



EU action against climate change



Working with developing countries to tackle climate change



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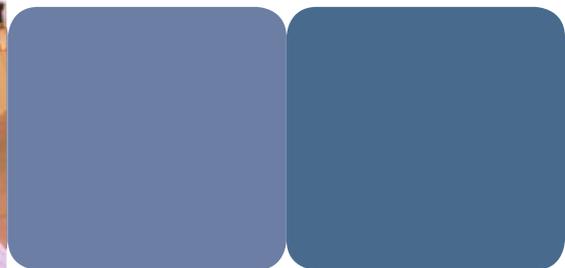
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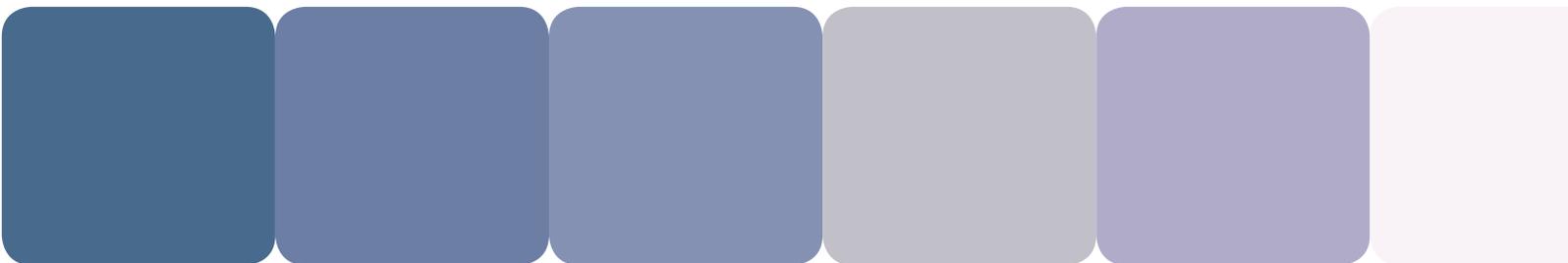
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Introduction



As the world's largest donor of development assistance, the European Union is strongly committed to supporting developing countries in the fight against poverty, the achievement of the UN Millennium Development Goals and the promotion of sustainable development. Combating climate change, one of the gravest challenges facing mankind, forms an integral part of this agenda.

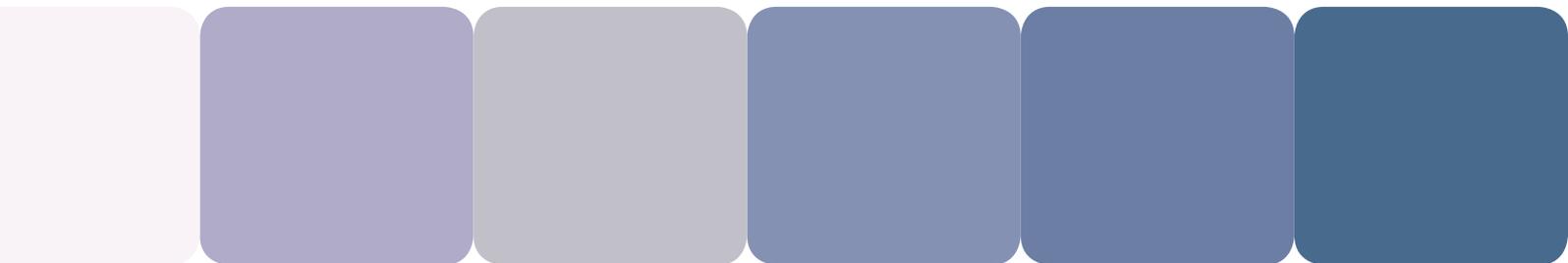
The EU is actively pursuing this objective, both multilaterally through the UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and its Clean Development Mechanism (CDM) as well as through regional and bilateral cooperation with partner countries in all developing country regions.

Climate change is not only an environmental problem but also poses a clear risk to development and international security. While climate change will affect all countries, it is developing countries and the poorest populations that will be hit earliest and hardest. Increasing food insecurity, water scarcity, spread of diseases to new areas, damage from floods and forced migration due to desertification of previously arable land or sea-level rise are some of the likely effects on developing countries.

Poorer countries with economies dependent on natural resource-related sectors such as agriculture, forestry and fisheries will be disproportionately affected. But even developing countries with more diversified economies are vulnerable since lack of financial resources, adequate technology and effective institutions limits their capacity to adapt to the consequences of climate change.

The European Union takes the view that deep cuts in global emissions of greenhouse gases are necessary to prevent climate change from reaching levels that could lead to irreversible and potentially catastrophic changes to the global environment. Global emissions must stop rising within the next 10 to 15 years and must then be cut to at least half of 1990 levels by 2050 if we are to have a chance of limiting global warming to no more than 2°C (3.6°F) above the pre-industrial level.

A new UN climate change agreement is needed to create a comprehensive global framework within which these goals can be met. In line with the principle of common but differentiated responsibilities and respective capabilities, industrialised countries must take the lead in cutting emissions as they are responsible for the bulk of the problem and have the greatest resources to tackle it. The EU is ready to cut its emissions to 30% below 1990 levels by 2020 if other industrialised countries agree to do likewise under a new agreement.¹ Pending an agreement, and to set an example to its partners, the EU has committed to reduce emissions by at least 20% in any case.



But climate change cannot be controlled without efforts by developing countries, and notably the emerging economies. The combined emissions of developing countries are projected to overtake those of the industrialised world by around 2020. It is vital that developing countries start to slow the growth in their emissions as soon as possible and prepare for absolute reductions from 2020 onwards.

Furthermore, rapid and uncontrolled deforestation in tropical countries has to be halted and reversed if the fight against climate change is to be successful. Deforestation is currently responsible for around one-fifth of global greenhouse gas emissions.

Even if these measures are effective, however, the average global temperature will continue to rise in the coming decades due to the slow response of the Earth's atmospheric system to past emissions. Industrialised and developing countries alike therefore need to adapt to the changes in climate that are already making themselves felt in order to minimise their impacts.

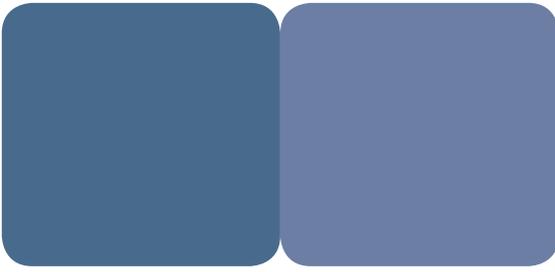
The EU recognises that the most effective way to promote adaptation to and mitigation of climate change is to 'mainstream' these objectives into strategies for poverty reduction and/or sustainable development. It also attaches great importance to ensuring that these strategies are owned and driven by developing countries themselves.

The 2005 European Consensus on Development² commits Europe to supporting its partners' efforts to incorporate environmental considerations into development and to helping strengthen their capacity to implement multilateral environmental agreements such as the UNFCCC and the Kyoto Protocol.

This brochure in the *EU action on climate change* series provides an overview of the many ways in which the EU is assisting developing countries in adapting to the negative effects of climate change and mitigating its causes, with a special focus on cooperation with developing countries in Asia.

1) See the brochure in this series *EU action against climate change: Leading global action to 2020 and beyond*

2) The European Consensus on Development is a joint statement on EU development policy by the Council of the European Union, EU governments, the European Parliament and the European Commission. It was signed on 20 December 2005.



Millennium Development Goals

The Millennium Development Goals are laid down in the Millennium Declaration adopted by 189 nations at the United Nations Millennium Summit in September 2000. The goals are to be met by 2015 except where stated otherwise.

1

Eradicate extreme poverty and hunger

- Halve the proportion of people living on less than one dollar a day
- Halve the proportion of people suffering from hunger

2

Achieve universal primary education

- Ensure that all children complete a full course of primary schooling

3

Promote gender equality and empower women

- Eliminate gender disparity in primary and secondary education preferably by 2005 and at all levels by 2015



4

Reduce child mortality

- Reduce the mortality rate among children under five by two thirds

5

Improve maternal health

- Reduce the maternal mortality rate by three quarters

6

Combat HIV/AIDS, malaria and other diseases

- Halt and begin to reverse the spread of HIV/AIDS
- Halt and begin to reverse the incidence of malaria and other major diseases

7

Ensure environmental sustainability

- Integrate the principles of sustainable development into country policies and programmes, and reverse the loss of environmental resources
- Halve the proportion of people without sustainable access to safe drinking water and basic sanitation
- Achieve significant improvement in the lives of at least 1000 million slum dwellers by 2020

8

Develop a global partnership for development

- Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (including a commitment to good governance, development and poverty reduction – both nationally and internationally)
- address the special needs of the least developed (includes: tariff and quota-free access for least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous Official Development Assistance (ODA) for countries committed to poverty reduction
- Address the special needs of landlocked countries and small island developing states
- Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term
- In cooperation with developing countries, develop and implement strategies for decent and productive work for youth
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.



EU cooperation with developing countries on climate change



Climate change has been an issue of growing concern in cooperation between the EU and developing countries since the UN Framework Convention on Climate Change (UNFCCC) was signed in 1992. In recent years specific cooperation on climate change has been significantly strengthened across a range of different frameworks.

The UNFCCC and the Kyoto Protocol, and institutions linked to them, such as the Global Environment Facility (GEF), are naturally among the main channels through which the EU provides general support and financial assistance on climate change to developing countries. The EU also provides significant support through other multilateral and bilateral channels.

The EU was instrumental in the 2001 Bonn political declaration on climate change funding for developing countries, and since 2005 EU Member States are providing the bulk of the US\$ 410 million promised annually. The EU is a major backer of the Kyoto Protocol's Clean Development Mechanism (CDM). The EU also fully supports the early operationalisation of an Adaptation Fund to be financed mainly from a share of CDM revenues.

In 2004 the EU further underlined 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. Preparations for a renewed commitment for the period after 2008 are under way.

Based on a strategy³ drawn up by the European Commission,⁴ the Action Plan seeks to help strengthen developing countries' capacities to cope with both mitigation of and adaptation to climate change.

3) *Climate change in the context of development cooperation*. Communication from the Commission to the Council and the European Parliament. COM(2003) 85 final.

4) The three major institutions of the EU are the Council of the European Union, the European Parliament and the European Commission. Legislation must be adopted by the Council, which comprises representatives of the governments of the 27 EU Member States, and the European Parliament, which comprises directly elected deputies from the Member States. The Commission proposes policies and legislation, and is responsible for ensuring the correct implementation of legislation once it is adopted.

EU Action Plan on Climate Change in the Context of Development Cooperation 2004-2008

Adopted by the Council of the European Union in November 2004, the Action Plan has five strategic objectives:

- **Raising the policy profile of climate change.** Measures include: putting climate change on the agenda of high-level consultations under EU development cooperation agreements; preparing country- or region-specific briefs on climate change; promoting exchange programmes between the EU and partner countries to foster mutual understanding.
- **Support for adaptation.** Measures include: supporting partner countries in preparing vulnerability and adaptation assessments and national adaptation programmes of action (NAPAs) for least developed countries; developing guidelines for integrating climate change into development programmes – including measures to avoid maladaptation – based on consultation with all stakeholders; supporting capacity-building in developing country institutions to prepare for and reduce the impact of climate change-related disasters.
- **Support for mitigation and low greenhouse gas (GHG) development paths.** Measures include: supporting pilot projects to strengthen the links between government ministries and the research community; supporting partner countries to carry out research on low-carbon technologies and further develop local mitigation technologies; supporting capacity-building for developing countries' participation in the Kyoto Protocol's Clean Development Mechanism (CDM).
- **Capacity development.** Measures include: building individual and institutional capacity in impact prediction and vulnerability assessment; identifying ways to support improved coordination between developing countries to prepare for climate change negotiations; establishing knowledge banks to disseminate information and provide training for action on climate change.
- **Monitoring and evaluation of the Action Plan.** Measures include: regular discussions on implementation of the Plan and encouragement of feedback from stakeholders; preparation of a biannual evaluation report and, based on this, modification and updating of the Plan.

One of the Action Plan's strategic objectives is 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 level.

The EU has stepped up its cooperation with both China and India in the field of climate change through the establishment in 2005 of the **EU-India Clean Development and Climate Change Initiative** and the **EU-China Partnership on Climate Change**. This intensified cooperation underlines the three partners' commitment to tackling climate change.

The Partnership with China is supported by a rolling work programme of collaborative projects. These are designed to build capacity and practical, scientific and technical knowledge of appropriate mitigation and adaptation options in the EU and China, for example through a joint research and pilot project for near zero-emission coal-fired energy generation. Under these Partnerships events and projects have been successfully implemented in both India and China on such issues as climate research, the Clean Development Mechanism and adaptation strategies, and many more are planned.



At the multilateral and sub-regional levels, cooperation between the EU and ASEAN on climate change was kick-started in 2007 with the organisation of the first in a series of technical workshops held under the **Regional EU-ASEAN Dialogue Instrument (READI)**. 2008 will see the launch of a similar initiative in the ASEM framework. In September 2006, the leaders of 38 European and Asian countries, along with European Commission President José Manuel Barroso, adopted a declaration on climate change at the Asia-Europe Meeting (ASEM6) in Helsinki, Finland. ASEM environment ministers reaffirmed their commitment to cooperate with the EU in tackling climate change at their meeting in Copenhagen, Denmark in April 2007.

The European Commission and Brazil have set up a dialogue on the environment and climate change dimension of sustainable development, and this will be strengthened under a recently launched Strategic Partnership. With South Africa a forum on environment and sustainable development with a working group on climate change has been created. Regular dialogue on climate change also takes place with South Korea, and concrete initiatives for closer cooperation on climate change are under way with Mexico.

In September 2007 the Commission proposed creating a **Global Climate Change Alliance (GCCA)** between the EU and the developing countries most vulnerable to climate change, in particular the Least Developed Countries and Small Island Developing States. The EU will work together with these countries to integrate climate change fully into poverty reduction strategies. Enhanced dialogue on climate change and exchange of experiences with integrating climate change into policies and investments will be key to this initiative.

The GCCA is further intended to provide substantial resources to address climate change in the countries targeted. These will focus primarily on adaptation and disaster risk reduction, but the countries will also receive help to halt deforestation and participate in the global carbon market. The Commission has earmarked €50 million for 2008-2010 to launch the initiative and it is expected that EU Member States will also provide support.

ASEM6 Declaration on Climate Change, September 2006 (extracts)

We, Heads of State and Government from thirteen Asian nations, twenty-five European nations and the President of the European Commission, gathered in Helsinki on 10 and 11 September 2006 for the 6th Asia-Europe Meeting (...), Decide to issue the following declaration:

The Need for International Action

1. We are committed to act with resolve and urgency to meet interrelated multiple goals of addressing climate change, reducing air pollution and improving the global environment while contributing to sustainable development and synergies with energy policy goals.
2. Acknowledging that the global nature of climate change calls for the widest possible cooperation and participation in an effective and appropriate international response, in accordance with the principles of the Convention, we are determined to respond to climate change through international cooperation, based on the principle of common but differentiated responsibilities and respective capabilities, with a view to achieving the ultimate objective of the Convention. We pledge to work together to improve access to sustainable energy services in order to facilitate the achievement of the Millennium Development Goals.



Adaptation and other Climate Change Related Challenges

8. Bearing in mind that all countries are vulnerable to the adverse effects of climate change, we underline the importance of adaptation. We welcome increased international attention to this vulnerability and to the need for adaptation to climate change for developing countries, particularly in the least developed countries. We call upon incorporating climate risks and adaptation strategies into national development strategies and policies, and we will foster international cooperation that can help assess impacts and vulnerabilities, build adaptive capacities, and support adaptation actions.
9. We commit ourselves to strengthening cooperation among ASEM partners to exchange information and early warnings on natural disasters, including those that arise from climate change.
10. We stress the need to complement climate change policies with actions to combat deforestation and note the Chairman's Statements on illegal logging at earlier ASEM meetings.* We also emphasise the need for the sustainable management of forests and oceans as well as other terrestrial, coastal and marine ecosystems. In this context, we take note of the Manila Vision and Action Plan, adopted at the meeting of the ASEM Oceans Initiative.**

ASEM Way Forward

11. We confirm the commitment to intensify our cooperation to combat climate change, recognising ASEM's capacity and valuable role in enhancing international cooperation through dialogue in the context of different multilateral fora, and we encourage the further strengthening of ASEM's role in this respect. We will continue to engage in international dialogue with a view to reaching an understanding on further global action to stabilise greenhouse gas concentrations, based on common but differentiated responsibilities and respective capabilities.

* Chairman's Summary of the ASEM Environment Ministers' Meeting in Lecce, Italy, 13 October 2003; Chairman's Statement of the 7th ASEM Foreign Ministers' Meeting in Kyoto, Japan, 6-7 May 2005.

** Manila, 29-31 March 2006.

Supporting adaptation and capacity building

Developing countries, and especially the poor in developing countries, are particularly vulnerable to the adverse impacts of climate change, for example on water resources, agriculture and the spread of infectious diseases.

Adaptation strategies are needed to strengthen developing countries' resilience to these impacts while at the same time protecting national and international efforts to eradicate poverty. Developing countries may also have weaknesses in their human and institutional capacities to deal with climate change and need help to build these up.



To be effective, adaptation must be firmly integrated into development cooperation by both donors and recipient countries. The EU Action Plan on Climate Change in the Context of Development Cooperation for 2004-2008 (see p. 11) is an important step in this direction.

Reflecting the particular vulnerability of Least Developed Countries and Small Island Developing States, the **European Consensus on Development** makes assistance for adaptation to climate change a central element of EU support.

Within the context of the UN Framework Convention on Climate Change (UNFCCC) the EU fully supports the frameworks for capacity-building for developing countries contained in the Marrakech Accords as well as the work under way on national adaptation programmes of action (NAPAs) for least developed countries. The EU is assisting NAPAs through contributions to the Least Developed Countries Fund and bilateral support. It is foreseen that support for implementation of NAPAs will be enhanced through the Global Climate Change Alliance.

The EU also strongly backs the five-year programme of work on adaptation under the UNFCCC and the early operationalisation of the Kyoto Protocol's Adaptation Fund. The work programme on adaptation provides a major opportunity to strengthen understanding of the impacts of climate change and of countries' vulnerabilities, adaptation needs and responses.

Beyond the multilateral framework, the EU is also supporting a range of specific bilateral or regional projects to help adaptation and capacity-building efforts by developing countries.

The European Commission-funded **ACCCA (Advancing Capacity to Support Climate Change Adaptation) project**⁵ is creating a geographically diverse set of adaptation schemes to address climate risks in developing countries. It will bring together

SNAPP 2012

The **SNAPP 2012 (Supporting National Assessments of Post-2012 Proposals for Climate Protection and Sustainable Development) project** is helping Brazil, South Africa, India and China to assess the merit and shortcomings of various proposals for a post-2012 international climate change regime against national priorities and sustainable development goals.

Each country is hosting national workshops focusing primarily on the issues and proposals of most relevance for that country. In 2008 an international dialogue will try to bring together the outcomes of these workshops into one comprehensive proposal capable of meeting the ultimate objective of the UNFCCC in a way that appeals to developing countries.

SNAPP 2012 is building on the 2004-2006 **BASIC (Building and Supporting Institutional Capacity) project**, which focused on the same four countries. The European Commission has supported both projects.

partnerships between stakeholders and scientific communities in African and Asian developing countries to help develop effective adaptation decisions that reduce vulnerability to climate change while promoting sustainable development.

These partnerships carry out pilot projects to identify and prioritise relevant climate risks, then assess available knowledge about these risks and opportunities for adapting to them. The selection and adoption of appropriate responses are aided by stakeholder forums.

With regard to capacity building, the European Commission is a major supporter of the **Climate Change Capacity Development (C3D) project**,⁶ which, like ACCCA, is managed by the UN Institute for Training and Research (UNITAR). C3D is helping developing countries respond to the causes and impacts of climate change, particularly those that affect the poorest and most vulnerable.

The project has created an innovative South-South training and capacity-building partnership between institutes in Senegal, South Africa and Sri Lanka that are focusing, respectively, on vulnerability and adaptation, greenhouse gas mitigation, and climate change and sustainable development. Each institute trains the others as well as local and regional stakeholders.

Capacity building is also being furthered through the project **UNFCCC: Ensuring implementation and participation in Asia-Pacific** being carried out in the South Pacific (Tuvalu and the Cook Islands), Indonesia and Nepal. The project, financially supported by the European Commission, aims to ensure that the government and key civil society stakeholders in each country are, firstly, informed of the main issues regarding participation in and implementation of the UNFCCC and, secondly, empowered to act.

Examples of other adaptation and capacity building projects supported by the the EU can be found in the sections of this brochure entitled *Stimulating clean development through EU emissions trading and Assisting developing countries through climate research*.

⁶) www.c3d-unitar.org

EU humanitarian aid and civil protection assistance

The EU is a major provider of humanitarian aid to help developing countries prepare for and cope with disasters, including those linked to extreme weather and climate change. In 2006, the European Commission spent €671 million providing humanitarian aid around the globe.

Besides disaster relief, the EU's humanitarian aid effort includes the DIPECHO disaster preparedness programme to help the most vulnerable populations in disaster-prone regions prepare for natural catastrophes including cyclones, storms and floods. Since 1998 over €150 million has been invested through DIPECHO in disaster preparedness in South and South-East Asia, Central Asia, Central and South America and the Caribbean.

The EU's ambition is, over time, to integrate disaster risk reduction measures into not only humanitarian aid operations but also long term development projects and national policies. As a first step, the Commission and the African, Caribbean and Pacific (ACP) group of developing countries have agreed on setting up a EC-ACP Natural Disaster Facility. The Facility, which has €12 million available in its first phase, will enhance the capacity of regional ACP bodies in the areas of disaster prevention and preparedness.

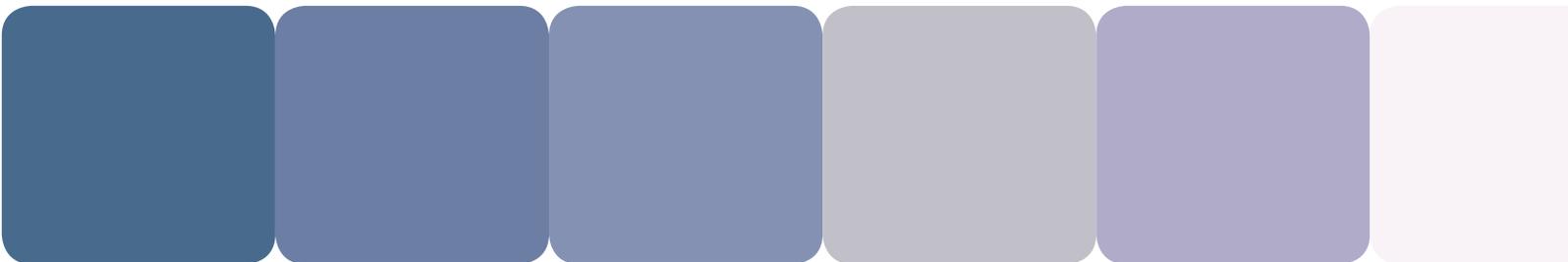
Through its Community mechanism for civil protection, the EU also provides urgent humanitarian and environmental assistance to EU Member States and third countries in the immediate aftermath of major natural or man-made disasters. This has included assistance to Bulgaria and Romania during floods in 2005 and the USA following Hurricanes Katrina and Rita the same year. It can be expected that disasters caused by extreme weather events will account for an increasing share of EU civil protection assistance work as climate change becomes more pronounced.



Providing clean and secure energy supplies

The EU Energy Initiative

Ensuring that people in developing countries obtain access to modern and affordable energy services is a prerequisite for achieving the Millennium Development Goals, and in particular for eradicating poverty.



The EU's framework for dialogue and partnerships with developing countries to meet this challenge is the **EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI)**, launched at the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg.

The EUEI seeks to help end the limited access to energy services and heavy reliance on traditional biomass that are hallmarks of poverty in developing countries. Currently, 1.6 billion people do not have access to electricity, and 2.4 billion people rely on traditional biomass – wood, agricultural residues and dung – for cooking and heating. These fuels cause harmful indoor air pollution that leads to chronic health problems among women and children.

The EUEI is a joint commitment by the EU Member States and the European Commission to support improved access to sustainable energy services in developing countries. It is also a catalyst for action.

Through the Initiative, the EU is working with developing countries to create the necessary conditions in the energy sector to achieve their national economic, social and environmental objectives. This is being done in particular by maximising energy efficiency, including more efficient use of fossil fuels and traditional biomass, and increasing the use of renewable energy. In this way the Initiative is contributing to mitigating climate change.

Activities implemented under the EUEI are driven by the needs and priorities of the participating developing countries. Their ownership of activities is a key feature. Official Development Assistance (ODA) provides a basic funding framework for the Initiative but the aim is also to attract considerable funding from private resources for further investment.

The EU is also helping to expand the use of renewable energy in developing countries and elsewhere through the **Johannesburg Renewable Energy Coalition (JREC)**.⁷ The coalition was launched at the WSSD by the EU and a number of other like-minded nations committed to promoting renewable energy. Membership of the coalition currently stands at 89 countries, of which half are African, Caribbean and Pacific (ACP) developing nations. The European Commission provides the JREC secretariat and co-chairs the coalition with the government of Morocco.



ACP-EC Energy Facility

A key result of the EUEI is the €220 million ACP-EC Energy Facility. This aims to attract investment to improve access to sustainable energy services for poor rural populations in the African, Caribbean and Pacific group of developing countries. The Facility also contributes to projects supporting better governance and management in the energy sector, and to facilitating investments in cross-border electricity interconnections. Some 75 projects have been selected for funding, with 40% of the funds supporting renewable energy.

COOPENER

One of the vehicles for implementing the EUEI on the ground is the COOPENER programme, part of the **Intelligent Energy – Europe programme**,⁸ which is helping to strengthen developing countries' local capacities to use sustainable energy for alleviating poverty. Co-funding has been agreed so far for some 40 projects in Asia, sub-Saharan Africa and Latin America.

The Asian projects include REEPRO, to promote efficient use of renewable energies in Cambodia and Laos, RENDEV, which is reinforcing the provision of sustainable energy services in Bangladesh and Indonesia, and RESIREA, which is examining the feasibility of rural electrification based on renewable energies in Vietnam, Laos and Cambodia.

Promoting climate-friendly and 'clean' energy sources was a main focus of the **EC-ASEAN Energy Facility (EAEF)**⁹ cooperation programme which ran between 2002 and 2007 with EU funding of €21.5 million. Renewable energy and energy efficiency predominated among the 77 projects assisted.

7) <http://ec.europa.eu/environment/jrec>

8) http://ec.europa.eu/energy/intelligent/index_en.html

9) www.aseanenergy.org/eaef

The Global Energy Efficiency and Renewable Energy Fund (GEEREF)

Within the context of the Johannesburg Renewable Energy Coalition (JREC), the European Commission has set up an innovative global risk capital fund to bring clean, affordable energy to people in developing countries and economies in transition.

GEEREF is a public-private partnership that will mobilise private investment in energy efficiency and renewable energy projects. It will provide risk capital to investment funds specialising in small and medium-sized projects in these sectors. These investments will reduce CO₂ emissions and air pollution, thus helping both to tackle climate change and to reduce pollution-related diseases and associated health care costs.

The Commission is putting €80 million into GEEREF between 2007 and 2010 and additional pledges from other public investors have taken the fund to over €100 million. These investments are expected to attract risk capital of between €300 million and €1 billion for projects that will accelerate the transfer of greener energy technologies to developing countries and economies in transition.

The EU's programme of cooperation with Asian developing countries for 2007-2010 has the promotion of sustainable consumption and production - with a special focus on small and medium-sized enterprises – as one of its two environmental priorities.

Projects in Asia that seek to improve energy efficiency or reduce greenhouse gas emissions, for instance, will qualify for funding under this programme, which has a total budget for environmental actions of €100 million.



Stimulating clean development through EU emissions trading

The EU's strong support for the Kyoto Protocol's three flexible mechanisms – international emissions trading, the Clean Development Mechanism (CDM) and Joint Implementation (JI) – is helping developing countries to move towards sustainability through the promotion of projects that use clean technologies to reduce greenhouse gas emissions.

Emission-saving projects in developing countries are carried out under the CDM while those in industrialised countries are covered by JI. CDM and JI projects promote sustainable development by transferring environmentally sound technologies to the host nation.



The projects yield emission reduction credits which can be bought by governments or companies in industrialised countries to help meet their emission targets.

Additional investment in CDM and JI projects is being spurred by the EU Emissions Trading System (EU ETS), which caps overall CO₂ emissions from some 10,500 large emitters in energy-intensive industrial sectors and power generation in the EU. The system, launched in January 2005, is the cornerstone of the EU's strategy for meeting its Kyoto targets cost-effectively.¹⁰ It has rapidly become the driving force behind the expansion of the global carbon market.

Capacity-building for CDM

The EU is helping to build developing countries' awareness and knowledge of the CDM as well as their capacities to identify and propose potential CDM projects. Under the **SYNERGY programme**, for example, 13 capacity-building projects have been carried out jointly between organisations in the EU and China, India, Latin America, Africa, the Caribbean and the Gulf. A new €4 million programme for enhancing CDM projects in African, Caribbean and Pacific (ACP) developing countries is in preparation.

Promoting the CDM is also a specific objective of the **EU-China Climate Change Partnership** established in 2005. The **EU-China CDM Facilitation Project** set up under the Partnership is the largest European-funded project to support CDM. Launched in June 2007 and running until 2010, the €2.8 million project is providing direct support to the development of the CDM in China through research, capacity building, awareness raising, technical cooperation and training.

For the period between 2008 and 2012 – the Protocol's first commitment period - companies participating in the EU ETS will be able to buy emission credits from CDM and JI projects equivalent to 1.38 billion tonnes of CO₂. The planned inclusion in the EU ETS of the aviation sector from 2011 will further increase the demand for credits from developing countries.

Several EU Member States have also set up programmes to buy emission reduction credits from CDM and JI projects, either directly or through government-financed 'carbon funds,' to help them meet their Kyoto targets most cost-effectively. EU governments plan to buy CDM and JI credits equivalent to around 550 million tonnes of CO₂ and have budgeted some €2.9 billion for these purchases.

Taken together, this demand from the private and public sectors means that the EU will be the main buyer of CDM credits between 2008 and 2012.

The EU firmly believes that a strengthened global carbon market, based on a linking-up of emissions trading systems in different countries, is an essential tool for achieving in the most cost-effective way the deep reductions in global greenhouse gas emissions that will be needed after 2012. In negotiations on a post-2012 global climate agreement the EU will be seeking to expand the CDM to cover entire sectors, not only individual projects, in developing countries. This will increase the flow of investment and clean technologies to developing countries as well as the volume of CDM credits available to industrialised nations.

Examples of CDM projects involving EU Member States

The Netherlands, through its IFC-Netherlands Carbon Facility, is buying emission reduction credits from a CDM-registered wind power project in Rajasthan in **India**. Nine wind farms have been built and linked to give a total electricity generating capacity of just over 58 megawatts. This renewable energy project is reducing greenhouse gas emissions by producing electricity that would otherwise have been generated from fossil fuels. Emission savings are estimated to be 98,225 tonnes of CO₂ equivalent each year between 2004 and 2014.

Denmark has contracted to buy 444,862 certified emission reductions from a biodiesel project in Gauteng province in **South Africa** between 2006 and 2012. The project will manufacture diesel fuel from fresh and waste vegetable oils as well as from waste containing fats and fatty acids. Biodiesel produces lower carbon dioxide (CO₂) emissions than fossil fuels because the biomass it is produced from absorbs CO₂ while it grows. Emission savings from the project are expected to average 84,736 tonnes of CO₂ equivalent per year.



Promoting sustainable forestry

Forests play a crucial role in regulating the global climate and are also a vital resource for many developing countries.

Forests help prevent climate change by acting as 'sinks' that absorb carbon dioxide (CO₂), but at the same time deforestation and land use change are responsible for some 20% of global greenhouse gas emissions – the second largest contributor after the burning of fossil fuels. Ways need to be found to halt and then reverse deforestation as part of a global climate change regime for the period after 2012.



Climate change - for instance a shift to hotter, drier conditions - can itself damage the health of forests, impeding their ecological functions and reducing their economic productivity.

Helping developing countries to manage their forest resources sustainably, combat illegal logging and monitor changes in their vegetation helps mitigate climate change and is an important aspect of EU development policy. As far back as 1991 the European Commission's Joint Research Centre and the European Space Agency set up the **TREES project** to monitor changes in forest cover in the tropics.

Through its budget line to support tropical forests and other forests in developing countries, the EU has provided €232 million for sustainable forest management since 2000.

The EU strongly supports and is actively contributing to efforts under the UN Framework Convention on Climate Change to find approaches that will give developing countries greater incentives to reduce deforestation.

The EU's **Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan** aims at helping build up the capacity of developing and emerging-market countries to control illegal logging as well as at addressing trade in illegal timber products between these countries and the EU. Negotiations are under way on FLEGT partnership agreements with Indonesia, Malaysia, Ghana and Cameroon which would help them improve governance in the forestry sector and ensure the legality of timber exports, notably through a licence scheme.

Besides promoting the mitigation of greenhouse gas emissions through sustainable forest management, the EU is also supporting adaptation-related forest projects in developing countries and the development of improved environmental data systems as a basis for more effective decision-making.

The FLEGT Action Plan

The European Commission launched the EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT)¹¹ in 2003 in response to public concerns over deforestation and illegal logging. The key regions and countries targeted are Central Africa, tropical South America, South-East Asia and Russia. Together these regions contain nearly 60% of the world's forests and supply a large proportion of internationally traded timber.

Ensuring the legality of forest operations is a vital first step towards the Action Plan's ultimate goal of encouraging sustainable management of forests. The Action Plan therefore focuses in the first instance on governance reforms and capacity building in the forestry sector to make sure that timber exported to the EU comes only from legal sources.

Voluntary partnership agreements between the EU and exporting countries are a key element of the Action Plan. These agreements will include commitments from both parties to halt trade in illegally cut timber, notably through a licence scheme to verify the legality of timber traded. The agreements will also promote better enforcement of forest law, based on an inclusive approach involving civil society and the private sector.

Support for implementation of the FLEGT Action Plan is one of the two environmental priorities of the Commission's 2007-2010 programme for cooperation with developing countries in Asia. A total budget of €100 million is available for environmental actions under the programme.



Among these is the **Tropical Forests and Climate Change Adaptation (TroFCCA) project**¹² co-funded by the European Commission to help tropical forests and the communities which depend on them adapt to climate change. Managed by the Center for International Forestry Research (CIFOR) in Indonesia and the Tropical Agriculture Center for Research and Higher Education (CATIE) in Costa Rica, the four-year project is being carried out in Indonesia, Burkina Faso, Mali and Ghana in West Africa and Honduras, Nicaragua and Costa Rica in Central America.

Beginning with an evaluation of the impacts of climate change on tropical forest ecosystems and forest-dependent communities, TroFCCA is developing and testing criteria and indicators for implementing 'adaptive' forest management to minimise the adverse effects of climate change and climatic variability. Policy-oriented adaptation strategies will then be elaborated, reflecting the project's broader objective of helping efforts to 'mainstream' adaptation to climate change into development policies.

The EU-funded **Natural Forest Management Programme in China** is testing and demonstrating options for sustainable management of natural forest resources in Hainan, Hunan and Sichuan provinces. The goal of the five-year programme, which started in 2003, is to enable local communities to make better use of forest resources and develop economic alternatives to forest utilisation. The programme is associated with an overall Sustainable Forest Management Programme operated by China's State Forest Administration to which the World Bank and the Global Environmental Facility (GEF) are providing support for activities in the same provinces.

11) <http://ec.europa.eu/environment/forests/flegt.htm>

12) <http://www.cifor.cgiar.org/trofcca>

Assisting developing countries through climate research

Research is crucial to improving our understanding of climate change, and thus to developing the most effective strategies for adapting to its impacts and mitigating its causes. Climate change has consequently become an increasingly important area in the EU's research and technological development (RTD) programmes since the 1980s.



The 7th RTD framework programme, covering 2007-2013, allocates some €9 billion to research projects directly or indirectly addressing climate change, plus a further €2.7 billion for nuclear research between 2007 and 2011. This represents a substantial increase from the previous programme. The funding through the framework programmes is additional to the financial resources the 27 EU Member States commit to their own climate change-related research and development activities at national level.

Though Europe-led, EU research activities have a strong international dimension that benefits developing countries. The EU's RTD programmes are open to cooperation with research institutions in third countries. Over recent years this has made it possible for some 125 researchers from African, Caribbean and Pacific (ACP) developing nations to participate directly in a range of EU projects, many of them focusing on climate change-relevant issues such as food security, health and ecosystem management.

Many projects carried out under the EU's RTD programmes concern global or regional climate change questions of relevance to developing countries. The results are also an important contribution to the work of the Intergovernmental Panel on Climate Change (IPCC) on assessing climate change, its potential impacts and options for adaptation and mitigation.

Climate-relevant research projects funded by the EU that involve or directly benefit developing countries include the following:

The **TOCSIN project** is examining options for reducing greenhouse gas emissions in China and India, with a focus on key industries and technologies such as power generation, agriculture and transport. With the involvement of institutes in both countries, TOCSIN is also analysing the potential for enhancing technological cooperation between the EU and China and India, for instance on clean coal technologies and on widening the two countries' participation in the Clean Development Mechanism.

The **Adaptation and Mitigation Strategies (ADAM) project**¹³ funded by the European Commission aims to improve understanding of the synergies, trade-offs and conflicts between adaptation and mitigation policies. Results will be relevant globally but will improve climate change projections for ACP countries in particular. The project, which includes China and India amongst its partners, started in March 2006 and will conclude in 2009.



The **CarboAfrica project**¹⁴ aims to quantify and predict the cycle of carbon and other greenhouse gases in sub-Saharan Africa in order to evaluate the region's potential as a global carbon 'sink.' Greater understanding is needed of photosynthesis and respiration by African ecosystems, which are subject to regular modification due to continual changes in land-use. The three-year project will be carried out in at least 11 countries: Benin, Botswana, Burkina Faso, Congo, Gabon, Ghana, Mali, Niger, South Africa, Sudan and Zambia.

GAINS-Asia

The **GAINS (Greenhouse Gas and Air Pollution Interactions and Synergies) model**¹⁵ developed by the International Institute for Applied Systems Analysis (IIASA) explores synergies and trade-offs between the control of local and regional air pollution and the mitigation of greenhouse gas emissions. It estimates emissions and mitigation potentials and costs for common air pollutants - sulphur dioxide, nitrogen oxides, particulate matter, ammonia and volatile organic compounds – and the six greenhouse gases included in the Kyoto Protocol.

GAINS covers 43 countries in Europe. **GAINS-Asia** is a two-year research project to extend the coverage of GAINS to China and India. It is focusing on medium-term policy measures for European and Asian countries and embedding these in global strategies to achieve stabilisation of greenhouse gas concentrations in the long term. GAINS-Asia is being carried out in cooperation with the Chinese Energy Research Institute (ERI) and India's The Energy and Resource Institute (TERI).

Interactive web-based software will be developed to provide stakeholders with access to the GAINS-Asia model. This will allow developing country partners to conduct independent analyses of the interactions between air pollution and climate change policies.

13) www.adamproject.eu

14) www.carboafrica.net

15) http://www.iiasa.ac.at/rains/gains_asia



The EU is helping to build a Europe-South America climate research network. This is the goal of the **Europe-South America Network for Climate Change Assessment and Impact Studies (CLARIS) project**,¹⁶ which is promoting common research strategies to monitor and predict climate change and its socio-economic impacts in South America. The project will contribute to the development of adaptation strategies for sectors including agriculture, healthcare and hydro-electric power generation. It involves institutions in Argentina, Brazil, Chile and Uruguay.

A major example of EU research support to developing countries is the **African Monsoon Multidisciplinary Analysis (AMMA)**,¹⁷ to which the European Commission has contributed €11.7 million.

The region of the West African Monsoon underwent a dramatic change from wet conditions in the 1950s and 1960s to much drier conditions in the 1970s to 1990s. Since then, marked annual variations have resulted in extremely dry years that have had devastating environmental and socio-economic impacts. West African countries' vulnerability to variations in climate is likely to grow as demands on natural resources increase in line with their rapidly expanding populations.

AMMA was developed to meet this challenge. Involving partners in Benin, Burkina Faso, Ghana, Guinea, Mali, Niger and Senegal, the project aims to improve predictions of the monsoon and its impacts as well as forecasts of the influence of climate change on monsoon variability. The project is strengthening regional environmental monitoring systems covering topics such as the water cycle, atmospheric dynamics, crop yields and human health.

16) <http://www.claris-eu.org/>

17) www.amma-eu.org

European Commission

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