European Commission

EUROCLIMA

Results of the First Phase

Science and Policy jointly fighting Climate Change

May 2010 - May 2013

Development and Cooperation EuropeAid

The objective of the first phase of **EUROCLIMA** has been to improve the knowledge of Latin American decision-makers and scientists regarding the problems and consequences of climate change, in order to integrate them in sustainable development strategies.

Climate Change is a high priority for Latin American and Caribbean countries, as well as for the European Union, and therefore one of the key themes of the EU-LAC relations. The Santiago Declaration, outcome of the Summit celebrated in Chile, January 2013, reiterated the importance of climate change for both regions and recognized the EUROCLIMA programme's accomplishments. The countries that take part in the Programme are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

The entities responsible for the programme's implementation have been: the Joint Research Centre of the European Commission (JRC), the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the Directorate-General for Development and Cooperation of the European Commission EuropeAid (the Regional Programmes for Latin America and Caribbean Unit), with the support of the Technical Assistance team.

STRENGTHENING policy dialogue

In order to achieve the proposed objectives, the Programme has been carried out through three components, focusing on:

- Political dialogue
- Socio-economic aspects
- Biophysical aspects of climate change in the region

The Programme's actions have been channelled through government officials, the Focal Points in the beneficiary countries who are active partners in the Programme, and through academic centres in Europe and Latin America.

Under the slogan *Science and Policy ... Jointly Fighting Climate Change* **EUROCLIMA** has developed its activities in three main areas:

Research on biophysical and socio-economic climate change issues has provided knowledge to decision-makers and scientists of the region. Furthermore, the Programme has created tools such as software, inventories of good practices and manuals to be used in applied research and in the planning of sustainable development strategies to tackle climate change.

Capacity-building, both through courses and by means of publications on specific topics according to the needs identified in the region, has strengthened academic and political technical capacity.

Networks, developed to stimulate the exchange of experiences and scientific information on climate change, have brought government officials and academics together. They have also facilitated their access to key data for research and the design of strategic actions.

The policy dialogue, both within the region and between Latin America and the European Union, has been enriched and strengthened by means of regional meetings, interactive debates and through the results of research, training and networking.

In particular, the regional events have been a platform to exchange experiences and to forge partnerships between countries, while at the same time they have provided space to present and discuss the European Union's approaches to climate change.

Component

Policy dialogue, communication and coordination

EuropeAid (G/2) – TA

The Directorate-General for Development and Cooperation of the European Commission (the Regional Programmes for Latin America and Caribbean Unit), with the support of the Technical Assistance team, has implemented this component in order to assure active participation and commitment of the countries in the Programme and to ensure the integration of the acquired knowledge and skills in public policies.

As the main tool to enhance dialogue between the participating countries, regional coordination and feedback meetings on the Programme's progress have been organized in combination with other regional or international events, improving in this way the policy dialogue between key actors. For example:

- The support to the Regional Dialogues of Latin America and the Caribbean on Climate Finance (2012, 2013) ensures that different government sectors such as Finance, Environment, Foreign Affairs and Planning manage to improve their ability to formulate a coherent and coordinated approach to climate change both within governments and across countries.

Reflecting on the value of **EUROCLIMA** for enhancing policy dialogue, the Honduran Focal Point stated:
"... at these events, where representatives of all the countries of the continent meet, links are strengthened between the countries and between colleagues who work within their respective governments on the same climate change topics. The strengthening of friendships and relations between colleagues greatly facilitates the subsequent exchange of information".

The Programme's Focal Points have expressed their appreciation for these direct communication opportunities on a regional level.

- On a global level, side events were organized at the COP of the UNFCCC in Cancun, Durban and Doha in order to present the Programme's objectives and achievements, together with JRC (2011) and ECLAC (2012).

During the Second Regional **EUROCLIMA** Seminar (Bogota – February 2013), the first phase was evaluated and new action proposals were discussed. During this event, the successful appropriation of the **EUROCLIMA** programme by the beneficiary countries was also demonstrated and their interest to continue with the new phase of the programme was confirmed.

Likewise, in coordination with the region's governments, a strengthened interregional political dialogue has been achieved between the regions of the European Union and Latin America through:

Research: six thematic studies (four finalized, two under way), prioritized by the Focal Points and accompanied by them in a participatory manner. These studies have resulted in guides, manuals and inventories to facilitate the formulation of public policies regarding climate change.

Capacity-building: a constant information exchange through a highly visited website, the publication of six electronic newsletters and a variety of visibility materials like a video on the Programme. Furthermore, the knowledge on public policy regarding climate change generated by the **EUROCLIMA** programme has been promoted in various side events that took place during three Conferences of the Parties on climate change (COP 16, 17 and 18).

Encouraging networking: since the regional launch in 2010, the two seminars and the three regional workshops have served as platforms to exchange experiences and forge links between key officials of the countries of the region as well as between Latin America and the European Union.

The thematic studies, based on experiences and good practices, especially those of Latin America, have been edited in a language accessible to a wide audience and have achieved the following results:

- A guide to reduce the vulnerability of coastal and marine infrastructure in the face of climate change.
- A tool to facilitate planning, monitoring and evaluation of adaptation efforts.
- An inventory of good adaptation practices for river basin management in face of climate change.

In its first phase, the objective of the EUROCLIMA programme has been to improve the knowledge of Latin American decision-makers and scientists on the problems and consequences of climate change, in order to integrate them in the strategies for sustainable development.

- A manual to help reduce the effects of climate change on soil degradation.

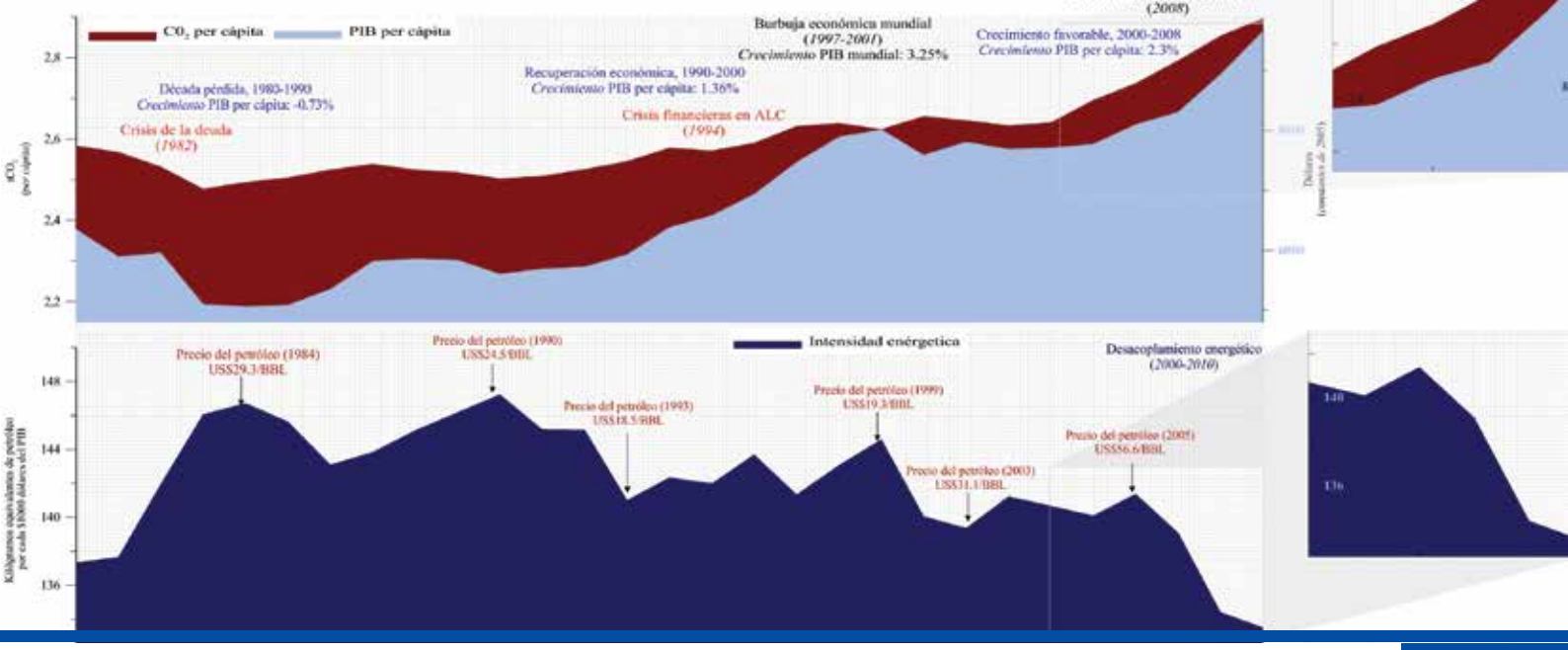
Likewise, another two guides are currently under elaboration:

- A guide on the strategies for the agricultural sector in the case of extreme droughts.
- A guide to aid the design of Nationally Appropriate Mitigation Actions (NAMAs) for urban areas.

With a view to capacity building, the information exchange through the **EUROCLIMA** website has continued. The traffic to this website has increased greatly in its first two years, with an actual number of visits between 2.000 and 7.000 per month.

Furthermore, through the **EUROCLIMA** electronic newsletter the Programme's actions have been presented, with a special topic linked to the region's problems in each edition:

- Water and climate change in Latin America
- Consequences of COP 17 for Latin America
- Climate change and soils
- Desertification and droughts
- Climate change finance in Latin America



Component

Socio-economic sciences

ECLAC

The Economic Commission for Latin America and the Caribbean (ECLAC) has implemented the socio-economic component of the Programme, providing key inputs for the elaboration of public policies regarding climate change. It has contributed to the improvement of the level of knowledge on the social and economic impacts of climate change in the region and on the economics of climate change and sustainable development, proposing measures for the region to progress towards a socially inclusive, sustainable and low-carbon growth.

As in the case of the other **EUROCLIMA** components, and in coordination with the governments of the region, ECLAC has achieved its proposed results through:

Research: eight studies carried out and published on the social and economic impact of climate change on vulnerable sectors and groups. At the side events during the COP 16, 17 and 18, and through technical assistance to the government of El Salvador, the use of knowledge on climate change's impacts on poverty, inequality and employment has been promoted in the elaboration of public policies. Another five studies have been conducted to complement these topics.

Capacity-building: by way of three courses, more than 70 government officials from across the region have been trained in techniques and methods to measure the socio-economic impacts of climate change and to formulate public policies. Likewise the main results of the conducted studies have been analysed in three international seminars with 235 participants.

Strengthening of networks: a climate change network was established consisting of more than 230 members of academia, governmental organisations and the private sector as well as from civil society through a virtual platform that aims for the exchange of information between key institutions and disseminate results.

The studies have demonstrated that social and economic analysis is a fundamental tool to develop public policies for an efficient strategy towards sustainable development for the countries of the region.

Quantifying the impacts of climate change on economic and social variables allows relevant information to be obtained for the elaboration of efficient adaptation and mitigation strategies. From this perspective, the following studies have been conducted:

- Quantitative methodologies and tools, applied to climate change.
- Impact of public policies on the carbon footprint.
- Inventory of greenhouse gas emissions.
- Mitigation and social compensation measures.
- Socio-economic costs of adaptation processes.
- Implementation of a low-carbon growth path.
- Climate change's social impact on employment and on the distribution of incomes.

Likewise, studies by Latin American experts are being promoted through two *Calls for Papers* on the economics of climate change.

On the other hand, the courses were focused in three topics:

- Methods and techniques for the analysis of the economics of climate change and its social impacts.
- Baselines and evaluation of the socio-economic impacts of climate change.
- Public finances, environmental fiscal reform and risk management in the context of climate change.

Furthermore, three international seminars were organized, two on the challenges posed to public finances, fiscal policies and universal social protection in the context of sustainable development and climate change and one seminar on its social and economic impacts.

Knowledge exchange has been promoted through a specialized website, the Network on Climate Change and a virtual platform which contains a database on socio-economic topics.

The results of the studies, training courses and workshops as well as the calls for papers are available online (http://www.cepal.org/ccas/). The results of several studies were published in the 5th e-Newsletter of **EUROCLIMA**.

The biophysical sciences component of EUROCLIMA works towards analysing and making available biophysical data on the processes of climate change in the region, in cooperation with Latin American scientific and technical institutions. Efforts were concentrated on five areas: Water; Agriculture; Bioenergy and Biofuel; Soils and Desertification; and Soil Degradation and Drought.

COMPONENT

Biophysical sciences

JRC

The Joint Research Centre (JRC) of the European Commission has implemented the scientific component, which has provided tools and scientific information on climate change to Latin American governments and scientific and technical institutions.

As in the case of the other **EUROCLIMA** components, the JRC has worked in coordination with centres of excellence across the region to achieve the proposed results of the Programme through:

Research: scientists of both continents have worked together in the collection and analysis of biophysical data on the effects of climate change. Due to this joint effort they have developed specialized software to model and show development scenarios for natural resources. These scientific innovations are available to governments, centres of excellence and scientists in general by means of software, databases and publications.

Capacity-building: more than 600 government officials as well as scientists from scientific and technical institutions have been trained in the use of new technologies. Furthermore, their knowledge has been strengthened through the harmonisation and standardisation of concepts and criteria across the region.

Strengthening of networks: existing scientific networks have been strengthened while new networks between scientists and scientific and technical institutions have been forged and promoted. These actions have enhanced the exchange of knowledge and the development of more databases across Latin America.

With regard to the topic WATER, scientific and technical cooperation with Latin America has been bolstered by means of the creation of REFRAN-CV software, developed in order to process climate information. The Latin American

institutions that were involved in the project have implemented this software. Likewise, a Geographical Information System (GIS) has been developed that improves the spatial coverage of the meteorological observations in the region. This has been integrated in the AQUAKNOW platform. The already existing global databases have been substantially enriched with data obtained from more than 7,000 weather stations across Latin America and Cuba. In this way a solid base has been established for future research as well as for more precise projections and products on the evolution of the climate in Latin America.

Regarding capacity-building, scientific articles have been published and workshops were organized, such as the workshop on the regional methodology for frequency analysis, the virtual AQUAKNOW platform with more than 100 associated experts, and the guide on Water Resources project management.

During this project, advances were made and the standard methodologies for the estimation of water resources have been fine-tuned in order to improve water management and optimise the design of hydraulic infrastructures. The approaches and results were published in **EUROCLIMA** 2nd e-Newsletter.

To strengthen AGRICULTURE in the face of climate change, the BioMa platform has been developed which is freely available. It consists of data modelling layers and tools and results (website and map server) for the analysis of the impact of climate change on agricultural production and can be used for diverse projects with other data. The database used in this platform can be used for crop simulation of wheat, corn, soya and rice in the different soil and climate conditions of Latin America on the short, medium and long term. Scientific and technical institutions of both continents have participated in the development of BioMa and scientists and technicians have been trained to use it.

With regard to BIOENERGY and BIOFUELS, a scientific and technical bioenergy network has been created among Latin American and European experts with a view to promote the exchange of information and experiences. The objective is to profit from the potential of the biomass resources and to cover the sectors linked to bioenergy policy instruments, such as agriculture, rural development, energy and innovation.

Moreover, research on greenhouse gases related to bioenergy and biofuels has been promoted, as well as on its agro-environmental impact. The results have been promoted in order to integrate them in the region's National Plans for Renewable Energy.

SOILS research aims to improve knowledge on the topic, how it is being affected by climate change and to raise awareness of its importance. The creation of the Latin American and Caribbean Network of Soils Bureaus has been promoted (with the participation of 71 experts from 19 countries of Latin America and the Caribbean), together with a detailed and updated Soil Atlas of Latin America and the Caribbean and the development of a website dedicated to the soils of the region.

The Soil Atlas deserves a special mention as it documents the diversity of soils in the region in an accessible way. By means of this atlas, a harmonization of data has been achieved that stimulates the synergy between multilateral international agreements for its conservation. In order to facilitate the understanding of the Atlas' potential, a calendar was published showing the diversity and richness of soils in Latin America and the Caribbean.

On the other hand, through training, harmonisation and digitalisation of soil data, and through the website, the sustainability of the results is being promoted. The results of several of the soil studies have been published in **EUROCLIMA** e-Newsletter 4.

The transfer of knowledge and technologies to Latin America on DESERTIFICATION, LAND DEGRADATION and DROUGHT, has reinforced the capacity of the scientific community and political decision-makers to understand the problems regarding desertification, land degradation and droughts, and to tackle its impacts on environmental and socio-economic sustainability

The studies not only consisted of the collection and harmonization of biophysical data of the region, but also of phenological information on vegetation indices, standardized precipitation rates, mapping of risks and drought hazards, as well as a map illustrating the frequencies of droughts across the region. This is fundamental information to understand the actual climate and to monitor climate change in order to take decisions on adaptation and mitigation. The web site is central to this this, with the map server that has been created as an observatory of desertification, soil degradation and drought and serves as an information system for the network of experts on the topic. These experts, from more than 30 institutions across the region, are following it up and sustaining it, promoting in this way South-South cooperation.

In the **EUROCLIMA** e-Newsletter 4, the results of various studies have been published. So far a dozen of scientific articles are being prepared for publication by the participating institutions and the Joint Research Centre.

European Commission

www.euroclima.org

The EUROCLIMA programme is funded by the European Union