of € 22.5 million were carried out in 2009 focussing on projects in Sub-Saharan and Southern Africa and in Asia:

- €12.5 million investment in Berkeley Energy's Renewable Energy Asia Fund (REAF) for operationally and economically mature wind, hydro, solar, biomass, geothermal and methane recovery projects in India, Philippines, Bangladesh and Nepal.
- €10 million investment in the Evolution One Fund, dedicated to clean energy investment in Southern Africa (SADC countries).

In the regions where the two funds operate, there is a lack of equity investment available through the market for these types of projects. It is envisaged that GEEREF will invest in regional sub-funds for the African, Caribbean and Pacific (ACP) region, Neighbourhood, Latin America and Asia. Together the European Commission, Germany and Norway have committed about €108 million to the GEEREF over the period 2007-2011, the majority of which is provided by from the EU budget. It is envisaged that further financing from other public and private sources will be forthcoming. In 2007, the the EU budget contributed €5 million towards a support facility for the GEEREF and a further €25 million in form of grants.

The EU also supports developing countries in diversifying their economies, however these activities are not limited to fossil fuel exporting countries, but open to all developing countries based on partnership agreements such as the ACP-EU Partnership Agreement. Within this partnership agreement there are five areas of EU intervention for private sector development which are:

1. The creation of enabling environment
2. The promotion of investment and inter-enterprise co-operation
3. Investment financing and development of financial markets
4. Business Development Services
5. Support for micro-enterprises (especially through the development of an effective microfinance market)

More specific information related to these activities can be obtained at:

http://ec.europa.eu/europeaid/where/acp/sector-cooperation/economic-growth/index_en.htm

References

European Commission 2002 (Directorate General for Energy and transport): Inventory of public aid granted to different energy sources. Working document from the services of the Commission.

European Commission 2006: Commission staff working document, Accompanying document to the proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community Impact Assessment of the inclusion of aviation activities in the scheme for greenhouse gas emission allowance trading within the Community SEC(2006) 1648, COM(2006) 818 final.

European Commission 2007a: Commission Report on the Application of Council Regulation (EC) No 1407/2002 on State Aid to the Coal Industry, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 21.5.2007, SEC(2007) 602, COM(2007) 253 final.

European Commission 2007b: Commission staff working document, Annex to the Commission Report on the Application of Council Regulation (EC) No 1407/2002 on State Aid to the Coal Industry, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 21.5.2007, SEC(2007) 602, COM(2007) 253 final

European Commission 2009: Impact Assessment Guidelines, 15 January 2009, (SEC(2009)92)

Luciani, G. 2005: EUROGULF: An EU-GCC Dialogue for energy stability and sustainability. Final research report as presented at the concluding conference in Kuwait, 2-3 April 2005.

11. Finland**Annual inventory submission 2009**

The reporting on this item will start in 2010.

Annual inventory submission 2010

Finland strives to implement its commitments under the Kyoto Protocol in such a way that social, environmental and economic impacts on other Parties of the protocol, and developing countries in particular, are minimised. It takes into account the available knowledge on and understanding of possible impacts of its anticipated measures, based on information received from other Parties. At the same time, it keeps in mind the need to achieve the ultimate objective of the Climate Convention and the need for developed countries to lead in combating climate change and its adverse effects.

A summary of how Finland gives priority to the actions specified in Decision 15/CMP.1, paragraph 24 is given in Table 15.1-1 below. This and relevant complementary information is also provided in Finland's Fifth National Communication under the UNFCCC and Kyoto Protocol (especially Chapters 4 and 7).

Table 15.1-1 Summary of specific actions to minimise the adverse impact of response measures in developing countries.

Action	Implementation in Finnish policy
The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.	These factors are taken into account for all greenhouse gas emitting sectors, together with consideration of national preferences and circumstances and the need for economic efficiency and feasibility. Various methodologies, including economic modelling, are used in the planning of economic instruments.
Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	No subsidies for environmentally unsound and unsafe technologies have been identified.
Cooperating in the technological development of nonenergy uses of fossil fuels and supporting developing country Parties to this end.	Finland does not have any support activities in this field.
Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.	Several actions have been undertaken in the area of enhancing technologies that emit less greenhouse gases, with main focus on increased energy efficiency and promotion of renewable energy. Some examples are listed below. The two-phase energy auditing project in Vietnam aims to highlight the importance of energy auditing as a tool to increase energy efficiency and achieve savings. The objective of the first phase of the project was to identify the potential for improving energy efficiency in certain sectors in Vietnam. The second phase aims to build capacities of the authorities and professionals for carrying out energy audits, and to perform pilot audits in industry, building and transport sectors. The overall objectives of the project are to help Vietnam to strengthen the Vietnamese national policy framework and integrate energy efficiency and renewable energy use into national sustainable energy strategies, and to enhance national

	<p>capacity for energy auditing and for implementing cost effective measures. Finland supports district heating projects in China by providing interest subsidies to Concessional Credit Projects. The objective of these projects is to increase energy efficiency and to reduce emissions from heat production by introducing centralised combined heat and power (CHP) generation and modern heat distribution systems. With Concessional Credit Projects in Vietnam the distribution of electricity is improved by optimizing distribution voltages and by introducing distribution automation.</p>
<p>Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.</p>	<p>Finnish development policy supports low carbon development paths in developing countries. Finland has started to prepare guidelines for this purpose.</p>
<p>Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.</p>	<p>Action has been undertaken both through support by international organisations such as UNCTAD (United Nations Conference on Trade and Development) and through bilateral partnerships.</p> <p>The Energy and Environment Partnership with Central America (EEP), launched during the United Nations World Summit on Sustainable Development in 2002 by the Government of Finland and the Central American partner countries, is based on efficient, project-centred operating principles. Following the evaluation of the first phase of the project (2003-2005), the Finnish Ministry for Foreign Affairs has continued the funding of the project for the 2006-2009 period, and has allocated a total of EUR 7 million for the purpose. Austria joined the EEP in 2007, contributing a significant addition to the public financing of the partnership. The Dominican Republic joined in 2007, bringing the number of Central American partner countries up to eight. The recent second evaluation proposes that funding be continued for the next three-year period.</p> <p>Within the collaborative framework, partial funding has thus far been granted to 189 projects. These include research projects, such as feasibility studies, and pilot and demonstration schemes in all the main fields of renewable energy production, and in all the Central American partner countries. The projects have been developed by private and governmental organisations including, for example, companies and research institutes.</p> <p>Biannual thematic seminars, taking place in Central America, represent another aspect of the partnership. In the field of renewable energies, these have become perhaps the most important events in Central America. The seminars have brought together a significant number of private sector, governmental and non-governmental actors and organisations and served to increase awareness of the potential of renewable energy sources.</p> <p>So far, 13 such events have been organised, with more than</p>

	<p>2500 participants.</p> <ul style="list-style-type: none">• The partnership is open to other European donors• The operating principles and the strategic foci of the partnership will be developed further, based on the practical experience gained and recommendations made by the evaluation• The thematic forums on renewable energies will be continued on a biannual basis• Cooperation with other EU renewable energy programmes and initiatives will be continued to the extent that provides benefits to the parties, and that promotes further cooperation• The Finnish Ministry for Foreign Affairs is currently in negotiations with the Central American Bank for Economic Integration (CABEI), with the aim of establishing a partial risk guarantee-facility for small and medium-sized enterprises• Finland is investigating the possibility of replicating the partnership model in other regions in Asia, Africa and Latin America.
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12. France**Annual inventory submission 2010**I – Description des externalités potentielles des politiques et mesures de la France

Les parties doivent selon l' article 3.14 du protocole de Kyoto faire en sorte que la mise en oeuvre de leurs politiques nationales dans le cadre du protocole de Kyoto ne nuise pas aux autres parties. La France a mis en oeuvre de nombreuses actions de renforcement de capacité envers les pays en développement et de transfert de technologie notamment en ce qui concerne l'efficacité énergétique, qui sont présentés dans la partie II de ce chapitre.

La France est un Etat membre de l'Union Européennes. A ce titre, elle se doit de transposer dans son système législatif le droit européen. Dans le processus d'adoption de politiques européennes, l'Europe a mis en place un système permettant d'estimer les impacts de ces projets de politiques. La prise en compte de ces études d'impact est un élément clef de la décision finale. Il permet de s'assurer que les impacts négatifs sur les pays en développement d'une politique européenne sont minimisés et d'assurer ainsi que les dispositions législatives françaises issues du droit européen (soit la grande majorité) respectent bien l'engagement pris dans le cadre du protocole de Kyoto en accord avec l'article 3.14. Toutes ces études d'impacts sont rendues publiques sur le site :

http://ec.europa.eu/governance/impact/ia_carried_out/cia_2010_en.htm .

Le tableau ci-dessous présente les effets directs et indirects des politiques et mesures climatiques de la France et décrit les moyens mis en place par la France et/ou l'Union Européenne pour lutter contre les effets adverses de ses politiques et mesures.

Renvois liés aux tableaux

(1) - Paquet énergie Climat / directive sur les énergies renouvelables Dans le cadre de la directive sur les énergies renouvelables, les Etats Membres de l'Union Européenne se sont engagés dans l'incorporation de 10 % de biocarburants dans le secteur du transport à l'horizon 2020.

Pour éviter d'encourager la déforestation dans les pays en développement, la directive précise que ces biocarburants devront répondre à certains critères de durabilité.

(2)- affichage étiquette CO₂ La France a ainsi lancé des échanges d'information. Pour ce faire elle a organisé un séminaire intitulé « empreinte carbone des produits agricoles » à Santiago du Chili, les 18 et 19 juin 2009. Ce séminaire avait pour buts d'informer les pays du Sud sur l'étiquette CO₂ et de lancer les négociations sur une méthodologie harmonisée d'étiquetage entre les pays.

Effets Directs

Mesurel	Social	Environnemental	Economique
SCEQE			Effet économique potentiellement positif sur les pays en développement (il faudrait qu'on précise est-ce que cela signifie qu'en mettant en place un SCEQE on crée un avantage compétitif pour les PED ?)
MDP	Effet positif de maintien ou création potentielle d'emplois locaux dans les	Positif car permet l'implémentation de	Effet positif d'investissement étrangers dans le développement d'infrastructures dans les pays en

	pays en développement accueillant des projets	techniques sobres en carbone dans les pays en développement et avec des effets positifs sur les autres composantes de l'environnement : pollution de l'air, de l'eau, etc.	développement
MOC	Effet positif de maintien ou création potentielle d'emplois locaux dans les pays accueillant des projets	Positif car permet l'implémentation de techniques sobres en carbone dans les pays	Effet positif 'investissement étrangers dans le développement d'infrastructures dans les pays
Développement des biocarburants (1)	Effet positif de maintien ou création potentielle d'emplois dans les pays en développement exportateurs	effet positif à la condition que des critères de durabilité soient mis en place notamment par rapport au problème de changements d'affectation des sols	Effet positif sur les importations de biocarburants en provenance des pays en développement
Etiquetage CO ₂ (2)			Effet négatif de diminution potentielle des importations en provenance des pays en développement (au profit des circuits courts) Mais processus d' échange d'informations visant à une harmonisation des procédures d' étiquetage en cours.
Promotion de l' efficacité énergétique	Effet positif de maintien ou création potentielle d'emplois dans les pays en développement exportateurs		Effet positif sur les importations en provenance des pays en développement pour des équipements générant de l' efficacité énergétique
Promotion des énergies renouvelables dans le bâtiment	Effet positif de maintien ou création potentielle d'emplois dans les pays en développement exportateurs		Effet positif sur les importations en provenance des pays en développement pour des équipements de production d' énergie renouvelable
Bonus/malus automobile	Effet positif de maintien ou création potentielle d'emplois dans les pays en développement exportateurs		Favorise les importations en provenances des pays en développement de véhicules peu émissifs
Réforme de la Politique	Effet positif de maintien ou création potentielle d'emplois dans les pays en		Effet économique potentiellement positif en augmentant la demande dans ce secteur

Agricole Commune (2007- 2013)	développement exportateurs		Effet positif sur la qualité des productions des pays en développement
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Effets indirects

Mesurel	Social	Environnementa	Economique
SCEQE		Incitation des firmes internationales sous SCQE à développer des process plus efficaces au niveau environnemental potentiellement transférables dans les pays en développement	
MDP		Incitation potentielle pour les pays en développement à ne pas développer d'infrastructures moins émettrices pour générer une importante additionnalité environnementale des projets MDP	
MOC		Incitation potentielle pour les pays en développement à ne pas développer d'infrastructures moins émettrices pour générer une importante additionnalité environnementale des projets MOC	Effet potentiel de détournement de L" investissement du MDP
Développement des biocarburants (1)		Effet négatif sur la déforestation et sur la ressource alimentaire Mais mise en place de critère de durabilité des biocarburants via des accords entre la commission européenne et les pays en développement	Effet de diminution de la demande de pétrole et potentielle moindre tension sur les prix des énergies fossiles
Etiquetage CO ₂ (2)			
Promotion de l" efficacité énergétique		Amélioration de la qualité de l" air dans les pays en développement	Effet de diminution de la demande et potentielle moindre tension sur les prix des énergies fossiles
Promotion des énergies renouvelables dans le bâtiment		Amélioration de la qualité de l" air dans les pays en développement	Effet de diminution de la demande et potentielle moindre tension sur les prix des énergies fossils
Bonus/malus automobile			Hausse de la demande de matière premières (acier) et potentielle tension accrue sur leur prix
Réforme de la Politique Agricole Commune (2007-2013)			

II - Ressources financières et transfert de technologie envers les pays en développement

Au titre de ses engagements, la France s'est engagée à faciliter les transferts de technologies vers les pays émergents et vers les pays en développement, notamment en fournissant des ressources financières « nouvelles et additionnelles ». Afin d'atteindre cet objectif, la France fournit une aide financière et une coopération technologique par le biais de nombreux canaux, bilatéraux comme multilatéraux, notamment au travers de l'aide au développement.

Ainsi, les actions de la France en matière de financement et de transfert de technologies s'opèrent à de nombreux niveaux, et impliquent de nombreux acteurs, institutions multilatérales : collectivités territoriales, entreprises et le secteur privé.

1 – L'aide publique au développement - la coopération bilatérale

La France est un acteur majeur de l'aide bilatérale au développement dans le domaine du climat avec un champ d'intervention très vaste, un niveau d'expertise reconnu et un engagement financier substantiel (environ 800 M€ en 2008). L'opérateur pivot de l'aide française, notamment en matière d'environnement, est l'Agence Française de Développement (AFD). Un autre opérateur est le Fonds français pour l'environnement mondial (FFEM). Dans le détail, les engagements climat du groupe AFD sont en hausse constante depuis 2005, que ce soit en nombre de projets ou en montants : en 2008, 34 projets de limitation des émissions ont bénéficié d'une aide d'un montant pondéré¹⁵ de 735 M€. Cela représente une augmentation de 63% des montants engagés dans la lutte contre le changement climatique par rapport à 2007.

2 – L'aide publique au développement - la coopération multilatérale

Les ressources financières dédiées par la France au titre de l'aide multilatérale ont représenté plus de 2,5 Mds€ en moyenne sur 2005-2008, ce montant atteignant 3 Mds€ en 2008. Cette aide a été allouée via les banques multilatérales de développement, l'Union européenne et les Nations unies. La France est en moyenne le quatrième bailleur des institutions multilatérales de développement et ces contributions multilatérales représentent près d'un tiers de l'ensemble de l'aide française au développement sur la période 2005-2008. La France a été l'un des États à l'origine de la création du Fonds pour l'environnement mondial (FEM), qui est le principal instrument multilatéral en matière de préservation de l'environnement global. La France est le cinquième contributeur au FEM et le finance à hauteur de 164M€ sur 2007-2010 (en incluant la participation au fonds pour les pays les moins avancés –LDCF- géré par le FEM). Le FEM a financé environ 2,7 Mds\$ de projets aidant à lutter contre le changement climatique depuis sa création et finance aujourd'hui environ 250 M\$ de projets climatiques par an.

Par ailleurs, la Direction Générale du Trésor et de la Politique Économique du Ministère de l'Économie, de l'Industrie et de l'Emploi finance :

- le FASEP-Etudes : Les projets financés par le FASEP ayant un impact positif dans la lutte contre le changement climatique sont estimés en moyenne à près de 5,3 M€ par an entre 2001 et 2008, représentant au total 76 projets. Les montants des concours financiers sont compris entre 150 000 € et 700 000 €, avec une moyenne à 500 000 €.

- la Réserve pays émergents (RPE) est un crédit d'aide (i.e. concessionnel) destinée à des projets participant au développement économique des pays emprunteurs. Les crédits octroyés depuis 2000 ont concerné 62 projets dans 22 pays différents, pour un financement total de près de 2,4 Md€. Les principaux secteurs concernés sont, en cumulé, les transports (65 % des crédits), l'eau et l'environnement (20 %), les autres services et la santé (10 %), l'énergie (3 %) et l'industrie et les

¹⁵ Lorsque la lutte contre le CC est l'objectif principal d'un projet, 100% du montant engagé par l'AFD est comptabilisé dans le total indiqué. Si la lutte contre le CC est un objectif secondaire, 40% du montant engagé par l'AFD est comptabilisé.

agroindustries (2 %). Le montant des projets participant à la réduction des émissions de GES qui ont bénéficié de financements RPE s'est élevé en moyenne à près de 130 M€ par an entre 2001 et 2008 (au total 15 projets) ou 55 M€ en pondérant ces chiffres avec les marqueurs de Rio.

3 - La coopération technologique française en dehors de l'aide publique au développement

En plus des canaux bilatéraux et multilatéraux de l'aide publique au développement, la France est également engagée dans de nombreux projets et forums internationaux qui génèrent une coopération technologique de grande ampleur.

Au plan bilatéral, cette coopération passe par le biais de travaux avec l'Afrique notamment, mais également de grands pays émergents comme le Brésil ou la Chine. De même, les collectivités territoriales françaises sont très actives sur le plan de la coopération technologique, et sont engagées dans de nombreux projets et initiatives.

Sur le plan multilatéral, c'est le cas des grands partenariats énergétiques internationaux, comme l'Agence Internationale de l'Energie, dont la France fait partie, mais également de traités multilatéraux de grande ampleur, au premier rang desquels la CCNUCC.

On peut citer deux grands projets dans lesquels la France est investie :

- IRENA (Agence Internationale pour les Energies Renouvelables) Lancée lors d'une conférence qui avait réuni 125 pays à Bonn, le 26 janvier 2009, l'IRENA a pour objectif la promotion de l'utilisation de l'ensemble des énergies renouvelables à travers le monde pour lutter contre le changement climatique, pour assurer la sécurité énergétique et pour permettre un accès à l'énergie aux populations des pays en développement.

- L'IPEEC (International Partnership for Energy Efficiency Cooperation)

A la suite des travaux des précédents sommets du G8 en matière d'efficacité énergétique (Gleneagles, Saint-Petersbourg, Heiligendamm), le G8 Energie, élargi à l'Inde, la Chine et la Corée (format G8+3), a adopté le 8 juin 2008 à Aomori au Japon une déclaration créant un Partenariat international pour la coopération en matière d'efficacité énergétique (IPEEC). Dans le cadre de l'IPEEC, les parties se sont engagées à :

- développer des indicateurs nationaux en termes d'efficacité énergétique, effectuer une compilation des meilleures pratiques ;
- Adopter des mesures susceptibles d'améliorer l'efficacité énergétique de manière significative, sur des bases sectorielles et pluri-sectorielles.

Une analyse a été menée en 2008¹⁶ par des équipes françaises sur les dépôts de brevets d'inventions et les transferts de technologie associés intervenus entre 1978 et 2003 dans sept catégories d'énergies renouvelables¹⁷, et six autres domaines contribuant à la réduction des émissions de GES¹⁸, ainsi que sur les transferts de technologie¹⁹. Elle met en avant que la France arrive en 7ème position parmi l'ensemble

¹⁶ Mines ParisTech, CERNA, AFD, Innovation et diffusion dans les technologies au service de la lutte contre le réchauffement climatique au niveau international, Décembre 2008.

¹⁷ Eolien, solaire, géothermie, énergie marine, biomasse, hydroélectricité, énergie tirée des déchets

¹⁸ Destruction de méthane, procédés de réduction des émissions de CO2 pour la fabrication de ciment, efficacité énergétique dans le bâtiment, moteurs à injection, éclairage basse consommation, capture et stockage du carbone

¹⁹ L'étude s'appuie sur la base de données internationale de brevets PATSTAT, développée conjointement par l'Office Européen de Brevets et l'OCDE.

des pays développés, avec 2,4% de l'ensemble des inventions brevetées au 3ème rang mondial en ce qui concerne le taux d'exportation de nouvelles technologies climatiques.

13. Germany**Annual inventory submission 2010**

The following tables list various policies and measures (sorted by sectors), along with their direct and indirect effects on developing countries.

Most of the measures that would be carried out in Germany would not be expected to have direct effects on developing countries. In the case of other measures, the expected effects are largely considered to be positive. Such effects, for example, would include establishment of technical and administrative structures for climate protection.

Almost all of the possible indirect effects are also considered to be positive. Such effects would include beneficial impacts on energy supplies and prices in co-operating countries.

The only possible negative effect would occur via promotion of non-sustainably produced biofuels. Such promotion could lead to destruction of, or adverse shifts in, resources in developing countries. In future, such effects are to be prevented via implementation of pertinent sustainability ordinances.

Table 191: Cross-cutting measures

Measure	Direct effects	Indirect effects
Emissions trading	none	
CDM	positive	
JI	none	
Energy/CO₂ taxes	none	

Table 192: Energy-policy measures

Measure	Direct effects	Indirect effects
Promotion of renewable energies	none	<u>Positive:</u> Potential reduction of dependence on fossil fuels; Potential improvement of electricity supplies in rural areas; Improvement of air quality
Promotion of biofuels	none	<u>Negative:</u> If biofuel imports lead to destruction of forests and other CO ₂ sinks, or if biofuel-biomass cultivation leads to food shortages / food-price increases in developing countries. <u>Positive:</u> Economic development
Promotion of energy efficiency	none	<u>Positive:</u> Can lead to reduced energy costs and improved air quality
Promotion of CHP systems	none	<u>Positive:</u> Helps reduce energy costs

Table 193: Agriculture

Measure	Direct effects	Indirect effects
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Orienting of subsidies to food security and animal welfare standards instead of to production quantities	Positive: Encourages competition in agriculture	None
Improved management of animal waste	None	None
Biogas use / anaerobic fermentation	None	<u>Positive:</u> Comparatively cheap energy source.

Table 194: Forestry

Measure	Direct effects	Indirect effects
Reforestation	none	<u>Positive:</u> less deforestation
Sustainable forest management	none	None

Table 195: Waste recycling / treatment

Measure	Direct effects	Indirect effects
CH₄ separation from waste and sewage sludge	none	<u>Positive:</u> Cost-effective energy source
Composting	None	None

14. Greece

Annual inventory submission 2009

This information is mandatory from 2010 onwards and will be included in the next submission.

Annual inventory submission 2010

14.1 Information on how Greece is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention

In this section Greece provides information on how it is implementing its commitment under Article 3, paragraph 14 of the Kyoto Protocol, i.e. how it is striving to implement its commitment under Article 3, paragraph 1 of the Kyoto Protocol in such a way as to minimize potential adverse social, environmental and economic impacts on developing countries. In order to strive for such a minimization, an assessment of potential positive and negative impacts – both of direct and indirect nature - is necessary with a double objective to maximize positive impacts and to minimize adverse impacts.

Impacts on third countries are mostly indirect and frequently cannot be directly attributed to a specific policy. Therefore, an estimation of potential adverse social, environmental and economic impacts usually comes out as a result from complex assessments of indirect influences.

The majority of Greek policies is directly related to the implementation of EU policies on a national level. An impact assessment is carried out for every new policy initiative at an EU level, and is taking into account during the adoption process of the relative legislation. Greece, as a EU Member State, is participating in the development and adoption process of EU policies.

Two major EU policies, Directive 2009/28/EC on the promotion of the use of renewable energy and Directive 2008/101/EC concerning the extension of the EU emissions trading scheme (ETS) to the aviation sector, have been identified as having potential impacts on third countries. Both directives will be implemented in Greece and will be analyzed in the rest of the paragraph.

Directive on the promotion of the use of renewable energy - Promotion of biomass and biofuels

The Directive on renewable energy (Directive 2009/28/EC), a part of the EU's climate and energy package, sets ambitious targets for all Member States, such that the EU will reach a 20% share of energy from renewable sources in the overall energy consumption by 2020 (with individual targets for each Member State – 18% for Greece) and a 10% share of renewable energy specifically in the transport sector, which includes biofuels, biogas, hydrogen and electricity from renewable energy sources. Biomass is one of the renewable energy sources promoted by this Directive and the use of biofuels is important for the achievement of the renewable target in the transport sector.

The impact assessments related to enhanced biofuel and biomass use at a EU level showed that the cultivation of energy crops could have both positive and negative impacts. Positive impacts derive from the fact that the increase of domestic demand for bioenergy generates new export revenues and employment opportunities for developing countries and boosts rural economies. Thus, there could be clear economic and social benefits. At the same time, the new EU energy crop demand could increase the impact on biodiversity, soil and water resources and can have positive as well as negative effects on air pollutants. The extent of carbon reduction and other environmental effects from the promotion of biofuels can vary according to the feedstock employed, the way the feedstock and the biofuels are produced, how they are transported and how far. Growing future demand for biomass feedstock combined with growing

global food consumption could add to the agricultural sector's pressure on land use and result in adverse land use changes.

To address the risk of such adverse impacts, Article 17 of the EU's Directive on renewable energy sources creates pioneering "sustainability criteria", applicable to all biofuels (biomass used in the transport sector) and bioliquids. The sustainability criteria adopted are:

- establish a threshold for GHG emission reductions that have to be achieved from the use of biofuels;
- exclude the use of biofuels from land with high biodiversity value (primary forest and wooded land, protected areas or highly biodiverse grasslands),
- exclude the use of biofuels from land with high C stocks, such as wetlands, peatlands or continuously forested areas.

Greece is in the process of transposing the Directive into national law, and under this process the implementation of the sustainability criteria will be defined. The issue of the sustainability criteria is of high importance to Greece, since it will define the market and use of solid and gaseous biomass energy sources.

In this context, Greece will adopt national measures in order to respect the sustainability criteria and assess the impact of the production of biofuels on soil, water and biodiversity, for which it will report to the EU every two years, according to the Directive. Such data shall be used by the Commission in order to prepare a report informing the third countries and the Member States on the application of the above-mentioned criteria.

The reporting obligation refers also to the potential positive and negative land use change effect on EU and Third countries, including the estimation of the availability of foodstuffs at affordable prices, in particular for people living in developing countries, as well as other development issues.

Another action describing the country's efforts to minimize adverse effects on third countries is the execution of research on second generation biomass technologies by its research centers and universities (e.g. National Technical University – School of Chemical Engineering). The goal of second generation biofuel processes is to extend the amount of biofuel that can be produced sustainably by using biomass consisting of the residual non-food parts of current crops, such as stems, leaves and husks that are left behind once the food crop has been extracted, as well as other crops that are not used for food purposes (non food crops) and also industry waste such as woodchips, skins and pulp from fruit pressing. Second generation biofuels are expected to expand the biomass feedstock available for biofuel production.

The preparation for the implementation of Directive 2009/28/EC is supported by national legislation promoting the development of RES.

Inclusion of aviation in the EU emission trading scheme

The inclusion of aviation activities to and from EU airports in the EU emissions trading scheme, is likely to have adverse effects on aircraft operators from developing countries. Greece, as a member of the EU ETS system, has been appointed as administering Member state for a number of operators coming from developing countries.

The impacts of the above mentioned measure include impacts on the aircraft operators from developing countries that operate on route covered by the scheme. The inclusion of international flights and third countries' operators, avoid distortions of competition on specific routes and discrimination as to nationality. However, in order to reduce the aggregated costs for third country airlines especially from

regions that include developing countries, airlines operating limited services are exempt from the Community scheme.

Indirect positive effects are to be expected by the inclusion of the aviation into the EU ETS, as it shall create additional demand for credits generating from JI and CDM projects, permitting therefore additional investments in clean technologies in developing countries. Similarly, additional finance for climate change mitigation and adaptation in developing countries should be raised through the auctioning of emissions allowances by the country. Proceeds of auctioning are to be contributed to the Global Energy Efficiency and Renewable Energy Fund, and measures to avoid deforestation and facilitate adaptation in developing countries.

14.2 Information on how Greece gives priority in implementing the commitments under Article 3, Paragraph 14 to specific actions

The current section addresses the subparagraphs (a) to (f) of paragraph 24 of the reporting requirements in Annex I to decision 15/CMP.1. In cases where the relation of specific actions to the minimization of adverse social, environmental and economic impacts resulting from policies and measures to mitigate GHG emissions is not clearly defined the respective subparagraphs have been omitted. In any case, the main ways how Greece is striving to minimize adverse impacts have been already described in the previous section.

(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities

The current paragraph includes information on the means used by the country in order to enhance the progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies that run counter to the objectives of the Convention and on the application of market instruments.

Greece, as a Member of the EU, supports and makes the necessary steps to implement the EU Common Agricultural Policy. In the specific policy environmental concerns have been gradually incorporated. Such examples are the including "decoupled" direct payments which have replaced price support; environmental cross compliance; a substantial increase in budget for rural development. As part of 2008 Common Agriculture Policy Health Check, additional part of direct aid has been shifted to climate change, renewable energy, water management, biodiversity, innovation; - transparency of agricultural subsidies has improved. It is important to note that in the other areas most subsidies are within the competence of the country.

The energy market liberalisation (National Law 2773/1999) has been an important step to create a original internal energy market and can be considered as a mean to address market imperfections and to reflect externalities. The existence of a competitive internal energy market is a strategic instrument both in terms of giving local consumers a choice between different companies supplying gas and electricity at reasonable prices, but also in terms of making the market accessible for all suppliers, especially the smallest and those investing in renewable forms of energy.

In the same time, Greece participates in the EU Emissions Trading Scheme, which constitutes an important market instrument to implement the objectives of the Convention and Article 3, paragraph 1 of the Kyoto Protocol which aims at creating the right incentives for forward looking low carbon investment decisions by reinforcing a clear, undistorted and long-term carbon price signal.

Finally, the taxation on energy products and electricity, as defined by the Directive 2003/96/EC, contribute to establishment of rules for the taxation of energy products used as motor or heating fuel, taxes on energy consumption, and common minimum levels of taxation. The Directive has been

transposed into Greek legislation with Laws 3336/2005 and 3340/2005. In addition, the National Customs Code (Law 2960/2001), as applicable, makes use of the options provided for in such Directive to exonerate, totally or partially, the electricity generated by renewable energy sources, as well as natural gas or biofuel. Further information on the implementation of the respective laws has already been reported in the 5th National Communication of Greece (January 2010).

(b) Cooperating in the development, diffusion, and transfer of less-greenhouse-gasemitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort

One of the main research priorities of EU is orientated to the development, diffusion and transfer of less-greenhouse-gas emitting fossil fuels technologies. Greece, as an EU Member State, supports financially the pilot projects on carbon capture and storage and the relative cooperation of EU and China.

Various bilateral and multilateral cooperations have been already mentioned in the 5th National Communication of Greece (January 2010). In the context of these cooperations a number of projects is implemented in order to facilitate and finance the transfer and access of developing countries to environmentally sound technologies.

It should be also noted that in the EU's 'Creation and Operation of an EU-GCC Clean Energy Network', created in December 2009, a special working group is oriented to CCS technologies. Greece is an official partner of the project (Institute of Communications and Computer Systems of the National Technical University of Athens).

(c) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

In the oil and gas industry the upstream sector is a term commonly used to refer to the exploration, drilling, recovery and production of crude oil and natural gas. The downstream sector includes the activities of refining, distillation, cracking, reforming, blending storage, mixing and shipping and distribution.

The EU contributes to strengthening of the capacities of fossil fuel exporting countries in the areas of energy efficiency via the work of the Energy Expert Group of the Gulf Cooperation Council (GCC), in particular in the working sub-group on energy efficiency. As part of the EU's research programme, a project called "EUROGULF" was launched with the objective of to analyse EUGCC relations with respect to oil and gas issues and propose new policy initiatives and approaches to enhance cooperation between the two regional groupings. In Greece, the Energy Policy Unit of the National Technical University of Athens (NTUA) has actively participated in the EUROGULF Project ('EUROGULF: An EU-GCC Dialogue for Energy Stability and Sustainability'), as well as in other similar projects.

The European e-network on clean energy technologies, currently under development as part of the EU's research and development, is also aiming at the objective: promote research and technical development of clean energy technologies in the GCC countries. The Commission has recently started a project with the specific objective to create and facilitate the operation of an EU-GCC Clean Energy Network during the next three years. The network is to be set up to act as a catalyst and element of coordination for development of cooperation on clean energy.

The project has started in December 2009 and is structured in 5 working groups. Greece officially participates in the Network (Institute of Communications and Computer Systems of the National Technical University of Athens). Further information can be found in the website <http://eugcc.epu.ntua.gr/Home.aspx>.

(d) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

A number of activities aiming at the decrease of the dependence on the consumption of fossil fuels in developing countries have been supported and implemented by Greece. Most of the activities are oriented at the promotion of renewable energies and energy efficiency in those countries, contributing to the covering of rural electricity needs and the improvement of air quality. Such indicative projects have already been mentioned in the 7th chapter of the 5th national communication (January 2010), and include:

- Project “SYN-ENERGY” (Recipient countries: Albania, Bosnia-Herzegovina, Croatia, FYROM, Moldavia, Montenegro, Serbia, Georgia, Ukraine)
- Applications of Renewable Energy and Energy Savings Methods (Recipient country: Libanon)
- Renewable Energy Sources – Development and Implementation of Solar Energy (Recipient country: Armenia)
- Action Plan for Cooperation in the field of Renewable Energy Sources (Recipient country: Turkey)
- Installation of solar systems for household use in poor households in the region of Monaragala (Recipient country: Sri Lanka).

Greece, as an EU Member State, also supports and facilitates the EU Cooperation with Developing Countries. The programmes included in this respect are:

- Renewable energy cooperation with the Mediterranean and Gulf countries
- Africa, Caribbean and the Pacific (ACP-E) Energy Facility
- Euro-Solar Programme in Latin America
- Latin America Investment Facility (LAIF)
- Global Energy Efficiency and Renewable Energy Fund (GEEREF)

15. Hungary

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Information on how Hungary as a Party included in Annex I of the Convention is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement her commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

In accordance with Article 3, paragraph 1 of the Kyoto Protocol Hungary is committed to limit her anthropogenic carbon dioxide equivalent emissions of greenhouse gases listed in Annex A of the Protocol to such level that they are in line with Hungary's reduction targets while aiming at further emission reduction. Hungary is guided by the principle that ambitious national reduction targets shall be supported by a climate policy ensuring that adverse impacts on developing countries, such as carbon leakage are avoided. Hungary fully supports the endeavours, measures and implements regulations of the European Union targeting the avoidance of such impacts and fostering sustainable development, while in the same time also a specific policy framework has been put into practice.

The policy framework is laid down in Hungary's National Climate Change Strategy (NCCS) for the period 2008-2025, based on extensive scientific research, a wide public consultation process and impact assessment. The strategy adopted in February 2008 by the Hungarian Government guarantees that according to the principle of integration, climate policy is integrated into development policy as well, safeguarding that emission mitigation projects, cooperation fostering technological transfer and enhanced funding options for climate change related projects will play an integral role among future development projects. Climate research shall be integrated into other scientific studies and research activities and the business sphere shall be involved in climate friendly investments in developing countries.

For the time being Hungary does not take part in large scale development projects relating to climate change.

16. Iceland**Annual inventory submission 2010**

Actions	Implementation
The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities, in pursuit of the objective of the Convention	<p>Planning of economic instruments in Iceland, inter alia for limiting emissions in the greenhouse gas emitting sectors is subject to different methodologies.</p> <p>These involve feasibility and efficiency and consideration of national and international circumstances.</p>
Removing subsidies associated with the use of environmentally unsound and unsafe technologies	Subsidies associated with the use of environmentally unsound and unsafe technologies have not been identified in Iceland
Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end	Icelandic research institutes and technological development centres have not been engaged in development of non-energy uses of fossil fuels
Cooperating in the development, diffusion, and transfer of less greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort	Icelandic researchers cooperate with French and U.S. colleagues on an experimental project (CarbFix) that is under way at the Hellisheiði geothermal plant, injecting CO ₂ captured in geothermal steam back into the basaltic rock underground. The aim of the Carbfix Project is to study the feasibility of sequestering the greenhouse-gas carbon dioxide into basaltic bedrock and store it there permanently as a mineral. The project's implications for the fight against global warming may be considerable, since basaltic bedrock susceptible of CO ₂ injections are widely found on the planet and CO ₂ capture and storage and mineralization in basaltic rock is not confined to geothermal emissions or areas
Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities	The Government of Iceland has supported developing countries in the area of sustainable utilization of natural resources through its administration of the United Nations University funds, taking into consideration the need to improve the environmental efficiency of these activities Geothermal Training Program. The Geothermal Training Program has operated over thirty years, building up expertise in the utilization of geothermal energy, by training more than 400 experts from over 40 countries. The program provides their graduating fellows with the opportunity to enter MSc and PhD programmes with Icelandic universities. Iceland will continue its support for geothermal projects in developing countries with geothermal resources, which can be utilized to decrease their dependency on fossil fuels for economic development.
Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies	Iceland does not have support activities in this field

17. Ireland

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15.1 Introduction

Article 3.14 of the Kyoto Protocol requires that Annex I Parties shall strive to meet their commitments under Article 3.1 of the Kyoto Protocol in such a way as to minimize adverse social environmental and economic impacts on developing country Parties, particularly those Parties identified in Article 4 paragraphs 8 and 9 of the Convention. Information on how commitments under Article 3.14 are being implemented is to be prioritised under a number of actions as set down in section H of the guidelines for the preparation of supplementary information required under Article 7.1 of the Kyoto Protocol.

These requirements are addressed in this chapter.

15.2 Context

As a Member State of the European Union, Ireland's commitments under the Kyoto Protocol are being implemented under Decision 2005/166/EC, governing joint fulfilment under Article 4, and Decision 280/2004/EC, which covers specific emissions monitoring and reporting requirements. In this context, the minimization of adverse impacts on developing countries is also largely dictated by the European Commission's policy on climate change and by its policies and programmes affecting developing countries. Regulation at the European level also controls or influences market conditions, fiscal incentives, tax and duty exemptions and subsidies in all economic sectors in Member States.

The impact assessment of new policy initiatives has been established in the European Union, which allows their potential adverse social, environmental and economic impacts on various stakeholders, including developing country Parties, to be identified and limited at an early stage within the legislative process. Impact Assessment Guidelines specifically address impacts on third countries and also issues related to international relations. This provides a framework in which Member States like Ireland can also ensure a high level of protection of the environment and contribute to the integration of environmental considerations into the preparation and adoption of specified plans and programmes with a view to promoting sustainable development.

15.3 Specific Elements

a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities

Ireland's electricity market has been deregulated and the levy supporting the use of peat for electricity generation under a Public Service Agreement is being discontinued. Tax incentives contributed to the development of Ireland's most recent gas field off the west coast but such incentives will be severely curtailed for any similar developments in the future under new legislation. Reforms of the Common Agricultural Policy have resulted in changes to subsidies in agriculture, which are now linked to environmental, food safety and animal welfare standards. The EU Emissions Trading Scheme is a market-based emissions control measure which applies to major combustion and process emission sources of CO₂ and a carbon tax is being introduced for fossil fuel use outside the ETS.

b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies

Environmentally unsound and unsafe technologies may be regarded as technologies that would not conform to the concept of sustainable development and the objective and principles of the UNFCCC.

The EC has addressed this issue by developing legislation to ensure that the price for coal produced in Member States is not lower than the price of coal of similar quality available from third countries and by phasing out subsidies on fossil fuel production and consumption by 2010. No environmentally unsound or unsafe technologies are in operation in Ireland.

c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end;

The Irish Government is represented on the energy and environment strands of the Seventh Framework Programme (FP7) for Research and Technological Development (RTD). This representation includes the FP7 Energy Programme Committees that focuses on developing and agreeing the annual work programme and strategic vision for the FP7 Energy Work programme 2007–2013. Much of the focus of this (energy theme) initiative is on energy mitigation through supporting technological development and transfer through joint collaborations and calls with emerging economies including India, Russia and Brazil.

The International Energy Agency (IEA) is the energy forum and think-tank for 26 OECD countries. The Irish Government is a Party to four Renewable Energy Implementing Agreements of the IEA on Bioenergy, Ocean, Wind and RE Technology Deployment (RETD). Ireland provides national delegates to the executive committees of the Implementing Agreements and nominates and supports country experts to a number of tasks. The Government also sits on the Committee for Energy research and technology (CERT). Ireland is a member of the EU Expert Group on Technology, which supports the EC in climate negotiations. This expert group is focused on the transfer of technology to reduce the impacts of climate change and on supporting developing countries to this end.

d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort;

The EU collaborates with other Annex I and Non-Annex I Parties (Brazil, Saudi Arabia, China, Colombia, India, Korea, Mexico and South Africa) in the Carbon Sequestration Leadership Forum (CSLF). The CSLF is a ministerial-level international climate change initiative that is focused on the development of improved cost-effective technologies for the capture transport and long-term safe storage of CO₂. The mission of the CSLF is to facilitate the development and deployment of such technologies via collaborative efforts that address key technical, economic, and environmental obstacles. The CSLF will also promote awareness and champion legal, regulatory, financial, and institutional environments conducive to such technologies.

Ireland began its support to the Renewable Energy and Energy Efficiency Partnership (REEEP) in 2005. Following the decision by the Irish Government in 2007 to offset all its carbon emissions from official travel, REEEP was chosen as its implementing partner. REEEP is a Public-Private partnership and was launched by the United Kingdom along with other partners at the Johannesburg World Summit on Sustainable Development in August 2002. By providing opportunities for concerted collaboration among its partners, REEEP aims to accelerate the marketplace for renewable energy and energy efficiency. Funding from Ireland is being prioritised for projects in its programme countries of Ethiopia, Lesotho, Mozambique, Tanzania, Uganda, Zambia and Malawi.

Ireland provides development assistance in line with the priorities expressed by partner countries. To date requests for assistance in the area of technology are primarily in connection with water supply, transport infrastructure and agriculture. An innovative programme in Ethiopia carries out operational participatory research with farmers, extension workers and government officials to identify, develop, and disseminate new agricultural technologies. Some of the successful technologies are based on traditional practices, for

example soil conservation techniques. Other new technologies are related to new crop varieties and irrigation. In addition to ODA, private companies also provide technology and advice to developing countries, particularly in the energy sector. Due to the range of funding sources no precise figure is available for funding attributed to technology development and transfer. Ireland's support to REEEP is worth mentioning again here as an example of Ireland's support for technology transfer. REEEP brings the private and public sectors together to facilitate the financing, development and transfer of renewable energy technologies. Ireland believes that this type of public private collaboration is essential for the development of appropriate and environmentally sound technologies and to facilitate their application and use in developing countries.

e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

The EU contributes to strengthening the capacities of countries engaged in the export of fossil fuels through the work of the Energy Expert Group of the Gulf Cooperation Council (GCC), in particular under the working sub-group on energy efficiency. As part of the EU's research programme, a project called "EUROGULF" was launched with the objective of to analyse The European Commission's planned e-network on clean energy technologies, is aiming to promote research and technical development of clean energy technologies in the GCC countries.

Ireland currently holds the Programme Chair of Renewable Energy and Energy Efficiency Partnership, a Type 2 International NGO. The Renewable Energy and Energy Efficiency Partnership (REEEP) is a global partnership that works to reduce the barriers in policy, regulatory and financial structures that bar and limit the uptake of renewable-energy and energy-efficiency technologies and projects. This Partnership focuses on deployment of projects in sub-Saharan Africa, Asia and Latin America. Ireland is actively involved in the partnership, alongside energy-related organisations from Australia, Austria, Canada, Germany, Italy, Spain, the Netherlands, New Zealand, Norway, the UK, the USA and the European Commission.

Ireland is a founding member of the UNEP SEFI Public Finance Alliance, or 'SEF Alliance'. This is a member-driven coalition of public and publicly backed organisations that finance sustainable-energy markets in various countries, including emerging and developing economies. Members use the platform to exchange best practices, pool resources, launch joint projects and assist other governments in establishing new or similar financing models. The SEF Alliance is under the remit of the Sustainable Energy Finance Initiative (SEFI) of the United Nations Environment Programme (UNEP) but is governed directly by its members and pursues activities according to their interests. In 2008, the Alliance published Public Finance for Climate Change Mitigation, which provided an overview of mechanisms being used by the public sector to help scale up the climate mitigation markets, with a particular focus on the clean energy sector. In 2008, the SEF Alliance also published a Public Venture Capital Study which examined current clean-energy venture financing, focusing on the role of public sector-sponsored venture capital.

f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies

Ireland supports a range of EU activities aimed at reducing dependence on the consumption of fossil fuels, in particular those EU support programmes for the promotion of renewable energies and energy efficiency in developing countries. Renewable energy cooperation with Mediterranean and Gulf countries which led to the Mediterranean Solar Plan, endorsed in 2008 with the objective of installing 20 GW of new generation capacity in solar and other renewable energy sources around the Mediterranean Sea by 2020. Another objective is to create a sub-regional electricity market between Morocco, Tunisia and Algeria and to progressively integrate it with the electricity market of the EU.

Important initiatives which target energy efficiency and renewable energy projects in South America, Africa and Asia include the Africa, Caribbean and the Pacific (ACP-E) Energy Facility, the Latin America Investment Facility (LAIF), the Euro-Solar Programme in Latin America and the Global Energy Efficiency and Renewable Energy Fund (GEEREF).

18. Italy

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14.1 Overview

In the framework of the EU Burden Sharing Agreement, Italy has committed to reduce its GHG emissions by 6.5% below base-year levels (1990) over the first commitment period, 2008-2012. After the review of the initial report of Italy under the Kyoto Protocol (KP), the Kyoto objective was fixed in 483.255 MtCO₂ per year for each year of the “commitment period” (UNFCCC, 2007; Minambiente, 2009).

In this section Italy provides an overview of its commitments under Article 3.1, and specifically how it is striving to implement **individually** its commitment under Article 3 paragraph 14 of the KP. Under Article 3.14 of the KP:

“**Each Party** included in Annex I shall strive to implement the commitments mentioned in paragraph 1²⁰ above in such a way as to minimize adverse **social, environmental and economic** impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9²¹, of the Convention. In line with relevant decisions of the Conference of the Parties on the implementation of those paragraphs, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of **response measures** on Parties referred to in those paragraphs. Among the issues to be considered shall be the establishment of **funding, insurance and transfer of technology**.”

For the preparation of this Chapter Ispra (ex-APAT) has collected information through the revision of peer review international articles on sustainable development (SD) of ex-ante/ex-post assessments related to activities on climate change mitigation, and through personal communication with people/institutions involved in project/programs/policy implementation of climate change activities. Moreover, experts from the Italian Ministry for the Environment, Land and Sea (IMELS) and the Directorate General for Development Co-operation (DGCS) from the Ministry of Foreign Affairs were contacted.

²⁰ Kyoto Protocol, Art. 3 Par. 1 “The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.”

²¹ UNFCCC, Art 4. Par 8. “In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on: (a) Small island countries; (b) Countries with lowlying coastal areas; (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay; (d) Countries with areas prone to natural disasters; (e) Countries with areas liable to drought and desertification; (f) Countries with areas of high urban atmospheric pollution; (g) Countries with areas with fragile ecosystems, including mountainous ecosystems; (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and (i) Landlocked and transit countries. Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.” UNFCCC Art 4. Par. 9. “The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.”

As the reporting obligation related to Article 3, paragraph 14 does not include an obligation to report on each specific mitigation policy, Italy briefly described how EU is striving to minimize adverse impacts, because Italy is member of the European Union, thus incorporated into its European legal system to implement directives/policies; and individually how Italy it is striving to implement Article 3.14 with specific examples.

Two main parts are requested under Article 3.14 for reporting purposes: commitments to minimize adverse effects (section 14.2, 14.3) and priority actions (section 14.4, 14.5). Future improvements/research activities are expected for next submissions (section 14.6).

14.2 European Commitment under Art 3.14 of the Kyoto Protocol

At European level, impact assessments (IA) are required for most important Commission **initiatives, policy and programs** and those which will have the most far-reaching impacts. In 2009, IA was adopted, replacing the previous Guidelines 2005 and also the 2006 update. In general, the IA evidence advantages and disadvantages of possible policy options by assessing their potential impacts. Among different issues, it should be assessed which are the likely **social, environmental** and **economic** impacts of those options (European Commission, 2009[a]). Since 2003 all IA of EU policies are listed and published by subject online (European Commission, 2010[a]).

A review of European **response measures** for two EU policies were chosen for further description because the IA identified potential impacts on thirds countries. These measures are the Directive 2009/28/EC on the promotion of the use of renewable energy, and the EU emission trading scheme for the inclusion of the aviation. Information is further provided in European Commission (2009[b]) and European Commission (2010[b]). However, many developing countries and least developed countries (LDC) are based on the agricultural production, therefore, it will be important to understand how the *EU Common Agricultural Policy (CAP) Health Check*, together with the new targets on climate change and renewable energies will potentially influence developing countries. Some information on cereal intervention options on third parties have been identified (European Commission, 2008). Some studies on impact of agricultural policies are also available (Schmidhuber, 2009; Hallam, 2010).

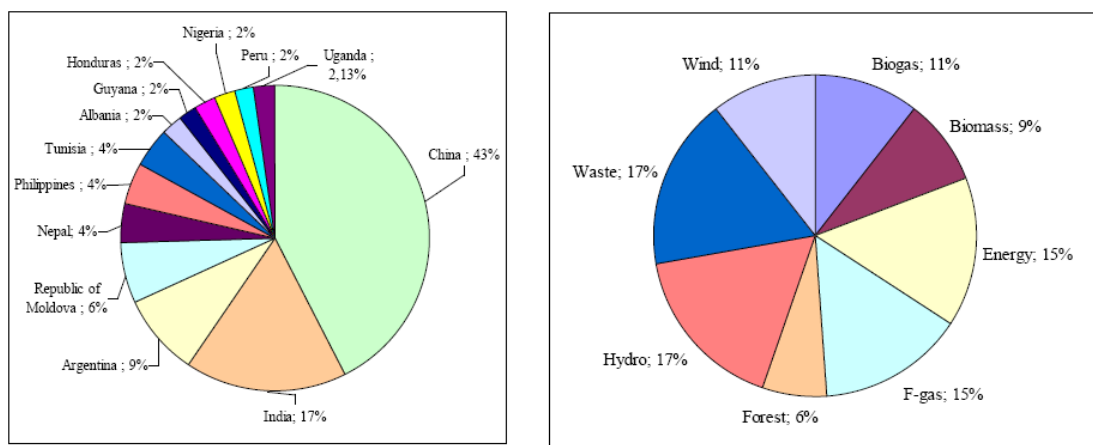
14.3 Italian commitment under Art 3.14 of the Kyoto Protocol

Article 3, paragraph 14 of the KP is related to Annex I Parties' way of implementing commitments under Article 3.1 of the KP. Therefore, it addresses the implementation of the quantified emission limitation and reduction objectives (QELROs) under Article 3.1, the implementation of LULUCF activities under Article 3 paragraphs 3 and 4, the use of Emission Reduction Units (ERUs) and Certified Emission Reductions (CERs) under Article 3 paragraphs 10, 11, and 12. Italy is aware of the potential direct and indirect impact of measures/policies and tries to ensure that the implementation of national mitigation policies under the KP does not impact other parties. Minimizing adverse effects of policies/measures are described in Chapter 4.6 in the Fifth National Communication (Minambiente, 2009). Information of activities under Article 3 paragraphs 3 and 4 of the KP is described in 'Chapter 10' KP-LULUCF' of this report.

National and sectoral Italian policies are expected to have no direct impacts in developing countries. Policies and measures in the Italian energy sector aim to increase energy efficiency and develop a low-carbon energy system but in the context of a global energy scenarios that do not foresee a decline in income for fossil fuel exporting countries (IEA, World Energy Outlook 2008). Direct impacts are only expected with measures undertaken with the Kyoto mechanism. At international level, efforts to tackle adverse **social, economic, and environmental** impacts of mitigation actions have been concretely assessed in the framework of the Kyoto Mechanisms. Hence, this section has concentrated efforts to analyze the specific context of the Kyoto flexible mechanisms in order to provide response to reporting requirements under Article 3.14 of KP.

For this section, information was collected from the Clean Development Mechanism (CDM) Project Search Database of the UNFCCC²². Direct contact with experts involved in the CDM project cycle and peer review article were revised.

By the time CDM database was consulted, Italy as investor Party, contributes with 1.87% of worldwide CDM project portfolio (UNFCCC, 2010). Information of the **47 registered** CDM projects, in which Italy is involved, is shown in Annex 8. Projects are for the 38% small scale projects; 34% consolidated methodologies; 21% large scale; and 6% afforestation/reforestation (A/R) projects. Italy is the only proposer for 36% of the CDM projects. In Figure 14.1 the distribution of CDM projects by Host country and type is presented. CDM projects are mainly located in China (n°20), India (n°8), Argentina (n°4) and Republic of Moldova (n°3) representing 74% of the total. Projects by type are mainly related with renewable energies (64%).



Source: UNFCCC (2010)

Figure 14.1 Italian CDM projects by Host country and type (by 16/03/2010)

Procedure for assessing sustainability at local and national level

Countries should follow a project cycle to propose CDM projects (first designing phase and realization phase). During the first phase, among other activities, Parties participating in the CDM shall designate a national authority (DNA). Each Host Party has implemented a procedure for assessing CDM projects. The DNA evaluates project documentation against a set of pre-defined criteria, which tend to encompass **social, environmental and economic** aspects. For instance, India has SD criteria such as the social, economic, environmental and technological ‘well-being’. Instead, China discriminated projects by priority area and by gas based-approach (Olsen and Fenhann, 2008; Boyd et al., 2009).

Most of the CDM projects (if large-scale) are subject to ex-ante assessments. For instance, environmental impact assessments (EIA) are required. In other cases, because of the size of the project, EIA are not necessary. Still some CDM projects have performed voluntary EIA. This is the case for the *Santa Rosa* Hydroelectric CDM project (Peru)²³ (see Annex 8). After, a second evaluation is performed by the DNA as described previously. For example, in the Peruvian DNA, the process follows the: submission of the

²² World-wide seventy four (74%) percent of CDM projects are represented by China (37%), India (23%), Mexico (8%) and Brazil (6%). Seventy nine (79%) of the distribution of registered projects by scope is represented by energy industries - renewable/non renewable sources - (61%) and waste handling and disposal (18%). Fifteen percent (15%) is given by manufacturing industries (5%), fugitive emissions from fuels (5%), and agriculture projects (5%).

²³ Personal communication, Claudia Monsalve/Lorenzo Eguren – Endesa Carbono (29/03/2010).

project to the Ministry of competence on the activities, a site visit of the project done by the Ministry of Environment, and the conformation of an *ad hoc* committee that evaluate projects considering legal, **social, environmental** and **economic** criteria.

Thus, possible impacts of the CDM projects are mainly subject to local and national verification. In some cases, an ex-post assessment could be also performed by the Designated Operational Entities (DOE), which validated CDM projects and certifies as appropriate and requests the Board to issue CERs. For some CDM projects, for instance, *Poechos I* Hydroelectric project (Peru), CERs are approve only if the project complies also with **social** and **environmental** conditions²⁴.

Another feedback for participating to CDM project with SD characteristics comes from the carbon funds. For instance, Italy participates to the *BioCarbon Fund* (BCF), the *Community Development Carbon Fund* (CDCF) and the *Italian Carbon Fund* (ICF). Specifically, the first two funds aim to finance projects with strong **social** impact at local level, that combine community development attributed with emission reductions and will significantly improve the live of the poor and their local environment²⁵.

In addition Italy agreed to accept in principle common guidelines for approval of large hydropower project activities. EU Member states have arrived at uniform guidelines on the application of Article 11b(6) of the Directive 2004/101/EC to ensure compliance (of such projects) with the international criteria and guidelines, including those contained in the World Commission on Dams 2000 Report. It aims to ensure that hydro projects are developed along the SD and the not damaging to the environment (exploring possible alternatives) and addressing such issues as gaining public acceptance, and fair and equitable treatment of stakeholders, including local and indigenous people²⁵.

Regarding the Joint Implementation (JI) activities, the Italian Carbon Fund has the ‘Russian Federation: Rosneft Associated Gas Recovery Project for the Komsomolskoye Oil Field’ under the validation phase (Carbon Finance, 2010).

Assessment of social, environmental, and economic effects of CDM projects

The assessment of adverse **social, environmental, and economic** impacts contribution of CDM projects has been concentrated in the energy sector (or **non-forestry** CDM projects). Relevant literature is presented in this section. Most common used methodologies for assessing sustainability are checklists and multicriteria assessments (Olsen 2007). For instance, Sirohi (2007) has qualitatively analyzed and discussed the Project Design Document (PDD) of 65 CDM projects covering all the types of CDM project activity in **India**. Results from this paper show that the benefits of the projects focusing on improving energy efficiency in industries, fossil fuel switching in industrial units and destruction of HFC-23 would remain largely “firm-specific” and are unlikely to have an impact on rural poverty. Boyd et al. (2009) have chosen randomly 10 CDM projects that capture diversity of project types and regions. Environment and development benefits (environment, economic, technology transfer, health, employment, education and other social) were assessed qualitatively. This review shows divergences and no causal relationship between project types and SD outcomes.

Sutter and Parreño (2007) assessed CDM projects in terms of their contribution to employment generation, equal distribution of CDM returns, and improvement of local air quality. The multiattribute assessment methodology (MATA-CDM) for non-forestry CDM projects was used for assessing 16 CDM projects registered at UNFCCC as of August 30, 2005. Results indicated that projects might contribute to

²⁴ Personal communication, Laura Reyes – CDM expert, Dirección General de Cambio Climático, Desertificación y Recursos Hídricos, Ministerio del Ambiente – MINAM (22/03/2010).

²⁵ Personal communication, Vanessa Leonardi, CDM expert, Department for Sustainable Development, Climate Change and Energy, Italian Ministry for the Environment, Land and Sea (01/04/2010).

one of the two CDM objectives (GHG emission reductions and SD in the Host country), but neither contributes strongly to both objectives. Uruguay's DNA has adopted this tool for approval of CDM projects.

Nussbaumer (2009) has presented a multicriteria assessment of 39 CDM projects. Label CDM projects ('Gold Standard' label rewards best-practice and Community Development Carbon Fund focuses activities in underprivileged communities) were compared to similar non-labeled CDM projects. Results show that labeled CDM activities tend to slightly outperform comparable projects, although not unequivocally.

Some studies have also addressed the assessment of **forestry** CDM projects. Olsen and Fenhann (2008) have developed a taxonomy for sustainability assessment based on PDD text analysis. A study, for the first time, has addressed the choice of an appropriate method for measuring **strong sustainability**. In a decision-making process, an ex-ante assessment of 10 CDM forestry projects were assessed in a comprehensive way through decision criteria that reflect global and local interests using a non-compensatory multicriteria method (Córdor et al., 2010).

Thirty-eight percent (38%) of CDM projects in which Italy has participated were also subject to international analysis. In Annex 8 CDM projects analyzed in research studies are shown. For instance, two (out from three) CDM forestry projects in which Italy is the only proposer (Assisted Natural Regeneration of Degraded Lands in Albania) and the one proposed with Spain (Facilitating Reforestation for Guangxi Watershed Management in China) were identified as 'reasonably synergistic' (Córdor et al., 2010).

14.4 Funding, strengthening capacity and transfer of technology

According to Art 3.14 of the KP information on funding and transfer of technology need to be described, thus, brief information is provided in this section.

Between 2006 and 2008 the Italian Ministry of Foreign Affairs has contributed with around 30 million EUR in **bilateral** and **multilateral** cooperation with developing countries for climate change related activities. In order to contribute to the implementation of the commitment foreseen in the "Bonn Declaration", since 2002 the Italian Ministry for the Environment, Land and Sea (IMELS), has been authorized to finance bilateral and multilateral activities in developing countries for 55.1 million EUR/year as of 2008 (Minambiente, 2009). A recent peer review report of the Development Assistance Committee (DAC) describes bilateral and multilateral cooperation funding activities in Italy. The Directorate General for Development Co-operation (DGCS) from the Ministry of Foreign Affairs in collaboration with other players in Italian Co-operation is in charge of implementing recommendations (OECD, 2009). The most important institutional actor is the Ministry for the Environment, Land and Sea, because of its contribution to implementing the Kyoto Protocol and other Rio conventions in developing countries. Programming guidelines and Directions of Italian Development Co-operation 2010-2012 are available (DGCS, 2010[a]). The aid **effectiveness** as a top priority for cooperation as described in the 'Italian Aid Effectiveness Action Plan' (DGCS, 2009).

The Ministry of foreign Affairs has a database of environmental projects available online (DGCS, 2010[b]). The ecosystem approach management is a strategy adopted by Italian cooperation. In the environment field, projects that have been monitored by the Central Technical Unit/DGCS - Ministry of foreign Affairs, are subject to field visit and ex-post assessments in order to verify compliance in the framework of climate change activities²⁶.

²⁶ Personal communication, Alfredo Guillet/Giorgio Grussu, DGCS/Central Technical Unit of the Ministry of Foreign Affairs.

Italian multilateral cooperation on climate change has been performed with different United Nations organizations, funds, and institutions²⁷. Cooperation has involved from the supply of financial resources, to the design and implementation of programmes and projects, the promotion of transfer of environmentally-sound technologies aiming at reducing the impacts of human activities on climate change, and support to adaptation measures. **Italian bilateral** cooperation continues activities described in the Fourth National Communication to the UNFCCC and has implemented new projects on climate change. Focus is given to different geographical regions world-wide²⁸. Funding climate change and related topics in developing countries has different and ambitious objective: efficient use of energy, implementation of innovative financial mechanisms, efficient water management, carbon sequestration, professional training, and exchange of know-how, promotion of eco-efficient technologies. Further detailed description is given in ‘Chapter 7 Financial assistance and Technology Transfer’ of the Fifth National Communication from Italy (Minambiente, 2007; 2009; 2010).

The DGCS of the Ministry of Foreign Affairs is contributing with bilateral projects in the energy sector, for example, in Albania, Bangladesh, Sierra Leone and Palestinian territories (improvement of electric system or hydroelectric power generation) (DGCS, 2010[b]). An example is the hydroelectric project in Ethiopia that has been supported by the Ministry of Foreign Affairs. Next step of this project will be an ex-post assessment of adverse effects through the use of the OECD DAC guidelines²⁹. These guidelines include the assessment of the relevance, effectiveness, efficiency, impact (positive/negative) and **sustainability** of the activities (OECD, 2008).

Evidence of technology transfer activities has been found in the context of the Kyoto Mechanisms. A recent study has analyzed comprehensively technology transfer in the CDM: 3296 registered and proposed projects (Seres et al., 2009). Results address that roughly 36% of the projects accounting for 59% of the annual emission reductions claim to involve technology transfer. Authors also concluded that as the number of projects increases, technology transfer occurs beyond the individual projects. This is observed for several of the most common project types in China and Brazil with the result that the rate of technology transfer for new projects in those countries has fallen significantly.

14.5 Priority actions in implementing commitments under Article 3 paragraph 14

For the purposes of completeness in reporting, and according to the reporting guidelines for supplementary information (UNFCCC, 2002), specific information in the way Italy is striving to minimize adverse impacts are described in Table 14.1. The preparation of this table was discussed with an expert in the energy sector/emission scenarios from Italy³⁰.

²⁷ Italian multilateral cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Industrial Development Organization (UNIDO), Food and Agriculture Organization of the United Nations (FAO), the Regional Environmental Centre for Central and Eastern Europe (REC), the Global Environment Facility (GEF), the World Bank (WB), International Union for Conservation of Nature (IUCN), the United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and the Mediterranean Action Plan (MAP).

²⁸ Italian bilateral cooperation with the Asian and Middle East countries (China, Iraq, Thailand and India), Mediterranean and African region (Algeria, Egypt, Israel, Tunisia, Morocco), Central and Eastern European countries (Albania, Bosnia, Croatia, Bulgaria, Serbia, Montenegro, Macedonia, Poland, Romania, Turkey, Hungary, Kyrgyzstan and Tajikistan), and Latin America, the Caribbean and the Pacific Islands (Belize, Argentina, Mexico, Cuba, Brazil, 14 countries of the South Pacific Small Islands Developing States).

²⁹ Giancarlo Palma, DGCS/ Central Technical Unit of the Ministry of Foreign Affairs

³⁰ Personal communication, Mario Contaldi - expert in the energy sector and emission scenarios from Ispra, ex-APAT (12/04/2010).

Actions	References
(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities;	EU emission trading scheme, promotion of biomass and biofuel, Common Agricultural Policy can potentially have impacts in developing countries. See European Commission, 2009[b]; 2010[b]. Italy is subject to the European legal system, it will implement the EU legislation; it is not planned to further increase biomass – biofuel objectives.
(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies;	Council regulation EC No 1407/2002 rules for granting state aid to contribute to restructure coal industry. See European Commission, 2010[b]. Italy has a negligible domestic coal production.
(c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end;	At the national as well as European level, ‘non-energy uses of fossil fuels’ is not a current research priority.
(d) Cooperating in the development, diffusion, and transfer of less greenhouse gas emitting advanced fossil-fuel technologies, and/or technologies relating to fossil fuels that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort;	The ongoing activities on multilateral and bilateral Italian cooperation are coordinated through the Ministry of Foreign Affairs and the Ministry for the Environment, Land and Sea, see Minambiente (2009).
(e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities;	The ongoing activities on multilateral and bilateral Italian cooperation are coordinated through the Ministry of Foreign Affairs and the Ministry for the Environment, Land and Sea, see Minambiente (2009).
(f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	The ongoing activities on multilateral and bilateral Italian cooperation are coordinated through the Ministry of Foreign Affairs and the Ministry for the Environment, Land and Sea, see Minambiente (2009).

Table 14.1 Priority actions under in implementing commitments under Article 3.14

14.6 Future activities related to the commitment of Article 3.14 of the Kyoto Protocol

Italy is aware of its commitments under Article 3.14 of KP. Different national and international mechanisms and guidelines are guiding the prevention of adverse effects while implementing projects in developing countries. Different activities have been identified for future commitments under Art 3.14. For instance, priority actions need to be further classified into positive and negative, direct and indirect, and social, environmental and economic features. Another activity could be to identify and collect information related to climate change mitigation activities being implemented by private Italian companies worldwide. Therefore, direct contact with the private sector could be important. For instance, in its sustainable

report ENI (private Italian energy company) has addressed GHG emission reduction objectives (ENI, 2008). Another private company is Enel³¹, the Italy's largest power company that is one of the main worldwide operators applying the CDM which incentivize action on climate in favor of the transfer of technologies in developing countries (Enel, 2008). Finally, projects from decentralized development cooperation (regions) need to be taken into account for future activities (OICS, 2010).

³¹ Personal communication, Mario Contaldi - expert in the energy sector and emission scenarios from Ispra, ex-APAT (12/04/2010).

19. Japan

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Japan's Fourth National Communications describe that "Japan (snip) will strive to implement our commitments under the Kyoto Protocol in such a way to minimize social, environmental and economic adverse impacts on developing countries." However, the methods to evaluate the effort are currently under discussion internationally; hence, it is unable to be assessed.

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Under the Article 3, paragraph 14 of the Kyoto Protocol, Annex I countries are to strive to implement the commitments mentioned in Article 3, paragraph 1 in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraph 8 and 9, of the Convention.

However, we were unable to assess the degree to which such efforts undertaken by Japan led to the minimization of the types of adverse effects described above, as the methods to evaluate these efforts are currently under discussion internationally, and Japan hopes the future progress of discussions on such evaluation methods.

20. Latvia**Annual inventory submission 2010**

Latvia is Annex I country and within limits collaborates with developing countries to minimize adverse, social, environmental and economic impacts on the Parties.

Information about actions specified in Decision 15./CMP.1, paragraph 24 how Latvia gives priority to minimize the adverse impact of response measures in developing countries are presented in following table:

Action	Implementation of Latvian's policy
The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.	Latvia is working in accordance with terms of EU market and its fiscal initiatives including those aiming energy price reforms. In 2010 government decided to phase out the market distortion related to VAT exemption on natural gas, introducing additional excise duty. Natural gas is main fossil fuel in GHG emitting energy sector hence its competition with biomass and other has been balanced.
Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	No subsidies are given for environmentally unsound and unsafe technologies.
Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end.	Latvia does not have any support activities on this issue
Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.	Latvia does not have any support activities on this issue.
Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.	Our developing policy support capacity building in developing countries, taking into account their needs
Assisting developing country Parties which	Latvia does not have any support activities on

are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	this issue.
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21. Liechtenstein

Annual inventory submission 2010

Tax exemption in Switzerland and consequently also Liechtenstein (tax union) for biofuels is limited to fuels that meet ecological and social criteria. The conditions are set out in such a way that biofuels do not compete with food production and are not causing degradation of rainforests or other valuable ecosystems. The Swiss Centre for Technology Assessment (TA-Swiss) has launched a study on the assessment of social and environmental impacts of the use of second generation biomass fuels. The aim of this study is to analyse the potential and risks involved in using second generation biofuels, i.e. assess different sources of biomass, production technologies and forms of energetic use, their potential and impact of complete value-added chains, and their ecological, economic and social impacts.

The Swiss Academies of Arts and Sciences have started a project to assess possible conflicts and synergies between the expansion of renewable energy production and land management. Many forms of renewable energy (solar, wind, water, biomass, geothermal) require considerable floor space and lead to changes in land use, ecosystems, and the views of places and landscape. Large-scale use of areas for energy production thus have to be planned considering the maintenance of ecosystem services, protection of biodiversity, or natural sceneries which are important for tourism. A project report is expected at the end of 2010.

An assessment of conflicts and synergies between policies and measures to mitigate climate change and biodiversity protection has been made by the biodiversity forum and ProClim in 2008 (<http://www.proclim.ch/Products/biodiv-klima08/>). While there are several synergies in the area of ecosystem management and agriculture, conflicts exist concerning the use of renewable energies, be it the adverse effects of increased hydroelectricity generation on natural water flows or the impacts of other renewable energy systems on natural landscapes and ecosystems. The report gives recommendations on how to take advantage of synergies and how to detect conflicts in an early stage.

22. Lithuania**Annual inventory submission 2010**

Lithuania is Annex I country and within limits collaborates with developing countries to minimize adverse, social, environmental and economic impacts on the Parties.

Information about actions specified in Decision 15./CMP.1, paragraph 24 how Lithuania gives priority to minimize the adverse impact of response measures in developing countries are presented in following table:

Action	Implementation of 22. Lithuania's policy
The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.	Lithuania proceeds in accordance with terms of the EU market and its fiscal initiatives including those aiming energy price reforms. Natural gas is the main fossil fuel used in GHG-emitting energy and industry sectors. The use renewable sources are promoted applying state aid for purchasing price of energy produced from renewable sources.
Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	No subsidies are given for environmentally unsound and unsafe technologies.
Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end.	Lithuania does not have any support activities on this issue.
Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.	Lithuania does not have any support activities on this issue.
Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.	Our developing policy □ support capacity building in developing countries, taking into account their needs in the frame of ODA.
Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	Lithuania does not have any support activities on this issue.

23. Luxembourg

Annual inventory submission 2010

23. Each Party in Annex I shall provide information relating to how it is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement its commitments mentioned in Article 3, paragraph 1 of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.

The Kyoto Protocol is, in principle and in general, designed to minimize adverse effects on specific sectors, specific industries or specific trade partners of a Party, including the adverse effects of climate change, on international trade, and social, environmental and economic impacts on other parties. This is due to the fact that it does not limit action to a single gas or sector, that the use of its flexible mechanisms guarantees that possible impacts are distributed on various fields of action, that the Clean Development Mechanism aims at both promoting sustainable development in countries with continuing development needs and at reducing greenhouse gas emissions, and that it requests action to support the least developed countries. By striving to implement all the features that the Protocol has integrated Luxembourg is naturally working to minimize not only adverse effects of climate change but also any adverse effects due to the reduction of greenhouse gases.

Luxembourg is strongly promoting long term sustainable development and will hence have scarcely direct or indirect negative effects. In cases where adverse effects could occur, the following measures are/were undertaken:

Adverse effects of climate change

Emission Trading could lead to carbon leakage and higher emissions in countries which do not have comparable environmental standards. To minimise that risk, according to EU Directive 2003/87/EC emission allowances are granted for free to companies with specific characteristics.

Social, environmental and economic impacts on developing countries

JI/CDM projects may in principle have negative side effects in the host countries. For example, projects for the production of biofuels might add to deforestation of forests and/or result in higher prices for food. Luxembourg's JI/CDM programme therefore has demanding social and environmental criteria to be eligible as a Luxembourgish JI/CDM project. The favoured project categories reflect the high priority that is given to technology transfer projects. http://ec.europa.eu/environment/climat/pdf/lux_nap_final.pdf/

Ensuring that any consequences of economic affairs are addressed, Luxembourg is improving its policies to eliminate potential negative impacts.

24. Parties included in Annex II, and other Parties included in Annex I that are in the position to do so, shall incorporate information on how they give priority, in implementing their commitments under Article 3, paragraph 14, to the following actions, based on relevant methodologies referred to in paragraph 11 of decision 31/CMP.1

(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.

(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies.

- (c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end.
- (d) Cooperating in the development, diffusion and transfer of less-greenhouse-gasemitting advanced fossilfuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.
- (e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.
- (f) Assisting developing county Parties which are highly dependent on the export andconsumption of fossil fuels in diversifying their economies.

Information on these subjects is being gathered and will be provided for the next submission.

24. Monaco

No information on Article 3, paragraph 14 is included in the NIR.

25. Netherlands

Annual inventory submission 2009

This issue will be reported from NIR 2010 onwards.

Annual inventory submission 2010

The Netherlands has reported information on minimisation of adverse impacts in its 5th National Communication, submitted to the UNFCCC in December 2009. The relevant information is repeated and where appropriate updated below.

The Kyoto Protocol was adopted in pursuit of the ultimate objective of the Convention, and hence its full implementation by the Netherlands is intended to contribute to preventing dangerous anthropogenic interference with the climate system. Ambitious mitigation goals are necessary to ascertain a future for all countries. In striving to develop policies and measures to reduce greenhouse gas emissions, Parties to the Kyoto Protocol should implement those policies and measures to minimise adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties identified in article 4, paragraphs 8 and 9 of the Convention.

Adverse impacts on developing countries are reduced if global temperature increase is limited to 2 degrees Celsius, if dependence on fossil fuels decreases, and if Annex I Parties are able to develop low-carbon energy systems and reduce fossil fuel consumption.

The European Community actively undertakes a large number of activities to have positive impacts on other countries and their ability to tackle climate change, specifically capacity building and technology transfer activities. During the climate conference in Bali in 2007, it was agreed that adaptation should also be part of a new climate convention. To achieve this, technologies and financing mechanisms need to be developed further and made available to developing countries that are seriously affected by climate change. These include low-lying areas such as Vietnam and Bangladesh, islands that barely rise above sea level (the Maldives and parts of Comoros), and mountain states that are losing their glaciers (and therefore their sources of water). The Dutch Government, through the Development Minister has adopted 'the polluter pays' as the guiding principle in financing adaptation in developing countries. This means that those who emit high levels of CO₂ pay for the adaptation to climate change of others whose emissions are low but who suffer the consequences. The latter are mostly developing countries.

The discussions and negotiations on climate, and the Netherlands' contribution to them have so far largely had an international character. As already stated, in the 2007–2008 period adaptation became an important element in international climate negotiations. In 2008, a number of countries pledged € 6 billion for an international climate fund for mitigation and adaptation to be managed by the World Bank. As a result of Dutch efforts, this fund is to have a special facility for renewable energy programmes in developing countries. In addition, partly as a result of Dutch efforts, 'avoided deforestation' has been placed on the agenda for the negotiations on a new climate convention. Avoided deforestation means that countries are offered financial compensation for preserving their forests, thereby helping to avoid increases in CO₂ emissions.

For the ultimate impact in developing countries, one significant development is that an increasing number of actors are becoming aware of environmental degradation and the need to adapt to climate change. New forms of cooperation, modified technologies and financing mechanisms are being developed so that developing countries can adapt to the consequences of climate change. Attention to adaptation is also increasing at national level. In 2008, for example, the new Ministry of the Environment in Peru made adaptation one of its main policy priorities. A number of areas in the Peruvian Andes are of great

importance for the climatologically conditions throughout the entire Andes region. Peru has, therefore, decided to take on a leadership role at regional level in developing an adaptation policy for the international climate negotiations. The Ministry is working closely with local NGOs, such as the Association Especializada para el Desarrollo Sostenible (AEDES), on this. The Dutch organisation both ENDS and other NGOs are following this process closely, so that they can contribute to the policy.

In 2007, Dutch civil society organisations, united in the national HIER climate campaign, took the initiative to organize a national meeting on adaptation for representatives of environmental and development organisations. The latter are becoming increasingly convinced of the need to take account of the effects of climate change in their programmes and projects. An example of adaptation is a programme run by the Dutch Red Cross Climate Centre, which builds the capacity of national associations in developing countries to deal with increasingly frequent extreme weather systems. A start has also been made on developing new forms of cooperation between universities, insurance companies, Directorate General for International Cooperation (DGIS), the Ministry of Housing, Spatial Planning and the Environment, and environmental organisations.

The flexible mechanisms under the Protocol - Emissions Trading, Joint Implementation and the Clean Development Mechanism - are all tools incorporated into the Protocol in order to share efforts in reducing greenhouse gases. This ensures that investment is made where there is optimal greenhouse gas-reducing effects, thus ensuring minimal impact on the world economy. Furthermore, the Netherlands policy aims to achieve a balance in measures oriented to CO₂ reduction and measures oriented to reduction of non-CO₂ greenhouse gases.

Dutch policies and measures on the promotion of renewable energies further contribute to reduction of dependence on fossil fuels, meeting rural electricity needs, and improving air quality. Similarly, Dutch activities on the promotion of energy efficiency and CHP measures can reduce energy costs and contribute to the improvement of air quality.

Market imperfections, removing subsidies, etc. (action (a) and (b))

Changes to subsidies under the EC Common Agricultural Policy (CAP) now link payments to environmental, food safety and animal welfare standards, not to agricultural production volume. This encourages responsible agricultural practices.

As a member of the EU, the Dutch electricity market is also liberalised for all users. Also market oriented instruments are implemented as part of the climate change policies, such as the ETS system. In the Netherlands also, a significant part of the N₂O emissions have been included in the system.

One of the packages of measures in the Netherlands is oriented to investigating, demonstrating and implementing the use of carbon capture and storage systems in the Netherlands. Pilot projects have started and/or are being prepared.

Technological development of non-energy use of fossil fuels (action (c))

The technological development of non-energy use of fossil fuels is not a policy or research priority in the Netherlands. Priority is given to improve energy efficiency.

Promotion of bio fuels (action (d) and (e))

Expectations are that the worldwide use of biomass in the energy supply will increase considerably in the coming decades. This will be accompanied by the large-scale planting of energy crops. New areas will be opened up for agriculture. Countries and producers will see opportunities for new activities. But there is growing concern that this must not be at the expense of other important values for nature, environment

and society. To accommodate these feelings, criteria will be needed that indicate whether biomass has been produced in a responsible way.

At the request of the Government, the project group 'Sustainable production of biomass', under the chairmanship of Prof. Dr. Jacqueline Cramer, from the beginning of 2006 has been bringing together different views on sustainable production. On this basis, the project group has drawn up a framework for the testing of the sustainability of biomass production. This report describes this 'testing framework for sustainable produced biomass' and its elaboration in the form of criteria and indicators. The project group defines the sustainability of large-scale production of biomass on the basis of six relevant themes. These themes are for the greater part linked to the 'Triple P' of sustainable development: People, Plant and Profit, supplemented with specific themes for biomass. The project group distinguishes six relevant themes:

- *Greenhouse gas emissions:* Calculated over the whole chain, the use of biomass must produce fewer emissions of greenhouse gases net than on average with fossil fuel. For electricity production, the emission reduction must now amount to at least 50-70%, for the application in transportation fuels at least 30%. These percentages must increase further by innovation in the future. The percentages are minimum requirements. Here the basic principle must be that policy instruments should promote a higher percentage above the minimum requirement by differentiating strongly on the basis of the emission reduction of greenhouse gases. The project group thinks it desirable to achieve, in about ten years time, at least 80 to 90% emission reduction in relation to the current fossil reference. This means that in 2010 it will have to be evaluated to what degree the minimum requirement will have to be tightened up in 2011 to attain the objective of 80 to 90% in ten years time. This aim can be achieved when innovative biofuels are applied and a much more efficient cultivation for the production of energy. The development of new acreage for the planting of biomass for energy must not lead in the longer term to the release of large quantities of carbon that had been stored there (in soil or vegetation).
- *Competition with food and other local applications:* The production of biomass for energy must not endanger the food supply and other local applications (such as for medicines or building materials). Criteria for this have not been determined yet; reporting on changes in land use in the region and in prices for food and land is of great importance here.
- *Biodiversity:* Biomass production must not affect protected or vulnerable biodiversity and will, where possible, have to strengthen biodiversity. Often, local laws and regulations have been grafted on international agreements about biodiversity. Vulnerable areas and areas with a high value for biodiversity must be spared, where possible restoration of biodiversity is desirable.
- *Environment:* In the production and processing of biomass, the quality of soil, surface and ground water and air must be retained or even increased. This makes demands, for example, on the use of fertilisers and pesticides, but it also requires the application of the 'best practices' for instance to prevent erosion or additional emission of harmful substances.
- *Prosperity:* The production of biomass must contribute to local prosperity. Criteria for this have not yet been developed. Reports that fit in with descriptions according to the Global Reporting Initiative can indicate if, for instance, the economic value of the biomass production will directly benefit the local community
- *Social Well-being:* The production of biomass must contribute to the social well-being of the employees and the local population. The production of biomass must at least comply with international principles that have been laid down by the International Labour Organisation, in the UN Universal Declaration of Human Rights and in other treaties. Reports must also bring to light any violations of property rights or corruption.

Strengthening capacity and assisting developing countries (15.CMP.1.para 2. Actions (e) and (f))

The Netherlands promotes the transfer of technology and capacity building through various channels, for example through:

- EU programmes and mechanisms;
- participation in IEA programmes;
- bilateral or multilateral programmes and schemes
- use of flexible mechanisms such as CDM.

These are extensively described in the 5th National Communication.

A recent impact evaluation by the World Bank shows that increased use of electricity leads to improved quality of air in homes (through better cooking facilities), better health provisions (including refrigeration for medicines, good light for operations), and greater availability of information (reading lights, radios, the Internet). This enables the poor to more easily meet their basic needs. The Netherlands has set itself the target of providing 10 million people in developing countries with modern energy by 2015. Between 2004 and 2007, through a variety of programmes funded by the Netherlands, 5.5 million people started to use of modern, sustainable forms of energy, including biogas installations, small-scale hydraulic power stations, solar panels etc. On the basis of the most recent calculations, the total number of people benefiting had reached 6.3 million by the end of 2008.

Multilaterally, the Netherlands cooperates in the Energy Fund for Africa (the World Bank, the IFC and the African Development Bank), the Asia Sustainable Technology and Alternative Energy (ASTAE) programme for Southeast Asia, and the Energy Sector Management Assistance Programme (ESMAP). The results of this cooperation include knowledge on the application of renewable energy, strengthening national organisations for renewable energy and access to renewable energy for the poor. For example, hydraulic power stations have been set up in Zambia, and solar energy programmes in Mongolia. In Southeast Asia, energy loans are provided to projects that use renewable energy.

Bilaterally, the Netherlands participates in a regional programme for the Great Lakes region, in the renovation of existing hydraulic power plants, the transmission of electricity, extending the electricity network and decentralising energy programmes. Methane excavation from Lake Kivu has a prominent place in these activities. In Rwanda, a national energy plan has been developed in which renewable energy has been integrated. In the DRC, a programme has been elaborated to renew the electricity network in Kisangani. In Indonesia, a number of Dutch energy partners, including NL Agency, are supporting a nationally operating energy programme, together with the World Bank and GTZ. As a result, thousands of households are now connected to the electricity network and solar panels and small-scale hydraulic power stations have been installed. Cleaner energy is now also available in the form of biogas and vegetable oils.

A large number of new initiatives have been developed in cooperation with civil society organisations and the private sector. The Netherlands Development Organisation (SNV) conducts biogas programmes in Asia and a biogas programme is being set up, together with SNV and Hivos, in six African countries. The Global Village Energy Partnership strengthens local small-scale private enterprises in developing countries. The Free Energy Foundation works to increase the use of solar power in Africa. Partnerships with Nuon, Philips and the FMO's Access to Energy fund collaborate with local companies that supply consumers with electricity on the basis of renewable energy. This helps to make low-energy products available in local markets. Here, too, the results contribute to poverty reduction and economic development, help reduce the growth of CO₂ emissions and strengthen the position of women.

26. New Zealand

Annual inventory submission 2009

Information on how New Zealand is meeting its obligations under Article 3.14 will be reported in the 2010 inventory submission.

Annual inventory submission 2010

This chapter provides information on New Zealand's implementation of policies and measures that minimise adverse social, environmental and economic impacts on non-Annex I Parties, as required under Article 3.14 of the Kyoto Protocol.

15.1 Overview

New Zealand's Cabinet and legislative processes to establish and implement climate change response measures include consultation with the Ministry of Foreign Affairs and Trade and with the public. The Ministry of Foreign Affairs and Trade provides advice to the Government on international aspects of proposed policies. During the public consultation phase, concerns and issues about the proposed measure can be raised by any person or organisation.

Through the New Zealand Government's regular trade, economic and political consultations with other governments, including some non-Annex I Parties, there are opportunities for those who may be concerned about the possible or actual impacts of New Zealand policies to raise concerns and have them resolved within the bilateral relationship. To date, there have been no specific concerns raised about any negative impact of New Zealand's climate change response policies.

The New Zealand Government, through New Zealand's International Aid and Development Programme (www.nzaid.govt.nz), has regular Official Development Assistance programming talks with partner country governments, where partners have the opportunity to raise concerns about any impacts and to ask for or prioritise assistance to deal with those impacts.

New Zealand's International Aid and Development Programme also works with partner developing countries to strengthen governance and enabling environments. This improves their ability to respond to changing circumstances. As a member of the Pacific Islands Forum, New Zealand works closely with non-Annex I Parties in the Pacific in a wide range of technical, economic and political fields, addressing concerns that are raised in the regional context.

New Zealand maintains a liberalised and open trading environment, consistent with the principles of free trade and investment, ensuring that both developed and developing countries can maximise opportunities in New Zealand's market regardless of the response measures undertaken.

15.2 Market imperfections, fiscal incentives, tax and duty exemptions and subsidies

Annex I Parties are required to report any progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.

New Zealand does not have any significant market imperfections, fiscal incentives, tax and duty exemptions and subsidies in greenhouse-gas-emitting sectors of this nature.

15.3 Removal of subsidies

Annex I Parties are required to report information concerning the removal of subsidies associated with the use of environmentally unsound and unsafe technologies. New Zealand does not have any subsidies of this nature.

15.4 Technological development of non-energy uses of fossil fuels

Annex I Parties are required to report on cooperation in the technological development of non-energy use of fossil fuels and support provided to non-Annex I Parties. The New Zealand Government has not actively participated in activities of this nature as yet.

15.5 Carbon capture and storage technology development

Annex I Parties are required to report on cooperation in the development, diffusion and transfer of less-greenhouse-gas-emitting advanced fossil fuel technologies, and/or technologies relating to fossil fuels that capture and store greenhouse gases, and encouragement of their wider use; and facilitating the participation of non-Annex I Parties.

New Zealand is a member of the United States-led Carbon Sequestration Leadership Forum (www.cslforum.org), the Australian-led Global Carbon Capture and Storage Institute (www.globalccsinstitute.com) and the International Energy Agency Greenhouse Gas Research and Development Programme (www.ieaghg.org).

15.6 Improvements in fossil fuel efficiencies

Annex I Parties are required to report how they have strengthened the capacity of non-Annex I Parties identified in Article 4.8 and 4.9 of the Climate Change Convention, by improving the efficiency in upstream and downstream activities related to fossil fuels and by taking into consideration the need to improve the environmental efficiency of these activities.

New Zealand, through the Ministry of Economic Development, has worked with the Tuvalu Electricity Corporation to help provide higher quality electricity services at the lowest costs to consumers. This project has included a review and identification of demand-side management and renewable energy opportunities, developing methods for the Tuvalu Electricity Corporation to evaluate solar photovoltaic options, feasibility studies on the use of copra oil and wind for electricity generation and identification of opportunities for increased energy efficiency.

The training/capacity building component of the project means that the Tuvalu Electricity Corporation can improve its service itself and be less dependent on external consultants. As well as identifying key renewable energy options for Tuvalu, the project developed methods through which the Tuvalu Electricity Corporation could evaluate renewable energy options itself. By considering the overall design of the electricity system, and making recommendations on corporate management, the project may also help to ensure the continued economic viability of Tuvalu's electricity company.

The project recommended a number of ways that Tuvalu can reduce its reliance on diesel generation through increased use of wind, copra oil, biogas and energy-efficiency technologies.

Depending on the outcome of the project, increased use of renewable energy and energy efficiency measures will reduce Tuvalu's use of diesel for electricity generation and reduce greenhouse gas emissions.

15.7 Assistance to non-Annex I Parties dependent on the export and consumption of fossil fuels for diversifying their economies

Annex I Parties are required to report on assistance provided to non-Annex I Parties that are highly dependent on the export and consumption of fossil fuels in diversifying their economies. This is one of

the objectives of the International Partnership for Energy Development in Island Nations (www.edinenergy.org). New Zealand is a member of the International Partnership for Energy Development in Island Nations alongside the United States of America and Iceland.

The International Partnership for Energy Development in Island Nations provides:

- sound policies to help remove barriers to clean energy development and create incentives for growth
- financing resources to attract private capital and project developers to islands for renewable energy and energy-efficiency projects
- clean energy technologies by helping to develop a knowledge base through technical assistance and training, and by promoting the transfer of new renewable energy and energy efficiency technologies into the marketplace.

27. Norway

Annual inventory submission 2010

Norway reported briefly on issues in relation to issues in Article 3.14 already in its Fourth National Communication. As a major exporter of fossil fuels, Norway is well aware that widespread international taxation of these commodities, as well as other policies and measures that influence demand, could have implications for prices and thus affect the revenue earned by exporters. This has been emphasized in relation to Article 4.8 and 4.9 of the Convention as well as Article 2.3 and 3.14 under the Kyoto Protocol. This is one of the reasons why Norway emphasizes the need to devise cost-effective policies, and thus minimize such effects. The final effects are, however, highly uncertain and will generally also depend on the producer's policies. Norway's share as a consumer is so small that it is not believed to significantly affect these markets. Cost efficiency across all emission sources and sinks has guided the development of policies and measures since Norway started to implement measures to mitigate climate change two decades ago, and is applied when it is implementing its commitments under Article 3.1 of the Kyoto Protocol.

Market prices and externalities:

In its economic, energy and environmental policy Norway strives to have a market based approach where prices reflect costs including for externalities. Regarding emissions of greenhouse gases, reflecting costs of externalities is done through levies and the establishment of an emissions trading scheme. These instruments put a price on emissions of greenhouse gases. The structure of levies on energy commodities, as well as design of the emissions trading scheme, are reported in chapter 4 of the Fifth National Communication (NC 5).

Further, both the trading scheme and the levies are designed so that the international price of emissions for units under the Clean Development Mechanism and the European trading scheme is reflected in the domestic cost of emissions. The state has also established a purchase programme which acquires the necessary amount of Kyoto units to comply with the commitments under Article 3.1, as well as the unilateral target to overfulfil these commitments by 10% (see NC 5 chapter 4.3.1.9).

This programme, the design of the levy and of the emissions trading system, contributes to a cost effective balance between domestic measures and use of the Kyoto mechanisms.

Unsafe and unsound technologies:

Norway does not have policies to subsidize environmentally unsound and unsafe technologies, and hence phasing out subsidies is not applicable.

Cooperation on carbon capture and storage

Due to its large mitigation potential, Norway has given priority to development of carbon capture and storage as a mitigation option. As a petroleum producer Norway strives to reduce the emissions from the production and refining of petroleum. The national carbon capture and storage projects already in operation, the Sleipner and Snøhvit projects, and the newly approved Gudrun project, are in the petroleum sector.

Norway has taken steps to disseminate information and lessons learned. These efforts are made both through international fora such as the Carbon Sequestration Leadership Forum, and through bilateral cooperation with both developing and developed countries. The results from the Sleipner Project are made available to interested Parties.

The Storting (Norwegian parliament) has endorsed an action plan for dissemination of information on carbon capture and storage as a mitigation option. Four geographical areas have been given priority, Southern Africa, Indonesia, China and the Gulf States (Saudi Arabia, Kuwait, The United Arab Emirates and Qatar). In addition the Norwegian petroleum company Statoil ASA which operates the Norwegian storage projects, is a partner in the Algerian carbon capture and storage project, In Salah. The South African energy company Sasol is a partner in a national test centre for CO₂ capture (Technology Centre Mongstad, please view NC 5 chapter 4.3.9).

Cooperation with developing countries related to fossil fuels - "Oil for Development"

The Norwegian Oil for Development (OfD) initiative aims at assisting developing countries, upon their request, in their efforts to manage petroleum resources in a way that generates economic growth and promotes the welfare of the whole population in an environmentally sustainable way. A description of the OfD programme can be found at www.norad.no.

Decades of experience in the oil and gas sector has given Norway valuable expertise on how to manage petroleum resources in a sustainable way. The Norwegian expertise could be useful for developing countries that already hold petroleum resources, or countries that are in the exploration phase.

OfD holds a holistic approach in its capacity and institution building of public authorities in the partner countries. OfD's assistance is covering technical assistance such as legal frameworks, administration and supervision mechanisms, licensing and tendering processes, organisation of public/ private interfaces of petroleum governance, local content and industrial development. In the environmental management area, impact assessment studies, which will uncover the effects that petroleum activities may have on environmental and social conditions is important. Moreover, to reduce emissions from gas flaring is another crucial element. Revenue management is touching upon the establishment of government take systems, taxation, anti-corruption and petroleum funds. As of 2009, nine countries are engaged in long-term cooperation; Angola, Bolivia, Ghana, Madagascar, Mozambique, Nigeria, Sudan, Timor-Leste and Uganda, while 16 countries receive limited assistance. These latter are Afghanistan, Bangladesh, Cambodia, Ecuador, Iraq, The Ivory Coast, Kenya, Lebanon, Mauritania, Nicaragua, The Palestinian Territory, São Tomé and Príncipe, South Africa, Tanzania Vietnam and Zambia.

The OfD initiative was launched in 2005. The resources allocated to OfD has grown from about NOK 80 million in 2006 to NOK 205 million in 2008 and 207 million in 2009. However, Norway through the Norwegian Petroleum Directorate and other agencies have assisted developing countries with petroleum resources for almost 30 years. A ministerial Steering Committee has been established to formulate strategic directions, guidelines and priorities for the OfD. The Steering Committee consists of the Ministry of Foreign Affairs (Chair), the Ministry of Petroleum and Energy, the Ministry of Finance and the Ministry of the Environment. The OfD secretariat is part of the Norwegian Agency for Development Cooperation (Norad), and is responsible for coordination and implementation of the initiative. The Norwegian embassies play an essential role in the OfD, as extensive development cooperation responsibility is assigned to them.

Key implementing agencies include the Norwegian Petroleum Directorate, Petrad (International programme for petroleum management and administration), the Climate and Pollution Agency, the Directorate for Nature Management and the Petroleum Safety Authority. A range of consultancies and research institutions are also involved.

National and international NGOs are involved in the OfD initiative. In 2008, more than NOK 18 mill. were transferred to organisations, which are involved in capacity building of NGOs in the OfD partner countries. Moreover, Norway gives priority to the Extractive Industries Transparency Initiative (EITI), and partner countries' engagement with EITI will be seen as a clear advantage. OfD also work with the World Bank, International Monetary Fund, African Development Bank and the UNDP. Norwegian oil and gas industry may also be drawn upon in transferring expertise and knowledge.

28. Poland

Annual inventory submission 2010

Below Poland provides information on how it is implementing its commitment under Article 3.14 of the Kyoto Protocol related to striving to implement its commitment under Article 3.1 of the Kyoto Protocol in such a way as to minimize potential adverse social, environmental and economic impacts on developing countries.

In Poland app. 90 % of electrical energy needs and app. 80% of centralized heat needs are satisfied based upon coal. Adopted by the Government on 2009 „Energy Policy for Poland until 2030” assumes that for the next 20 years coal will play the role of stabilizer of Poland’s energy security. One of the conditions of its implementation (in light of climate-energy packet) is the application of low-emission technologies of energy acquiring , i.e. Clean Coal Technologies (CCT). This subject was taken up earlier in „Strategy of hard coal mining sector in Poland in 2007-2015”, where it was noticed that in light of depleting world resources of crude oil and increasing world prices of that raw material, it is necessary to search for alternative energy sources. One of them is production of liquid and gaseous fuels based on hard coal. The Ministry of Economy was assigned the task to prepare a feasibility study for the installation that would produce liquid and gaseous fuels based on hard coal. The study should help specify advantages and disadvantages for various technological solutions.

One should also note research on CCT conducted by Polish research and development institutes. The leading role in this research is played by: Central Mining Institute (GIG) in Katowice and Institute for Chemical Processing of Coal at Zabrze. These two institutes – based on an agreement - began to develop the Centre for Clean Coal Technologies. The aim of the Centre is to create in Poland a EU leading research centre and know - how centre for commercialization of innovative CCT. Unique research infrastructure of the Centre, that will include i.e. demonstration installations, will allow for carrying out basic research as well as development and demonstration studies concerning promising technologies of

coal use. The development of the Centre is co-financed from Operational Program Innovative Economy, years 2007-2013, Priority 2. Infrastructure areas B+R, Activity 2.1 Development of centres of high research potential. It is worth to mention that GIG participates in the European program on underground coal gasification - HUGE (*Hydrogen Oriented Underground Coal Gasification for Europe*).

Poland attends in the European’s Union actions in the areas aiming at minimization of adverse impacts in accordance with Article 3.14. One of the example of EU legislation on trade that has or can have influence on developing countries is the COUNCIL REGULATION (EC) No 732/2008 of 22 July 2008 applying a scheme of generalized tariff preferences for the period from 1 January 2009 to 31 December 2011 – so called UE GSP system (mechanism). According to the Regulation, developing countries that plan to apply for being covered by generalized tariff preferences when accessing EU market within the so called GSP+ mechanism, independently of necessity to fulfill specified economic criteria, are obliged to ratify and effectively implement a number of international conventions including the Kyoto Protocol to the Framework Convention on Climate Change.

With respect to trade issues, the multilateral WTO negotiations within the DDA round, in which European Commission (EC) participates on the basis of negotiation mandate that Member States granted to EC, cover inter alia activities that aim at liberalization of trade of environmental goods and services EGS. The main goal of the negotiations in this respect is to identify barriers that limit trade exchange of these products. The issue of lowering or removing the barriers both in form of tariffs and non-tariffs that concern environmental goods and services, was specified in para. 31(iii) of Ministerial Declaration of Doha. Negotiations in this respect as well as the entire DDA WTO round have not been finalized yet. In the context of bilateral and multilateral negotiations on agreements on free trade zones (FTZ), the key role

is played by Commission Announcement of 2006 „Global dimension of Europe – Competing on global market”, that specified how EU trade policy is to support European strategy of economic and employment growth.

In accordance with that document, one of the proposed activity was to negotiate by EU comprehensive agreements on FTZs with selected third parties. In the Announcement, it was noticed that striving for economic growth through trade may have impact on environment especially for biodiversity and climate. According to the approach proposed by the Commission towards FTZs of „new generation” with developing countries (i.e. India, Latin America countries, Peru and Columbia) EC is trying to introduce agreements on cooperation on employment norms and environmental protection by taking into consideration development needs of trade partners. Additionally the following bilateral projects are performed under supervision of the Ministry of Foreign Affairs covering the area article 3.14 of the Kyoto Protocol:

- project no. 217/2010 Polish-Ukrainian Cooperation Foundation PAUCI entitled „For the good of national budget and climate – energy saving planning in Ukraine”,
- project no. 504 Association for innovation and technology transfer HORYZONTY entitled „Energy savings – Exchange of experiences in systems solutions and good practices in Poland and Ukraine”,
- project no. 545 Association of Polish Communities (districts) Polish Network *Energie Cites* pt. „Two countries – one energy saving program i.e. Polish-Ukrainian cooperation for above national initiative of the European Commission entitled „Mayors Agreement”,
- project no. 229 Warmia-Mazury Centre for Agricultural Consultancy entitled „Exchange of mutual experiences of agricultural consultancy between Poland and Ukraine on agriculture development including ecology and renewable energy sources”.

Moreover, in accordance with „Program of Polish foreign aid rendered via Polish Ministry of Foreign Affairs in 2010” – energy saving is among priority sectors in Polish development cooperation with Ukraine.

29. Portugal

Annual inventory submission 2010

Portugal's contribution to the minimisation of the adverse effects of climate change in other Parties, particularly developing countries, is carried out through a strong commitment to implementing the Convention and the Kyoto Protocol.

As such, the policies and measures implemented, adopted or foreseen in PNAC, targeting the six GHG of the Kyoto Protocol through its broad portfolio of instruments and wide-ranging coverage of all sectors of the economy, make up a significant effort by the Portuguese Government to address climate change, including the minimization of adverse effects of such policies.

In some cases, such as measures pertaining to the diversification of primary energy sources (namely shifting to natural gas), there can simultaneously be positive effects on Portugal's emissions reduction and in the economy of some fossil fuel exporting countries.

30. Romania

Annual inventory submission 2010

According to the Article 3.14 of the Kyoto Protocol, Annex I countries will take mitigation measures in such a way as to minimize adverse social, environmental and economic impacts on developing countries.

As Romania pointed out in the previous National Communications on Climate Change following the Article 12 of the UNFCCC and also to the European Commission and the European Environmental Agency, following the Decisions 280/2004/EC and 166/2005/EC, the levels of GHG emissions during 1989-2008 were far below the reduction commitment taken within the Kyoto Protocol.

This reduction was mainly the result of the reduction on the economic activities level, the upgrading of technologies and energy efficiency activities promoted in the European Union integration process.

Therefore at present, we cannot consider that there is an adverse social, environmental and economic impacts on developing countries produced by our national climate change policy.

As a European Union (EU) Member State, our national climate change policy will be developed for the next period in compliance with the European relevant policy and will adopt the necessary measures to contribute to reducing the adverse impacts on developing countries, impacts specific to its implementation (example: during the next period of the European Union-Emission Trading Scheme, particularly on the inclusion of aviation).

During the current international negotiation process in order to conclude a new binding reduction targets, our country is expressing its intention to contribute to the fast start financing EU effort to support the developing countries to develop proper mitigation policies.

31. Russian Federation

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10.5 Сведение к минимуму неблагоприятных последствий в соответствии с пунктом 14 статьи 3

В Российской Федерации планируются и осуществляются политика и меры, направленные на предотвращение антропогенных изменений климата и снижение воздействия на климатическую систему. Осуществление политики и мер выполняется в комплексе с решением таких задач, как повышение энергоэффективности и общей эффективности экономики, охрана окружающей среды, охрана здоровья населения. Так, указом Президента Российской Федерации от 4 июня 2008 г. N 889 «О некоторых мерах по повышению энергетической и экологической эффективности российской экономики» предусмотрено снижение к 2020 г. энергоемкости валового внутреннего продукта Российской Федерации не менее, чем на 40 процентов по сравнению с 2007 г., обеспечение рационального и экологически ответственного использования энергии и энергетических ресурсов, что приведет к значительному снижению выбросов парниковых газов на единицу ВВП.

«Основные направления государственной политики в сфере повышения энергетической эффективности электроэнергетики на основе использования возобновляемых источников энергии на период до 2020 года», утвержденные распоряжением Правительства Российской Федерации от 8 января 2009 г. № 1-р, определяют цели, и принципы использования возобновляемых источников энергии, содержат целевые показатели объема производства электрической энергии с использованием возобновляемых источников энергии и ее потребления в совокупном балансе производства и потребления электрической энергии, а также меры по достижению этих показателей. На период до 2020 года устанавливаются следующие значения целевых показателей объема производства и потребления электрической энергии с использованием возобновляемых источников энергии (кроме гидроэлектростанций установленной мощностью более 25 МВт): в 2010 г. – 1,5 %; в 2015 г. - 2,5 %; в 2020 г. – 4,5 %.

Российская Федерация обеспечивает себя энергоресурсами почти полностью за счет их внутренней добычи. В то же время, значительный объем энергоресурсов поставляется в зарубежные страны. Российский природный газ замещает в странах-импортерах более карбоноемкие виды топлива, снижая, таким образом, выбросы в атмосферу парниковых газов, в первую очередь, CO₂. В число импортеров входят как развитые, так и развивающиеся страны. В частности, в соответствии с долгосрочным соглашением о сотрудничестве между Российской Федерацией и КНР, в рамках строительства нефтепроводной системы "Восточная Сибирь - Тихий океан" предусмотрено строительство ответвления на Китай, обеспечивающее транспортировку до 15 млн. т нефти в год в течение 20 лет, начиная с 2011 года, когда планируется завершить строительство. Готовится соглашение о ежегодных поставках в КНР около 70 млрд. м³ российского газа. Природный газ будет доставляться по двум направлениям: западному - из ресурсной базы в Западной Сибири и восточному - с месторождений Восточной Сибири, Дальнего Востока и Сахалина. Поставки природного газа будут способствовать сокращению потребления в КНР угольного топлива и внедрению современных технологий в энергетическом секторе.

Также, Российская Федерация осуществляет укрепление потенциала в области предотвращения изменения климата в развивающихся странах путем подготовки квалифицированных специалистов. Обучение осуществляется в высших учебных заведениях и в аспирантуре в рамках соответствующих международных соглашений. Помимо обучения специалистов из развивающихся стран производится обучение студентов и аспирантов из стран СНГ. По специальности «Метеорология» в РФ обучаются 46 иностранных студентов из развивающихся стран, являющихся Сторонами РКИК ООН.

Литература и источники данных

1. Охрана окружающей среды. Экологический отчет ОАО Газпром за 2008 год. М.: ОАО Газпром, 2009, -59 с.
2. Пятое национальное сообщение Российской Федерации. (Под ред. Ю.А. Израэля, А.И. Бедрицкого, А.В. Фролова, В.Г. Блинова и др.) -М.: 2010, -196 с.
(http://unfccc.int/resource/docs/natc/rus_nc5_resubmit.pdf).

32. Slovakia

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Economy of the Slovak Republic, being a small open economy does not allow for a significant impact of its internal price mechanism on the development of world prices. From this point of view, any potential impacts of the measures adopted in the Slovak Republic on other countries can be considered as minimal. This situation has changed to some extent following our accession to the EU and integration into the single European market. Historically, a major bulk of the adopted measures within the environmental policy was of command and control type of regulatory measures. By the end of nineties a shift has occurred towards an increasing application of the polluter pays principle penalizing polluters and providing incentives for adoption of more environmentally sound technologies in particular through fiscal policy instruments. Their major benefit expected was an increasing emphasize on cost effective compliance with the adopted environmental target through the function of the price mechanism. The fundamental ideal of the price liberalization was establishment of a competitive environment, where market generates an equilibrium price of commodities. An adequate regulation is acceptable in case of a lasting existence of market imperfections. In charge of supervision on the price development founded by the macroeconomic fundamentals are independent regulatory institutions, which are also responsible to correct the existing market distortions.

- **Coal industry**

State aid granted to the coal industry consists of three main pillars: coal, steel and electricity markets. The Slovak Republic has fully privatized the former state owned mines and continues in granting the coal industry investment aid. Report prepared by the EC notes that mines in the Slovak Republic are in terms of production costs competitive with respect to the prevailing world prices. Subsidies granted to the coal industry affect only the provision of the coal resources, i.e. the decision whether to buy own or imported coal. However, the other regulation such as compulsory utilization of home extracted coal does also affect the composition of the energy mix, i.e. the share of coal on the electricity production.

European Commission has highlighted the potential impact of these decisions on the internal electricity market. Impacts of similar types of measures adopted within the coal industry on the steel markets have not been observed. Within the period of 2003 – 2006 coal prices on world markets remained more stable in comparison with other fossil fuels such as oil and gas. The Slovak Republic does not export its coal to the other countries. On the base of the mentioned facts we can conclude that the economy of the Slovak Republic has minimal impact on the existing structure of the international trade with coal and pricing.

- **Flexible mechanism KP**

During the first commitment period of the Kyoto Protocol (2008 – 2012) the emission allowances for the EU ETS sectors are allocated free of charge. No quantitative study has yet examined the potential transmission of the emission allowances prices on the producer prices and the price of electricity within EU ETS sectors. No significant impact of the variation of emission allowance prices on the oil consumption within the Slovak Republic in the near term future is expected. As well as any influence originating from the actions taken by the regulators in the Slovak Republic on the potential revenues of the oil exporting countries will remain insignificant. The Slovak Republic is hosting one JI project and at this stage does not participate in any CDM project in developing countries.

- **Utilization of biofuels**

Policies supporting the utilisation of the biofuels are closely linked to the EU trade and common agricultural policies. Strategies to faze in the alternative sources of motor fuels have been developed within the National Program of Development of Biofuels, while their practical implementation has been

regulated by the Directive 246/2006 Coll. which entered into force the 1st May 2006. This directive has set the minimum levels of biofuels in motor gasoline and diesel oil. A range of programs with focus on enhancement of biofuels utilisation within European Union³² has provided a significant stimulus for the production of biofuels as well as to the stronger growth of the international trade with biofuels, often with negative side impacts on the economies of developing countries. Despite increasing imports of biofuels we perceive the impact of the Slovak Republic on the world prices of biofuels as negligible.

- **Carbon leakage**

Carbon leakage due to the decreasing share of allocation of emission allowances through grandfathering pro bono of auctions and benchmarks requires detailed and continuous analysis. A potential solution to minimize the risk of carbon leakage and reallocation of the industrial base in the countries with less stringent environmental policies is subsequent rise of the shares of allowances to be allocated through auctioning. This measure is relevant for the sectors, where the risk of the carbon leakage has been identified.

- **Foreign aid**

According to the preliminary assessment of the bilateral and specific projects of the foreign development policy of the SR within 2004 – 2007, more than 21% of these projects focused on the support of the utilization of renewable energy resources and energy efficiency, on the adaptation measures including construction of the early warning systems, adjustments and efficiency improvements of the water management as well as for capacity building and improvement in the infrastructure for the compliance with Convention and Kyoto Protocol (Serbia, Kazakhstan). The Slovak Republic as a country with rich experiences within this area, participates on aid delivered in order to strengthen practical implementation of the Kyoto Protocol and compliance with its commitments and preparation of the legislative framework for implementation of the market mechanisms and emission trading systems (administration and national emission registries, emission audits, monitoring systems and emission balances). The Slovak Republic is able to deliver projections of hydro power plants, complex delivery of the relevant technology as well as inspection of construction. Currently, we have not been carrying out any programs of assistance for oil exporting countries. Recently Slovak oil imports have remained stable with slightly increasing trend, what is note expected to have any negative impacts on oil exporting economies. In addition to the delivered development aid, the Slovak Republic has expanded the provisions of preferential market access for the developing and the least developed countries.

³² A strong demand growth for biofuels has contributed also a combination of different supporting policies in the EU and USA.

33. Slovenia

Annual inventory submission 2010

Slovenia is aware that climate change as well as efforts for the reduction of GHG emissions will have a negative effect on all countries, while especially sensitive are some developing countries.

The Kyoto Protocol considers all these factors; namely, its objective is to reduce emissions, the consequence of which is a direct reduction of the harmful influences of climate change. Furthermore, activities for the reduction of emissions aren't restricted to one gas or sector; namely, the objectives and activities are restricted to six gases and various sectors, which is why the burden can transfer between them. The Kyoto Protocol additionally introduces flexible mechanisms that also additionally allocate the burden outside individual countries; the Protocol also promotes technology and knowledge transfer.

Slovenia executes additional activities from this area as an EU member. In 2004, the EU adopted an action plan from the area of climate change and development, the objective of which is to provide aid to developing countries for the achievement of economic progress.

34. Spain**Annual inventory submission 2010**

Para minimizar los posibles efectos adversos sobre países en desarrollo que las políticas y medidas nacionales de mitigación de emisiones de GEI implantadas en España pueden tener se han tomado las siguientes medidas:

- **Plan Nacional de Asignación 2008-2012**, (Implantación del Sistema europeo de comercio de derechos de emisión-ETS). La sujeción de distintas instalaciones industriales al régimen de comercio de derechos de emisión, en principio, debe considerarse como una circunstancia que en términos de competencia internacional, en principio, no tiene por que provocar efectos adversos sobre países en desarrollo; antes al contrario, la producción en esos países se encontraría en una posición favorable respecto a la de los países de la UE.

No obstante, hay que tener en cuenta que la asignación gratuita de derechos se ha realizado ex ante, y por tanto considerando en producciones históricas previas a la crisis económica global. Por esta razón ha existido un saldo positivo en 2008 de derechos en muchas instalaciones de los sectores industriales no energéticos, por lo que muchas empresas han podido vender sus derechos excedentarios. Por otro lado, las empresas han tratado de volcar sus esfuerzos en la exportación para compensar la caída de los mercados locales.

Esta situación puede ser vista por algunas industrias en países con los que se compite como ayudas de estado.

A este respecto, hay que tener en cuenta que esta situación es, como se ha apuntado, consecuencia de las propias reglas que rigen el régimen, de comercio de derechos de emisión, basadas, como no puede ser de otro modo, en una asignación ex ante que, en principio, se plantea como restrictiva con el objeto de cumplir con los objetivos ambientales marcados. Por otro lado, existen medidas dirigidas a evitar o limitar el alcance de estas distorsiones, como son las orientadas a identificar los ceses de actividad en plantas industriales incluidas en el Plan para evitar, en esos casos, la expedición de derechos en años sucesivos, de acuerdo los criterios indicados en la Ley 1/2005.

- **Plan de Energías Renovables, área de biocarburantes**. (Fomento del uso de biocarburantes) Podría tener como efecto negativo un posible incremento del precio de los alimentos por importación de biocarburantes y el aumento de la presión sobre ecosistemas sensibles (deforestación, uso de recursos naturales).

Actualmente, está en fase de transposición en España la Directiva 2009/28/CE del Parlamento Europeo y del Consejo, de 23 de abril de 2009, relativa al fomento del uso de energía procedente de fuentes renovables y por la que se modifican y se derogan las Directivas 2001/77/CE y 2003/30/CE.

Para minimizar los efectos adversos sobre ecosistemas sensibles, la Directiva establece que los biocarburantes y los biolíquidos, para ser contabilizados dentro del objetivo de uso de energías renovables y para recibir ayudas financieras, deben ser calificados como «sostenibles» en virtud de una serie de criterios establecidos en la Directiva, entre ellos, no producirse con materias primas procedentes de tierras de elevado valor en cuanto a biodiversidad o que presenten una gran reserva de carbono.

Por otro lado, la Directiva establece la obligación de redactar informes bianuales sobre el cumplimiento de estos criterios de sostenibilidad y la evaluación de los efectos que la importación de biocarburantes está teniendo sobre los países exportadores. Estos informes permitirán tomar medidas más estrictas en caso de advertir que, aún cumpliendo con los criterios establecidos, esta política de fomento de los biocarburantes está teniendo efectos adversos sobre países en desarrollo.

Esta pendiente la evaluación que, sobre la importación de fertilizantes puedan tener ciertas medidas del uso racional de los mismos para evitar emisiones de N₂O si bien el proceso actual identificado es inverso por la deslocalización de las fábricas nacionales hacia países del norte de África.

No se han identificado otros posibles efectos adversos, según se muestra en la siguiente tabla resumen de las políticas y medidas implantadas en España, según se exponen en la 5 Comunicación Nacional, en la que se señalan aquellos posibles efectos, positivos o negativos, sobre países en desarrollo identificados.

Tabla 15.1.- Efectos adversos identificados

Denominación	Objetivo y/o actividad	Efectos Directos	Efectos Indirectos
PLANES, PROGRAMAS, Y ACCIONES LEGISLATIVAS			
A.1. Estrategia Española de Cambio Climático y Energía Limpia	Marco estratégico nacional de las actuaciones en materia de cambio climático	Ver Políticas sectoriales a continuación	
A.2. Plan de Medidas Urgentes	Desarrollo urgente de actuaciones de la EECCEL para favorecer la reducción inmediata de emisiones	Ver Políticas sectoriales a continuación	
B Plan Nacional de Asignación 2008-2012. (Sistema europeo de comercio de derechos de emisión-ETS)	Fomento de la reducción de emisiones de una forma económicamente eficiente	NO	Carbon Leakage: Efecto positivo: Estímulo económico Efecto negativo: Emisiones
C: Fondos de Carbono	Obtención de unidades de reducción de emisiones para facilitar el cumplimiento del Protocolo de Kioto	Efecto positivo: Proyectos de desarrollo limpio	NO
D.1. Ley de Calidad del Aire y Protección de la Atmósfera	Prevención, vigilancia y reducción de la contaminación atmosférica	NO	NO
E.1. II Programa Nacional de Reducción de emisiones	Cumplimiento de la Directiva 2001/81/CE sobre techos nacionales de emisión de determinados contaminantes atmosféricos	NO	NO

Tabla 15.1.- Efectos adversos identificados (Continuación)

Denominación	Objetivo y/o actividad	Efectos Directos	Efectos Indirectos
POLÍTICAS SECTORIALES			
Sector Energético			
A: Planificación de los Sectores de Electricidad y Gas 2008-2016	Infraestructuras para fomentar la generación eléctrica mediante tecnologías limpias	NO	Efecto positivo: Impacto económico sobre países exportadores de gas
B: Estrategia de ahorro y eficiencia energética en España 2004-2012 (E4)	Mejorar los índices de eficiencia energética de diversos sectores.	NO	NO
	Medidas adicionales y de		
C: Plan de Activación del Ahorro y la Eficiencia energética 2008-2011	aceleración de las anteriores para el fomento de la eficiencia energética sobre tres ejes: Movilidad, edificación y energía eléctrica	NO	NO
C: Plan de Energías Renovables 2005-2010 (PER)	Aumento del peso de las energías renovables en el balance energético nacional	Ver desglose a continuación	
C.1: PER, sector eólico	Incremento de la potencia eólica en 1.200 MW	NO	Efecto positivo: Impacto económico en países exportadores de equipos
	Incremento de la potencia		
C.2: PER, sector hidroeléctrico	minihidráulica en 450 MW y la hidráulica en 360 MW	NO	NO
C.3: PER, sector solar térmico	Incremento de la superficie a instalar de 4.200.000 m ²	NO	NO
C.4: PER, sector solar termoeléctrico	Incremento de la potencia instalada de 500 MW	NO	NO
C.5: PER, sector solar fotovoltaico	Incremento de la potencia instalada de 363 MW	NO	Efecto positivo: Impacto económico en países exportadores de equipos
C.6: PER, área de biomasa	Incremento de la potencia instalada de 1.695 MW	NO	NO
C.7: PER, área de biogás	Incremento del consumo de energía primaria en 188 ktep	NO	NO

C.8: PER, área de biocarburantes	Incremento del consumo de energía primaria en 2,2 Mtep		Efecto negativo: Posible incremento de la presión sobre ecosistemas sensibles y del precio de los alimentos por importación de biocarburantes.
Sector Industrial			
A: Ley 16/2002, de prevención y control integrados de la contaminación, y Reglamento de Aplicación	Aplicación de las mejores técnicas disponibles	NO	NO
Sector del Transporte			
A: Plan Estratégico de Infraestructuras y Transportes	Planificación de infraestructuras a medio y largo plazo, y fomento de los medios más eficientes	NO	NO
B: Plan Integral de Automoción	Conjunto de medidas industriales y de impulso de la demanda y la logística, fomento a la I+D+i y medidas financieras que, entre otras cosas, apoya la renovación del parque de vehículos e impulsa los vehículos híbridos eléctricos	NO	Efecto positivo: Impacto económico en países exportadores de vehículos y baterías

Denominación	Objetivo y/o actividad	Efectos Directos	Efectos Indirectos
POLÍTICAS SECTORIALES (Continuación)			
Sectores Residencial, Comercial e Institucional			
A.1: Real Decreto 314/2006, Código Técnico de la Edificación	Requisitos básicos de los edificios en ahorro de energía	NO	NO
A.2: Reglamento de Instalaciones Térmicas de los Edificios	Requisitos básicos de las dotaciones de los edificios	NO	NO
A.3: Real Decreto 47/2007, de Certificación Energética de Edificios	Clasificar energéticamente los edificios nuevos y rehabilitados	NO	NO
B: Plan Estatal de Vivienda y Rehabilitación	Fomento de actuaciones de rehabilitación y construcción de viviendas protegidas orientadas a la mejora de la eficiencia energética.	NO	NO
C1: Plan Renove Turismo	Mejora de la sostenibilidad de establecimientos turísticos	NO	NO

C2: Fondo Financiero del Estado para la Modernización de las Infraestructuras Turísticas (FOMIT)	Fomento de la recuperación ambiental y paisajística en destinos turísticos maduros, a través de inversiones públicas de entes locales	NO	NO
Sector Agrario			
A.1: Sistema de Información Geográfica Agrario (SIGA)	Seguimiento de emisiones y evaluación de medidas correctoras	NO	NO
A.2: Interacción agricultura-medio ambiente	Estudios de producción de materia seca por pastos y gestión de la dieta ganadera	NO	NO
B.1: Requisitos agroambientales de la PAC	Prohibición de la quema de residuos de cultivos	NO	NO
B.2: Alimentación de la ganadería intensiva	Aumento de la digestibilidad	NO	NO
C: Utilización agrícola del compost de lodos de depuradora y residuos urbanos	Sustitución de abonos minerales por compuestos orgánicos	NO	Posible efecto sobre los flujos comerciales de fertilizantes nitrogenados
D.1: Programas de acción en Zonas Vulnerables a la contaminación por nitratos	Reducir el empleo de fertilizante mineral	NO	
D.2: Códigos de Buenas Prácticas Agrícolas	Incorporación de estiércoles y purines, reduciendo el fertilizante mineral	NO	
D.3: Plan de reducción del uso de Fertilizantes Nitrogenados	Racionalización de la fertilización	NO	
E: Sumideros en la agricultura	Aumento de la captación de CO2	NO	NO
Sector Forestal			
A: Plan Forestal Español (PFE) 2003-2032	Restauración forestal y gestión forestal sostenible	NO	NO
B.1: Lucha contra los incendios forestales	Evitar la destrucción de stock de carbono	NO	NO
B.2: Sanidad forestal	Control fitosanitario de la vegetación	NO	NO
C.1: Inventario Forestal Nacional (IFN)	Inventariado de biomasa y carbono fijados	NO	NO
C.2: Inventario Nacional de Erosión de Suelos (INES)	Detección y cuantificación de los procesos de erosión	NO	NO
C.3: Mapa Forestal Nacional	Cartografía del stock de carbono en los bosques	NO	NO
C.4: Factores de expansión de biomasa	Estudio de las existencias de biomasa en el sistema forestal	NO	NO
C.5: Flujos de carbono	Modelización de captura y liberación de carbono en bosques	NO	NO

Tabla 15.1.- Efectos adversos identificados (Continuación)

Denominación	Objetivo y/o actividad	Efectos Directos	Efectos Indirectos
POLÍTICAS SECTORIALES (Continuación)			
Sector de Residuos			
A: Plan Nacional Integrado de Residuos	Disminución de la generación de residuos y gestión adecuada de los mismos, favoreciendo la reutilización, reciclado, y otras formas de valorización.	NO	NO
B: Captación de biogás en vertederos.	Financiación de instalaciones de desgasificación y	NO	NO

	recuperación de biogas en vertederos		
C: Plan de Biodigestión de Purines	Reducción de GEI en la gestión de Purines	NO	NO

35. Sweden

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The Swedish reporting of information regarding minimizations of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol is presented below. The outline follows that of CMP 15: § 23 och § 24.

Paragraph 23

Each Party included in Annex I shall provide information relating to how it is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement its commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention

According to the provisions of Article 2 of the Kyoto Protocol, each party with quantified commitments under the Protocol is to introduce policies and measures to achieve the emission reductions to which it has made a commitment. The measures implemented are to be compatible with overarching objectives of sustainable development. Measures which would mean that all greenhouse gases regulated by the Protocol can decrease and cover all sectors of society are emphasised. The parties to the Kyoto Protocol are to aim to introduce policies and measures so that adverse effects are minimised. Such effects include adverse effects of a changed climate, effects on international trade and social, environmental and economic effects on other parties, particularly on developing countries.

In connection with the implementation of policies and measures in Sweden, an impact assessment is carried out, including an environmental impact assessment as a basis for decision-making. Such an analysis as far possible also includes assessing the risk of adverse effects in other countries. Formulation of proposals for changes of policy instruments is undertaken in a consultation procedure that makes it possible for operators concerned to give their comments on the proposals. In consultations that include suggestions for new rules or guidelines that may affect trade with other country shall be notified within the EU and to be alerted under the WTO's rules. This process makes it possible for other countries to influence the design of proposals for changed policy instruments and highlight any negative side effects that may arise.

The Swedish research activities, as indicated in Chapter 8 of Swedens National Communication Report 5 (NC 5), among other things contribute to a sustainable global development. There are several examples of interdisciplinary research efforts focused on improving knowledge of effects globally (socially, economically and ecologically) of large-scale introduction of measures to reduce greenhouse gas emissions. Sweden's focus on increased use of bioenergy, both through increased domestic production but also through increased imports in particular from developing countries, has meant that this area has been specially prioritised in systemscience research in the country.

Results from research have already influenced, and will in future influence, the development of policy. The special sustainability criteria devised for vehicle biofuels under the EU Renewables Directive is one such example. Both positive and negative effects must be taken into account. Sweden contributes to a number of measures that may have positive effects on the prospects of developing countries adapting to climate change and implementing their own measures to reduce their greenhouse gas emissions. A description is given in Chapter 7 of NC5 of such efforts in the areas of technology transfer, knowledge building and support for adaptation measures. In addition, Sweden contributed multilateral aid in addition to our commitments by additional financial support to the special climate change Fund and least developed countries fund.

Finally Sweden wishes to emphasise that its climate strategy with its broad focus on many different types of measures covering the majority of sectors of society (both in and outside the country) and all greenhouse gases governed by the Kyoto Protocol has a form which fundamentally limits (minimises) the risk of adverse effects.

Paragraph 24 (a)

Annex II Parties shall incorporate information on how they give priority to the following actions:

(a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities

Sweden has to a large extent reformed the energy markets and phased out any market imperfections. The market price on electricity is deregulated and governed by the balance between demand and supply on a cross-border electricity market. In Sweden fossil fuels used outside the EU emissions trading scheme (ETS) is subject to a carbon dioxide tax to reflect the external cost. In EU ETS it is mainly the price of allowances that reflect the external effect of carbon dioxide emissions and the market failure.

Paragraph 24 (b)

Removing subsidies associated with the use of environmentally unsound and unsafe technologies

Sweden does not extract oil, natural gas or coal, and therefore, has no subsidies on these fuels. With the introduction of the EU ETS for CO₂ emissions a cost have been imposed on environmentally harmful technologies such as fossil fuel based heat- and electricity production and industries. Paragraph 24 (c)

Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end

The chemical industry including refineries contributes to a fairly small share of the overall Swedish industrial production. This technological field is not a high priority in the Swedish research policy.

Paragraph 24 (d)

Cooperating in the development, diffusion, and transfer of less-greenhouse-gasemitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non- Annex I Parties in this effort

Sweden has an almost fossil free heat- and power production and therefore don't give priority to research and technology development in the field of advanced fossil based techniques for electricity and heat production technology. Since, there is an automotive industry in Sweden, research programmes in the areas of hybrid technologies, automatic control systems for more energy-efficient internal combustion engines and the use of diesel oil for hydrogen production have been carried out over a long time period. The programmes are designed in particular to contribute to reduced fuel consumption for road vehicles. A development which is also of value for more fuel efficient passenger- and goods transport in non-Annex 1 countries, particularly those who are dependent on imports of oil, diesel and petrol.

Carbon Capture and Storage technology has in recent years been given priority in the Swedish research and climate policy and Sweden is keen on launching a demonstration project in this area. In the long term Sweden have the ambition to participate in the field of multilateral research collaborations

Paragraph 24 (e)

Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities

Sweden contribute to technology development in developing countries through development assistance and CDM projects, see chapter 7 of NC 5. The focus on transfer of technologies is primarily on energy efficiency technologies and on the introduction of renewable energy, but also to contribute to capacity-building. By providing knowledge about how CDM projects evolve, are administered and implemented for approval, which Sweden has made in African countries, the ability to *inter alia* obtain technology that enhances the efficiency of fossil fuel-intensive activities as well as other climate-related environmental technology projects improves.

Paragraph 24 (f)

Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies

Sweden assists developing countries which are dependent on imports for its fossil fuel consumption with the transfer of more energy-efficient technologies, renewable energy technologies and capacity-building which enhances diversification of the economy in these countries (see chapter 7 of NC 5). *Inter alia*, through;

- support for research programmes on renewable energy technologies coordinated by Asian Institute of technology,
- education on sustainable energy technology in partnership with universities in Uganda, Mozambique, Ethiopia and Tanzania,
- support for photovoltaic technologies for energy services to rural areas in Zambia.

In addition to development cooperation projects, Sweden is engaged in CDM projects in biomass based electricity generation, wind energy, biogas production, hydro-electric power production and energy efficiency projects which contribute to economic development and diversification of the economy in fossil fuel dependent developing countries. Capacity-building about how CDM projects evolve, are administered and implemented for approval, which Sweden has made in African countries, support a greater diversification of the economy in the countries concerned.

36. Switzerland

Annual inventory submission 2010

The Convention (Art. 4 §8 and §10) and its Kyoto Protocol (Art. 2 §3 and Art. 3 §14) commit Parties to strive to implement climate policies and measures in such a way as to minimize adverse economic, social and environmental impacts on developing countries when responding to climate change. The concrete assessment of potential impacts on developing countries is extremely complex and uncertain, as the effects are often indirect, potentially positive and negative in nature, displaced over time and interacting with other policies, including those applied in developing countries. Switzerland has implemented different instruments striving at minimizing potential adverse impacts of its climate change response measures.

Switzerland recognizes the need to design policies and measures carefully and to consider potential adverse consequences of those initiatives. In order to ensure a balanced distribution of mitigation efforts and thus also limiting the scope of potential adverse impacts of the different measures on concerned actors (including developing countries), Switzerland is implementing climate change response measures in all sectors and for different gases. The policies and measures are very much compatible and consistent with those of the European Union in order to avoid trade distortion, non-tariff barriers to trade and to set similar incentives. All major projects of law in Switzerland are accompanied by impact assessments, inter alia including evaluation of trade-related issues and impacts on third countries. In accordance with international law, this approach strives at ensuring that Switzerland is implementing those climate change response measures, which are least trade distortive and do not create unnecessary barriers to trade. Consistently, Switzerland notifies all proposed non-tariff measures having a potential impact on trade to the WTO, where specific concerns can be raised by other parties. Moreover, new policy initiatives in Switzerland have to be implemented in such a way as to be consistent with Swiss development policy, thereby striving to avoid negative economic, social and environmental impacts on developing countries.

The impact assessment is accompanied by a broad internal and external consultation process, inter alia inviting competent actors to provide advice on international economic, social and environmental aspects of proposed policies and measures. The open public consultation process, together with regular policy dialogues with other countries guarantee that all domestic and foreign stakeholders can raise concerns and issues about new policy initiatives, i.e. including those concerns about possible adverse impacts on other countries.

Measures aiming to enhance economic and energy diversification in developing countries are also crucial to alleviate potential negative impacts of climate change response measures. In this regard, Switzerland is supporting several cooperation programs aiming to enhance economic and energy diversification as well as energy efficiency (FOEN 2009d, chapter 7). For example, Switzerland supports projects in different developing countries to promote the use of renewable energies by promoting attractive framework conditions, financial incentives, technology transfer and projects with a demonstration effect. This helps to make modern technologies for hydropower, solar energy and biogas utilization more easily available to developing countries. Enhanced use of renewable energies contributes to the diversification of the energy mix in developing countries, thereby minimizing not only the impacts of fluctuating fossil fuel prices on developing countries highly dependent on the export and the consumption of fossil fuels but having also positive impacts on mitigation efforts in these countries and fostering the move towards low carbon economies.

There is a rising awareness and demand by consumers for environmentally sound products. In order to alleviate potential adverse economic impacts of corresponding national measures Switzerland promotes and supports the development of international standards, especially with regard to the sustainable use of natural resources (including agricultural commodities), e.g. through the creation of sustainability

standards, financial incentives and favourable framework conditions in developing countries by consultancy services and technology transfer. Furthermore, Switzerland supports through different projects the enhancement of efficiency in industrial production, i.e. "cleaner production". These cleaner production projects promote eco-efficient means of production and better working conditions attained through technical improvements and behavioural changes in both management and staff in industrial companies and services. The resulting rise of economic and environmental efficiency and improved competitiveness is gained through the systematic optimisation of energy use, processing of raw material, more efficient use of resources and thus better protection of the environment.

Switzerland is implementing other instruments and measures at home as well as in developing countries, not only helping to minimise potential adverse impacts but having foremost potential positive impacts on developing countries, such as increased market access for environmentally sound goods and technologies, environmental co-benefits, technology transfer, creation of enabling environments etc.

37. Ukraine

Annual inventory submission 2010

Ukraine as an Annex I Party to the UNFCCC strives to fulfill its obligations under the Kyoto Protocol and makes efforts to participate in the international process of adverse social, environmental and economic impacts minimization in developing countries. The table 15.1 summarizes implementation of selected actions, identified in paragraph 24 of the Annex to Decision 15/CMP.1, in 2009.

Table 15.1 Activity of Ukraine on minimization of adverse impact in accordance with Article 3, paragraph 14.

Action	Implementation by the Party
The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.	Ukraine does not take part in any such activity.
Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	No practice of issuing loans for the implementation of unacceptable and unsafe technologies has been identified in Ukraine..
Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end.	No such kinds of activities have been identified in Ukraine.
Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in	Ukraine does not take part in any such activity.

this effort.	
Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.	Ukraine does not take part in any such activity.
Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	Ukraine does not take part in any such activity.

38. United Kingdom of Great Britain and Northern Ireland

Annual inventory submission 2009

The UK is strongly committed to ensuring that trade policies promote long term sustainable development and want the benefits from the reduction or elimination of tariffs on some products which developing countries export to be long lasting and maximised. Ensuring that potential negative environmental impacts of trade liberalisation are addressed is essential for the long-term sustainability of the benefits to developing country economies of improved market access and the UK continues to push for robust impact assessments of trade negotiations.

The UK has a renewable initiative which provides a fund to underwrite UK renewable technology sale to the developing world, promoting the liberalising environmental Goods and services under the Doha process which promotes a low carbon future in a pro-development dialogue. In addition, The UK is also strongly committed to provide Aid for Trade to developing countries, and especially the poorest among them, to help build their capacity to trade, integrate into global markets while also addressing any adjustment costs that might arise from more liberalisation, within the context of sustainable development. The UK has just adopted its first Aid for Trade strategy and has formally committed to spend at least £400 million per year by 2010 as Aid for Trade at national, regional and global levels.

The UK Foreign and Commonwealth Office (FCO) funded a capacity building project on the Review of the Kingdom of Saudi Arabia (KSA)'s First National Communication to the United Nations Framework Convention on Climate Change. This resulted in a report containing a series of suggestions for improvement to the inventory and reporting on Nationally applicable Mitigation Actions and on the development of an energy efficiency strategy. Another project on Energy Efficiency Best Practice is currently under development. The work would include GAP analysis of energy demand and current energy management practices by sector and a summary of energy and carbon saving potential as well as related sectoral environmental benefits. The work would also include a review of best practice in neighbouring countries and how these might translate to potential changes in the KSA.

This capacity building project is an illustration of how the UK is a) strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities b) assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies

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A6.2.5 Adverse impacts under Article 3, paragraph 14 of the Kyoto Protocol

No additional information.