European Commission



Supporting a Climate for Change

The EU and developing countries working together

2012

Europe Direct is a service to help you find answers to your questions about the European Union.

Freephone number (*):

00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

More information on the European Union is available on the Internet (http://europa.eu).

Cataloguing data can be found at the end of this publication.

Luxembourg: Publications Office of the European Union, 2012

ISBN: 978-92-79-27204-2
DOI: 10.2841/20333

© European Union, 2012
Reproduction is authorised provided the source is acknowledged.

Printed in Belgium, November 2012

PRINTED ON RECYCLED PAPER
Conception/pre-press: Wow Communication

Contents

Executive Summary 2

Introduction 3

CH1 Bringing about the Change 4

1.2 Translating political dialogue into action 6

1.3 Mainstreaming climate change 6

CH2 Adaptation 10

2.1 Supporting adaptation in the field 10

2.2 Towards better integration: Climate Change Adaptation and Disaster Risk Reduction 14

CH3 Supporting mitigation 16

3.1 Promoting Low Emission development 16

3.2 The role of clean energy 16

3.3 Stimulating clean development through emissions trading 21

CH4 Supporting both Mitigation and Adaptation 22

4.1 Promoting sustainable forestry 22

4.2 Ecosystem-based approaches 25

4.3 Agriculture and rural development in the context of climate change 27

4.4 Strengthening the knowledge base: assisting developing countries through climate research . 31

CH5 Climate Finance Perspectives 34

5.1 Climate Finance post 2012 34

5.2 Leveraging funds for climate action in developing countries 34

Box studies 36

Executive Summary

Combating climate change forms an integral part of the EU development agenda. The EU has taken decisive action to integrate climate change issues in its development cooperation and has steadily increased climate finance for developing countries since 2002.

EU supporting a climate for change

The EU addresses climate change at all levels from the political aspects to the implementation side. The **Policy Dialogue** between the EU and its Government Partners across the world covers climate change issues, including the international climate negotiations. Regularly, the EU organises or contributes to policy discussions through conferences, regional seminars and trainings. Finally, **mainstreaming** of climate change into country systems is one of the backbones of EU support to developing countries partners (**Chapter 1**).

The EU also supports a vast array of actions in all fields of the climate change challenge from adaptation to mitigation, including capacity building, technology transfer and finance. Several examples are presented in this brochure.

Adaptation is a tough challenge. It is often the key priority for our most vulnerable partners, such as LDC and SIDS countries, and the EU builds on their national priorities and plans, such as NAPAs or NAPs but also national development strategies. The EU sees adaptation as a complex and cross-cutting challenge, affecting almost all sectors of national economies and social aspects. There are in particular many synergies to be sought with disaster risk reduction strategies (**Chapter 2**).

Mitigation is essential to limit the temperature increase. It also represents opportunities for sustainable development. Mitigating emissions is of particular importance in the case of emerging economies, as their emissions are steadily increasing and now represent an important share of global emissions. The EU support emissions reduction actions in developing countries as well as Low Emissions development paths **(Chapter 3).**

The EU is also seeking to exploit **synergies**. In many cases, it appears clearly that carefully designed sector strategies can contribute both to adaptation efforts and to reduction of emissions objectives. This is the case for example in agriculture, forestry or for ecosystem-based approaches. Research is essential in this regard. The EU strongly supports such integrated and win-win approaches (**Chapter 4**).

Climate finance is needed to implement these strategies. The EU has provided significant amounts for Fast Start Finance for the period 2010 – 2012 – a greater share than could be expected- and this has been done without affecting Official Development Assistance. The EU is clear: climate finance will continue after 2012 and the end of Fast Start Finance. Several concrete steps have already been taken in this direction, and the work continues to enhance the EU efforts in delivering climate finance (**Chapter 5**).



Introduction

Climate change is happening now. Its impacts can already be felt around the globe and these are multiple and cut across all sectors, all population groups and all countries. In the case of developing countries, climate change, if not addressed adequately, may lead to unprecedented reversals in poverty reduction and undermine efforts towards achieving the Millennium Development Goals (MDGs).

The effects of climate change already constrain the challenging objective of ensuring sustainable development in developing countries. Developing countries, in particular the most vulnerable segments of populations will be hit earliest and hardest. These also have the lesser capacity to deal with climate change. Many developing countries' economies heavily depend on natural resources, and key sectors such as agriculture, forestry and fisheries, will be disproportionately affected. Developing countries with more diversified economies are also vulnerable since a lack of financial resources, adequate technology and effective institutions may limit their capacity to adapt. Robust adaptation strategies need to be owned, developed and implemented by developing countries.

It is essential that we keep the global average temperature increase below 2°C compared to pre-industrial levels. Beyond this threshold, we will move into a dangerous zone of uncertainty where the effects of climate change could have catastrophic impacts on human development. The European Union (EU) recognises the need for developed countries to take the lead in cutting emissions. This is, however, also based on the understanding that developing countries and in particular more advanced economies must also acknowledge their responsibilities. Indeed, the combined emissions of developing countries and emerging economies are projected to overtake those of the industrial world in the coming years. In fact, it is already the case if deforestation, agriculture and land use changes are factored in. It is therefore vital that developing countries start to reduce the growth rate of their emissions as soon as possible and halt uncontrolled deforestation in tropical areas. There is a lot of potential to avoid emissions by adopting sustainable development paths, based on low-emissions technologies, use of renewable energy and win-win strategies so as to adapt to climate change while contributing to emissions reduction. We need to decouple economic growth for human development and poverty reduction from greenhouse gas emissions.

Adaptation to climate change and shifting towards low-emission growth require a different economic path, and therefore a rethinking of development strategies. Donor countries may facilitate and / or support this work. In order to maximise impacts, the climate challenge must be integrated as cross-cutting into national development plans and strategies that establish priorities and set in place required institutional frameworks. Coping with current climate variability and attempting to anticipate future climate changes is no longer an option, but a policy imperative.

This brochure provides an overview of the EU's multifaceted approach to supporting developing countries in adapting to the effects of climate change, mitigating the causes and seizing related opportunities. Selected examples are presented.





CHAPTER 1

Bringing about the Change

Climate change is an increasingly complex challenge and requires a wide array of actions to address it appropriately. The EU is therefore active at different levels, ranging from political dialogue with its partners to ad-hoc support for climate action as well as integrating climate change into its development cooperation and other policy areas. This chapter focuses on the different forms of EU climate action in support to developing countries.

1.1 International engagement and political dialogue with partners

The magnitude, complexity and level of threats posed by climate change are understood by a wide range of countries as requiring a joint global response. Climate challenges will impact on the life of all humanity, but the biggest problems will be faced by those already most vulnerable.

Hence, the EU has placed climate change at the heart of our external relations; and in particular in our relations with developing countries. Firstly, climate change is now regularly discussed in the framework of our **Policy Dialogue** with Partner countries. Climate change issues related to international negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) are frequently covered but substantial policy discussions on integrating climate change into development cooperation and national development processes are also taking place. In addition, the Green Diplomacy Network (GDN), which started in 2003, is used for specific diplomatic demarches involving the EU and its 27 Member States. In our work we draw on the extensive resources and networks of EU Delegations and diplomatic representations and development co-operation offices of the EU Member States.

The EU strongly supports the UNFCCC process and is actively leading the work towards a global, ambitious and balanced agreement. The EU speaks with a strong voice and adopts a **constructive multilateral approach** in this complex process. The EU also demonstrates leadership by taking ambitious measures within its borders and, backed by this strong commitment, naturally engages with industrialised countries and emerging economies to advocate for equal levels of ambition. Our goal remains to limit temperature increase to 2°C.

African countries are key partners in our work. **Africa** is a complex and diverse grouping, with many Least Developed Countries (LDCs) and it is in this continent that the adaptation challenge is perhaps greatest. EU and African countries share many common views and objectives as regards tackling climate change, and they have the opportunity to form strong alliances to reach global agreement. This EU engagement with Africa is put in practice e.g. through the Africa-EU Strategic Partnership on Climate Change and Environment, which includes a number of key strategic initiatives to jointly address climate change. In addition the EU is occasionally participating to the African Environment Ministries (AMCEN) process.

In 2011 the EU commenced cooperation on Climate Change with the **Caribbean** Community as a group, providing significant support to the Caribbean Community Climate Change Centre

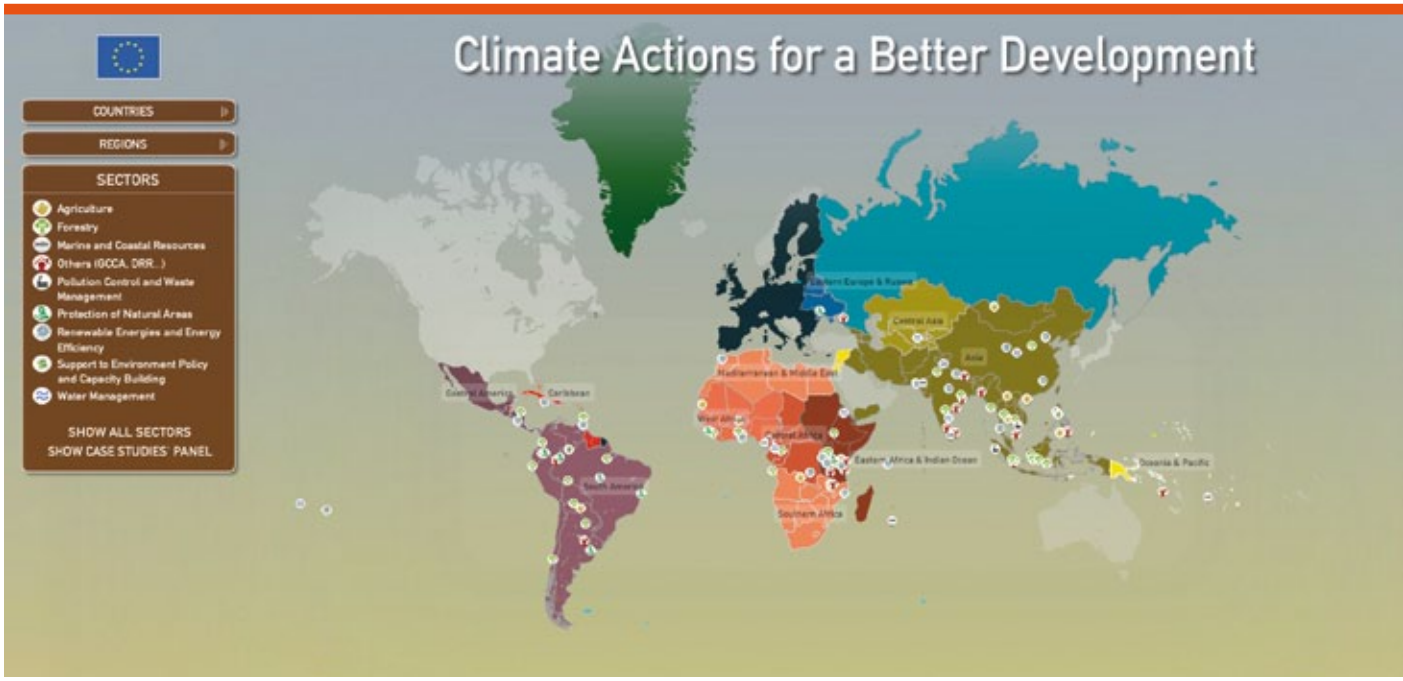
(CCCCC). In the **Pacific** Region, major high level meetings and several workshops took place, in parallel with increasing support to field actions, in the context of renewed EU-Pacific relations. These efforts are also supported through the Global Climate Change Alliance (GCCA), the EU initiative to step up dialogue and cooperation with developing countries.

The **GCCA** organised a **Global Learning Event** in Brussels in September 2012, bringing together partners directly involved in the implementation of GCCA-funded programmes across the world, for the purpose of promoting exchange of experience across projects and countries, identifying achievements and lessons learned so far, building knowledge about the best ways of implementing climate-related assistance, and promoting networking across GCCA partners.

Climate change is also regularly discussed with our partners from **Latin America** and Asia. The European Commission and the European External Action Service (EEAS) hosted an **EU-Asia-Pacific roundtable** on 4 June 2012 to discuss the position of the region in the global climate debate and the relevance of EU policies for the region. The roundtable brought together senior officials from EU Member States and from countries in the Asia-Pacific region, experts from selected policy institutes and other invited specialists. Participants discussed global issues and climate politics in view of improving mutual understanding and exploring the scope for advancing cooperation in areas such as industrial policy, research, trade, and development co-operation. Among the specific topics discussed were low emission development strategies, technology transfer, innovative carbon market mechanisms and improved delivery methods for climate change assistance. The roundtable followed a similar event for Africa held in October 2011.

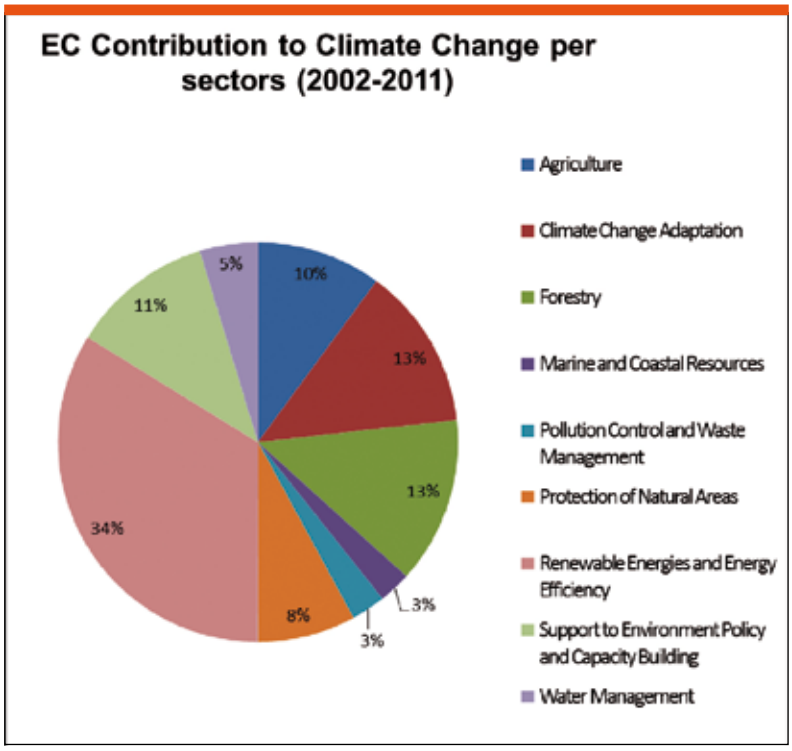
The EU has also continued its work on the linkages between climate change and security, or climate change and migration.

Climate Change Actions for a Better Development



1.2 Translating political dialogue into action

The EU continues to be the largest contributor of Official Development Assistance (ODA) and of climate finance flows to developing countries and has been so since well before the Copenhagen conference.



Commitments on Climate Change related Actions (Million Euros) and as percentage of ODA managed by EuropeAid

The European Commission alone has provided traditional ODA for climate change related interventions **over EUR 3.7 billion since 2002**. Significant contributions directly from EU Member States have to be added to this to reach the total EU figure. Support from the European Commission has to a large extent been focused on energy (supporting both renewable and efficiency measures), forestry, adaptation and disaster risk reduction. As the figure indicates several other areas are also supported – and in particular the important contributions to capacity building must be highlighted. Agriculture, in line with the *Agenda for Change*,[1] now receives increased attention as this sector is crucial for many LDCs and Small Island Developing States (SIDS).

With regard to Fast Start Financing, the European Union continues to honour its commitments to provide EUR 7.2 billion over the period from 2010 to 2012. The majority of EU Fast Start Finance is provided bilaterally by Member States. Despite the difficult economic situation and strong budgetary constraints, all 27 Member States and the European Commission are on track to meet their commitments. The European Commission's own fast start finance "package" for the entire period amounts to EUR 155 million and includes finance to support adaptation; mitigation; reductions in emissions from deforestation and forest degradation in developing countries; technology cooperation and capacity-building, including for MRV and design of mitigation measures.

The EU and the other developed countries committed to mobilise USD 100 billion per year by 2020 in the context of meaningful mitigation action and transparency on implementation. In this context, the EU will continue to provide climate finance after 2012 (see chapter 5).

1.3 Mainstreaming climate change

Climate change is challenging years of efforts towards sustainable development. Developing countries are particularly vulnerable because their economies often depend more on climate-sensitive natural resources, and because they possess less resources to adapt to the impacts of climate change. Similarly, the development path chosen has important implications for the capacity of countries and communities to adapt to climate change and for their contribution to greenhouse gas emissions. Thus, climate change, be it related to adaptation or mitigation, is key and vital to all social and economic development activities.

The EU is therefore putting climate change mainstreaming at the core of its work. It addresses it on two fronts: i) with regard to policies, strategies and practices of EU institutions and member states and ii) with regard to development processes of our partner countries.

Together with our partner countries, we seek to ensure that EU regular assistance is systematically integrating climate change considerations, from programming investments in social and physical infrastructure to national sector programmes. We are working to help strengthen countries' institutions and systems to integrate climate change in their development planning processes, from policymaking to budgeting, implementation and monitoring.

The GCCA – the EU flagship initiative to support the most vulnerable countries to deal with climate change – has also put climate change mainstreaming at the core of its work. The GCCA is currently supporting or preparing dedicated

1 COM(2011) 637 final

mainstreaming programmes in 27 countries and regions across the world, from Bhutan to Belize, from Ethiopia to the Solomon Islands. This work in turn is expected to further the integration of climate change into EU regular development assistance, thereby creating a multiplier effect and ensuring climate change is addressed in a systematic and sustained manner.

1

Global Climate Change Alliance: Adaptation to climate change in Uganda

In Uganda, the EC is committed to supporting (1) adaptation to climate change and (2) integrating climate change into poverty reduction and other development strategies.

The overall objective is to contribute to the sustainable improvement of livelihoods and food security of the rural populations in Uganda. The purpose of the project is to strengthen the resilience of rural populations and agricultural production systems in the central part of the cattle corridor and build the capacities of communities, commercial farmers and the Government of Uganda to cope with climate change.

Activities include:

- *Strengthening the institutional capacity of the Climate Change Unit;*
- *Increasing climate change awareness, knowledge and capacities in selected departments and the target districts;*
- *Producing and disseminating adaptation good practices and their integration in relevant policies and plans.*

Duration: July 2012 to July 2016

EC contribution: EUR 10,795 m



2

Mainstreaming mitigation and adaptation in our energy policy dialogue

Recognising the importance of a sustainable provision of energy to the populations, the EU is mainstreaming the environmental issues in its energy policy dialogue with developing countries.

Recently the European Commission is championing access to sustainable energy for all. Welcoming the United Nations' rallying call in the framework of the UN´s Year of Sustainable Energy for All, it has set out an ambitious agenda to respond to the three interlinked objectives on Access, Energy Efficiency and Renewable Energy. Achieving the 3 objectives all together will maximise development benefits and help stabilize climate change in the long run.

3

Climate Change Support Programme: Building Climate Resilience in Nepal

Integrating climate change into poverty reduction and other development strategies

2012 - 2015

EU contribution: €8.6 M (Other contributions: DFID €7.9 M joint co-financing)

The project aims to enable the Government of Nepal (GoN) to adopt climate change policies and actions that increase benefits and sustainability of public as well as public private development efforts in a longer term. It will do so by building capacity of GoN to develop, cost, budget and implement evidence-based policy and measures aimed at mainstreaming climate change in key development sectors (agriculture, forestry, water and energy), including through public private partnerships. Also, it will seek to strengthen technical and institutional capacity of Village Development Committees (VDCs) and District Development Committees (DDCs) in mid and far-west regions (14 districts), to increase national capacity in mainstreaming climate change into key policies, government institutions and the budget process.

The initiative will support GoN to implement NAPA prioritised activities through the national framework on Local Adaptation Plans for Action (LAPA), which is expected to provide effective delivery of adaptation services to the most climate vulnerable communities.

The programme will also enhance climate change negotiation skills at national and international levels, in support of adaptation and the promotion of low carbon development, (mainly support the local institutions and vulnerable communities to benefit from access to clean energy technology and practices) as well as establishes and/or strengthen a mechanism of sharing and learning in adaptation interventions among different stakeholders at the District and National levels.

The project will have important cross-cutting impacts and aspects, such as women's empowerment, inclusion of the poor and disadvantaged groups, enhancement of good governance, mainstreaming of climate change in local, regional and national level planning, as well as look into ecosystem and livelihood perspective working at VDC level.







CHAPTER 2

Adaptation

The adaptation challenge is very unevenly distributed among countries and regions depending on their specific exposure, vulnerability and capacity to adapt. Developing countries, and in particular the least developed countries will face the biggest challenge because poverty and low levels of development are major factors determining vulnerability and capacity to adapt. This is why the EU has taken steps to strengthen its support to adaptation in the field. This happens through integration of adaptation considerations into existing and new development assistance programmes and through new areas of work such as linking adaptation and disaster risk reduction.

2.1 Supporting adaptation in the field

Poor population groups in developing countries are among the most vulnerable to climate change. These groups will need to adapt and strengthen their resilience to the impacts of climate change and ensure that they are able to maintain and improve their livelihoods. Climate change will have impacts on nearly all aspects of their lives.



To ensure that adaptation efforts are effective, they should target firstly – and involve - the most affected populations. They also must be integrated across all areas of development strategies in order to ensure that development contributes to effective adaptation.

Communities have to build their resilience and diversify their livelihoods to cope with current and future climate stress. In many cases, climate change adds to the existing climatic variability and recurrent drought and flood events. Thus, diversifying agriculture and improving water resources management are crucial challenges for many communities and local authorities. Local coping strategies and traditional knowledge needs to be used in synergy with national interventions to increase resilience.

EU support to adaptation builds on available vulnerability assessments, and on the needs and priorities expressed by the developing countries in their national development and adaptation planning processes, including National Adaptation Programmes of Action (NAPAs).

While NAPAs list actions to be implemented urgently, it is also essential to ensure in the medium and long term a move beyond NAPAs towards a programmatic approach to adaptation. EU supports the work under UNFCCC to accompany the Least Developed Countries to formulate and implement National Adaptation Planning (NAP) processes that integrate adaptation into the country's national and sector development strategies and planning. This work builds on efforts undertaken by several LDCs to shape long-term national adaptation strategies and should be capitalised upon through specific initiatives such as those promoted by the Global Climate Change Alliance.

4

Adaptation to Climate Change in Galapagos

The main objective of the programme is to prepare Galapagos and near-by tropical islands to deal with possible environmental and human disasters, especially climate change effects. The programme comprises mainly three specific objectives:

- *To conduct investigation on adaptation and the effects of climate change;*
- *To implement preventive and educational actions to reduce the risk of catastrophic impacts caused by climate change;*
- *To improve commitment and capacity of public institutions to prevent climate change impacts.*



A qualitative investigation report prepared by FUNDAR – an NGO based in Galapagos – significantly shows that most people in the Galapagos islands do not understand the relationship between climate change and the actual weather phenomena that occurs around them; they do not admit that most variations in rainfall volume, more extended dry and warm seasons are consequences of global warming. So the tendency is to ignore and deny. A quantitative survey has confirmed these perceptions and the lack of a proactive involvement in the part of local institutions.



Geographical area: Galapagos and near-by tropical islands

EC contribution: EUR 715.787,20

The EU also strongly backs the UNFCCC Nairobi Work Programme (NWP) on adaptation aiming at improving our knowledge of the impacts of climate change and of countries' vulnerabilities, adaptation needs and responses.

The EU is supporting adaptation and capacity development efforts through dedicated bilateral and multilateral projects and programmes as well as through the integration of adaptation considerations into the general development cooperation programme.

These interventions address vulnerability and increase resilience in a wide variety of ways. This may involve creating jobs (e.g. green jobs), diversifying livelihoods, as well as improving housing conditions and enhancing access to public services. Raising awareness and improving access to information (e.g. development of adaptation databases and knowledge management systems, flood early warning and monitoring systems, hydro-climatic data management systems), access to technology (e.g. development and promotion of improved agricultural techniques such as agroforestry, soil and water conservation, micro-irrigation, crop and variety diversification, improved livestock breeding techniques in), and promoting education and enhancing specific skills (e.g. farmers' training, training on sustainable land management, land use planning, use of geographical information systems and cartographic tools) are other areas.

Other programmes are focused on building or rehabilitating infrastructure such as drainage networks, flood protection systems, water storage and irrigation systems, as well as protecting or reducing pressures on key ecosystems such as coral reefs, coastal wetlands or forests to maintain or restore important ecosystem services.

5

Chololo Ecovillage in Tanzania: an integrated approach to adaptation and resilience



Chololo village, located in one of the drought prone regions of Tanzania, is made up of vulnerable and deprived farming families, using rain fed agriculture, subsistence farming, communal grazing, and thus dependent on natural resources for livelihood.

Seeking to strengthen capacity of vulnerable rural communities to adapt to climate change, the pilot project seeks to transform Chololo into a thriving eco-village – a model of good practice in climate change adaptation and mitigation. It works to identify, test, evaluate and share innovative adaptation technologies and approaches; to support the village community to agree and implement land use plans and natural resource management practices; to empower women to act at the forefront of the transformation, with increased authority and reduced workload and to increase household food security and incomes, and improve livelihoods.

What has been achieved so far?

400 farmers and their families now have improved food security thanks to the introduction of drought resistant, high-yielding, early-maturing seeds and supply of improved cattle and cocks. The village water supply system was restored, roof catchment for rainwater installed at the village school and a sub-surface dam and a sand dam, to capture water in the nearby river, were constructed.

In addition, 133 villagers were trained on afforestation and nursery management, and planted 14,500 tree seedlings and 3,000 trees. As regards energy efficiency, 10 domestic biogas plants were constructed and are now functioning, 60 energy saving cooking stoves are used by families.

6

Samoa: Adaptation and water using a sector budget support approach (GCCA)

A GCCA allocation of EUR 3,000000 in the form of Sector budget support is used for «Supporting Climate Change Adaptation for the Water Sector».

Samoa has developed a framework of strategies, plans and governance structures that are best practice in the Pacific region. Climate change adaptation is reflected as a priority in many high level plans and strategies. Samoa's vision is to improve quality of life for all through seven key development priorities: sustained macroeconomic stability; private sector-led economic growth and employment creation; improved education outcomes; improved health outcomes; community development including improved village governance; improved public sector governance; and environmental sustainability and disaster risk reduction.

The main supported activities of the programme are: Participatory workshops, rehabilitation and clearance of drains in the greater Apia area, and preparation, contracting, and supervision of detailed designs of the reconstruction and upgrade of priority drainage infrastructure to mitigate the impact of flooding in central Apia through rehabilitation and effective maintenance.

7

Support to rural livelihoods and climate change adaptation in the Himalaya

EU contribution: EUR 10,000,000



Spanning over eight countries (Afghanistan, Bangladesh, Bhutan, Pakistan, India, Myanmar, Nepal and China), the Himalayas are the highest mountain range in the world and its glaciers feed into the major river basins of South Asia, supplying fresh water of an estimated 1.4 billion people, i.e.: 25% of mankind. These countries are the members of the International Centre for Integrated Mountain Development (ICIMOD). The region is considered as one of the major areas affecting world climate.

Mountain people's livelihoods depend to a great extent on the conservation of natural resources, which are fragile, often not easily accessible and vulnerable to change. In addition, people already tend to be poorer than in the plains and thus less able to cope with challenges.

'It is recognised that local land use systems and climate change have an increasing influence on the stability of fragile mountain ecosystems of the Hindu Kush-Himalayas (HKH) and the livelihoods of mountain people as well as substantial downstream effects, including negative impacts on coastal areas as well as on the availability of fresh water resources for the whole region. Regional trans-boundary programmes are thus required to get to grips with these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues.

Objectives:

The objectives are to support the development of mountain rural livelihoods in the context of socio-economic and climate change, and the conservation of HKH ecosystem assets and services, through active regional cooperation.

Main activities:

1. *Increase the national and regional collaborative capacity to develop adapted policies impacting on mountain rural livelihoods, taking socio-economic and climate change into account.*
2. *Raising awareness and disseminating knowledge on the effects of climate change and adaptation responses in the HKH region.*
3. *Strengthening collaborative action research in the region in relation to mountain livelihoods and ecosystems,*
4. *Conduct pilot activities in a collaborative manner that strengthen the resilience of mountain people in vulnerable areas through delivery of services and products that will improve livelihood opportunities and ensure the sustainable management of natural resources.*
5. *Support to building capacity in higher education, skills development and training institutions and NGOs across the HKH region, to scale up best practice for improved resilience to climate change.*

ICIMOD is an inter-governmental organisation grouping all 8 countries of the Hindu-Kush Himalaya and an internationally recognised knowledge-hub regional structure. Its mandate includes coordination, knowledge and information sharing and policy dialogue, and is also a regional leader on sustainable development activities and climate change adaptation.

2.2 Towards better integration: Climate Change Adaptation and Disaster Risk Reduction

Evidence shows that a great number of countries are exposed to multi-hazard risks, with increased severity and frequency, which threaten large parts of population and economic assets.



Recurrent food crisis, demographic pressure and climate change, desertification and unsustainable use of natural resources are underlying causes of increased vulnerability and greater exposure to risk. Poverty and lack of assets to cope with the impacts of disaster are other drivers of vulnerability and need to be tackled.

Adaptation to climate change and natural disaster risk reduction (DRR) strategies are becoming a joint priority agenda in developing countries as climate change is a key humanitarian and development challenge. It is estimated that due to the combined effects of environmental degradation and global warming, weather related disasters claim: 300,000 deaths per year, affect app. 300 million people, cause EUR 80 billion in economic losses and displace 20 million people. With a "business as usual" approach it is projected that by 2030 the impact of climate related disasters will more than double the victims and multiply by three the economic losses and the displaced persons.

The challenge is to ensure that the policies and strategies of international donors, development institutions and developing countries' governments adopt a systematic approach for assessing and addressing disaster and climate change risks.

To respond to the need for increased focus on DRR the European Commission adopted in 2009 the Communication *EU Strategy for supporting Disaster Risk Reduction in developing countries*[1] which recognizes DRR as a fundamental development issue. This was followed in 2011 with the adoption of an Implementation Plan which sets concrete measures and priorities. It will contribute to harmonise and increase effectiveness of the EU external action in DRR by focusing on four main priorities:

1. Enhancing multilevel and multi-stakeholder dialogue on DRR;

2. Supporting regional approaches to DRR planning, implementation and capacity building;

3. Greater integration of DRR into EU's external action and;

4. Coordination of EU support to key DRR investments, including strengthening of information systems and risks analysis for integrating climate change into DRR.

The EU is supporting several important initiatives in this area: the ACP-EU Natural Disaster Risk Reduction Programme (NDRR - €60 M), the Global Index Insurance Facility (GIIF - €24.5 M), the Global Climate Change Alliance regional actions on DRR (GCCA - €40M) and the "Monitoring for Environment and Security in Africa" program (MESA - €20 M).

To ensure an effective risk reduction approach the Commission has increased the synergy between development, climate and humanitarian policies. In this respect an important step is the adoption of the Communication *The EU approach to Resilience: learning from food security Crises*,[2] which recognizes DRR and adaptation as drivers of resilience and sustainable development.

These frameworks, together with the *Agenda for Change*,[3] will inform and guide future EU action, in particular by focusing on helping reduce developing countries' exposure to global shocks such as those produced by climate change, ecosystem and resource degradation.

1 COM(2009) 84 final
2 COM(2012) 586 final
3 COM(2011) 637 final

8

QESPIKUNA : Capacity building of local authorities and civil society actors for the integration of DRM in the sustainable development planning



Undoubtedly, Peru is one of the most bio-diverse countries, which not only has the most productive sea, but also one of the largest portion of the Amazon forest, and its Andean glaciers represent 70% of the ice surface in the tropics. However, all this natural richness is being badly hit by the effects of climate change, one of the major problems faced by our planet.

In order to reduce this vulnerability, «QESPIKUNA» has prioritized work in three regions of the Peruvian Andes to strengthen the capacities of local authorities and civil society for the integration of the Disaster Risk Management (DRM) in the sustainable development planning. In this way, the project seeks to disseminate and apply those political and economic tools that allow appropriate social development planning and greater coordination and transparency among the institutions involved, prioritizing the use of Information and Communication Technologies (ICT).

Geographical area : three regions of the Peruvian Andes
EC contribution : EUR 398 120 (total cost : EUR 530 827)
Counterpart : Practical Action

9

Building Safer Communities : A Regional Initiative in South Asia

In South Asia, the International Red Cross and Red Crescent Movement (RC/RC) has been implementing various Community Based Disaster Prevention/Management (CB DP/DM) projects since 1972. Over time, the need appeared for a proactive plan to enhance capacities of RC/RC and standardize the rich learning's across the region for a more comprehensive, effective and better focused DP/DRR strategy improving coordination and joint planning in South Asia.

This programme seeks to improve the system, procedure and tools of the six South Asian RC/RC Societies in order to promote the «safer community» approach through their on-going disaster management/ risk reduction programmes.

The main objective is to strengthen and mainstream DRR capacities of RC/RC National Societies, as members of their local and national DM systems, through the application of standardized DRR systems and tools, supported by global to local advocacy of Federation standards set out by the Federation and Hyogo Framework for Action priorities.

The main achievements have been :

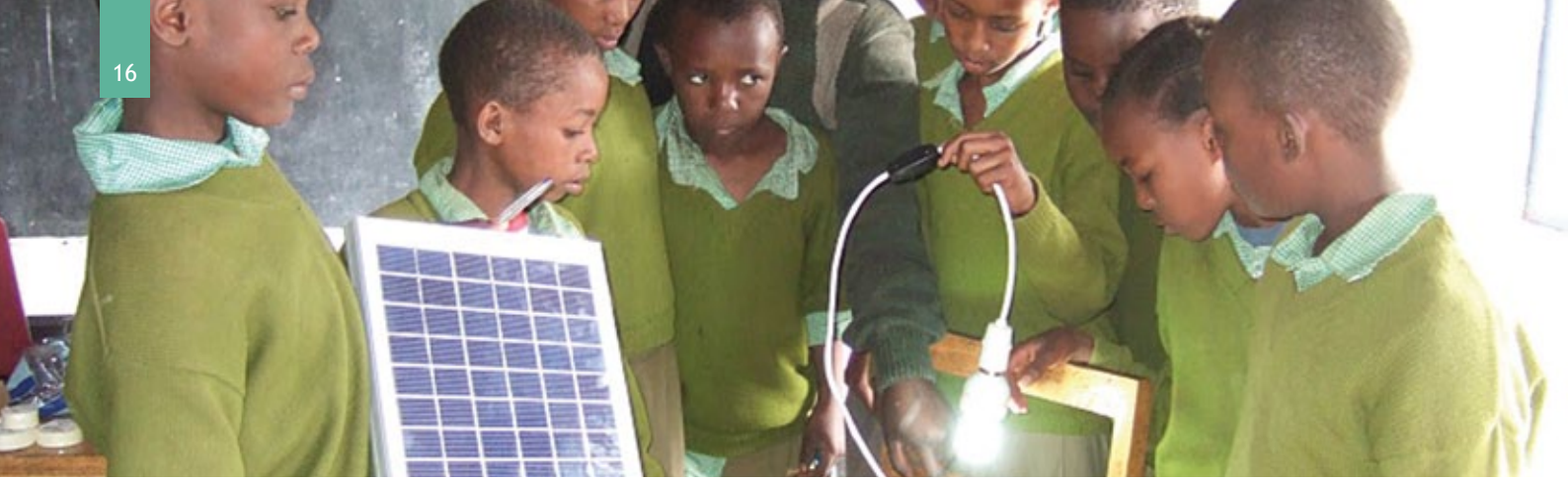
- *South Asian RC/RC National Societies have got access to standardised risk reduction training and community intervention systems and tools which adhere to established standards for rescue kits and first aid emergency kits*
- *A stronger culture of prevention has been created in all National Societies and the communities with whom they work, through the development and implementation of a regional disaster preparedness public awareness and advocacy package*
- *Coordination within the RC/RC in South Asia and between the Movement and external agencies has been strengthened through advocacy and knowledge sharing.*

Geographical area : Nepal, Bangladesh, Afghanistan, India, and Pakistan

Duration : 2 years
EC contribution/budget : EUR 395,773

Counterparts/beneficiaries : six South Asian Red Cross Red Crescent Societies (RC/RC) ; seven countries and their beneficiaries : school children (approx. 1800 children), DRR practitioners (approx. 300 persons) ; partner RC National Societies (NS), Governments, UN, NGOs and external agencies





CHAPTER 3

Supporting mitigation

Greenhouse gas emissions from several developing countries increase quickly and now represent an important share of global emissions. Sustainable, climate resilient and low emissions development pathways therefore need to be designed and implemented, while respecting the principle of common but differentiated responsibilities. It is important that the growth and development challenges faced by developing countries be addressed in a way that avoid locking in inefficient and costly, environmentally damaging, carbon-emitting technologies and infrastructure that will contribute significant emission for many years to come. Moving to a green low-carbon economy constitutes an opportunity for all countries.

3.1 Promoting Low Emission development

Most developing countries are not major emitters. However, as their populations grow, their standards of living improve, their economies develop, emissions levels will become an important issue. The general consensus is that the cost to their economies will be less if action is taken now for them to embark on a low emissions, green future. The EC has ensured to make funding available to promote low emission development in developing countries. With UNDP, it is providing support to capacity building so that developing countries can put in place low emission policies and strategies (Nationally Appropriate Mitigation Actions – NAMAs). From 2013, it will also work with the multilaterals to develop networking in the area of climate technology and information so that developing countries have the tools available to carry out actions.

3.2 The role of clean energy

Access to modern and sustainable energy services is vital for satisfying basic human needs and is a prerequisite for growing prosperity in a green economy. Yet more than 1.3 billion people in the world do not have access to electricity and 2.7 billion rely on traditional biomass for cooking. At the same time, developing countries, many of them growing rapidly, can put in place policies that will foster the development of cleaner energy alternatives that, in turn, will drive growth and economic and social development.

The 2011 *Agenda for Change*[1] proposed by the European Commission further highlights the provision of sustainable energy as one of the factors that have the strongest multiplying impact on developing countries' economies and, at the same time, contribute to environmental protection and climate change prevention and adaptation.

Already in 2002, the EU launched the *Energy Initiative for Poverty Eradication and Sustainable Development*[2] (EUEI) at the World Summit for Sustainable Development (WSSD) in Johannesburg. The EUEI is the EU's global framework for dialogue and partnerships with world's developing countries to meet the energy challenge. The EU Member States and the European Commission through the EUEI seeks to contribute to end the limited access to energy services and heavy reliance on traditional use of biomass

1 COM(2011) 637 final
2 For further information see www.euei.net

which are hallmarks of poverty in developing countries. Key areas are maximising energy efficiency as well as increasing the use of renewable energy, thus also contributing to climate change mitigation.

The Africa-EU Energy Partnership (AEEP) was launched in December 2007. The AEEP is a long-term framework for structured political dialogue and co-operation between Africa and the EU on energy issues of strategic importance. A second Action Plan (2011-2013) for the partnership is currently being implemented.

The implementation of the partnership is supported by the EUEI Partnership Dialogue Facility (EUEI-PDF) for the support to energy access good governance, and with a number of financial instruments for financing energy access development. In 2010, on the occasion of the Partnership's High Level Meeting, Ministers from the EU and Africa adopted targets to be reached by 2020 as follows:

1. Bring access to modern and sustainable energy services to at least an additional 100 million Africans;

2. (a) Double the capacity of cross border electricity interconnections, both within Africa and between Africa and Europe, and (b) double the use of natural gas in Africa, as well as doubling African gas exports to Europe;

3. (a) Increase the use of renewable energy in Africa: 10,000 MW of new hydro-power facilities; at least 5,000 MW of wind power; 500 MW for all forms of solar energy; and tripling the capacity of other renewables; and (b) improve energy efficiency in Africa in all sectors, starting with the electricity sector.

An Africa-EU Renewable Energy Co-operation Programme (RECP) was also launched at the High Level Meeting, to bring relevant renewable energy technologies to the market in Africa. The African Continent has a vast untapped renewable energy potential, ranging from hydro, to solar, wind, geothermal and biomass which could be used to ensure access to electricity for millions of people. The RECP will run until 2020, focusing initially on (i) policy advisory services; and (ii) capacity development for project preparation and mobilisation of financing. Preparations are on-going to also include the promotion of renewable energy applied research, development and technology transfer.



10

Community-assisted Access to Sustainable Energy in Rwanda[3]



In Rwanda, the districts of Nyamagabe, Nyaruguru, Gisagara and Huye, some of the most sparsely forested parts of the country, were targeted. More than 25% of Rwanda's forest has been lost over the past 40 years, though more than 96% of Rwandans still depend on wood for domestic energy, as alternative sources of energy are unreliable and unaffordable for the majority of Rwandans.

The demand for land and the degradation of natural resources will only increase with the growing population, making it important to find a sustainable solution to the energy needs of the country. The project addressed these major needs and constraints through the dissemination of alternative sources of energy. Project activities were rooted within the local communities and supported the national energy strategies aiming at saving biomass through increased energy efficiency, producing more biomass through reforestation and introducing alternative energy sources.

The EU has been committed in:

- *Improving access to modern energy sources and affordable energy services for the poor rural and peri-urban households in southern Rwanda while ensuring environmental sustainability and improving the local economy;*
- *Reducing the gap between the supply and demand of energy for poor households in the chosen districts by 50% in 2010.*

From 2008 to 2011, over 120,000 individuals were targeted by the project as direct beneficiaries. This includes 24,000 vulnerable households; 100 charcoal producers from the southern province; 500 Village Saving and Loan Groups; and 300 orphans, vulnerable children and youths.

Geographical area: Rwanda

Duration: January 2008 to April 2011

EC contribution: ACP-EU Facility contribution EUR 749,825 (75% of total)

Counterparts/beneficiaries: Care Österreich (implementing body); Centre for Innovation and Technology Transfer – Kigali Institute of Science and Technology (CITT-KIST), Association for the Development of Nyabimata (ADENYA)

3 For more information: European Union Energy Initiative (EUEI): www.euei.net ACP-EU Energy Facility: http://ec.europa.eu/europeaid/energy-facility Monitoring of the ACP-EU Energy Facility: www.energyfacilitymonitoring.eu

11

Biomass, Mitigation and Adaptation in the ACP-EU Energy Facility[4]

The ACP-EU Energy Facility aims to alleviate poverty by incrementing access to adequate, affordable and sustainable energy services to the poor in Sub-Saharan African, Caribbean and Pacific countries.

It has financed since 2007 around 140 national and cross-border projects for about EUR 300 Mio and has permitted to leverage EUR 340 Mio. As a result, about ***13 Mio people should benefit of improved energy services by 2020***[5]*.*

The projects focus mainly on the use of renewable sources and more efficient technologies such as mini-hydropower, solar PV, bio-fuels, biogas, efficient cook stoves and wind,

For instance a focus has been put on the sustainable and more efficient use of biomass at a local level. Around 20 projects were targeting the sustainable management of wood fuel resources, the diversification of the resources with the use of wastes or alternative fuels (such as ethanol, typha, pigeon peas stalks or cotton residues), and the diffusion of efficient cook stoves.

16 of these projects target the production of more than 320 000 cook stoves, 280 000 of them being already distributed. More than 20 000 charcoal and cook stoves producers have been trained.

These projects had an immediate impact on the life of vulnerable and disadvantaged groups like women and children. They have seen a reduction in their burden of collecting firewood (in terms of distance and frequency) by up to 50% due to energy efficient stoves.

Not only improving the adaptation of these vulnerable groups to climate change and the depletion of natural resources, these activities allowed to significantly mitigate climate change with an important reduction of emissions linked to an overuse and inefficient use of the traditional biomass resources.

4 Energy facility website http://ec.europa.eu/europeaid/where/acp/regional-cooperation/energy/index_en.htm Thematic fiche on cook stoves http://energyfacilitymonitoring.eu/index.php?option=com_content&view=article&id=65:thematic-fiche-no-4-improved-stoves-as-a-means-to-increase-efficient-use-of-energy-&catid=1

5 JRC, 2012

"A year ago, I bought a eucalyptus tree to use as a firewood supply. The improved stove is so efficient that I am still using that wood supply to date. This stove not only saves costs and time but also encourages me to be organised. Better still, because it's so easy and clean to use, my family has no problem participating in the cooking activities. I am just a happy woman".

Joyce Ayikoru supported by the ACP-EU energy facility Pamenu project - Uganda

"To us this is a very significant change because we are now able to cook from Chitetezo stoves using pigeon pea's stalks, pigeon peas as food, saving money for buying thatching grass and firewood, which we now use for household necessities as opposed to the past".



Chisoni Banda supported by the ACP-EU energy facility Masmala project – Malawi.

12

Geothermic project in the Caribbean



Geothermy project in the Caribbean

The Government of the Commonwealth of Dominica (GoCD) makes geothermal energy development a priority and the GoCD actively supports the Geothermal Project Management Unit. The possible benefits (affordable electricity, increased foreign exchange, reduced greenhouse gas emissions) are very important to Dominica and its people in boosting its economy, enhancing the eco-tourism industry and maintaining its image as the Nature-Isle of the Caribbean.

The long term objective of the project is to construct a geothermal power plant to meet the local demand and to export electricity to the neighbouring islands of Guadeloupe and Martinique via electrical interconnection with submarine cables.

This phase of the project has involved the drilling of three exploratory geothermal wells in the Wotten Waven Geothermal field located in the Roseau Valley. The test drilling activities proved the size and quality of the geothermal resource including in terms of economic and technical exploitation.

Final depth of well WW-2 : 1 469 meters

13

Tsumkwe Energy: Off-grid/small-scale electricity production in Namibia

Established as a military post prior to the independence, Tsumkwe in the Otjozondjupa Region is Namibia's largest off-grid settlement and home to the majority of Namibia's San community, an indigenous minority.



However, the electricity supply network is weak and causes frequent power interruptions and damage to electrical appliances, which interrupts water supply and other essential services to the settlement, and prevents the establishment of small-scale industries and improvements in the social and economic activities of Tsumkwe. Overall objective: To contribute to the reduction of poverty by providing physical infrastructure required to support increased and diversified socio-economic activities amongst the San people of Namibia.

The overall objective is to contribute to the reduction of poverty by providing physical infrastructure required to support increased and diversified socio-economic activities amongst the San people of Namibia.

The project intends to facilitate the provision of electricity to the San community in Tsumkwe, with the cooperation of the community, regional council and companies.

"The Tsumkwe Energy project has achieved a phenomenal amount of work in the course of the project and has contributed significantly to the off-grid electrification sector in Namibia."

Mid-term evaluation by Asca Investment Ltd, Namibia
Duration : 2008 - 2012 EC contribution: EUR 2.3 million (75 % of the total budget)

3.3 Stimulating clean development through emissions trading

The EU is by far the biggest buyer of emission reduction credits from third countries, and provides for continued financial flows and technology transfer to developing countries. It is expected that this will also be the case after 2012. A well designed international carbon market underpinned by robust targets can play a major role in global mitigation efforts, and create increasing financial flows to support mitigation activities in developing countries. The EU is assisting developing countries willing to participate in the carbon market through several activities, such as funding emissions modelling projects and summer schools on emissions trading systems.

The EU Emissions Trading System (EU ETS) began operating in 2005 and forms the cornerstone of the EU's strategy for cutting greenhouse gas emissions cost-effectively, and meeting our Kyoto targets. It rapidly became the driving force behind the expansion of the global carbon market. The ETS caps overall CO_2 emissions from app. 10,500 large EU emitters in energy-intensive industrial and power generation sectors. In the near future, all aircraft flying to and from airports in the EU will also be covered by the ETS.

The Clean Development Mechanism (CDM) aims to help developing countries move towards more sustainable development, by promoting projects that use clean technologies to reduce greenhouse gas emissions. The CDM projects yield emission reduction credits, which can be bought by governments or companies in industrialised countries to help meet their emission targets. Several EU Member States have set up programmes to buy international emission reduction credits, either directly or through government-financed 'carbon funds'. During the first commitment period (from 2008 to 2012) EU governments committed to purchasing credits equivalent to app. 550 million tons of CO_2, at a cost of EUR 2.9 billion.

Under the Kyoto second-commitment period, the EU considers that the CDM must be reformed to improve the effectiveness and environmental integrity of the mechanism. For the EU, the focus of the CDM should shift to targeting low cost options for saving emissions in LDCs. To ensure that the CDM contributes positively to sustainable development and global emission reductions in the LDCs, additional assistance is needed to further enhance their capacity to participate in carbon market mechanisms. To increase participation of LDCs, the EU ETS and Effort Sharing Decision stipulate that after 2012, even without an international agreement, these instruments can provide a market for CDM credits from new projects in LDCs. CDM credits from existing projects in other countries can continue to be used.

Despite some advantages, it is acknowledged that the CDM is not designed to drive the transition to a low-carbon economy in developing countries, due to its project-based approach. Hence, the EU with other partners is advocating for the creation of new and more ambitious sectorial mechanisms that would allow tapping into much greater emissions-saving potentials and providing more revenue for financing emissions reductions in developing countries, in particular the major emerging economies.

The EU vision for the international carbon market remains to link up the EU ETS with other compatible emission trading systems around the world and to develop robust sectorial mechanisms. This should foster a network of cap and trade systems forming the backbone of an expanded and strengthened international carbon market. In this perspective, sectorial crediting is a necessary step beyond the CDM's project-based approach.



CHAPTER 4

Supporting both Mitigation and Adaptation

It is increasingly difficult to draw a clear-cut line between adaptation and mitigation. There are many synergies to build upon between these two areas. The EU provides substantial support to several of these cross-cutting sectors such as forestry, agriculture, ecosystem-based approaches and its research efforts also provide important contributions to setting-up more integrated strategies for climate action.

4.1 Promoting sustainable forestry



Forests are vital in global terms and in particular for many developing countries. Forest resources represent a significant contribution to the development of the local and national economy, and are important bases for livelihoods – estimated at 1.2 billion people. In addition, forests harbour 70% of the entire world's biodiversity and provide invaluable environmental services.

Forests also have a significant role in mitigating climate change as they act as 'sinks' that absorb carbon dioxide (CO_2). They are thus essential in maintaining a CO_2 balance in the atmosphere. Tragically, deforestation and land use change are responsible for significant CO_2 emissions (estimated at 15% of global emissions). Reducing emissions from deforestation and forest degradation is thus crucial.

Healthy forests have also an adaptation function by among others protecting watersheds and limiting desertification. Agroforestry and sylvo-pastoralism integrate food and wood production and supply a range of important environmental, economic and social services, that improve local communities' capacity to cope with adverse climatic events. However, the effects of climate change will alter the extent to which forests can fulfil these roles.

Despite its importance, forest cover is being reduced at alarming rates as a result of poor forest governance, inappropriate enforcement of forest laws and market failures in valuing environmental services. Illegal logging is a symptom of these failing systems. The EU is active on this front and the main policies guiding our work are the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan (2003)[1], the Communication on *Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss* (2008)[2], and our contribution to REDD+.

1 *See box below, the Communication on deforestation and Climate Change (2008), and our contribution to REDD+.*

2 *COM(2008) 645 final*

14

The FLEGT Voluntary Partnership Agreements (VPAs)

A major instrument of co-operation with partner countries is the Voluntary Partnership Agreement (VPA) on export of legal timber, aligned with the FLEGT Action Plan.

VPAs have been concluded with Cameroon, Central African Republic, Ghana, Indonesia, Liberia and Republic of Congo. Negotiations are on-going with Democratic Republic of Congo, Gabon, Malaysia and Vietnam and are starting with Guyana, Honduras and Laos.

These agreements will help to improve governance in the forest sector and ensure the legality of timber exports to the EU, in particular through a licensing scheme, reducing forest degradation from illegal logging.

Preparation of VPAs in all countries entails extensive stakeholder engagement, sharing of information and transparency, strengthening of enforcement of laws and regulations, support to national and local institutions, increasing government accountability and support to an active civil society. This leads to improved national forest sector governance.





The EU actively contributes to negotiations under the UNFCCC on actions to reduce emissions from deforestation and forest degradation (REDD+). Incentives need to be created to support developing countries to slow, halt and reverse deforestation and forest degradation, while promoting a range of social and environmental benefits. The EU target is to reduce gross tropical deforestation by at least 50% of current levels by 2020 and halt the global loss of forest cover by 2030, at the latest. Since 2002 the EU has provided over EUR 600 million for sustainable forest management and climate change in developing countries.

In 2010, the EU adopted a "Timber Regulation" which requires companies to implement a "due diligence" system to minimise the risk that timber they sell was harvested illegally. The EU Timber regulation complements the FLEGT Voluntary Partnership Agreements, by also introducing a prohibition to place illegal timber and timber products on the EU market. The Timber Regulation will come into application in March 2013.

The EU contributes technically and financially to global programmes such as the World Bank Forest Carbon Partnership Facility and the European Forest Institute Facility in the context of REDD+. The EU deems it critical that lessons from and linkages with VPA processes are maximised and that partner countries streamline both processes in national forest sector institutions.

15

AMAZONIA VIVA: Participatory conservation of the Forest and enhancement of its environmental services

The Amazon is one of the most biodiverse and productive regions in the world, which is home to an incomparable number of plants and animal species, and hosts more than 350 ethnic groups.

In this important context begins "Amazonia Viva" Project. The Project aims at improving the governance mechanisms and political frameworks that allow local communities to sustainably benefit from all the goods and services that come from standing forests, reducing deforestation and forest degradation in the Colombian and Peruvian Amazon. In this way, it is expected to ensure the conservation of 800,000 hectares of forest in key places of the Amazon and improve the life quality of more than 3,500 people from indigenous and local communities.



Geographical area: Colombia, Peru

EC contribution: EUR 2 500 000 (total cost: EUR 3 133 093)

Counterpart: WWF DEUTSCHLAND

16

Impacts of Reducing Emissions from Deforestation and Forest Degradation and Enhancing Carbon Stocks (I-REDD+)[3]



Working in upland areas of China, Indonesia, Laos and Vietnam, The 7th EU Research Framework Program (FP7) project I-REDD+ (2011-2014) aims at enhancing the understanding of how REDD+ might: 1) effectively reduce greenhouse gas emissions in complex landscapes; 2) impact livelihoods and equity in forest dependent communities; 3) ensure equitable benefit distribution in different governance settings; and 4) be monitored efficiently by remote sensing and community based approaches.

Main results until now are: 1) existing methodologies and knowledge for dealing with forest degradation are inadequate; 2) drivers of land-use change were mainly increases in commodity prices, population growth and transportation improvements; 3) local communities can effectively estimate carbon stocks as compared to professional foresters; 4) many existing benefit distribution mechanisms are governed by top-down approaches and lacking in justice; 5) high variability across study sites regarding the potential for REDD+ to be effective.

Geographical area: China, Indonesia, Laos and Vietnam

Duration: 01/01/2011 to 31/12/2014

EC contribution: EUR 3.2 m (total cost: EUR 4.3 m)

3 Project Web Site: www.i-redd.eu

4.2 Ecosystem-based approaches

Healthy resilient ecosystems have a greater potential to mitigate and adapt to climate change. Working with nature (ecosystem-based approaches for climate change adaptation and mitigation) while helping to conserve nature also reduces the vulnerability of people and their livelihoods in the face of climate change. As an example, coastal ecosystems such as wetlands, mangroves, coral reefs, and barrier beaches provide natural shoreline protection from storms and flooding in addition to other crucial functions such as providing resources for fisheries or tourism activities. Ecosystem conservation and restoration are therefore major elements in the fight against climate change.

However, climate change impacts biodiversity and ecosystems and often exacerbates other pressures such as pollution, over-exploitation, invasive species, habitat fragmentation, degradation and loss. The Intergovernmental Panel on Climate Change (IPCC) has concluded that 20% to 30% of species assessed may be at risk of extinction from climate change impacts within this century if global mean temperatures exceed 2-3 °C. By conserving nature and restoring ecosystems the vulnerability of ecosystems can be considerably reduced, the services they provide (such as water, soil fertility, food, etc.) can be maintained and their contribution to livelihoods, which are often crucial for many population groups, can be preserved. Such approaches also prove very useful to support and develop sustainable agro-ecosystems.

Ecosystem-based approaches are cost-effective, ready for use and accessible to rural and poor communities. Many of these approaches also build on traditional knowledge and practices. Ecosystem-based adaptation strategies should increasingly be implemented as a part of overall adaptation efforts. Moreover, when adequately designed, these strategies can also contribute to mitigating emissions by avoiding ecosystem degradation and increasing carbon sequestration.

The protection and sustainable management of ecosystems is thus a crucial part of the European Union effort to combat climate change. For the past 10 years, the EC has committed an average of EUR 120 million per year to support biodiversity related actions in developing countries. The EU also strongly supports and actively contributes to negotiations under the Convention on Biological Diversity. In May 2011, a new EU Biodiversity Strategy to 2020 was adopted. The new Strategy sets the framework for the EU to reach our own ambitious headline target of halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020 - while stepping up the contribution to averting global biodiversity loss.



17

Clima East – Cooperation with the EU Eastern Neighbourhood and Russia



The SKPI Support to Kyoto Protocol Implementation project has ended in 2011 and is now followed up by a Clima East project package (EUR 18 million, 2013-2016), which will improve information access to the EU climate change acquis, policies and expertise, and implement concrete pilot projects on ecosystems-based approaches to climate change (peat land rewetting, boreal forest protection, non-impacting of permafrost, improved pasture management).

Geographical area: Europe (non-EU) — Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Russian Federation, Ukraine

Duration: 2013-2016

18

ADMICCO: Stimulating the adaptation to and mitigation of climate change in coastal areas to reduce the vulnerability of the population with fewer resources



Coastal ecosystems are highly vulnerable to climate change effects. That's why it is essential to build local capacity towards adaptation and mitigation in order to reduce the vulnerability of the population.

In this way, «ADMICCO» begins as an inclusive proposal to reduce the negative impact of climate change on the population of eight cities located on the coast of Ecuador, Peru and Chile. Through the development and consolidation of participatory territorial management tools, and the exchange of experiences in the field, «ADMICCO» seeks to build capacities for adaptation and mitigation among authorities, experts, business leaders and civil society.

Geographical area: Ecuador, Peru and Chile

Duration: 2011-2014

EC contribution: EUR 2 350 000 (total cost: EUR 2 937 500)

Counterpart: ASOCIACION CIVIL LABOR

19

Future of Reefs in a Changing Environment: an ecosystem approach to managing Caribbean coral reefs in the face of climate change (FORCE)[4]



FORCE is a multi-disciplinary project supporting the management of Caribbean coral reefs in an era of climate change. A team of researchers from Europe and the Caribbean are studying both the direct drivers of coral reef health, such as climate, pollution and fishing, as well as the indirect drivers such as governance arrangements.

One of the most important discoveries so far is that reef structure and function is seriously imperilled unless coordinated action is taken both locally to address overfishing of herbivores, and globally to reduce greenhouse gas emissions such that they observe the most optimistic IPCC scenarios.

The project is developing practical tools for Caribbean reef management in order to ensure ecosystem integrity and the economic and social well-being of coastal communities that are dependent on them. Algorithms have been created to factor the anticipated impact of climate change into the design of marine reserve networks, essentially identifying which reefs are most likely to withstand global warming.

Geographical area: Caribbean

Duration: 01/01/2010 to 31/05/2014

EC contribution: EUR 6.5 m (total cost: EUR 8.5 m)

4 Project Web Site: www.force-project.eu

4.3 Agriculture and rural development in the context of climate change

Agriculture came back to the international climate change negotiations at the last Conference of Parties (COP 17) held in Durban. Following this, a request was made to the Subsidiary Body for Scientific and Technical Advice (SBSTA) to consider potential issues related with agriculture in the frame of the Convention. This request will be introduced to the COP 18 in Doha.

In many developing countries agriculture is a major economic sector, contributing to food security, nutrition, inclusive growth, creation of employment and supporting the livelihoods of the rural population. However agriculture is particularly vulnerable to the impacts of climate change. Rises in temperature pose additional stresses on crop plants and animals, changes in precipitation regime lead to increased floods or drought. Sea level rise and salinization due to increased tidal surges will reduce the land suitable for agriculture. The FAO estimates that food production needs to increase by 70% by 2050 to meet growing population demands. It will be increasingly challenging to sustain progress towards the MDGs in the face of climate change.

Developing countries suffer disproportionately from the impacts of climate change because temperature and precipitation regimes are often close to the threshold values beyond which crops fail or animals die. There is thus a clear need to focus donors' and developing countries' efforts on helping the poor to adapt. To reduce vulnerability to these potential impacts, a wide range of possible adaptation measures are available. While some of them, such as modifications in the range of crops to match changes in agro-climatic zones specifically address the effects of climate change, many potential adaptation measures constitute good practices that contribute to wider developmental and sustainability objectives.

At the same time, agriculture is also a significant source of greenhouse gas emissions, accounting for an estimated 14% of the global total. There is therefore a considerable mitigation potential in the agriculture sector, most of which is in developing countries (an estimated 70%). Such mitigation could be achieved often using available technologies at relatively low cost. Given a rational structure of incentives and sufficiently rigorous monitoring procedures, there is huge potential for developing win-win scenarios that both reduce net emissions and support sustainable development objectives for the poor.

In the *Agenda for Change*[5], the new policy paper providing the strategic orientations for EU development cooperation, agriculture is identified as one of the two priority sectors supporting sustainable development and growth. The EU has already taken steps to increase its support to sustainable agriculture.

5 COM(2011) 637 final



20

Occupied Palestine Territory: Enhancement of Food Security in Taybeh and Ramoun through Rural Development and Agricultural Extension[6]



Since 2007, farmers have been affected by adverse climatic events, especially drought due to rainfall fluctuations that much affected the rain-fed agricultural (drop in rainfall by 150mm per year) and consequently led to a drop of around 90% of olive oil production in 2009. In parallel, the current disposal of wastewater method leads to the contamination of water resources and land.

By purifying wastewater and provide it to the agriculture sector, the project will allow to increase agriculture production (existing olives trees and cultivation of new lands with seedless grapes, figs, almonds). It thus contributes to alleviate poverty, to enhance food security in Taybeh and Ramoun villages, and to protect the local environment through the construction of a sewage network and a treatment plant providing healthier hygiene conditions.

Expected Results:

* *Construction of a fully functional wastewater management scheme: 10km of sewage network, 1 intensive wastewater treatment plant (RBC system: Rotating Biological Contactors) and irrigation system*

* *Provision of supplementary irrigation for agricultural purposes, reclamation, cultivation and irrigation of new land*

* *Establishment of a joint wastewater department at village level (Taybeh Municipality and Ramoun Village Council), training of qualified operators for the wastewater treatment plant and capacity building of the two existing agricultural associations.*

Geographical area: Ramallah and Al Bireh governorate, Taybeh and Ramoun villages

Duration: 2011 - 2014

Funded by: European Commission, Taybeh Municipality, Ramoun Village Council

Implementing partners: Palestinian Wastewater Engineers Group (PWEG), CESVI, Union of Agricultural Work Committees (UAWC)

6 For more information: Website: www.palweg.org and Facebook page: Palestinian Wastewater Engineers Group

21

FERSOL : A partnership for the capitalisation of the actions on sustainable improvement of soil fertility in Burkina Faso



Soil fertility management and sustainable farming practices are issues that preoccupy decision-makers across Africa. They are of particular concern in Burkina Faso, a Sahelian country that suffered severe droughts in the 1970s and 1980s, and where irregular rainfall still causes localised grain shortages.

The EU, in partnership with the CILSS, has been carrying out the FERSOL program, which aims to :

- *Acquire total capitalization of the actions on sustainable management of agricultural and pastoral land fertility conducted in Burkina Faso ;*
- *Develop them into tools that facilitate information and decision making for the national initiatives.*

The results achieved are testimony to the programme's success :

- *A national inventory of the investment activities related to soil fertility in Burkina Faso ;*
- *The development of communication tools in order to share and disseminate good practices ;*
- *An interactive map to guide sustainable planning and soil management.*[7]

The implementation of this initiative has been ensured by the CILSS Regional Program on Support to Food Security, Desertification Control, Population and Development.

Geographical area : Burkina Faso

Duration : December 2007 to December 2012

EC contribution : EUR 750 000 (total cost : EUR 800 000)

Counterpart: the Permanent Interstate Committee for Drought Control in the Sahel (in French : CILSS Comité permanent Inter- États de Lutte contre la Sécheresse dans le Sahel).



7 For more information : http://fersolmap.cilss.bf

22

Zimbabwe: Increasing resilience to climate change: local plants for local farmers

Maize is the staple food in the Nyanga district. As droughts are now occurring more frequently or on a prolonged duration, smallholder farmers and their families lose a large part of maize crops. Diversification and adoption of best practices will increase their resilience and their capacities to adapt to climate change.

Hilfswerk Austria International (HAI) works with 5,000 people in 10 rural villages. Funded by ECHO, the project supports the establishment of 50 communal gardens. These gardens allow sharing of experiences and best practices, provide for subsistence but also generate some surplus for the market The project also supports the households to increase their livestock base and ensure important protein-based foods such as milks, eggs and meat.





4.4 Strengthening the knowledge base: assisting developing countries through climate research

Building an ever stronger knowledge base to inform action to tackle human-induced climate change is crucial for the development of cost-effective mitigation and adaptation measures. Over the past decades, through its Framework Programmes for Research and Technological Development, the EU has been promoting scientific and technological cooperation between EU and developing countries in fundamental research areas such as global and regional climate system modelling; vulnerability, impacts and adaptation assessments; and identification and assessment of mitigation and adaptation options.

International cooperation is an integral feature of EU research programmes. Researchers and research organizations from developing countries participate directly in a range of EU-funded projects covering a range of climate-related issues such as food security, disaster risk reduction, health, water and ecosystem management, etc. In addition, the programme supports specific thematic or geographic initiatives aimed at increasing cooperation between Europe and developing countries on jointly identified priorities (e.g. EU-Africa partnership).

The current 7th Framework Programme for Research and Technological development (FP7)[8] covering the period 2007 - 2013, will be succeeded by the new programme "Horizon 2020" for the period 2014-2020. Horizon 2020 is currently under development and will continue to give high priority to climate change, low-carbon development and resource efficiency.

Numerous projects carried out under the EU's research programmes concern global or regional climate change questions of relevance to developing countries. The results are also an important contribution to major international and global research programmes and the work Intergovernmental Panel on Climate Change's (IPCC)[9].



8 For more details on the FP , kindly consult: http://ec.europa.eu/research/environment/index_en.cfm?pg=climatecordis.europa.eu/fp7/projects_en.html

9 For more details on FP7 funded projects kindly consult: http://ec.europa.eu/research/environment/index_en.cfm?pg=climatecordis.europa.eu/fp7/projects_en.html

23

Climate change predictions in Sub-Saharan Africa: impacts and adaptations (CLIMAFRICA)[10]

The current models for climate change prediction are of limited applicability in Africa, as they are developed out of the African context and within a timeframe not adequate to take timely and effective actions. ClimAfrica is therefore conceived to respond to the need for more appropriate tools to predict climate change in Africa, assess its impacts on African ecosystems and population, and develop suitable adaptation strategies. ClimAfrica is improving climate predictions over Africa at seasonal to decadal scales in order to assess climate impacts on water resources and agriculture as well as economic implications on livelihoods. In particular, the project performs evaluation of vulnerability of ecosystems and civil population to inter-annual variations and decadal trends in climate by providing an operational medium-term monitoring and forecasting warning system, for food security, risk management and civil protection. The project outputs will range from scientific results to socio-economic implications, actively involving both research community and decision makers.

The ClimAfrica consortium is formed by 18 institutions, 9 from Europe, 8 from Africa, and the Food and Agriculture Organization of the United Nations (FAO).

Geographical area: African countries directly involved in ClimAfrica are: Burkina Faso, Congo, Ghana, Kenya, Malawi, South Africa, Sudan and Togo

Duration: 2010 to 2014

EC contribution: EUR 3.5 million (total cost: EUR 4.7 million)

10 Project Web Site: www.climafrica.net



24

Capacity Development for Natural Hazards Risk Reduction and Adaptation (CATALYST)[11]

CATALYST is intended to strengthen capacity development in disaster risk reduction (DRR) and adaptation, in the context of natural hazards. The project's objective has been to set up a Think Tank comprised of regional experts to share, compile and analyse the best of existing knowledge, in order to develop knowledge products useful to regional practitioners.

Year one of the project has seen the launch of the Think Tank in Central America/Caribbean, Africa, Asia and Europe, with five virtual meetings and two workshops, and its membership expanding to over 60 experts. The project partners, with the participation of these experts, have been able to compile snapshots, from the various regions, of key DRR, adaptation and capacity development issues and activities. They are now working, via further meetings and workshops, on describing "transformational" best practices and key capacity development gaps, to support regional practitioners and policy makers.

Duration: 01/10/2011 to 30/09/2013 - EC contribution: EUR 0.85 m (total cost: EUR 1 m)

11 Project Web Site: www.catalyst-project.eu





CHAPTER 5

Climate Finance Perspectives

5.1 Climate Finance post 2012

In order to respect the commitment to mobilise USD 100 billion per year by 2020 for climate from developed to developing countries, support for mitigation and adaptation in developing countries will require additional resource mobilization from a wide range of financial sources, including private and innovative sources.

The EU will continue to provide climate finance support after 2012. In the context of the EU budget Multiannual Financial Framework for the period 2014 to 2020, it is proposed to mainstream climate change across the whole EU budget through an ambitious series of measures and instruments, including through an overall target making at least 20% of the overall budget "climate relevant". This target will also apply to EU external action instruments and will include the country and regional development cooperation strategies agreed between the EU and its Partners.

Of particular relevance for developing countries will be the Global Public Goods and Challenges Programme (GPGCP), part of the Development Cooperation Instrument (DCI). The GPGCP aims to strengthen cooperation, exchange of knowledge and experience and partner countries' capacities, in areas such as environment and climate change, sustainable energy, food security, through grant financing. It is envisaged that a significant share of GPGCP will be spent on climate change and environmental objectives, including sustainable energy-related activities, REDD+, sustainable smallholder agriculture and biodiversity – when contributing to climate resilience.

For 2013 existing instruments will continue providing grants for mitigation as well as for adaptation building on actions, experiences and approaches developed over the past years. Mitigation actions will focus on capacity building related to the development of low emission strategies including renewable energy and energy efficiency, and further development and application of NAMAs, REDD+ and related MRV systems, technology transfer and support for the development of carbon market mechanism. Adaptation will continue to be integrated in many different sectors such as agriculture/food security, rural development, water and sanitation, DRR and infrastructure and around 8 more LDCs and SIDS will profit from the GCCA initiative.

These instruments include support for capacity building efforts as well as for the development and transfer of technologies.

5.2 Leveraging funds for climate action in developing countries

In order to complement traditional grant funding and to leverage additional non-grant funding from other sources, the European Commission together with EU Member States has established, beginning in 2007, a number of regional blending facilities. The facilities address the investment needs for infrastructure projects in different sectors as well as for support to the private sector, particularly small and medium sized enterprises. They aim to use grant resources

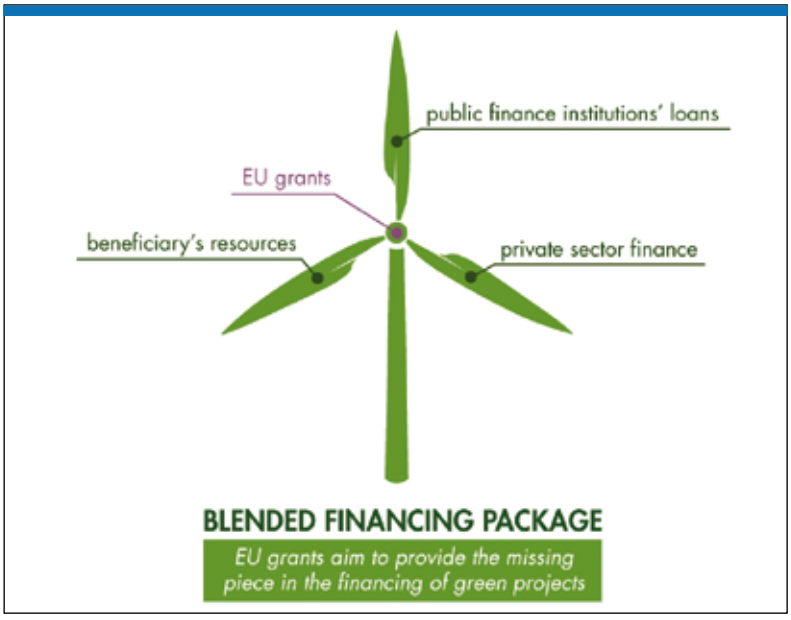
from the EU budget, EDF and the EU Member states strategically to leverage additional financing from European Public Finance Institutions, Development Banks and private investors. Since 2007, almost EUR 1 billion in grants from the EU budget, the European Development Fund and additional grant resources from EU member states have been committed to about 130 projects in various sectors. Through grant co-financing EU contributions have leveraged EUR 10 billion in loans from European finance institutions. This has unlocked total project financing for EU development policy of more than EUR 30 billion.

The main success factor of these facilities is their flexibility, covering a wide scope of sectors and financial products. This flexible approach has allowed financing to be adapted to the specific needs of partner countries and of the promoters while at the same time supporting key policy objectives. The investment volume of projects addressing climate change in all regional EU investment facilities already amounts to more than EUR 12 billion.

In order to further harness the potential for climate change finance, Climate Change Windows have been created in all EU Regional Blending Facilities. These Windows provide an opportunity to bring new, additional resources while allowing an immediate start of additional project financing in the fields of mitigation and also adaptation. The Windows encompass both public and private climate investments in strategic areas such as transport, energy, environment, water and sanitation and enable a transparent tracking of all climate change related projects funded by the EU and European Finance Institutions through regional facilities. The involvement of the private sector is an especially important part of the concept of the Windows. There is a substantial pipeline of additional projects to combat climate change in the regional facilities.

In addition, the European Investment Bank (and bilateral development banks by EU Member States) continues to provide climate finance through their specific channels.





Box studies

1/ *Global Climate Change Alliance: Adaptation to climate change in Uganda* 7

2/ *Mainstreaming mitigation and adaptation in our energy policy dialogue* 7

3/ *Climate Change Support Programme: Building Climate Resilience in Nepal* 8

4/ *Adaptation to Climate Change in Galapagos* 11

5/ *Chololo Ecovillage in Tanzania: an integrated approach to adaptation and resilience* 12

6/ *Samoa: Adaptation and water using a sector budget support approach (GCCA)* 12

7/ *Support to rural livelihoods and climate change adaptation in the Himalaya.* 13

8/ *QESPIKUNA: Capacity building of local authorities and civil society actors for the integration of DRM in the sustainable development planning.* 15

9/ *Building Safer Communities: A Regional Initiative in South Asia* 15

10/ *Community-assisted Access to Sustainable Energy in Rwanda* 18

11/ *Biomass, Mitigation and Adaptation in the ACP-EU Energy Facility.* 19

12/ *Geothermic project in the Caribbean* 20

13/ *Tsumkwe Energy: Off-grid/small-scale electricity production in Namibia.* 20

14/ *The FLEGT Voluntary Partnership Agreements (VPAs)* 23

15/ *AMAZONIA VIVA: Participatory conservation of the Forest and enhancement of its environmental services* 24

16/ *Impacts of Reducing Emissions from Deforestation and Forest Degradation and Enhancing Carbon Stocks (I-REDD+)* 24

17/ *Clima East – Cooperation with the EU Eastern Neighbourhood and Russia.* 25

18/ *ADMICCO: Stimulating the adaptation to and mitigation of climate change in coastal areas to reduce the vulnerability of the population with fewer resources.* 26

19/ *Future of Reefs in a Changing Environment: an ecosystem approach to managing Caribbean coral reefs in the face of climate change (FORCE)* 26

20/ *Occupied Palestine Territory: Enhancement of Food Security in Taybeh and Ramoun through Rural Development and Agricultural Extension.* 28

21/ *FERSOL: A partnership for the capitalisation of the actions on sustainable improvement of soil fertility in Burkina Faso* 29

22/ *Zimbabwe: Increasing resilience to climate change: local plants for local farmers.* 30

23/ *Climate change predictions in Sub-Saharan Africa: impacts and adaptations (CLIMAFRICA)* . . 32

24/ *Capacity Development for Natural Hazards Risk Reduction and Adaptation (CATALYST)* 33

European Commission
Supporting a climate for change
The EU and developing countries working together
Luxembourg: Publications Office of the European Union, 2012

ISBN: 978-92-79-27204-2 | DOI: 10.2841/20333

How to obtain EU publications

Free publications:
- via EU Bookshop (http://bookshop.europa.eu);
- at the European Union's representations or delegations. You can obtain their contact details on the Internet (http://ec.europa.eu) or by sending a fax to +352 2929-42758.

Priced publications:
- via EU Bookshop (http://bookshop.europa.eu).

Priced subscriptions (e.g. annual series of the Official Journal of the European Union and reports of cases before the Court of Justice of the European Union):
- via one of the sales agents of the Publications Office of the European Union (http://publications.europa.eu/others/agents/index_en.htm).

Photographies Credits

Credits: Always top to bottom and left to right | CC: Creative Commons License | Cover: EU | p.3 N. Lazarewicz, Ch. Pelzer | p.4 EU | p.5 EU | p.6 EU | p.7 R. Noe | p.9 M. Michaud | p.10 EU | p.11 FUNDAR, EU | p.12 S. Wamunza | p.13 EU | p.14 Proyecto Rio Hurtado | p.15 E. Castro Mendívil, EU | p.16 EU Courtesy of the projects financed by the ACP-EU Energy Facility | p.17 S. Herrero Villa | p.18 EU Courtesy of the projects financed by the ACP-EU Energy Facility | p.19 EU | p.20 EU Courtesy of the projects financed by the ACP-EU Energy Facility, EU | p.22 M. Vanderhaute, EU | p.23 J. Ojanen, EU | p.24 EU, Orangutan Foundation | p.25 O. Lehner, EU | p.26 E. Castro Mendívil, EU | p.27 G. Stubbs | p.28 N. Haughey | p.29 EU | p.30 EU | p.31 E. Castro Mendivil, S. Wamunza | p.32 EU | p.33 www.catalyst-project.eu | p.34 EU | p.35 EU

MN-31-12-284-EN-C



Publications Office

ISBN 978-92-79-27204-2

9 789279 272042

doi:10.2841/20333