United Nations FCCC/WEB/ART314/2011

Framework Convention on Climate Change

Distr.: General
22 November 2011

English only

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

Note by the secretariat

Contents

I. Mandate

1. Under Article 3, paragraph 14, of the Kyoto Protocol, each Party included in Annex I to the Convention (Annex I Parties) 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. In accordance with decision 15/CMP.1[1], Annex I Parties which are also Parties to the Kyoto Protocol, shall provide information described in paragraph 1 above and, by the same decision, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), requested the secretariat to compile such supplementary information submitted annually by these Parties 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 Annex I Parties 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.1[2][3]:

(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.

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

[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.

inventory during in-country visit, in conjunction with the review of the national communication, in accordance with paragraph 125 to the annex[4] to decision 22/CMP.1.[5]

II. Approach

6. In 2010, the secretariat compiled the information on the minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol, submitted in the 2010 National Inventory Reports (NIR)[6], the document also covers information submitted before 2010, on a voluntary basis, and included in NIRs of previous submissions.

7. This document covers mostly information described in paragraph 6 submitted in the 2011 NIR. 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 2011, 38 Annex I Parties submitted information on minimization of adverse impacts in accordance with Article 3, paragraph 14 of the Kyoto Protocol.

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 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.

[6] FCCC/WEB/ART314/2010, available on the UNFCCC website at http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&priref=600005964#beg.

IV. Australia

Annual inventory submission 2011

Australia is pleased to provide an update of its last submission and supplementary information on how Australia 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.

Overview

The Australian Government responds to climate change through a range of national policies and measures. The Department of Climate Change and Energy Efficiency is the department with principal responsibility for developing and coordinating these national policies and measures which it does in consultation with a number of other federal government departments and agencies (the Department of Resources, Energy and Tourism, the Department of Agriculture, Fisheries and Forestry, the Department of the Prime Minister and Cabinet, the Treasury, the Department of Foreign Affairs and Trade and the Australian Agency for Overseas Development), with state and local governments, and with interested community groups.

Since the last report on this item, the Australian Government has established the MPCC (Multi-Party Climate Change Committee) to systematically consider the costs and benefits of introducing a carbon price into the domestic economy.

Measures taken to respond to climate change have the potential to impact all Parties. Australian policies and measures which risk imposing social, environmental or economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention, undergo rigorous and transparent evaluation. Australia's development policies are developed with full consideration of potential consequences on recipients of development assistance. Stakeholders have the opportunity to comment on how possible new policies might affect them.

As with other major energy exporters, Australia's exports are susceptible to fluctuations in demand. We are apprised of the importance of diversifying our economy and building economic resilience, and we are sensitive to the need for developing countries, particularly those within the reach of Australia's aid program, to do the same. We consider that this places countries in a much better position to adapt to trends in the global economy. Australia supports a number of programs to assist vulnerable countries to build economic resilience.

Minimisation of impacts of response measures against specified criteria are outlined below.

(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

Australia has a renewable energy target and has committed to introduce a price on carbon. All Australian states and territories have agreed under the Australian Energy Market Agreement (AEMA) to phase out retail price regulation for electricity and natural gas where effective competition is agreed between a jurisdiction and the Australian Energy Market Commission or to increase competition where it does not exist. Further,

governments agreed that retail price regulation will allow for the pass-through of the costs of Australia's Renewable Energy Target.

Generally speaking, Australia has a market-based energy system and is undertaking a substantial reform program aimed at increasing transparency and flexibility in the wholesale and retail energy market, which allows prices to reflect costs as these change over time. Recent reforms include the introduction of a short-term trading market for natural gas complementing the existing spot market for electricity. As prices are able to reflect costs, Australia's energy system presents no distortions to international trade in energy, including with developing countries.

Australia is also conducting a large-scale demonstration of smart grid technology through the *Smart Grid Smart City* project, and intends to share the lessons of this project with other countries through the International Smart Grid Action Network (established under the US - led Clean Energy Ministerial process) and other international fora.

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

(c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end no specific policies directed towards support for the technological development on non-energy uses of fossil fuels are currently under consideration.

(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 Australia has cooperated in the development, diffusion and transfer of environmentally cleaner fossil fuel technology through the following processes (updating information provided in our last submission):

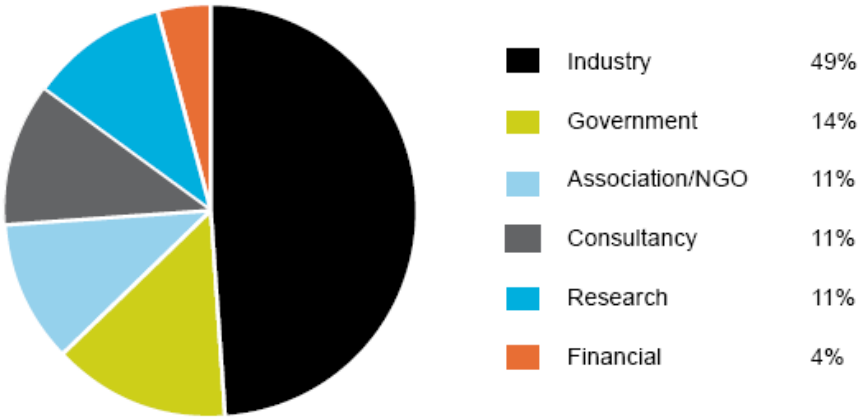
Global Carbon Capture and Storage Institute

The Global Carbon Capture and Storage Institute (GCSI) was announced by the Australian Government in 2008, and has funding of AUD$355 million to June 2013. The GCSI is an important measure taken by Australia that will assist carbon intensive economies, including developing countries with carbon intensive economies, reduce their exposure to the impact of the implementation of response measures.

The GCCSI will help deliver the G8's goal of developing at least 20 fully integrated industrial-scale demonstration projects around the world. CCS technology is vital to assist countries reduce the carbon intensity of their economic base, and therefore their vulnerability to global efforts to reduce carbon emissions. The GCCSI connects parties around the world to solve problems, address issues and learn from each other to accelerate the deployment of CCS projects by providing a fact-based advocacy for CCS , assisting projects, and sharing knowledge.

Since its official opening in April 2009, the GCSI has attracted strong and widespread support from governments, corporations, industry bodies and research organisations from key markets around the globe, and has built a diversified membership profile that represents a healthy cross-section of these international stakeholders. There are currently 277 participating organisations with more than 255 legal members. The GCSI 's members account for over 80 per cent of the world's carbon dioxide emissions from energy and industrial sources

Figure 15.1
GCCSI membership



A key role for the GCCSI is as a fact-based advocate for CCS. To this end it has attended UNFCC meetings in Tianjin/China and Cancun/Mexico where briefing papers on CCS were provided to help inform discussions. A specific example is a CCS -Ready paper, building upon the GCCSI led discussions with the International Energy Agency (IEA), Carbon Sequestration Leadership Forum (CSLF) and other key stakeholders, and which has been used by several countries (including Australia and South Africa) to help define the way forward for future regulation and so prepare the way for the subsequent introduction of CCS.

The GCCSI has also been involved in a simulation exercise involving a (fictitious) large integrated CCS project going through the full regulatory process in Scotland. This successful 'trial run' is now being developed by the GCCSI as a generic tool kit that can be customised for other countries to use in trialling their regulatory approval processes.

Monitoring of large scale integrated CCS projects by the GCCSI has shown that there is an overall increase in numbers worldwide but over 80% remain in the early stages of definition with very few additional projects being implemented. These results have been used as the basis of the report by the IEA and CSLF to the G8 meeting in Canada in June 2010.

The GCCSI has engaged directly with large scale integrated CCS projects worldwide through its Project Support Program where the aim is to 'kick start' projects through addressing specific barriers that the projects face, and at the same time accruing knowledge products and experiences that can help other projects that face similar issues. So far 7 formal contracts have been agreed with a geographical distribution of 3 projects in North America, 2 in Europe and 2 in Australia. Another 4 projects are under consideration which will substantially complete the power generation portfolio for actions within developed countries.

Recognising the importance of public acceptance for CCS, a public engagement strategy for projects has been established which builds upon the successful one-to-one pilot comprising a detailed assessment of the RO AD project in Rotterdam. This approach will be further trialled with the Romanian Turceni Project and the Australian CarbonNet Project, both being supported by the GCCSI as part of its Project Support Program action.

Within developing countries, in particular Asia, the GCCSI has worked with the Asian Development Bank and the World Bank to encourage CCS projects through specific CCS scoping studies. Visits to industrial sites have been undertaken to identify where the GCCSI

can contribute to the development of projects in China, now that it has become a Legal Member of the GCCSI.

To encourage projects in the heavy industrial sector, the GCCSI has worked with UNI DO to develop a global technology roadmap for CCS projects, primarily in the cement, steel and aluminium sectors.

A flow of knowledge products from the Project Support Program has started and these are being incorporated into the knowledge sharing program. They have included case studies of specific projects, FEED studies, and how the choice of technology provider was made. An update of the 'stock take' of CCS projects worldwide has also been undertaken as part of the IEA/CSLF report to the G8 in June 2010. The GCSI has also played a substantial role in helping to establish the CCUS (Carbon Capture Use and Storage) Action Group as part of the Major Economies Forum initiative and is now involved in the implementation phase through the Global Partnership.

Carbon Sequestration Leadership Forum (CSLF)

The Carbon Sequestration Leadership Forum (CSLF) is a Ministerial-level international climate change initiative that is focused on cooperation to develop and apply technologies for the separation and capture of carbon dioxide for its transport and long-term safe storage. The purpose of the CSLF is to make these carbon capture and storage technologies broadly available internationally, and to identify and address wider issues relating to its deployment. This could include promoting the appropriate technical, political, and regulatory environments for the development of such technology.

Australia is a foundation member of the CSLF, which has a membership comprising twenty one countries and the European Commission. The CSLF has worked to inform its members on appropriate technical, political, and regulatory environments that will allow the development of CCS technology with the additional focus of building capacity in developing countries. Australia has been actively involved in the CSLF since it was formed in June 2003 and is a member of a number of CSLF task forces.

Asia Pacific Partnership on Clean Development and Climate (APP)

Australia assists other countries in the Asia Pacific region, both developed and developing, to reduce the carbon intensity of their goods and services through the Asia-Pacific Partnership on Clean Development and Climate (APP). The APP was founded in January 2006 and brings together Australia, Canada, China, India, Japan, Republic of South Korea and the United States to address the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty.

Through collaboration, the APP aims to reduce the carbon intensity of products and services in different sectors, including in power generation. This reduces the exposure of countries using low emissions technologies to any implicit carbon price. The APP focuses on project-based initiatives that bring the private and public sectors together to accelerate the development, deployment and transfer of cleaner, more efficient technologies.

The APP membership represents around half of the world's emissions, energy use, GDP and population and engages the key greenhouse gas emitting countries in the Asia Pacific region. With its focus on the development, deployment and transfer of cleaner, more efficient technologies, the APP is also unprecedented in the way business, government and researchers have agreed to work together.

The Australian Government was instrumental in the establishment of the APP in 2006. It has been a major financier of APP projects, committing funding of AUD$100 million over five years (2006-2011). Australian funding is now fully committed, with actual expenditure to date at almost AUD$62 million, over 54 APP projects across all eight Task Forces:

- Aluminium: chaired by Australia, co-chaired by United States of America
- Buildings and Appliances: chaired by Republic of Korea, co-chaired by United States of America
- Cement: chaired by Japan, co-chaired by Canada
- Cleaner Fossil Energy: chaired by Australia, co-chaired by China
- Coal Mining: chaired by United States of America, co-chaired by India
- Power Generation and Transmission: chaired by United States of America, co-chaired by China
- Renewable Energy and Distributed Generation: chaired by Canada, co-chaired by Australia
- Steel: chaired by Japan, co-chaired by India.

Global Methane Initiative

The Methane to Markets Partnership involving 38 member countries was re-launched as the Global Methane Initiative (the Initiative) at the Ministerial Meeting held in Mexico City on 1 October 2010. The Initiative aims to encourage, through collaboration, the development and use of low emissions technology and services in different sectors. Projects under the Initiative will accelerate deployment of methane emission-reducing technologies and practices, stimulating economic growth and energy security in Partner countries and helping them to minimise exposure to measures taken to mitigate climate change. Since re-launching as the Global Methane Initiative, members are now addressing methane abatement as well as commercial use of fugitive emissions, and targeting additional emission sources such as wastewater. Two successful expos have been held in China in 2007 and India in 2010 to demonstrate methane technologies, practices and projects.

The Initiative now has 34 members, including all of the 10 largest methane emitters in the world (Australia is the 10th largest methane emitter). A large number of its members are developing countries with a broad geographical spread, including Argentina, Brazil, Chile, China, Colombia, the Dominican Republic, Ecuador, Ethiopia, Ghana, India, Indonesia, Mexico, Mongolia, Nicaragua, Nigeria, Pakistan, Peru, the Philippines, Republic of Korea, Thailand and Vietnam.

In the five years since its inception, the former M2M has brokered or initiated 170 projects which are currently reducing 27 Mt CO 2-e, which will rise to 63 Mt CO 2-e when the projects are fully implemented.

Australia was one of the 14 founding members of the former M2M and nominated members to all four subcommittees. The Initiative is a cross-portfolio issue covering responsibilities of the Department of Resources, Energy and Tourism (RET), the Department of Agriculture Fisheries and Forestry (DAFF) and the Department of Climate Change and Energy Efficiency (DCCE).

The Steering Committee is the key decision making body responsible for determining the new direction, policies and procedures of the Initiative. The eighth steering committee meeting was held in Mexico from 29-30 September 2010 in conjunction with the Ministerial meeting establishing the Initiative.

Australia has facilitating the participation of the least developed countries and other non-Annex I Parties in these processes through the involvement of developing country Parties as listed above.

(e) trengthening 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 response under paragraph (d) above addresses this point.

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

Another important way for countries to reduce their exposure to measures taken to address climate change is to diversify their economy to use less emissions-intensive goods and services. Australia is actively involved in a number of initiatives to help developing countries build their trade resilience and diversify their economy. This support will help place countries in a much better position to adapt to trends in the global economy arising from responses taken to mitigate climate change.

Improving access to clean and affordable energy services in the Pacific

Australia has committed up to AUD$25 million over four years, from 2009-10, to improve access to clean and affordable energy services in the Pacific. This commitment aims to assist Pacific island countries reduce reliance on imported fuel and vulnerability to fluctuating international fuel prices, and access cleaner, more secure and reliable sources of energy. T his is an important part of building the capacity of developing country economies to respond to the impacts of measures taken to mitigate climate change.

Key components of the clean and affordable energy commitment include:

- assisting Pacific countries to better manage their energy resources through robust, whole of energy sector planning and implementation; and
- exploring options to broaden the base of energy sources to reduce dependence on carbon-intensive energy supplies including renewable energy. An example of progress to date under the clean and affordable energy initiative includes assisting the Government of Tonga to develop an Energy Road Map (2010–2020), charting the course for reduced fossil fuel dependence and expanded access to reliable energy services for the population. The Road Map, agreed by the Government of Tonga and development partners in 2010 , identifies appropriate renewable energy options for implementation in Tonga such as solar, as well as improved supply and demand side energy efficiency measures for reduced reliance on imported fuel. These measures are being implemented over the coming years by the Government of Tonga in coordination with development partners. T he Road Map will also have the effect of reducing the impact on Tonga of any increase in the price of carbon-intensive energy supplies arising from measures taken to address climate change.

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Private sector development in the Pacific

Australia is assisting Pacific island countries build greater economic resilience and the ability to adjust to climate change response measures through sustainable private sector development and greater financial inclusion. A strong, sustainable private sector is essential to reducing poverty and increasing employment and income opportunities. Australia works in partnership with multilateral banks such as the International Financial Corporation (IFC) and the Asian Development Bank (ADB) on targeted programs such as access to finance, business regulatory reform, tourism and business technology to strengthen and stimulate small and medium enterprises and to help broaden the growth of the local economy.

Australia is providing AUD$23 million to the IFC's Private Enterprise Partnership and the ADB's Private Sector Development Initiative. These programs focus on access to finance, business enabling environment reforms and tourism and enterprise development. Improving access to finance ensures that capital is available and can be accessed by small to medium enterprises at a reasonable cost. This includes promoting competition, promoting sustainable financial services and improving efficiencies to lower costs and increase the geographic spread of services. These activities can play a role in reducing dependence on fuel for transport, whose cost can be affected by measures taken by other countries to address climate change.

Improving the business enabling environment can serve to improve the conditions for doing business in the Pacific. The IFC's Business Enabling Environment (BEE) Program is a cross-cutting program that looks at policy issues and regulations that affect business.

Support for the tourism sector is aimed at building this important sector by building institutional capacity and strengthening the regulatory environment to support the development of tourism businesses.

In addition to supporting the private sector, Australia recognises the importance of greater financial inclusion so that households or customers can access basic financial services. The Pacific Microfinance Initiative with the IFC totalling AUD$9.5 million is aimed at ensuring that basic financial services can be accessed by all sections of the community. The ability for people to save and borrow provides a greater resilience for consumers and households.

V. Austria

Annual inventory submission 2011

In addition to the information submitted in 2010, Austria also provided the following information:

Fiscal incentives

Since 2011 the air traffic has also to contribute through the introduction of a flight fee (Flight Fee Law, December 2010).

- Flight Fee Law

In December 2010 the Flight Fee Law was passed within the Budget Act of the Re-public of Austria. From April 2011 all flights starting from an Austrian Airport will have to pay a fee at a specific amount per passenger (very few exceptions are granted, e.g. like military or humanitary flights):

Short distance (within Austria, as well as e.g. Sweden, Cyprus): 8 Euros

Middle Distance (e.g. Iraq, Sudan): 20 Euros

Long Distance (Brazil, Indonesia): 35 Euros

VI. Belgium

Annual inventory submission 2011

In addition to the information submitted in 2010, Belgium provided an updated table of list of projects:

The table hereunder presents a list of projects with which the Belgian federal and/or regional governments signed an ERPA. This list does not include the projects delivering carbon credits via secondary markets and/or carbon funds (CDCF World Bank, Multilateral Carbon Credit Fund (European Bank for Reconstruction and Development (EBRD) and European Investment Bank (EIB), First Tranche of Carbon Fund for Europe (World Bank, EIB), Asia Pacific Carbon Fund (Asian Development Bank)).

Project Name	*Type*	*Country*	*UNFCCC reference n°*
Berlin Binary Cycle Power Plant	CDM	El Salvador	1218
Alexigros Wind Farm Project	CDM	Cyprus	601
Mari Wind Farm Project	CDM	Cyprus	602
Biomass based Cogeneration Power Project in Uttar Pradesh	CDM	India	827
Palmas del Espino – Biogas recovery and heat generation from Palm Oil Mill Effluent (POME) ponds	CDM	Perú	1249
Substitution of coal with jute biomass residue (caddies) in the steam generating boiler for use onsite	CDM	India	1059
Rice Husk based cogeneration power plant-II at SBPML	CDM	India	802
EECOPALSA SA – Biomass Project	CDM	Honduras	1877
EL BOTE Small Hydroelectric Plant	CDM	Nicaragua	2999
Viyyat Power – Small Hydro	CDM	India	1514
Hubei Yihua Fertilizers Company Waste Heat Recovery and Utilization Project	CDM	China	2416
Generation of electricity from 6.25 MW capacity wind mills by Sun-n-Sand Hotels Pvt. Ltd at Soda Mada Rajasthan	CDM	India	447
Optimal Utilization of Clinker project at Shree Cement Limited (SCL), Beawar, Rajasthan	CDM	India	183
INOLASA Biomass Fuel Switch Project	CDM	Costa Rica	1314
Shalivahana 10MW Biomass Power Generation Project	CDM	India	1473
Shalivahana Non-Conventional Renewable Sources Biomass Power Project	CDM	India	591
Torrent Natural Gas Power Plant	CDM	India	1116
Electric Power Co-generation by LDG Recovery – CST - Brasil	CDM	Brazil	184
Guaracachi Energy Efficiency Project	CDM	Bolivia	2761
Comodoro Energy Efficiency Project	CDM	Argentina	1482

Project Name	*Type*	*Country*	*UNFCCC reference n°*
Carbon sequestration through reforestation in the Bolivian tropics by smallholders of "The federacion de Comunidades Agropecuarias de Rurrenabaque (FECAR)"	CDM	Bolivia	2510
Copiulemu landfill gas project (Center for the Storage and Transfer, Recovery and Control of Waste, Treatment and Disposal of Industrial and Household Waste) and Cosmito landfill gas project (Improvement of Gas Extraction System in Old Cosmito Dump)”	CDM	Chile	0096 and 0097

VII. Bulgaria

Annual inventory submission 2011

No additional information was included in this submission.

VIII. Canada

Annual inventory submission 2011

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 territories and other key stakeholders on issues related to the impacts of proposed policies and measures.

Canada maintains an open trading environment, consistent with the principles of free trade and investment, ensuring that both developed and developing countries can maximize 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.

Domestically, Canada's *Federal Sustainable Development Act* received Royal Assent on June 26, 2008. The Act responds to a number of international commitments Canada has made to produce such a strategy, including at the Earth Summit in Rio de Janeiro, Brazil, in 1992 and at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa. The development of a federal sustainable development strategy (FSDS), is mandated by the Act.

The first FSDS was tabled on October 6, 2010. The FSDS clearly identifies Canada's environmental sustainability priorities and reports on progress in achieving them. The FSDS presents a detailed description of federal government activities to achieve environmental sustainability. The FSDS also commits to strengthening the guidelines for strategic environmental assessments by federal departments which help integrate environmental considerations related to economic and social decision making. The Office of Greening Government Operations provides a series of guidelines to help departments and agencies implement and report progress on the FSDS. FSDSs must be updated every three years through a regular cycle of progress reports.

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*[7], 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 programs that have promoted practicable steps to facilitate and/or

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

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).

IX. Croatia

Annual inventory submission 2011

No additional information was included in this submission.

X. Czech Republic

Annual inventory submission 2011

In addition to the information submitted in 2010, the Czech Republic provided a updated version of the table as shown below:

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 greenhousegas-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 development of renewable energy sources, inter alia: - Construction of small hydropower plant in Angola - Development of solar power plants in poor rural areas of Vietnam - Development of small hydropower projects in Vietnam (technology transfer) - Development of small and medium size energy sources and interconnecting networks in Palestine

XI. Denmark

Annual inventory submission 2011

In addition to the information submitted in 2010, Denmark also provided the following information:

15.2 New initiatives

Starting from 2008 the Danish government has allocated specific climate funds through the so-called Climate Pool. The total amount frame was in 2008 100 Mill.DKK, of which approximately 88 mill. DKK was allocated to specific climate change projects. As shown in Table 15.1 the projects cover issues such as adaptation, mitigation, participation of developing countries in UNFCCC negotiations, civil society capacity building, participation and dialogues as well as climate diplomacy.

Table 15.1: Climate Pool Commitments 2008 (DKK mill.).

Category	*Commitment 2008 Million DKK*
Climate Change Adaptation	16.0
Climate Change Mitigation, forestry	25.0
Developing countries participation in UNFCCC negotiations	23.7
Greenland Dialog	1.8
Civil society	8.0
Climate Diplomacy	8.0
In total incl. administration	87.7

Source: The Ministry of Foreign Affairs

As part of the financial promises that were given to developing countries at COP15 in Copenhagen in December 2009, the EU has subsequently announced that it would contribute 7.2 billion Euro in the period 2010 - 2012 (out of industrialized countries' total initial funding pledges 30 billion USD for the period 2010-2012). As part of this, Denmark announced as one of the first countries clearly a contribution of 1.2 billion DKK implementation of the accelerated climate financing.

The Danish contribution is financed by funds from the continued Climate Pool and will be balanced for sharing between mitigation and adaptation efforts, as implemented in cooperation with multilateral and bilateral partners. Emphasis is placed on the civil society and the private sector involved and there was planned in 2010 for greater bilateral initiatives for implementation in 2011-12.

At COP16 in December 2010 the Danish minister for climate and energy, on behalf of the Danish government, launched the following projects funded under the Climate Pool:

- support for the federation of Small Island Developing States (SIDS) for the development and implementation of reduction and adaptation efforts;
- support for the implementation of Nationally Appropriate Mitigation Actions (NAMAs) in a number of major developing countries;

- support for the encouragement of private sector investment in energy efficiency and renewable energy in emerging economies among developing countries through a fund deposits with mixed public and the private investor participation; and
- collaboration with the South Korean Global Green Growth Institute (GGGI) implementing various emission reduction projects through sustainable growth plans in selected developing countries.

XII. Estonia

Annual inventory submission 2011

In addition to the information submitted in 2010, Estonia also provided the following updated information:

Co-operation projects with developing countries

One of the priorities of developing 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 2009 Estonia supported the following project:

- Forestry co-operation between Estonian Ministry of the Environment and Adjara Autonomous Republic Forestry Administration (2,921 EUR);

Other method of supporting developing countries is through support of international environmental organisations - European and Mediterranean Plant Protection Organisation, International Atomic Energy Agency, International Plant Genetic Resources Institute, International Seed Testing Association, World Meteorological Organisation, Multilateral Fund for the Implementation of the Montreal Protocol, United Nations Framework Convention on Climate Change – in their activities in supporting environmentally friendly development in developing countries.

In 2009 the contributions for these projects were 55,985 EUR and for 2010 the contribution is estimated to be 30,320 EUR.

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

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). Estonia is planning to contribute at least 1,000,000 EUR over the years 2011-2013 to the Neighbourhood Investment Facility Trust Fund and as for the previous period, the contribution will be earmarked to the Eastern region of European Neighbourhood and Partnership Instrument.

XIII. European Union

Annual inventory submission 2011

In addition to the information submitted in 2010, the European Union also provided the following updated information:

15.1 Information on how the EU is striving, under Article 3, para-graph 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

Editorial comment: The EU is only required to report changes related to the information on mi-nimizing adverse impacts in accordance with Article 3, paragraph 14. However for an improved understanding, the text from the last year‟s inventory report was included and updated parts are marked in bold.

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

In 2010, the Commission adopted a report on sustainability requirements for the use of solid biomass and biogas in electricity, heating and cooling together with an impact assessment. The report makes recommendations on sustainability criteria to be used by those Member States that wish to introduce a scheme at national level, in order to avoid obstacles for the functioning of the internal market for biomass.

The recent Communication from the Commission on voluntary schemes and default values in the EU biofuels and bioliquids sustainability scheme (2010/C 160/01)[8] sets up a system for certi-fying sustainable biofuels, including those imported into the EU. It lays down rules that such schemes must adeher to if they are to be recognized by the Commission. This will ensure that the EU's requirements that biofuels deliver substantial reductions in greenhouse gas emissions and that biofuels do not result from forests, wetlands and nature protection areas.

In line with Article 19(4) of Directive 2009/28/EC on the promotion of the use of energy from re-newable sources[9] the Commission published in 2010 a report on the feasibility of drawing up lists of areas in third countries with low greenhouse gas emissions from cultivation (COM(2010) 427 final) concluding that, “while desirable, it is not yet feasible to set up legally binding lists of areas for third countries where a major component of the underlying calculation is uncertain and can easily be questioned, and where third countries have had no possibility to contribute on the methodology and data used. It is therefore not appropriate, at least at this stage to produce legislative lists for third countries based on the current modelling of N2O emissions from agricul-ture. However, it is important to enhance the understanding of the topic and survey the data used in view of a new assessment in 2012. The Commission has thus published the preliminary results of the JRC work together with all necessary data and description of methodology to sup-port such a process on the webpage of the JRC. It will use this as the basis for a discussion with third countries in the framework of its dialogue and exchange with them under Article 23(2) of the Renewable Energy Directive.”

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

[8] OJ C160, 19.6.2010, p.1
[9] OJ L 140, 5.6.2009, p. 16

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

Council Decision 2010/787/EU of 10 December 2010 on State aid to facilitate the closure of un-competitive coal mines adopted a new coal regulation enabling Member States to grant State aid to facilitate the closure of uncompetitive mines until 2018, following the expiry of the current Coal Regulation (Council Regulation (EC) N° 1407/2002 of 23 July 2002) on 31 December 2010. The decision includes the following main elements:

- the possibility of continuing to grant, under certain conditions, public aid to the coal industry with a view to facilitating the closure of uncompetitive hard coal mines until December 2018;
- the modalities for the phasing-out of the aid, under which the overall amount of aid granted by a member state must follow a downward trend, in order to prevent undesirable effects of distortion of competition in the internal market. Subsidies will have to be lowered by at least 25% until 2013, by 40% until 2015, by 60% by 2016 and by 75% by 2017;
- the obligation for member states granting aid to provide a plan on intended measures to miti-gate the environmental impact of the production of coal; and
- the possibility of allowing subsidies, until December 2027, in order to cover exceptional ex-penditure in connection with the closure of mines that are not related to production, such as social welfare benefits and rehabilitation of sites.

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 is also cooperating with other Annex I and Non-Annex I Parties (Australia, Brazil, Canada, China, Colombia, Denmark, European Commission, France, Germany, Greece, India, Italy, Ja-pan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Russian Federation, Saudi Arabia, South Africa, United Arab Emirates, United Kingdom and USA) in the ―Carbon Seques-tration Leadership Forum (CSLF) ‖ . The CSLF is a Ministerial-level international climate change initi-ative 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 ad-dress key technical, economic, and environmental obstacles. The CSLF will also promote awareness and champion legal, regulatory, financial, and institutional environments conducive to such technolo-gies. In 2010 a Technology Roadmap was released by the Carbon Sequestration Leadership Fo-rum. This road map indicates that significant international progress has been made in the past year on advancing carbon capture and storage, but that a number of important challenges re-main that must be addressed to achieve widespread commercial deployment of CCS. The 2011 Strategic Plan Implementation Report recognized five new CCS projects bringing the total number of CSLF recognized technology demonstrations to 32.[10]

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

[10] See http://www.cslforum.org/ for more specific information.

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 devel-opment 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. A website was created at http://www.eugcc-cleanergy.net where further information on the EU-GCC Clean Energy Net-work and its recent activities can be found. The Masdar Institute of Science and Technology in Abu Dhabi has been selected as the lead research institution to represent the Gulf Cooperation Council (GCC) in the European Union-GCC Clean Energy Network. A number of discussion groups and training seminars took place, e.g. on solar resource assessment.

XIV. Finland

Annual inventory submission 2011

In addition to the information submitted in 2010, Finland also provided the following updated information:

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. 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.

Finland takes into account the available knowledge on and understanding of possible adverse impacts of its anticipated measures, based on information received from other Parties. However, no specific information on adverse impacts linked to our policies have been identified by or received from other Parties, in particular developing country Parties. Finland notes that it is challenging to identify negative impacts without input from a developing country that feels that these impacts might have arisen because of a specific measure.

Finland aspires to identify and prevent possible adverse impacts proactively. The principle is to plan and implement emission reduction measures in an open and transparent way, in accordance with notification requirements under international trade conventions. All major policies and activities undergo environmental impact assessment, including impacts in other countries. For example, an environmental impact assessment was performed on Finland‟s national Long-term Climate and Energy Strategy adopted in 2008. The anticipated measures were assessed, publicised for stakeholder comments and made public before discussion and adoption of the strategy by the Parliament.

Development policy is one of the methods to minimise impacts of climate policies and measures in developing countries. Finland‟s Development Policy Programme identifies energy as a sector where sustainable development can be promoted. Finland aims to support programmes and projects that focus on saving energy, increasing energy efficiency and promoting renewable energy production. It aims to target these projects especially at poor countries and regions. The production of renewable energy, in particular bio, solar and wind energy will provide employment and income for the local population. Bioenergy projects can be linked with the promotion of sustainable forestry, for example through the use of thinning and logging residues in power generation. Local production of renewable energy and linking this with forestry will generate sustainable economic growth.

One of the fastest growing bioenergy sectors worldwide is biofuels in transport. Finland has ambitious targets for biofuel use also. It has been generally recognised that increased production of biofuels and their raw materials can potentially have environmentally and socially adverse impacts. To secure the sustainability of increasing biofuel use the EU has introduced common sustainability criteria for biofuels, which apply both to imported and domestic biofuels and their raw materials. The European Commission has been given the responsibility to follow the effects of the sustainability scheme and to propose additional measures if necessary. In addition to implementing the EU sustainability scheme Finland will actively pursue the development and commercialization of second generation biofuel technologies, which can generally be regarded better in view of greenhouse gas emissions and other environmental aspects, and which increasingly make it possible to exploit Finland‟s domestic biomass resources for biofuel production.

Finland continues exploring and reporting on the adverse effects of response measures. For example, the impacts of the increased use of biofuels and their support is taken on board in the Finnish development policy guidelines for environment (2009) as well as on agriculture and food security (2010). The guidelines state that the production of biofuels must not be allowed to increase the price of food and take land or other related resources away from food production, which would be detrimental to the poor, and neither must it threaten biodiversity, thus jeopardising social and ecological sustainability.

Finland also supports developing countries by helping them to build their capacities and develop their economic infrastructure, thus helping diversify their economies and energy production. Economic diversification and private sector development are particularly important targets in various Finnish bilateral programmes and Finnish-supported multilateral programmes in Zambia, South Africa, Nicaragua and the Mekong region. Regional programmes that promote the role of private sector in providing energy services are being promoted in Latin America, Sub-Saharan Africa and parts of Asia.

10. A summary and examples of how Finland has implemented the actions specified in Decision 15/CMP.1, paragraph 24 is given in Table 15.1-1 below. In recent years, items a), d), e) and f) have been given priority. This and relevant complementary information is 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*
(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.	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. Starting in January 2011 Finland made a major revision in energy taxation according to which all fuels are taxed based on their energy and fossil carbon content. Finland is supporting the Government of Cambodia to achieve its climate policy goals through developing Cambodian capacity for producing energy statistics and conducting energy planning, taking into account economic, social and environmental sustainability. Finnish development policy guidelines for support to developing countries through multinational development banks include criteria that are targeted at removing subsidies to fossil fuels and phasing out the support to fossil-fuel-fired investments by year 2050.
(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies.	Finland does not have any support activities in this field.
(c) Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end.	Finland does not have any support activities in this field.

Action	*Implementation in Finnish 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.	Several actions have been undertaken in the area of promoting technologies that emit less greenhouse gases both at policy and programme/project level, with main focus on increased energy efficiency and promotion of renewable energy, instead of fossil-fuels. At fossil fuel sector, Finland supports methane capture for electricity generation instead of gas-flaring, clean coal technologies and carbon capture and storage at policy level. At programme level, support is given to improving the efficiency in energy distribution, for example, in Tanzania through automated network control systems and in Mozambique, through piloting a rural energy smart grid (back-up powered by diesel generators). Several projects for capturing landfill methane for biogas and electricity generation are also supported both in Nepal, in Southern and Eastern Africa as well as in Mekong Region.
(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.	Finnish development policy supports low carbon development paths in developing countries. Finland has started to prepare guidelines for this purpose. Finland is also supporting Cambodia and Namibia to develop comprehensive energy strategies, data and planning capacity, taking into account sustainability as well as efficiency issues.
(f) Assisting developing country Parties that are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	Action has been undertaken both through support by international organisations such as UNCTAD (United Nations Conference on Trade and Development) and through bilateral partnerships. Examples on bilateral partnerships include capacity-building support to Southern African Development Community (SADC) secretariat to develop regional renewable energy strategy and action plan as well as support to the Lao PDR in development and implementation of renewable energy strategy. These policy level programmes aim at diversifying the economies and energy mix of partner countries towards renewable sources that provide local employment and increase energy and income security. Finland is also supporting the Energy and Environment Partnership Programme with Central America (EEP), launched during the United Nations World Summit on Sustainable Development in 2002, implemented by 8 Central American partner countries. Austria and EU has joined as donors. In 2009/2010 Finland has replicated the EEP model in 4 other regions: the Mekong Region covering Lao PDR, Cambodia, Vietnam and Thailand; Southern and Eastern Africa covering 8 countries: Botswana, Kenya, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia; Andean Region covering Bolivia, Colombia, Peru and Ecuador; and Indonesia covering initially 2 provinces. The EEP programmes focus on supporting the

Action	*Implementation in Finnish policy*
	participating countries in developing, adopting and scaling-up appropriate and affordable renewable energy and energy efficiency technologies for improved energy access and local employment. The programmes support thematic policy studies, feasibility studies and pilot and demonstration projects as well as some R&D&I projects. The projects are developed and implemented by partnerships of public, private and civil society actors. The regional approach supports South-South co-operation, regional integration and knowledge sharing.

XV. France

Annual inventory submission 2011

In addition to the information submitted in 2010, France also provided the following information:

L'IPEEC s'est naturellement révélé être une plateforme idéale pour ce qui concerne le partage des bonnes pratiques, entre pays producteurs d'énergies fossiles (Russie, Brésil) et pays consommateurs. Des projets concrets ont également été lancés au sein de cette initiative, visant à permettre le déploiement à l'échelle internationale des technologies et des politiques qui permettront d'améliorer l'efficacité énergétique de tous les participants à ce forum et au-delà (un séminaire de formation à destination des pays d'Afrique du Nord et du Moyen-orient devrait se tenir au Caire début mars 2011). La France est un membre fondateur et actif au sein de l'IPEEC puisqu'elle pilote un projet visant à développer, en particulier dans les grands pays émergents, la capacité de création et d'utilisation d'indicateurs fiables d'efficacité énergétique.

• **GCCSI** (Global Carbon Capture and Storage Institute) : au niveau mondial, les technologies de captage et de stockage du carbone associées à la combustion des énergies fossiles (CSC) sont susceptibles, selon l"Agence Internationale de l"Energie (AIE), de contribuer à hauteur de 20% aux réductions mondiales d"émissions de CO_2. Ce potentiel de 20% du CSC pour la réduction des émissions se répartit environ pour moitié dans le secteur de la production d"électricité, et pour moitié dans les usages industriels des énergies fossiles.

Le Premier Ministre australien, M. Kevin Rudd, a annoncé le 19 septembre 2008 l" intention de son pays de créer un institut mondial du captage et du stockage du dioxyde de carbone (CSC). Cet institut, dont la France est membre (signature de la déclaration d" intention par Chantal Jouanno, secrétaire d"Etat à l"Ecologie le 27 mai 2009) et dont l" objectif principal est de définir un portefeuille de 20 projets de démonstrateurs d"ici 2010 (le même objectif a été fixé par le G8), et ainsi de prouver la viabilité commerciale des technologies du CSC, comptera, lors de son lancement, plus de cinquante membres fondateurs, dont une vingtaine de gouvernements (parmi lesquels les Etats-Unis, la Chine, l "Afrique du Sud, la Norvège, le Royaume-Uni, et l"Allemagne), et des entreprises du secteur énergétique (notamment Alstom, Schlumberger, Shell, BP).

11. Le CSC est enfin un enjeu pour un certain nombre d"industriels ou d"organismes français qui développent des projets-pilotes, des technologies et des savoir-faire susceptibles de se développer à l"international : Total, Alstom, GdF, Air Liquide, IFP, BRGM, etc.

XVI. Germany

Annual inventory submission 2011

No additional information was included in this submission.

XVII. Greece

Annual inventory submission 2011

No additional information was included in this submission.

XVIII. Hungary

Annual inventory submission 2011

No additional information was included in this submission.

XIX. Iceland

Annual inventory submission 2011

No additional information was included in this submission.

XX. Ireland

Annual inventory submission 2011

No additional information was included in this submission.

XXI. Italy

Annual inventory submission 2011

In addition to the information submitted in 2010, Italy also provided the following updated information:

14.2 European Commitment under Art 3.14 of the Kyoto Protocol

The EU is well aware of the need to assess impacts, and has built up thorough procedures in line with obligations. This includes bilateral dialogues and different platforms that allow interacting 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. A wide-ranging impact assessment (IA) system accompanying all new policy initiatives has been established. This approach ensures that potential adverse social, environmental and economic impacts on various stakeholders are identified and minimized within the legislative process (European Commission, 2010[b]).

At European level, 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 online by subject (European Commission, 2010[a]). Key questions on economic, social and environmental impacts in relation to third countries are listed in Table 14.1.

Economic	***Social***	*Environmental*
• 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 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 ACPEU Partnership Agreement or the Millennium Development Goals? • Does it increase poverty in developing countries or have an impact on income of the poorest populations?	• 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 ozonedepleting 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?

• 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?

Source: European Commission, 2010[b]

Table 14.1 Questions in relation to impacts on Third countries

12. 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 (see European Commission, 2009[b]; European Commission, 2010[b]).

Directive on the promotion of the use of renewable energy

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. IAs related to enhanced use in the EU showed that the cultivation of energy crops have positive (growing of EU demand for bioenergy generates new export revenues and employment 275 opportunities for developing countries and boosts rural economies), and negative (biodiversity, soil and water resources and have positive/ negative effects on air pollutants) impacts. For this reason, Article 17 of the EU's Directive has created **"sustainability criteria"**, applicable to all biofuels (biomass used in the transport sector) and bioliquids, which consider to establish a threshold for GHG emission reductions that have to be achieved from the use of biofuels; to exclude the use of biofuels from land with high biodiversity value (primary forest and wooded land, protected areas or highly biodiverse grasslands), and to exclude the use of biofuels from land with high C stocks, such as wetlands, peatlands or continuously forested areas. In this context, 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 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. The first reports will be submitted in 2012 (European Commission, 2010[b]).

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 IA. The assessment concluded that, in view of the likely strong future growth in air traffic emissions, further measures are urgently needed. Aircraft operators from developing countries will be affected to the extent they operate on routes covered by the scheme. As operators from third countries generally represent a limited share of emissions covered, the impact is also **modest**. On the other hand, 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 (European Commission, 2010[b]).

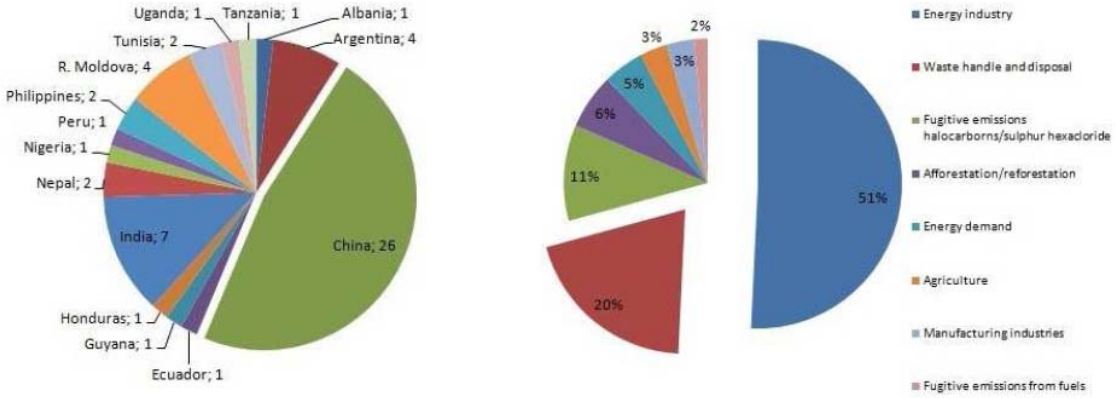
Common Agricultural Policy

Furthermore, 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 the impact of agricultural policies on developing countries are also available (Schmidhuber, 2009; Hallam, 2010). Brooks et al (2010) has recently presented DEVPEM54 a companion to the OECD-country PEM55 as a tool for policy evaluation in developing countries. Preliminary results for Malawi indicate that agricultural policies may have fundamentally different impacts on incomes in low income countries to those obtained in developed OECD countries.

Procedure for assessing sustainability at local and national level for CDM and JI

The Clean Development Mechanism (CDM), defined in Article 12 of the KP, allows a country with an emission-limitation commitment (Annex B Party) to implement an emission-reduction project in developing countries.

For this section, information was collected from the UNFCCC CDM Project Search Database (UNFCCC, 2011[a]). Direct contact with experts involved in the CDM project cycle and peer review article were revised. By the time CDM database was consulted world-wide 80% of CDM projects were registered in Asia and the Pacific Region, 18% in Latin America and Caribbean, 2% in Africa, and 0.5% Eastern Europe. The distribution of project by scope activity was mainly: energy industries (65%) and waste handling and disposal (15%). Registered projects by Host Party were mostly: China (43%), India (22%), Brazil (7%) and Mexico (4%). Italy as investor Party, contributes with 1.7% of world-wide CDM project portfolio. Italy is involved in more than 100 CDM projects at different stage, and is involved directly, as government, in 27 registered CDM (MATTM, 2011[a]). Up to day Italy is involved in the registration of 55 CDM projects (UNFCCC, 2011[a]). In Annex A8.2.4 a complete list of CDM projects is available. Projects by dimension are 58% large scale and 42% small-scale. Italy is the only proposer for 40% of the CDM projects. The distribution of CDM projects by Host country and scope is presented in Figure 14.1. CDM projects are mainly located in China (47%), India (13%), Argentina (7%), and Republic of Moldova (7%). Projects by scope are mainly related with the energy industry (51%) and waste handling and disposal (20%).



Source: UNFCCC (2011[a])

Figure 14.1 Italian CDM projects by Host country and scope (as for 16/02/2011)

Parties 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 in Peru (Endesa Carbono, 2010). 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 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 (MINAM, 2010). 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** conditions (Endesa Carbono, 2010). 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 people (MATTM, 2010[a]).

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). 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 life of the poor and their local environment (MATTM, 2010[a]). Italian CDM projects which are under the CDCF initiative are listed in Annex A8.2.4.

The Joint implementation (JI) is defined in Article 6 of the KP allowing a country with a limitation commitment (Annex B) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party. Two procedures could be followed. 'Track 1' procedures apply when the Host Party and investors meets all of the eligibility requirements to transfer and/or acquire ERUs, and the project is additional to any that would otherwise occur. 'Track 2' applies when the Host Party fulfils with a limited set of eligibility requirements or there is not an institutional authority able to follow up the project cycle. In this case the project should go through the verification procedure under the Joint Implementation Supervisory Committee (JISC). The development of the project is divided in a design and implementation phases (see MATTM 2011[b]). Parties involved in JI activities should designated focal point for approving projects, and prepared Guidelines and Procedures for approving Art.6 Projects, including the consideration of stakeholders' (MATTM, 2010[b]). By the time the JI database was consulted no JI projects were found for Italy (UNFCCC, 2011[b]). However, in the Italian Carbon Fund the 'Russian Federation: 278 Rosneft Associated Gas Recovery Project for the Komsomolskoye Oil Field' project is under a validation phase (Carbon Finance, 2011).

Voluntary validation of sustainable development is taking place at international level for CDM and JI projects. The UNEP Risoe Centre[11] database highlights the Gold Standard (GS) and the Climate, Community and Biodiversity Alliance (CCB) for assessing SD on CDM project, and only GS for JI projects. The GS operates a certification scheme for premium quality carbon credits and promotes sustainable development (GS label). Indicators include air/water quality, soil condition, biodiversity, quality of employment, livelihood of the poor, access to affordable and clean energy services, etc (Gold Standard, 2011). After labelling, these projects are tracked in the UNFCCC/CDM Registry. The CCBA is a voluntary standard, which support the design and identification of land management activities that simultaneously minimize climate change, support sustainable development, and conserve biodiversity. Project design standards include: climate, community, and biodiversity indicators (CCBA, 2011). By the 1 February 2011, the UNEP Risoe Centre[12] database reports 381 JI projects (track1+track2) from which 211 projects are registered (87% track 1+13% track 2), and 2 of them are labelled with GS. By the 16 February 2011, from all registered CDM projects 2 were validated with CCB and 79 with GS (UNEP, 2011).

Assessment of social, environmental, and economic effects of CDM and JI 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). Results from most relevant peer-review literature are available 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,

[11] http://uneprisoe.org/
[12] http://uneprisoe.org/

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 multi-attribute 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 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 SD assessment of 39 CDM projects. Label CDM projects ('Gold Standard' label and CDCF focuses) were compared to similar non-labelled CDM projects. Results show that labelled CDM activities tend to slightly outperform comparable projects, although not unequivocally. Nussbaumer selected criteria based on those from Sutter (2003) including social (stakeholder participation, improved service availability, equal distribution, capacity development), environmental (fossil energy resources, air quality, water quality, land resource) and economic (regional economy, microeconomic efficiency, employment generation, sustainable technology transfer) issues.

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. These authors concluded that the taxonomy can be supportive of DNAs to decide what the consequences should be, if a CDM project at the verification stage does not show signs of realizing its potential SD benefits. Palm et al (2009) developed a ranking process to assess sustainability of forest plantation projects in India. They concluded that successful implementation of forest-based project activities will require local participation and are likely to involve multiple forest products and environmental services demanded by the local community. For the first time an study has addressed the choice of an appropriate method for measuring strong sustainability. In a decision-aiding process, 10 UNFCCC/CDM afforestation/reforestation projects were evaluated through criteria that reflect global and local interests using a non-compensatory multicriteria method. Criteria for assessing SD included: social (land tenure, equitably share natural, skill development, ensure local participation), economic (employment, financial resource to local entities, financial forestry incentives) and environmental (use of native species, conservation an maintenance of soil/water resources, biodiversity conservation) issues. The multicriteria assessment allows sorting forestry projects in three ordered categories: synergistic, reasonably synergistic, and not synergistic. This means that those projects, which are synergistic comply with a higher number of criteria (Cóndor et al., 2010).

For this section we have accessed project databases (UNFCCC, Carbon Finance, UNEP Risoe Centre) and peer-reviewed articles. Eighteen out from fifty-five registered CDM projects (33%), in which Italy is involved, has participated to an international SD assessment (see Annex A8.2.4 for detail information on CDM research studies). For non-forestry CDM projects, Nussbaumer (2009) have published results of SD assessment from Honduras and Peru (Hydroelectric), Nepal (Biogas), Argentina (landfill), Moldova (Biomas), India (small hydroelectric and wind) and China (hydropower), and Sirohi (2007) for projects in India (biomass, F-gas, hydroelectric). For forestry CDM projects, Cóndor et al. (2010) has assessed 3 out from 4 CDM projects in which Italy is involved. 'The Moldova Soil Conservation' project was classified as a 'synergistic' project, while the 'Assisted Natural Regeneration of Degraded Lands' project in Albania and the 'Facilitating Reforestation for Guangxi Watershed Management' project in China were classified as 'reasonably synergistic'. The higher the assignment of the project, the better the performance respect to social, economic and environmental criteria including climate change, biodiversity and desertification issues.

Most articles found for JI are related with institutional arrangements (Evans et al., 2000; Streimikiene and Mikalauskiene, 2007; Firsova and Taplin, 2008) or the integration of JI with other mechanisms such as the white certificates (Oikonomou and van der Gaast, 2008). On peer-review article, no much information was found regarding JI and SD assessment. However, Cha (2008) developed Environmental-Efficiency and Economic-Productivity indicators to choose an environmentally and economically-efficient CDM and JI project.

14.4 Funding, strengthening capacity and transfer of technology

The flow of financial resources to developing countries and multilateral organisations from Italy is shown in Table 14.2 (OECD, 2011). Between 2006 and 2008 the 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 Ministry for the Environment, Land and Sea, has been authorized to finance bilateral and multilateral activities in developing countries for 55.1 million EUR/year as of 2008 (MATTM, 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 280 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.

The Ministry of Foreign Affairs defined the Programming Guidelines and Directions of Italian Development Co-operation 2011-2013, where priority areas are identified (MAE, 2010[c]): i) agriculture/food security; ii) human development, particularly referred to health and education/training; iii) governance and civil society; iv) support for endogenous development, inclusive and sustainable, the private sector, and v) environment, land and natural resources management, particularly referred to water and mitigation/adaptation to climate change. The aid effectiveness is a top priority for the Italian cooperation as described in the 'Aid Effectiveness Action Plan' (DGCS, 2009). The Ministry of Foreign Affairs has a database of environmental projects available online (DGCS, 2011). 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 activities (MAE, 2010[a]).

	Italy				
	1998-99	2006	2007	2008	2009
NET DISBURSEMENTS			USD million		
I. Official Development Assistance (ODA) (A + B)	2 042	3 641	3 971	4 861	3 297
ODA as % of GNI	**0.17**	**0.20**	**0.19**	**0.22**	**0.16**
A. Bilateral Official Development Assistance (1 + 2)	574	2 001	1 270	1 838	875
1. Grants and grant-like contributions	588	2 147	1 252	1 919	871
of which: Technical co-operation	47	171	141	153	90
Developmental food aid	41	6	15	54	40
Humanitarian aid	54	74	83	119	114
Contributions to NGOs	19	10	-	0	0
Administrative costs	26	56	49	67	59
2. Development lending and capital	- 13	- 146	19	- 81	4
of which: New development lending	- 73	- 155	36	- 71	0
B. Contributions to Multilateral Institutions	1 468	1 640	2 700	3 022	2 423
Grants and capital subscriptions, Total	1 468	1 640	2 700	3 022	2 423
of which: EU	693	1 316	1 494	1 713	1 862
IDA	394	30	35	556	214
Regional Development Banks	165	16	10	351	24
II. Other Official Flows (OOF) net (C + D)	- 95	- 957	- 261	408	- 72
C. Bilateral Other Official Flows (1 + 2)	- 95	- 957	- 261	408	- 72
1. Official export credits (a)	13	38	81	34	- 28
2. Equities and other bilateral assets	- 108	- 995	- 342	374	- 44
D. Multilateral Institutions	-	-	-	-	-
III. Grants by Private Voluntary Agencies	34	123	63	105	162
IV. Private Flows at Market Terms (long-term) (1 to 4)	10 273	2 705	649	207	2 181
1. Direct investment	1 734	1 151	1 353	1 544	129
2. Private export credits	455	2 602	2 843	2	463
3. Securities of multilateral agencies	-	-	-	-	-
4. Bilateral portfolio investment	8 083	-1 049	-3 547	-1 339	1 590
V. Total Resource Flows (long-term) (I to IV)	**12 254**	**5 512**	**4 422**	**5 581**	**5 569**
Total Resource Flows as a % of GNI	**1.05**	**0.30**	**0.21**	**0.25**	**0.27**

Source: OECD (2011)

Table 14.2 Financial resources to developing countries and multilateral organisations from Italy

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), a summary of how Italy gives priority to the actions specified in Decision 15/CMP.1, paragraph 24 is given below. More detailed information is found in the Fifth National Communication under the UNFCCC, Chapter 5 Projections and effects of policies and measures and Chapter 7 Financial resources and transfer of technology (MATTM, 2009). The preparation of this paragraph was discussed with energy experts from ISPRA (ISPRA, 2011[a], [b]).

Paragraph 24 (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 emissions trading scheme, promotion of biomass and biofuel, Common Agricultural Policy can potentially have impacts in developing countries (European Commission, 2009[b]; 2010[b]). Italy is subject to the European legal system and it will implement the EU legislation. At national level, it is not planned to further increase biomass – biofuel objectives already established (ISPRA, 2011[a]).

Paragraph 24 (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 (European Commission, 2010[b]). Anyway, Italy has a negligible domestic coal production.

Paragraph 24 (c)

Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end. At European level and national level, 'non-energy uses of fossil fuels' is not a current research priority (European Commission, 2010[b]).

Paragraph 24 (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 MATTM (2009).

For example, Italy has signed with India a Memorandum of Understanding (MoU) on "Cooperation in the Area of Climate Change and Development and Implementation of Projects under the CDM/ Kyoto Protocol". In this framework, the MATTM supported a project on Carbon Sequestration Potential Assessment.

The Italian Government has already funded research on carbon capture and storage (CCS) technologies carried out by several organizations and institutions: total value 10-15 million euro for the period 2009-2011. A draft decree transposing EU directive 2009/31/CE in the Italian legislation has been presented to the Parliament by the MATTM and the Ministry for Economic Development. ENEL and ENI, the two major energy utilities in the country, have signed a general agreement for CCS development and will apply for EU funds to set up a pilot unit in Brindisi and a demonstration unit in Porto Tolle. At the international level, Enel is developing a project to build a CO2 capture system in China and has signed agreements for the development of CCS with other countries like South Korea (ISPRA, 2011[b]).

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.

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 MATTM (2009). For example, in Central Eastern Europe Italy has multilateral activities within the Regional Environmental Center for Central and Eastern Europe (REC CEE). More than 100 projects have been implemented for the region, specifically, to climate change and energy issues, several programs were carried out on training and capacity building, energy efficiency in small and medium-sized enterprises, public access to information and participation in climate decisionmaking processes, promotion of climate change mitigation and adaptation policies, development of solar passive and active systems and development of national GHG emission registries.

Paragraph 24 (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 MATTM (2009). For example, within the framework of the Mediterranean Renewable Energy Programme (MEDREP) Initiative, the MATTM has signed a MoU with UNEP-DTIE in order to carry out projects helping the establishment of a regional RET market in the Mediterranean region (Tunisia, Egypt, Montenegro and Albania). After, the Mediterranean Investment Facility was launched aiming to the development (2007–2011) of several projects having an important impact on CO2 emissions by diversifying the use of small scale renewable energy and energy efficiency technologies by targeting different niche markets.

In 2007, the MATTM supported the "Observatory for Renewable Energy in Latin America and the Caribbean" through the signature of a Trust Fund Agreement with UNIDO. Activities are focused on biomass utilization in Uruguay and Brazil in order to reduce the methane emissions and the GHGs' climate change effects, promoting the utilization of bio-digester plants for the electricity production into the livestock farms, based on a local energy management distributed generation system.

14.6 Additional information and 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, and it is also well aware of the need to assess social, environmental and economic impacts. 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 features.

Italian private companies are participating to flexible mechanisms. For instance, ENI an Italian world-wide energy company, projects to reduce gas flaring associated with oil production, with the goal of reducing by 70% emissions from gas flaring, compared to 2007. For some of these projects, ENI promotes the recognition flexible mechanisms within the CDM (ENI, 2010). ENEL is the Italian largest power company that is one of the main worldwide operators applying the CDM. Most of these initiatives were developed bilaterally between Enel-Endesa and the Host country, with 39 CDM projects being registered in 2009 alone. This makes Enel the company with the second-largest number of registered projects in the world. As for the JI mechanism, the Enel Group's portfolio includes 7 directly-managed projects in Uzbekistan and Ukraine and 14 initiatives of participation in funds in Russia, Moldova and Ukraine (ENEL, 2010).

Finally, projects from decentralized development cooperation are to be considered (OICS, 2011). Principles, actors, priority areas and instruments relating to programs conducted by DGCS with the regions and local authorities (provinces and municipalities) are defined in specific guidelines for decentralized cooperation (MAE, 2010[e]).

XXII. Japan

Annual inventory submission 2011

A10.5.1. Executive summary

It is difficult to identify specific adverse impacts due to response measures implemented by Japan in the field of climate change policy. The fluctuation in price of crude oil is caused by balance between supply and demand and numerous other factors (e.g., trend in crude oil futures market or the economy), and it is uncertain whether there exists a causal link or if so what extent is from adverse impacts of climate change policy.

In addition, response measures may cause direct and/or indirect effects to various stakeholders. However, it does not deny any benefit from implementation of response measures. Efforts toward low-carbon society will be accelerated throughout the world, and such activities should not be discouraged.

A10.5.2. Actions to minimize adverse impacts in accordance with Article 3, paragraph 14

Japan has strived in such a way as shown below, believing that these actions are important 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 implementing the commitments under Article 3, paragraph 1 of the Protocol.

At the same time, Japan believes that it should be noted that it is impossible to evaluate these efforts since the method of evaluation is currently under international negotiation.

- ***Technical assistance in the energy and environmental sectors***

Based on the Japan's Cooperation Initiative for Clean Energy and Sustainable Growth presented at the 2nd East Asia Summit in January 2007 and the agreement reached at Asian Ministerial Energy Roundtable held in April 2009, we provided the cooperation in human resource development through accepting trainees and dispatching experts in the area of energy conservation and renewable energy to countries in East Asia and Middle East. We assisted these countries in the establishment and implementation of legal systems of energy conservation and renewable energy. In addition, in a joint policy studies among research institutions from Japan and countries like China and India, we compared country policies related to energy conservation that will benefit the host countries' policy making process and also estimated possibilities of energy use reductions of highly energy-consuming industries.

Additionally, technical assistance in the field of energy and environment by Japan has long been provided throughout the world, contributing to the sustainable economic growth of developing countries. Through Japan International Cooperation Agency (JICA), depending on the needs of developing countries, Japan has been providing assistance in human resource development such as dispatching experts and providing training programs in Japan.

- ***Assistance to oil producing countries in diversifying their economies***

In April 2009, the 3rd Asian Ministerial Energy Roundtable was held in Japan where we requested that regulatory agencies take more coordinated action to strengthen surveillance on commodity futures trading markets and enhance its transparency. Furthermore, parties have agreed to conduct specific projects such as formulation of a demand and supply projection, sharing of leading projects concerning energy conservation and renewable energy, and provision of training opportunities (e.g., Japan will accept 2000 trainees over 3 years).

- ***Development of carbon capture and storage (CCS) technologies***

Recognizing that CCS is an innovative technology that may achieve highly efficient carbon emissions reductions, Japan has been implementing a large-scale demonstration projects toward practical use of CCS by 2020, and researches and developments on cost reductions and safety improvements. In addition, Japan actively exchanged information on CCS technologies with other countries such as the United States of America, etc.

- ***Withdrawing support for the use of environmentally unsound and unsafe technologies***

Japan is of the understanding that there are originally no supports for the use of environmentally unsound and unsafe technologies.

XXIII. Latvia

Annual inventory submission 2011

No additional information was included in this submission.

XXIV. Liechtenstein

Annual inventory submission 2011

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. Liechtenstein has implemented different instruments striving at minimizing potential adverse impacts of its climate change response measures. Liechtenstein 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. In accordance with international law, this approach strives at ensuring that Liechtenstein is implementing those climate change response measures, which are least trade distortive and do not create unnecessary barriers to trade.

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) published a study on the assessment of social and environmental impacts of the use of second generation biomass fuels with the following result: “In summary, 2nd generation biofuels allow a more sustainable mobility than both fossil and 1st generation biofuels based on agriculture. Due to the limited availability of both waste feedstocks and cultivation area, however, sustainable bioenergy-based mobility is restricted to clearly less than 8% of individual mobility in Switzerland, if constant mobility and fleet efficiency is assumed. Nevertheless, 2nd generation biofuels may play a relevant complementary part in supplying our future mobility, in particular for long distance transport and aviation where electric mobility is less suitable.” (TA-SWISS 2010).

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 (at the moment – Febraury 2011 - not published yet).

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 (SCNAT 2008). 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.

XXV. Lithuania

Annual inventory submission 2011

Lithuania is striving under the Kyoto protocol to implement its commitments in such a way as to minimize adverse social, environmental and economic impacts on developing countries.

During the international negotiations on the post-2012 climate change regime EU and its member states ' committed to provide EUR 7.2 billion cumulatively over the period 2010 – 2012 to fast start finance, in order to promote the implementation of climate change measures in developing countries. In this context Lithuania has committed to provide 3 million EUR. Lithuania has already started the implementation its commitments and transferred part of the funds to the Energy Sector Management Assistance Program (ESMAP) under the World Bank. The program addresses the challenges posed by energy security, poverty reduction and climate change through its core functions as a think thank and knowledge clearing house, but also through operational leveraging. ESMAP assists low- and middleincome countries to promote environmentally sustainable energy solutions for poverty reduction and economic growth. ESMAP offers pre-investment activities such as analytical and advisory activities, studies, pilot projects, conferences, trainings and workshops, but not investments themselves. A priori the potential of investments are analysed, while ex post best practices are gathered, evaluations are undertaken and knowledge is transferred.

In accordance with the provisions of the Law on Financial instruments for climate change management, adopted on 7 July 2009 by the Parliament of the Republic of Lithuania, a Special Programme for Climate Change (SPCC) was established. The aim of this programme is to rise additional funding for the climate change management measures. One of the areas where the funds of the SPCC shall be used is the implementation, in the territory of the Republic of Lithuania and third countries, of measures of adaptation to climate change and mitigation of climate change effects as stipulated under legal acts of the European Union, the Convention on Climate Change, the Kyoto Protocol and other international agreements. Currently there are no funds in the SPCC, therefore no initiatives in financing climate change mitigation and adaptation to climate change measures in developing countries are being undertaken.

XXVI. Luxembourg

Annual inventory submission 2011

In addition to the information submitted in 2010, Luxembourg also provided the following information:

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.

Market imperfections:

Luxembourg has reformed its energy markets to a large extent to reduce market imperfections and in order to comply to European legislation:

- 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.

Fiscal incentives:

Several fiscal incentives have been put in place, aiming at reducing the use of fossil fuels:

- vehicle tax reform (RGD 22 december 2006): the tax is based on CO2 emissions from road vehicles.
- raising excise duties on fuels for transport purposes: By the 1st of january 2007, the exise rate on gasoline was increased by 2ct€/litre. For diesel, the excise rate was increased in two stages: 1.25ct€/litre on 1.1.2007, and by a further 1.25 cte/litre on 1.1.2008. This autonomous addition to the existing excise rates is used to finance the Kyoto funf set up in Luxembourg to deal with the Kyoto "flexible mechanisms" and is labled "climate change contribution". Indeed, increasing excise rates on road fuels lead to an increase of fuel retail prices and thus, set an incentive for consumers to lower demand.

Subsidies:

Several subsidies have been put in place in the residential, commercial and institutional sectors, aiming at reducing the use of fossil fuels:

- promotion of energy efficiency and the use of renewable energy sources in the residential sector (solar heaters, heat pumps, photovoltaics, biomass boilers and wood stoves).
- program encouraging refurbishment of existing residential buildings to increase energy efficiency.
- program encouraging the construction of highly energy efficient residential buildings.
- establishment of an energy pass certifying the energy class of residential, commercial and institutional buildings.
- promoting low energy electrical appliances.

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

So far, 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 Luxembourg's research policy.

(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.

For (d) to (e) please refer to Luxembourg's 5th national communication, p.236-240.

XXVII. Monaco

Annual inventory submission 2011

La Principauté de Monaco est un pays dit « Annexe I » et « non-Annexe II » au sens de la Convention Cadre des Nations Unies sur les Changements Climatiques (CCNUCC).

Le pays participe au Mécanisme pour un Développement Propre (MDP) prévu par l'Article 12 du Protocole de Kyoto.

Dans ce cadre, en 2008 un Accord cadre de coopération dans le domaine du Mécanisme pour un développement propre a été signé entre la Principauté de Monaco et la République Tunisienne.

En application de cet accord deux axes de partenariat ont notamment été identifiés:

- ✓ L'accompagnement financier d'un projet de réduction d'émissions vers la certification MDP;
- ✓ Le renforcement des capacités de l'autorité tunisienne en charge de la promotion du MDP dans le secteur de l'énergie et de l'industrie.

Le premier volet visant l'accompagnement de l'enregistrement d'un projet de réduction d'émissions permettra pour le pays de tirer un revenu issu de la vente des unités de réductions certifiées d'émissions (URCE) qui seront attribués pour les réductions d'émissions constatées.

Le deuxième volet devrait notamment permettre la création d'emplois pour l'autorité tunisienne en charge de la promotion du MDP dans le secteur de l'énergie et de l'industrie sur le territoire national.

Cet Accord devrait également permettre d'accroître le nombre et la qualité des projets soumis au titre du MDP et en ce sens favoriser les investissements étrangers et aider le pays à réaliser les objectifs de développement qu'il s'est fixé dans ses programmes stratégiques de développement.

En ce qui concerne la promotion des énergies renouvelables dans les pays en développement, il est également à noter qu'au titre de l'Aide Publique au Développement (APD), et dans le cadre de projets de construction d'infrastructures (école ou dispensaire de santé) dans des régions isolées, l'accès à l'eau potable et à l'électricité est assuré par l'installation de systèmes photovoltaïques quand le raccordement au réseau électrique national n'est pas possible.

XXVIII. Netherlands

Annual inventory submission 2011

The Netherlands has reported information on minimisation of adverse impacts in its 5th National Communication, submitted to the UNFCCC in December 2009 and in the NIR 2010. In this chapter new and additional information is presented.

The Kyoto Protocol was adopted in pursuit of the ultimate objective of the Convention. 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.

A differentiated approach

The Netherlands has chosen for a differentiated approach to reduce climate change and the adverse impacts on developing countries. There are policies and measures focusing on the national, European and international level. Not only does the Netherlands focus on CO2 reductions, the Netherlands also pays attention to the reduction of non-CO2 greenhouse gases. For example the Netherlands has achieved a significant reduction of N2O in the nitric acid industry. Impacts on other countries are mostly indirect and can frequently not be attributed to a specific national policy. Through a differentiated approach the Netherlands aims to reduce the chance that adverse impacts for a specific region occurs. When possible economic, social and environmental impacts in developing countries are taken into account. Nationally, greenhouse gases are reduced through changes in habits (stimulating public transport), technological improvements (LED-lightning and insulating windows), public procurement (taking life cycle energy use into account), obligations (stringent energy performance coefficient in housing) and voluntary agreements (with different – industrial - sectors for GHG reductions), as providing for a renewable energy share in transport. Furthermore the Dutch government implement its policies – where possible – according to the 'the polluter pays' principle. The European Union is also a Party under the Kyoto protocol and therefore reports its information on minimisation of adverse impacts.

Carbon Capture and Storage

Besides the measures in place to reduce greenhouse gases the Netherlands is developing a demonstration project for CCS. The next decennia we will still be dependent on fossil fuels. Advanced technologies like CCS can help to reduce these fossil emissions. The demonstration project is part of the IEEE program. The project receives a grant from this program. The objective of this program is to develop the CCS technology. Part of the program is to share and develop knowledge of the projects. This knowledge will become public.

Biofuels

The Netherlands implements the EU-renewable energy obligation for transport by an obligatory measure, demanding fuel suppliers to make sure that 4.25%, of transport fuels are renewables, gradually increasing to 10% in 2020. If biofuels are used to this end, according to European law, only proven sustainable biofuels count towards the mandate. Sustainability requirements are: a net positive greenhouse gas balance from well

(cultivation) to wheel, protection of highly bio diverse areas, protection of areas with a high carbon content and protection of peat lands.

International negotiations; finance, adaptation, technology and market mechanisms

The Netherlands welcomes the Cancun agreements. The Cancun decisions constitute a realistic and necessary step in fighting climate change and are a balanced result of international negotiations so far. They provide a solid basis for further work on an effective international climate regime.

In the international negotiations, the Netherlands has focused strongly on finance, specifically on transparency about fast start financing. This will play a crucial role in building confidence in the international climate change negotiations. It has therefore launched a website, www. faststartfinance.org, which aims to provide transparency about the amount, direction and use of fast start climate finance, in turn building trust in its delivery and impact.

In accordance with the Netherlands' position on finance, the Cancun Agreements have consolidated important elements of the Copenhagen Accord in formal decisions. Next to that, it has been decided to establish a Green Climate Fund, as well as a Transitional Committee and a Standing Committee.

Also, the Cancun Agreements have now formally established the Technology Mechanism, as mentioned in the Copenhagen Accord, to support country-driven action on mitigation and adaptation through a scale up of clean technology and innovation. This mechanism should be operational in 2012.

In the Netherlands' view it is essential to develop and disperse knowledge and capability in the areas of adaptation, disaster prevention and risk management, both among developed countries and between developed and developing countries. It is important to support developing countries with capacity building and knowledge creation. Both technical and financial assistance should be given to the most vulnerable developing countries, provided their adaptation strategies meet certain standards. Adaptation finance should be prioritized to help the most vulnerable countries adapt to climate change.

The Netherlands welcomes the steps that have been taken to address adaptation in the Cancun Agreements, including the establishment of the Cancun Adaptation Framework.

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.

In the Netherlands' view, the project-based and programmatic Clean Development Mechanism (CDM) should continue but needs to be improved to enhance its environmental integrity and efficiency. In addition, new market-based mechanisms need to be introduced to encourage participation of developing countries in the global carbon market, delivering greater mitigation and other economic benefits. These mechanisms would provide tangible financial assets (reduction credits/ emission units) to support enhanced mitigation actions in developing countries. The Netherlands would like to work with developing countries to set up these new mechanisms.

The Netherlands will continue to promote transparency on finance and participate in activities to enhance market readiness and development of new financial/ market mechanisms.

Co-operating 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 use of fossil fuels is not a policy or research priority in the Netherlands.

Assisting developing country Parties to promote renewable energy and renewable energy policies

The Netherlands assists developing country Parties to promote renewable energy and renewable energy policies. The ultimate goal is to support developing countries in following low carbon development pathways.

The Dutch Promoting Renewable Energy Programme consists of four components: 1. direct investments in renewable energy; 2. encouraging sustainable production of biomass for energy; 3. developing capacity and knowledge in the field of renewable energy; and 4. renewable energy policy dialogue with partner countries and multilateral institutes.

The activities are focussed on Sub Sahara Africa and Indonesia. The largest share of activities take place within the Great Lakes area. The Netherlands participates in a regional programme on renewable energy for the Great Lakes region. It contributes among others to rehabilitation of existing hydropower and the improvement of the power grid between Rwanda and Burundi. The Programme also includes reforestation activities and sustainable production of firewood. In Rwanda, the Netherlands contributes to the National Energy Strategy, with a focus on small scale hydropower and biogas. The Netherlands also contributes to the National Strategy for reforestation and sustainable forest management, with a focus on sustainable production of firewood.

In Indonesia a program on renewable energy has been developed. This program includes capacity building, institutional strengthening and implementation of new technologies, such as geothermal energy, biogas, small scale hydropower for rural electrification and sustainable palm oil production. In Indonesia, a number of Dutch energy partners, including NL Agency, are supporting a nationally operating energy program, together with the World Bank and GIZ. 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.

In close collaboration with the German Ministry for Development Cooperation the Netherlands contributes to the Energising Development Programme in 18 countries. The aim is to provide access to renewable energy services to 5 million people before 2015.

The Netherlands supports research and investment in the field of sustainable production of biomass for energy purposes in various countries: (Mali, Mozambique, Sierra Leone, South Africa, Tanzania, Zambia, Indonesia, Vietnam, Brazil, Colombia, Mexico, Nicaragua and Panama).

Multilaterally, the Netherlands cooperates with several IFI's on energy. The most important World Bank programs the Netherlands is involved in are 1) the Energy Sector Management Assistance Programme (ESMAP), 2) the Asia Sustainable and Alternative Energy (ASTAE) programme for Southeast Asia, and 3) the Scaling-up Renewable Energy Programme (SREP). The Netherlands also funds programs with the IFC and the Asia Development Bank (ADB). The results of this cooperation include knowledge on the application of energy, strengthening of national energy organisations for 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.

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. Also, SNV and Hivos are setting up biogas programmes 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. Various innovative partnerships with the private sector are ongoing to support a businesswise approach towards the sale of solar lanterns in rural areas and a fee-for-service approach towards Solar Home Systems.

XXIX. New Zealand

Annual inventory submission 2011

In addition to the information submitted in 2010, New Zealand also provided the following updated information:

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.

An example is the successfully completed refurbishment of the diesel-fired Aitutaki Power Station in the Cook Islands, with funding of NZ $1.1 million by the New Zealand Aid Programme. This was identified as a government priority under the Cook Islands National Sustainable Plan 2007–2010. The key outputs were a more efficient, reliable and continuous electricity supply for residential and commercial users. It also provided more environmentally friendly operations including significant reduction in noise pollution, diesel fuel and oil spillage, and contamination.

There is now capacity to meet not only current demand but also demand for years to come. There is also capacity to integrate alternative renewable energies such as wind and/or solar into the network at significantly less cost.

XXX. Norway

Annual inventory submission 2011

In addition to the information submitted in 2010, Norway also provided the following updated information:

Norway approaches the report on activities under Article 3.14 from the perspective of being a major exporter of fossil fuels, although we recognize that this is only one aspect of the potential social, environmental and economic impacts of mitigation.

Norway is well aware that taxation of fossil fuels, as well as other policies and measures that influence demand of these, has implications for price and thus has implications for the revenue earned by exporters. This is one of the reasons why Norway emphasizes the need to devise cost-effective policies, thereby minimizing such impacts. The final consequences are, however, uncertain and will generally also depend on policies implemented by the producers.

Norway's share of global consumption is so small that it is unlikely 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 implementing its commitments under Article 3.1 of the Kyoto Protocol.

XXXI. Poland

Annual inventory submission 2011

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.

As a Member State, Poland is obligated to accomplish EU environmental, energy and science policy activities. One of the EU main target is to limit negative influence on environment of energy sector by – among others – reduction of carbon dioxide and other substances emissions, also in developing countries, using clean development mechanisms of the Kyoto Protocol. Poland is also involved in economic cooperation with many developing countries. In frames of this cooperation there are number of contracts realized, for example concerning delivery of low - carbon equipments and technologies, modern mining machinery, electro−machine and chemical equipment. There are also economic and science cooperation programs, including education of students in developing countries.

Poland, in its energy policy, cares on efficient and ecologically most favourable conditions for production and to make use of fuels and energy. Following the EU legislation, market facilitation of fuel and energy prices occurred, as well as an energy efficiency improvement instruments have been introduced into the economy, for example equipment and buildings certification programs, termomodernization of buildings, also introducing of white certificates is expected soon on the basis of new legislation on energy efficiency.

As a country with energy balance based on coal, with aim to evolve to a low - emission economy, Poland attempts to develop low carbon technologies with renewable energy sources, biofuels, nuclear energy, among others. Part of technologies developed in Poland is on early stage of development. In the next level these technologies will become a subject of cooperation also with developing countries. In the scope of CCS technologies (Carbon Capture and Storage) Poland is going to start projects in pilot phase on the basis of EU Demonstration Program, which will co - finance 10 - 12 objects of this type across EU. Present activities aim at identifying potential financial support sources for realization of these objects. One of solution is to get the financing from auction of reserve of allowances established for new installations (so called NER 300) which will be assigned in the first half of year 2012.

It is also important, that in the scope of preparing geological CO2 storage, Ministry of Environment began in 2008 program called Identifying of geological structures for safety carbon storage. The aim of above mentioned program is to give essential knowledge on the potential of carbon storage in Poland. Conclusion of this program is planned on the end of year 2012.

Low−carbon technologies are of big importance for Poland because 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.

The Ministry of Economy commissioned to prepare a feasibility study for the installation that would produce liquid and gaseous fuels based on hard coal. The conclusions of this study showed, that presently the production of diesel oil using Fisher - Tropsch synthesis is unprofitable. The project is expected not to accomplish the demand level of reimbursement in any projected development scenario. The main reasons are very high initial investment expenses to build a factory and to start production process. Study showed also, that producing hydrogen and methanol in only one installation will provide all chemical plants in Poland with fuel. This project will allow the chemical industry to become independent from natural gas unstable delivery and prices.

The Minister of Economy decided to present in public the study results at the conference what completed activities related to statutory delegation concerning the commission of study feasibility of installation that would produce liquid and gaseous fuels based on hard coal. Information contained in the study are also used during further meetings with stakeholders. The study is publicly available through the website of the Ministry of Economy.

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 intends to develop the nuclear energy with the coal as the main energy source still. In 2020 first reactor is planned for initialisation. Following the “Programme of the Polish nuclear energy” accepted by the government the process started of capacity building for implementation nuclear technology within the country. In the future Poland would share its experience in this issue with developing countries demanding for building nuclear reactors for its own, or regional, demands. Poland as the country attending in the decision bodies of the international finance institutions will be able to support initiatives aiming at ensuring finance for projects related to nuclear energy in developing countries.

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 (because of the close date of termination of this system the works are planned for its modification at the EU forum. 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 fulfil specified economic criteria, are obliged to ratify and effectively implement a number of international conventions (described in the Annex II to the GSP regulation No 732/2008), of which some relate to the environmental protection and good governance rules. The conventions listed cover:

− the Kyoto Protocol to the Framework Convention on Climate Change,

− the Montreal Protocol on Substances That Deplete the Ozone Layer,

− the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal,

− the Stockholm Convention on Persistent Organic Pollutants.

Providing of effective implementation of conventions mentioned in Annex II to the GSP regulation No 732/2008 is monitored by EU. In case, when certain convention is not being implemented, after conducting required checking procedure on EU forum, there is possibility of excluding developing country from beneficiary list of GSP+ generalized tariff preferences. Other trade ground, where environmental protection issue occur are trade negotiations conducted by EC on the basis of negotiation mandate, given EU by Member States. This concerns both, multilateral negotiations (held under the auspices of World Trade Organisation – WTO) and bilateral and plurilateral negotiations in frames of free trade zones (FTZ) agreements.

With respect to trade issues, the multilateral WTO negotiations within the DDA round, 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[13]. 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 Communication of 2006 „Global dimension of Europe – Competing on global market"[14] and Commission Communication "Growth and World Policy". Trade policy is also a key element of Europe 2020[15] strategy, which states how EU trade policy should support European economic and employment growth. According to these documents, one of proposed activities was negotiating by EU complex agreements on free trade zones (FTZ) with selected Third Parties. More attention will also be paid on incorporation part of effect assessment into EU trade policy making process. Assessment of effects will cover all new trade initiatives with potentially important economic, social and environment effects for EU and its trade partners, including developing countries.

In scope of this communications, EU trade policy still should support realization of environmental development targets and climate change combat, especially CO2 emission reduction. European Commission states also, that EU must take care of EU industry, to compete effectively in balanced future economy. EC indicates also that EU agriculture and fishery will undergo further reforms. In climate change context, EC declare that purchasing global agreement stating aims concerning emission reduction for each country in the world remains priority. Support from EU trade policy for climate change combat should be realized by barrier elimination for ecologically friendly products and services. European Commission also sustains opinion, that option of implementing ecological border duties, creates number of problems, which are laid down in Commission Communication Analysis

[13] Paragraphs 31 - 33 and 51 of the Ministerial Declaration of Doha

[14] Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the committee of the regions Global Europe: competing in the world. A *Contribution to the EU's Growth and Jobs Strategy.* (COM(2006)567).

[15] Vide footnote No 1

of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage[16].

In scope of mentioned Communicates, in broader view trade policy should support and prom environmental growth all over the world in other areas, such as energy, effective resource management or biodiversity protection. Commission declares also that will still pay particular attention on presence of chapters concerning fulfilling sustainable development in EU trade agreements with Third Parties. 6 Paragraphs 31 - 33 and 51 of the Ministerial Declaration of Doha 7 Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the committee of the regions Global Europe: competing in the world. A Contribution to the EU's Growth and Jobs Strategy. (COM(2006)567) 8 Vide footnote No 1 9 Communication from the Commission COM(2010) 265 from 26 May 2010.

Additionally, among activities undertaken in Poland aiming at minimization of adverse social, environmental and economic impacts on developing country Parties, there is implementation of the Polish government's declaration regarding so called fast start financing. This is one of the element of the Copenhagen Accord on December 2009 concerning financial support provided by the developed countries in 2010−2012 of 30 billion USD to the developing countries for the implementa□on of their climate policies.

13. The decision was then undertaken in co - operation of the ministries: Foreign Affairs, Environment and Finance regarding the implementation of the fast start obligation to submit, as the Polish part of the fast start, selected projects implemented so far within the Polish development assistance as bilateral enterprises. These projects amount for 3.2 million EUR and the beneficiary countries are:

China	2.089 million EUR
Afghanistan	0.566 million EUR
Ukraine	0.372 million EUR
Georgia	0.152 million EUR
Belarus	0.025 million EUR

Mentioned above projects were submitted by Poland to the Belgian Presidency report on progress in realisation of obligations concerning fast star financing made by the European Union and its Member States. Still there is a need to elaborate comprehensive system of implementation the Polish segment of obligations resulting from fast start financing.

[16] Communication from the Commission COM(2010) 265 from 26 May 2010.

XXXII. Portugal

Annual inventory submission 2011

This chapter concerns information on minimization of adverse impacts in accordance with Article 3, paragraph 14.

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

By working on the implementation of the Protocol, Portugal is struggling to minimize not only the adverse effects of climate change in specific sectors, industries or other Parties, but also any adverse effects due to the reduction of greenhouse gases. This is due to the development of different actions and implementation of different instruments conceived to promote sustainable development and the commitment to support developing countries.

The policies and measures implemented, adopted or foreseen in the National Plan for Climate Change (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.

The transition to a lower carbon Portuguese economy relies on the contribution of all sectors. Particularly, the Portuguese Energy Strategy relies to a great extent in the diversification of energy sources (including those referring to fossil fuels) and to the increase of endogenous resources (renewable). In some cases, the measures pertaining to the diversification of primary energy sources (namely shifting to natural gas), can simultaneously have positive effects on Portugal"s emissions reduction and in the economy of some fossil fuel exporting countries.

Furthermore, the cooperation of Portugal with third countries looks to the integration of the adaptation dimension of climatic change in the several sectoral policies and instruments of planning, vulnerabilities and risks associates to climate change. The action of the Portuguese cooperation is developed on the basis of geographical priorities which are centered in the countries of Portuguese official language, in particular the PALOP and Timor East. All these countries are within the group of more vulnerable countries to the variations caused by climate changed either, because they are situated in its majority in Africa, or belong to the set of least developed countries and/or are small insular States.

At a multilateral level, Portugal supports the implementation of adaptation measures in the most vulnerable countries, in particular within the CPLP (Comunidade dos Países de Língua Portuguesa), and contributes to the adaptation fund, in the framework of the EU responsibilities. It also supports institutional capacity building within RELAC/CPLP (Rede Lusófona para as Alterações Climáticas);

At a bilateral level, assists ONGD (non-governmental organizations for development) projects in Angola, Cabo Verde, Guiné-Bissau, Moçambique e São Tomé e Príncipe; and promotes the sectoral integration the adaptation component in the Cooperation Programs, in particular in the scope of Superior education and of Research in the field of Environmental Engineering, Agriculture and Rural Development, and Health.

XXXIII. Romania

Annual inventory submission 2011

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 ou 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 we can appreciate that the national climate change policy developed so far to reduce GHG emissions has had no impact abroad and especially on developing countries.

The application of the Joint Implementation mechanism in our country aimed firstly at upgrading and refurbishment of old technologies and at improved energy efficiency, with no trans-boundary effects, as well as the implementation in Romania of the European Union Emission Trading Scheme.

Nevertheless Romania is of the opinion that the technical and financing assistance towards the developing countries is very important for the development international policy on climate change, and is willing to join the European Union initiative to provide a “fast start financing” for the developing countries.

Under the fast start financing Romania decided to focus its contribution for the benefit of developing countries associated to the Copenhagen Accord, countries which have committed to take GHG emissions reducing measures and have developed economic strategic partnership relations with our country.

Republic of Moldavia associated to the Copenhagen Accords and committed to reduce the GHG emissions until 2020 by 25% in comparison with the 1990 level.

In this context the 15 million Euros Romanian contribution planned for the fast start financing mechanism will be used for energy efficiency and transport infrastructure projects.

This contribution will strengthen the cooperation for developing the climate change policy in Europe and will support the European integration of the Republic of Moldavia.

XXXIV. Russian Federation

Annual inventory submission 2011

14. 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. 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 удельных (на единицу ВВП) выбросов парниковых газов.

XXXV. Slovakia

Annual inventory submission 2011

No additional information was included in this submission.

XXXVI. Slovenia

Annual inventory submission 2011

In 2004, Slovenia prepared the first draft of the Operational Programme for Reduction of Greenhouse Gas Emissions which was then adopted by the Government. Since 2004, the Programme is being regularly updated, and Government Office of Climate Change reports to the Government each year on its implementation. In the Operational Programme approximately 85 policies and measures in all sectors and for all greenhouse gases have been identified and financially evaluated, and their emissions reduction potential has been estimated. Focusing on many policies and measures in all sectors instead of only few major ones, helps limiting or eliminating their adverse economic, environmental and social impacts on developing countries and in general.

Of course, it should not be neglected that the purpose of the Kyoto Protocol itself is to minimise adverse impacts of climate change on all countries, particularly on those most vulnerable and least able to face them. Slovenia is striving to contribute to these international efforts proportionally, taking into account its Kyoto target of -8 %. Nevertheless, Slovenia is very mindful of the principle that all its policies and measures to reduce greenhouse gas emissions are designed in a way to have no, or minimum, adverse impacts on developing countries, particularly on least developed ones. One of the examples in this regard is the possibility of carbon leakage which would entail higher greenhouse gas emissions in countries which have lower environmental standards. Slovenia is trying to create such environment that carbon leakage would not take place.

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. Also in 2004, the EU substantiated its commitment to help developing countries tackle climate change by adopting an Action Plan on Climate Change in the context of Development Cooperation for the period up to 2008. The Action Plan was centred on mainstreaming aspects of climate change into development cooperation in four strategic areas: policy dialogue, mitigation, adaptation and capacity building. One of the Action Plan's strategic objectives was to raise the policy profile of climate change. This is being achieved in practice, by ensuring that climate change is systematically addressed in the context of the EU's relations with international partners, at the multilateral, regional and bilateral levels. Many projects and programmes dealing with water, agriculture, forests, fisheries, rural development, health, the promotion of energy efficiency and renewable energies and the conservation of natural areas are relevant for climate change. It is mainly in these sectors in which EC cooperation has been promoting adaptation and mitigation synergies, alongside poverty alleviation.

XXXVII. Spain

Annual inventory submission 2011

Para estudiar la minimización de los posibles efectos adversos sobre países en desarrollo, de las políticas y medidas nacionales de mitigación de emisiones de GEI implantadas, se han considerado los siguientes aspectos:

a) Retirada paulatina de imperfecciones de mercado, incentivos fiscales, tasas, exenciones fiscales y subvenciones en todos los sectores emisores de GEI, teniendo en cuenta la necesidad de una reforma de precios energéticos que reflejen los precios de mercado y las externalidades. Cabe mencionar sobre este punto las ayudas a la producción y uso del carbón nacional en la generación eléctrica. Dichas ayudas contemplan cubrir el margen entre los costes de explotación y el precio de mercado para mantener una producción nacional justificada dentro de un autoabastecimiento de combustibles autóctonos de hasta el 15% de las necesidades energéticas del país. Dentro de estas medidas destaca la aprobación del Real Decreto 134/2010, de 12 de febrero, por el que se establece el procedimiento de resolución de restricciones por garantía de suministro y se modifica el Real Decreto 2019/1997, de 26 de diciembre, por el que se organiza y regula el mercado de producción de energía eléctrica. Modificado por el Real Decreto 1221/2010, de 1 de octubre, ha sido finalmente aprobado por Bruselas. La normativa aprobada garantiza el uso de carbón autóctono en la producción de electricidad y posibilita el cumplimiento del Plan Nacional de Reserva Estratégica de Carbón 2006- 2012. El sistema de ayudas a la producción de carbón en países de la UE seguirá siendo autorizado hasta 2018 si bien diminuirá paulatinamente hasta esta fecha. Como dato significativo podemos destacar que el consumo de carbón en todos los sectores descendió un 29 % en el año 2009 respecto al año anterior. Así mismo, la electricidad producida por carbón ha pasado de suponer un 32% en el año 2004 a un 14% en el año 2009.

b) Eliminación de subvenciones asociadas al uso de tecnologías sucias o inseguras. En este caso no hay identificados subsidios en tecnologías sucias o inseguras.

c) Cooperación en el desarrollo tecnológico de usos no energéticos de combustibles fósiles y apoyo a países en vías de desarrollo con este fin. La industria petroquímica tiene un peso significativo en España y en particular la industria del plástico. Estos sectores concentran una importante cifra de gasto e inversión en I+D+ i en España y en este respecto podemos destacar la acción especial llevada a cabo en el subsector de los plásticos para agricultura donde España es líder en producción y soluciones tecnológicas para este sector que tanta importancia tendrá para la adaptación de los cultivos al cambio climático.

d) Cooperación en el desarrollo, difusión y transferencia de tecnologías avanzadas poco emisoras de gases de efecto invernadero, y/o tecnologías que capturen y almacenen gases de efecto invernadero, que incentiven su uso más amplio; y que faciliten la participación de países menos desarrollados y otras partes no Anexo I en este esfuerzo.

Dentro del conjunto de iniciativas y proyectos llevados a cabo cabe destacar los siguientes:

- Colaboración dentro del proyecto europeo GEOCAPACITY (01/01/2006 – 31/12/2009) con CHINA. El objetivo principal de este proyecto es la determinación de la capacidad europea para el almacenamiento geológico de CO2. Así mismo, se llevó a cabo una colaboración científica con China, miembro del *Carbon Sequestration Leadership Forum*, con el objeto de establecer un marco para la cooperación internacional que facilite la transferencia de tecnologías. (http://www.igme.es/INTERNET/SIDIMAGENES/140000/531/140531_0000001.PDF)

- Colaboración con Marruecos dentro del proyecto “Infraestructura integrada para el transporte y almacenamiento de CO2 en el mediterráneo occidental” (COMET). Este proyecto que forma parte del 7º Programa Marco Europeo, tiene por objeto identificar y evaluar las infraestructuras de transporte y almacenamiento de CO2 más rentables y aptas para la zona del Mediterráneo Occidental, y en concreto para Portugal, España y Marruecos.

- Colaboración con países del área mediterránea a través del Plan Solar Mediterráneo. El Plan Solar Mediterráneo es un gran paso adelante en el desarrollo de la política de cooperación euro-mediterránea en materia de energía, iniciada con el proceso de Barcelona en 1995, integrada desde 2007 en la Política de Vecindad de la Unión Europea y reforzada desde 2008 con la creación de la Unión por el Mediterráneo. Su objetivo para el 2020 es el de alcanzar 20 GW adicionales de capacidad de producción de las Energías Renovables en países mediterráneos no europeos así como un significativo progreso en el ahorro energético.

- Colaboración dentro del proyecto DESERTEC con los países del Norte de África. Esta iniciativa busca desarrollar un parque de energía limpia, a través de plantas termosolares en toda la franja que va de Marruecos a la península Arábiga, aprovechando también la energía eólica del litoral de Marruecos, Mauritania, la costa atlántica del norte de África y España. El parque también busca integrar centrales hidroeléctricas en Turquía y el valle del Nilo, en Egipto. El proyecto Desertec se desarrollará en 2 etapas, la primera para el año 2020 y la segunda para el 2050 y agrupa a diversas empresas de países como Alemania, Francia y España. (www.desertec.org).

- Difusión de la iniciativa Solar Forest Project, que busca sinergias entre el desarrollo de la energía termosolar y la producción de agua y alimentos. Este tipo de proyectos puede ser especialmente interesantes en zonas con disponibilidad de agua salada y por tanto de interés en la franja norte africana.

- A través del Programa de Captura de CO2 de la "Fundación Ciudad de la Energía” (CIUDEN), creada por el Gobierno de España por Acuerdo del Consejo de Ministros de 12 mayo de 2006, se participa de manera muy activa en los principales foros nacionales e internacionales. Entre ellos, el Grupo "Friends of NZEC" (Near Zero Emissions Coal) organizadas por la DG ENV en Bruselas y la Delegación de la CE en Beijing con los estados miembros interesados. En este foro está analizándose la participación en las fases posteriores del proyecto para la realización de estudios de viabilidad en materia de CAC en China y la construcción de una planta de demostración.

- Cabe mencionar finalmente la componente de transferencia tecnológica a través de MDL y programas de colaboración en I+D+i en energía renovables con otros países tanto desarrollados como en desarrollo. La Ley 1/2005 de 9 de marzo, regula el régimen del comercio de derechos de emisión de gases de efecto invernadero y crea una comisión interministerial que ejercerá como autoridad nacional designada (AND) por España para los mecanismos basados en proyectos del Protocolo de Kioto. Todos los proyectos que han sido aprobados hasta la fecha se pueden consultar en la página del Ministerio de Medio Ambiente y Medio Rural y Marino, apartado de la AND.

e) Reforzar la capacidad de países en vías de desarrollo identificados en los artículos 4, párrafos 8 y 9 de la Convención para mejorar la eficiencia en lo referente a fabricación y utilización de combustible fósiles, teniendo en cuenta la necesidad de mejorar la eficiencia medioambiental de esas actividades.

Cabe destacar en este punto la colaboración ELCOGAS – SIEMENS con la empresa Greengen China en una nueva planta de gasificación integrada en ciclo combinado (GICC) que se esta construyendo en China. España posee una de las 4 plantas operativas en el mundo de esta tecnología. En dicha planta se está ensayando la tecnología de pre-

combustión para la captura de CO_2, mediante la que será viable llevar a cabo conjuntamente la captura de CO2, con la producción de hidrógeno y de energía eléctrica. La empresa china ha destinado técnicos a la planta de Puertollano en el programa de transferencia de know how.

f) Asistencia a países en vías de desarrollo, que sean dependientes de la exportación y consumo de combustibles fósiles, en diversificar sus economías.

Se han desarrollado y se siguen desarrollando diferentes programas de colaboración con distintos países petroleros. En concreto, dentro de las áreas geográficas definidas como prioritarias para la cooperación española destacan los siguientes:

Ecuador, México, Venezuela, Argentina, Brasil, Bolivia, Colombia, Argelia, Irak, Egipto, Angola y Guinea Ecuatorial.

Estas áreas geográficas y tipos de proyectos a desarrollar están definidos en el Plan Director de la Cooperación Española para el periodo 2009-2012, aprobado por el Consejo de Ministros del 13 de febrero de 2009. El órgano de gestión de la política española de cooperación internacional para el desarrollo es la Agencia Española de Cooperación Internacional para el Desarrollo (AECID).

g) Otras áreas con posibles efectos adversos asociados.

- Plan nacional de asignación de derechos de emisión.

El régimen de comercio de derechos de emisión conlleva unas obligaciones y un precio a las emisiones por lo que no detectamos un efecto adverso por esta medida. Las necesidades por parte de las empresas de cubrir sus déficits de derechos implica la adquisición de los mismos a través de MDL que conllevan una mejora en los países que acogen los proyectos.

- Fomento de biocarburantes.

El 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.

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.

XXXVIII. Sweden

Annual inventory submission 2011

No additional information was included in this submission.

XXXIX. Switzerland

Annual inventory submission 2011

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 respond-ing to climate change.

Context

Switzerland strives to design climate change policies and measures in a way as to ensure a balanced distribution of mitigation efforts by implementing climate change response measures in all sectors and for different gases. Indirectly, this approach is deemed to minimize also the scope of potential adverse impacts on concerned actors (including developing countries). Due to Switzerland's size and share related to international trade - mainly concentrated on the EU - and greenhouse gas emissions, it is not assumed that Swiss climate change policies have any significant adverse economic, social and environmental impacts in developing countries. Additionally, 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. 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, Switzerland belongs to the most important donors in the area of Aid for Trade. SECO‘s technical assistance for trade promotion amounts to CHF 42 million for the year 2010 (non-reimbursable grant contributions).

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 domes-tic and foreign stakeholders can raise concerns and issues about new policy initiatives, i.e. including those concerns about possible adverse impacts on other countries.

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

Environmental policy in Switzerland, including climate change policies, are guided by the "polluter pays" principles, as enshrined in the Federal Law on the Protection of the Environ-ment. Accordingly, the internalization of external costs and adequate price signals are key aspects of Switzerland's climate change policy. Regarding greenhouse gas emissions, mar-ket-based instruments, such as the Swiss Emissions Trading Scheme, the supplemental use of Certified Emission Reductions from the Clean Development Mechanism or levies for heating and process fuels are important measures to put a price on emissions of greenhouse gases (see Fifth National Communication for more details), thus reflecting market prices and internalizing externalities.

Fiscal incentives, tax and duty exemptions and subsidies

Fiscal incentives are recognized as an essential instrument for promoting the efficient use of resources and to reduce market imperfections. In 2001 Switzerland introduced a heavy

vehicle fee (HVF). It is applied to passenger and freight transport vehicles of more than 3.5 tonnes gross weight. The impact of the HVF introduction was most clearly reflected by changes in traffic volume (truck-kilometres) but also in reduced air pollution, a renewal of the heavy vehicle fleet and an increase of load per vehicle, fewer trucks have transported more goods. Two thirds of the revenues are used to finance major railway infrastructure projects (such as the two base tunnels through the Alps), and one third is transferred to the cantons.

In 2008 Switzerland introduced a CO_2 levy on heating and process fuel to set an incentive for a more efficient use of fossil fuels, promote investment in energy-efficient technologies and the use of low-carbon or carbon-free energy sources. Companies, especially those industries with substantial CO_2 emissions from use of heating fuels, may apply for exemption from the CO_2 levy, provided the company commits to emission reductions. The company has to elaborate an emission reduction target, based on the technological potential and economic viability of various measures within the company. While the proceeds from the CO_2 levy were initially to be fully and equally refunded to the Swiss population and to the business community in proportion of wages paid, a parliamentary decision of June 2009 earmarked a third (up to CHF 200 million per year) of the revenues from the CO_2 levy to CO_2 relevant measures in the building sector (Building refurbishment programme).

The economic impact of the Swiss climate policy was analysed in two studies[17]. The impact is considered to be very small.

Switzerland doesn‘t subsidize fossil fuels.

The need for energy prices reforms

World-wide subisidies for fossil fuels are estimated at 300-500 billion USD per annum, depending on the level of energy prices. This huge market distortion does not only produce severe fiscal problems for the countries concerned, it is also a major obstacle for enhanced investments in energy efficiency measures and renewable energies.

Switzerland as a member of the Friends of Fossil Fuels Subisidies Reform group supports the gradual and sustained reduction of unnecessary market-distortions. Switzerland under its Economic Development Cooperation supports partner countries in the design and implemen-tation of energy tariff reforms, as an element of infrastructure financing programs. Switzer-land has been an initiator of specialized international programs, including the World Bank's Energy Sector Management Program ESMAP. The Energy Efficiency Governance Handbook has been produced with Swiss financing (IEA/EBRD 2010).

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

Switzerland doesn't subsidize the use of environmentally unsound and unsafe technologies.

Strengthening the capacity of developing country Parties 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

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

[17] Ecoplan (2009): Volkswirtschaftliche Auswirkungen der Schweizer Post-Kyoto-Politik, im Auftrag des BAFU. BAFU (2010): Synthesebericht zur Volkswirtschaftlichen Beurteilung der Schweizer Klimapolitik nach 2012.

companies and services. The resulting rise of economic and environmental efficiency and improved competiveness 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.

Furthermore, 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 agri-cultural commodities), e.g. through the creation of sustainability standards, financial incentives and favourable framework conditions in developing countries by consultancy services and technology transfer. Further information are contained in Chapter 7 of Switzerland's Fifth National Communication (FOEN 2009d).

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

Most developing and transition countries have, in recent years, taken important steps towards trade liberalisation, in order to frame their trade policies in line with multilateral trade agreements. The Swiss State Secretariat for Economic Affairs (SECO) promotes these ef-forts, because a multilaterally acknowledged and respected set of regulations for international transactions not only strengthens trade as such, but also creates more potent and legally secure markets to the advantage of all the players.

The measures taken by SECO are aimed at creating the necessary conditions for earning additional income in the beneficiary countries and thereby contribute directly to the alleviation of poverty. SECO is focusing on three areas of intervention along the value chain: (i) Interna-tional competitiveness (ii) Enabling framework conditions for trade (iii) Improving market ac-cess.

For example market access: Trade between developing and industrial countries is still insuf-ficiently developed respectively not diversified enough. On one hand, the developing count-ries lack the necessary production capacities, transport infrastructure and know-how; on the other hand, tariff and non-tariff barriers to trade make direct access to markets more difficult.

Switzerland promotes access to Swiss markets by granting preferential tariffs on products from developing and emerging countries. In addition, SECO runs programmes for promoting imports to Switzerland and the rest of Europe. The easing of market entry for products from disadvantaged countries is an important contribution to the promotion and diversification of trade, the increase of export revenues and thus to the economic development of the partner countries. Switzerland supports developing and transition countries in the following areas:

- Generalized system of preferences (GSP)

- Swiss Import Promotion Program (www.sippo.ch)

- Development of new private voluntary social and environmental standards based on international multi-stakeholder approaches: private sustainability standards Better Cotton, 4C (Common Code for the Coffee Community), Roundtable for Sustainable Biofuels, etc.

Finally, Switzerland is a strong supporter of the EITI (Extractive Industries Transparency Ini-tiative). We share a belief that the prudent use of natural resource wealth should be an im-portant engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts. The sustainable management of natural resource wealth - as

supported by EITI principle and criteria incl. regular publication and audit of revenues - is key to mobilize the funds for diversification strategies.

XL. Ukraine

Annual inventory submission 2011

Украина планирует и осуществляет политику и меры, направленные на предотвращение антропогенных изменений климата и снижение воздействия на климатическую систему, в комплексе с решением таких задач, как повышение общей эффективности экономики, охрана окружающей среды и охрана здоровья населения.

Основная цель этой политики - создание условий для снижения энергоемкости ВВП Украины до уровня развитых государств мира путем совершенствования законодательства, разработки соответствующих стандартов, нормативов и технических регламентов, необходимых для формирование эффективной системы государственного управления энергоэффективностью, внедрение действенного механизма реализации государственной политики в сфере энергоэффективности и энергосбереже-ния.

В данный момент в Украине специально уполномоченным центральным орга-ном исполнительной власти по вопросам обеспечения реализации государственной политики в сфере эффективного использования энергетических ресурсов и энергосбережения является Национальное агентство Украины по вопросам обеспечения эффективного использования энергетических ресурсов (НАЭР), его деятельность направляется и координируется Кабинетом Министров Украины (Пункт 1 с изменениями, внесенными согласно Постановлению КМ N 664 (664-2008-п) от 23.07.2008).

В пределах своих полномочий НАЭР организует выполнение актов законодательства и осуществляет контроль над их реализацией, обобщает практику применения законодательства по вопросам, относящимся к его компетенции, разрабатывает предложения по совершенствованию законодательства и в установленном порядке вносит их на рассмотрение Кабинета Министров Украины.

Основными задачами НАЭР являются: проведения единой государственной политики в сфере эффективного использования энергетических ресурсов и энергосбережения; обеспечение увеличения доли альтернативных видов топлива в балансе спроса и предложения энергоносителей; создание государственной системы мониторинга производства, потребления, экспорта и импорта энергоносителей, усовершенствование системы учета и контроля над потреблением энергетических ресурсов; обеспечение функционирования единой системы нормирования удельных расходов энергетических ресурсов в общественном производстве.

Деятельность в сфере эффективного использования энергетических ресурсов и энергосбережения происходит в правовом поле, обозначенном законами и подзаконными актами Украины, которые приводятся в Приложении П6.3.

Параллельно Украина осуществляет меры по снижению углеродоемкости ВВП страны, созданию законодательного поля и разработке экономических механизмов, которые будут стимулировать снижение выбросов парниковых газов на единицу произведенной продукции на уровне регионов, отраслей и отдельных предприятий.

Принята Стратегия государственной экологической политики Украины до 2020 года (21.12.2010). В контексте изменения климата поставлена цель - увеличение использования источников энергии с низкими выбросами CO_2 на:

- 10 % до 2015 года
- 20 % до 2020 года

Законодательные механизмы реализации Стратегии. Закон Украины «Об электроэнергетике» устанавливает «зеленные тарифы» на покупку э/э выработанную из альтернативных источников энергии (ст.17-1) (изменения в Закон от 01.04.2009 и 17.12.2010):

– Ветровая энергия (К=1,2-2,1)

– Солнечная энергия (К=4,4-4,6)

– Энергия биомассы (К=2,3)

– Малые ГЭС (К=0,8)

Налоговый Кодекс (вступил в силу с 01.01.2011):

– налог на выбросы CO_2

– освобождение от оплаты таможенных платежей при поставках оборудования /материалов/сырья:

- для производства альтернативных видов топлива и энергии из возобновляемых источников
- работающего на возобновляемых источниках энергии
- энергосберегающего оборудования

– освобождение от оплаты НДС при поставках/импорте:

- техники и оборудования работающего на альтернативных видах топлива
- оборудования для производства альтернативных видов топ-лива

– освобождение налогообложения прибыли производителей биотоп-лива, производителей комбинированного производства электроэнер-гии и тепла, а также производителе тепла из биотоплива

– освобождение от оплаты целевой надбавки при производстве электроэнергии когенерационными установками и из возобновляемых источников

– освобождение от налогообложения прибыли от продажи электро-энергии выработанной из возобновляемых источников

– снижение на 75% налога на землю, на которой размещена установка для производства электроэнергии из возобновляемых источников

– сниженная минимальной ставки арендной платы за землю переданную под размещение установок для производства электроэнергии из воз-обновляемых источников

– освобождение от оплати акциза при производстве биоэтанола

– Возможность выдачи налоговых векселей для производителей био-топлива

– Предоставление налоговой скидки при переоборудовании транспорт-ных средств для работы на биотопливе

– Стимулирование производства биоэтанола через повышение акцизов на импорт бензинов с высоким содержанием биоэтанола.

На рассмотрении в Верховной Раде - едином органе законодательной власти Украины - находятся проект Закона Украины «О регулировании объема антропогенных выбросов и поглощения парниковых газов» и проект Закона Украины «Об экологическим рынке Украины», в соответствие с которыми, в том числе, будет установлен порядок выдачи и аннулирования разрешений на Антропогенные вы-

бросы парниковых газов. 21 октября 2010 Верховной Радой Украины принят в первом чтении проект Закона Украины «О регулировании в сфере энергосбережения» (№ 7231). Законопроектом предусмотрены:

- разработка и внедрение Национального плана распределения прав на выбро-сы парниковых газов;
- внедрение рынка сокращения выбросов парниковых газов, который предусматривает, что обращение единиц прав на выбросы будет осуществляться на фондовой бирже в форме фьючерсных контрактов, базовым активом которых является право на соответствующий объем выбросов парниковых газов.
- права на выбросы парниковых газов распределяются по принципу равноправного доступа к распределению таких прав всех операторов установок. В основе распределения прав лежит план поэтапного перехода на новейшие технологии по видам деятельности, связанным с выбросами парниковых га-зов;
- создание комплексной и действенной системы оценки, учета и контроля вы-бросов парниковых газов, отвечающей международным стандартам и требо-ваниям Рамочной конвенции ООН об изменении климата и Киотского прото-кола к ней и является составной частью международной системы контроля, который создается в соответствии с Рамочной конвенцией ООН об измене-нии климата и других международных документов по этому вопросу.

Кроме того, свой вклад в дело укрепления потенциала в области предотвраще-ния изменения климата в развивающихся странах Украина осуществляет путем подготовки квалифицированных специалистов в области экологии, климатологии, метеорологии и энергоэффективности. Обучение проводится в высших учебных заведениях и в аспирантуре в рамках соответствующих международных соглашений. Помимо обучения специалистов из развивающихся стран осуществляется обучение студентов и аспирантов из стран СНГ. Ведущую роль в этом процессе играют перечисленные ниже университеты Украины:

- Одесский государственный экологический университет (специализированный)

- Киевский национальный университет имени Тараса Шевченко

- Харьковский национальный университет имени В.Н. Каразина

- Национальный авиационный университет (г. Киев)

- Донецкий национальный технический университет

- Национальный технический университет Украины «КПИ»

- Сумской государственный университет

- Национальный университет биоресурсов и природопользования Украины (г. Киев)

- Черновицкий национальный университет имени Ю. Федьковича

- Национальный лесотехнический университет Украины (г. Львов)

- Национальный университет «Львовская политехника»

- Таврический национальный университет имени В.И. Вернадского

- Национальный университет водного хозяйства и природопользования (г. Ровно)

- Херсонский государственный аграрный университет

Одесский государственный экологический университет, в структуру которого входит Гидрометеорологический институт, эколого-экономический и природо-охранный факультеты.

Это высшее учебное заведение имеет все возможности осуществлять подготов-ку специалистов в областях гидрометеорологии, экологии, мониторинга состояния окружающей среды, организации природоохранной деятельности, водных биоресурсов, менеджмента природопользования, компьютерных технологий и др. в соответствии с современными требованиями и на уровне лучших европейских и мировых стандартов. Среди его выпускников немало крупных ученых, исследователей окружающей среды, руководителей гидрометеорологических подразделений Украины и стран СНГ, различных развивающихся государств.

Киевский Национальный Университет имени Тараса Шевченко, Географиче-ский факультет которого готовит специалистов по рациональному использованию природных ресурсов и охране природы, аэрокосмическому мониторингу окружающей среды, географов-геоэкологов, геоморфологов, метеорологов.

Национальный технический университет Украины «Киевский политехнический институт» в таких структурных подразделениях как «Институт энергосбережения и энергоменеджмента» и теплоэнергетический факультет, готовит специалистов для электроэнергетического и топливно-энергетического комплексов, строительства городских подземных сооружений и охраны окружающей среды, которые способны разрабатывать, проектировать и эксплуатировать энергетические комплексы и системы, создавать современные системы эко-энергетического менеджмента, работающие по современным энергосберегающим технологиям, подземные объекты и комплексы городов, проводить мониторинг экологического состояния промышленных предприятий на основе широкого применения информационных и компьютерных технологий. Выпускники работают экспертами по вопросам эффективного использования энергоресурсов, предоставляют консалтинговые и инжиниринговые услуги, энергоаудиторами и инспекторами в энергетическом секторе, руководителями, ведущими специалистами структурных подразделений на предприятиях и в организациях электроэнергетики, топливно-энергетического комплекса, горнодобывающей промышленности, строительства и эксплуатации городских подземных сооружений, в учреждениях для проведения экологического мониторинга.

Только в данный момент обучение в этом вузе по перечисленным специально-стям проходят 700 иностранных студентов из развивающихся стран, являющихся Сторонами РКИК ООН.

По данным Национального авиационного университета (г. Киев), подготовку в нем в 2008-2010 гг. прошли 1 250 иностранных студентов:

Страны Азии – 53%;

Страны СНГ – 40%;

Страны Африки – 4%.

Также необходимо подчеркнуть значительную роль Украины, представленной Украинским научно-исследовательским гидрометеорологическим институтом МЧС Украины и НАН Украины (УкрНИГМИ), в глобальной сети системы наблюдения за изменением климата.

XLI. United Kingdom of Great Britian and Northern Ireland

Annual inventory submission 2011

1.1 General Overview

The UK believes that a comprehensive and global post-2012 regime with broad coverage of sectors offers the best option to address the issue of response measures. Response measures is not a stand-alone issue and has strong links to technology and capacity building.

Both positive and negative effects must be taken into account. A global transition to a low carbon economy will provide parties with social, economic and sustainable development opportunities, but we acknowlegde that it should address vulnerabilities. We need to ensure that transition to a low carbon economy supports sustainable development processes in all countries, and that effort to assess potential effects of such response measures does not constrain efforts to develop and implement ambitious policies and measures to mitigate climate change.

There is a need for better evidence based information exchange in order to get a better understanding of the actual impacts felt, recognising the need to strengthen and support capacities to compile, analyse and use socio-economic data in assessing potential spill-over effects/response measures.

The UK continues to pursue initiatives that have been mentioned in previous inventory reports and national communications, such as considering food miles, sustainability of the EU Common Agricultural Policy and Trade for Aid. This chapter is not an exhaustive list but instead outlines recent examples of what the UK is doing to understand impacts of response measures on developing countries and actions it is taking to minimize adverse impacts.

1.2 Understanding impacts of response measures

Understanding the impacts of response measures is a key step to be able to minimize the adverse impacts. The UK continues to undertake assessments, reviews and analysis projects to better understand the impacts its policies could have on developing countries, and how they could be addressed. Consequently, the UK takes these findings and seeks to apply them in UK and within the EU community in order to minimize adverse impacts in accordance with article 3, paragraph 14. Recent examples of areas where ongoing research and action is taking place are outlined below.

1.2.1 UK research, reports and analysis

The UK has undertaken research to determine the extent of impacts of response measures and uses this information to implement policies in a way that takes into account the impacts of response measures on all developing countries. Examples of areas where research is ongoing are transport biofuels and indirect emissions.

The UK Department of transport has and continues to lead work into understanding Indirect Land Use Change (ILUC) impacts from biofuels. Examples include:

A study in 2010 to better understand the scale of ILUC impacts of the five biofuels expected to form the main supply of biofuel in the UK in the next ten years: palm, soy and oilseed rape biodiesel and sugarcane and wheat bioethanol. The study succeeds in shedding light on the complexity of calculating ILUC emissions and where there are uncertainties due to both limitations in data and knowledge of how future markets will develop. See http://www.dft.gov.uk/pgr/roads/environment/research/biofuels/

Research is ongoing to investigate the potential for regional (i.e. sub-national, national and supranational) approaches to avoid ILUC from biofuels production. This project aims to highlight potential actions that may reduce ILUC, reflect the international supply of biofuels, and assess the potential to measure and monitor the regional level actions to avoid ILUC. See http://www.dft.gov.uk/rmd/project.asp?intProjectID=12886

The Department for the Environment, Food and Rural affairs has funded and continues to fund research looking at embedded emissions and sustainable production and consumption, in particular:

The action and future actions planned to improve the sustainability of key products, services and materials through understanding the environmental impacts throughout their life cycle (from raw materials to end of life). See http://www.defra.gov.uk/environment/business/products/documents/prod-materials-report0708.pdf

Developing an embedded carbon emissions indicator and the underlying drivers. These projects included calculating and understanding a time series of direct and indirect carbon dioxide emissions associated with UK economic, in particular emissions that are embedded in UK trade, see http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14606 and http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16288#RelatedDocuments

1.2.2 Within the EU Community

The UK is an active participant within the EU community and we continue to minimize the adverse effect of our policies and measures through activities such as:

The EU Emissions Trading System (EU ETS) directive is the EU's main policy mechanism for reducing CO_2 emissions from energy intensive sectors. Through the ETS and the linking directive that allows European facilities to engage in the CDM as a way of meeting their commitments, the EU has increased investments in renewable energy and energy efficiency in developing countries making an important contribution to diversifying the energy mix in those countries.

A Greenhouse Gas Effort Sharing Decision sets targets for reductions in those sectors of member states' economies not covered by the EU ETS. For the UK, this equates to a reduction in emissions in the non-ETS, equivalent to 16 percent below 2005 levels by 2020. For the EU, this is approximately 10%. The decision promotes domestic action and limits the use of international project credits, such as the Clean Development Mechanism (CDM), to meet targets. They are limited (annually) to 3% of Member States' 2005 emissions in the non-ETS.

A Renewables Directive sets targets for each member state for the proportion of renewable energy generation by 2020. The EU has a 20% renewables target by 2020. The UK's legally binding target is 15%. The Renewables Directive also set every Member State a target of supplying 10% of transport fuel from renewable sources by 2020.

The Directive on the geological storage of CO_2 outlines a regulatory framework for the safe capture, transport and storage of carbon dioxide in the EU. Up to 300 million allowances from the new entrants reserve of the EU ETS will be used to support the demonstration of carbon capture and storage (CCS) and innovative renewable technologies. The UK's action on CCS are expanded in the sections below.

Further information can be found in the 1990-2009 EU inventory report.

1.3 Actions to minimize adverse impacts in accordance with Article 3, paragraph 14

The UK Government is committed to achieving an ambitious, effective and equitable global deal which will limit global temperature rise to 2°C, and to helping countries adapt to the inevitable impacts of climate change. The transition to a low carbon world requires support to developing countries in their domestic efforts to mitigate and adapt to climate change and to develop their own low carbon economies.

The UK is taking action to minimize adverse impacts in accordance with article 3, paragraph 14 through fast start finance. This involves building the evidence and knowledge to respond to climate change, safeguarding forests and reducing emissions, supporting cleaner, greener growth in developing countries and helping the poorest adapt to the effects of climate change Examples of these activities supporting knowledge transfer, the development and deployment of low carbon technologies, and capacity building are provided in the following sections.

1.3.1 Knowledge transfer

Knowledge transfer can help accelerate the development and deployment of low-carbon technologies to help developing countries mitigate and adapt to climate change.

The UK cooperates 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. The UK supports the establishment of a Technology Mechanism (TM), as agreed at COP16 in Cancun 2010, and is already involved with several knowledge transfer initiatives. In addition to the UK's long standing involvement in initiatives such as the Climate Technology Initiative recent actions in this area include:

In 2010 the UK established the Climate and Development Knowledge Network (CDKN) to provide developing countries access to the latest research, science and best practice on climate change. In response to requests from developing countries themselves, CDKN helps policy-makers and practitioners plan and implement strategies that meet the climate challenges of their country.

The UK has been piloting the concept of Climate Innovation Centres in developing countries. In 2011 the implementation of the centres in Kenya and India will start and there are plans to develop more in the near future. The climate innovation centres aim to provide a national focal point for innovation in both low carbon and climate resilient technologies, and to help accelerate the development and diffusion of emerging low carbon and adaptation technologies.

1.3.2 Research collaboration

Enhancing global collaboration on research, development and demonstration (RD&D) will be essential to ensure innovation and take-up of climate technologies in developing countries. The UK is cooperating in the technological development of non-energy uses of fossil fuels, and doing so in partnership and supporting developing countries. We are exploring opportunities to support RD&D 'gap-filling' activity on climate technologies (both for mitigation/low carbon development and adaptation activities).

Recent examples of this commitment to collaborative research are 2010-2011 projects on low carbon technology transfer to China and India that the Department of Energy and Climate Change has supports. The main focus of the studies is to provide new empirical evidence to low carbon innovation in developing countries to inform international policy development. Both studies feature a range of low carbon technologies and examine the factors that influence innovation and technology transfer, including technological capacity, access to intellectual property rights and the role of policy frameworks.

The UK is playing a key role on promoting knowledge sharing and capacity building in developing countries on Carbon Capture & Storage (CCS). The UK continues to jointly lead with Australia the CCS initiative under the Clean Energy Ministerial. Furthermore, the UK are active in a number of multi-lateral organisations such as the Carbon Sequestration Leadership Forum (CSLF) which aim to promote this key technology in developing countries and which give these countries a voice; the next CSLF Ministerial meeting will be held in China in September 2011. We are working with the European Commission, Norwegian and Chinese governments to build the capacity to demonstrate carbon capture and storage technology in China through the Near Zero Emissions Coal (NZEC) project and are also assisting the South African CCS Centre in its assessment of the potential CO_2 storage capacity in South Africa.

1.3.3 Capacity Building projects on Renewable Energy & Energy Efficiency

The UK is 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 through capacity building projects is facilitating the participation of the least developed countries.

The UK is supporting the development of low carbon technology and the increased use of renewable energy to ensure that developing countries can move to a low carbon future that supports economic growth. The UK continues to be part of the International Renewable Energy Agency that is an intergovernmental treaty organisation that aims to promote a rapid transition to the widespread and sustainable use of renewable energy technologies internationally. Similarly, the UK continues to contribute to the Clean Technology Fund, one of the Climate Investment Funds, providing £155m for 2010-11.

It is important to tackle both the supply and the demand side to achieve sustainable low carbon energy. In the 5th National Communication the UK illustrated its continued involvement with multi-lateral partnerships such as the Renewable Energy and Energy Efficiency Partnership, which has the objective of accelerating the deployment of renewable energy and energy efficiency technologies in developing countries. The UK has also been recently active in energy efficiency capacity building, such as:

The UK are working within the International Partnership for Energy Efficiency Co-operation (IPEEC) to create a space in which developed and key developing countries can work jointly to share experience and learn from each other's policy successes and failures, and identify opportunities for collaborative work to address issues of mutual interest or concern, where such international action can add value to domestic efforts/expertise. A work programme has been developed encompassing a range of activities covering appliance standards and labels, sustainable buildings, financing mechanisms, data collection and indicators, energy management, the role of utilities and capacity building activities. The first policy committee meeting of the IPEEC was held in May 2010.

Low carbon technology needs to be accessible to all. The UK is contributing to capacity building projects to enable access to remote communities in order to help the transfer of less greenhouse-gas emitting advanced fossil-fuel technologies to developing areas.

DFID-India is supporting renewable energy initiatives in remote areas through rural and tribal development programmes in Madhya Pradesh and Orissa. In Madhya Pradesh, the Power Sector Reform programme to create an efficient, accountable, and financially viable power sector that ceases to be a burden on state finances has been extended to 2012. So far DFID has provided £11m between 2005 and 2009, saving nearly £297 million of government money, helping to fund an increase in state spending in social sectors increased from £108 million in 2005-06 to almost £181 million in 2008-09. Power losses fell from 44% to 37% and carbon emissions were reduced by around 38%.

The UK is assisting developing countries to diversifying their economies to include renewable energy in order to ensure that developing low carbon economies can become sustainable and self-supported. The Department for International Development (DFID) is exploring a range of results-based financing mechanisms that could be used bilaterally or multilaterally to stimulate private sector investment into renewable energy services for the poor by working on two new public-private partnerships that will target low-carbon and adaptation investments in Asia and large-scale renewable energy in Africa. Progress in this area will be updated in future submissions.