EUROCLIMA

Science and Policy jointly fighting Climate Change

EUROCLIMA e-Newsletter

5 | 1 August 2012

# Economics of Climate Change in Latin America

## Editorial

*In Latin America, conditions of geography, climate and vulnerability to natural, social and economic events make the region highly fragile with regard to the economic impacts of climate change. The annual damage suffered by the countries of Latin America and the Caribbean, estimated in terms of the reduction in agricultural yield, the disappearance of glaciers, flooding, drought and other events caused by global warming, would amount to 100 billion dollars by 2050, according to the figures in a recent study performed by the Economic Commission for Latin America and the Caribbean (ECLAC), the Inter-American Development Bank (IDB) and the Worldwide Fund for Nature.*

*These and other data raise the challenge of implementing clear and viable medium- and long-term strategies allowing for the appropriate use of funds for adaptation and mitigation, along with the development of a green economy to convert forms of production and consumption, in addition to improved fiscal policies for the management of natural resources. Based on a principle of Common but Differentiated Responsibilities, countries will, at a global level, need to move towards green development which is sustainable in environmental, economic and social terms, and which acknowledges the complementary nature of economic development and climate protection.*

*Various studies indicate that the cost of adaptation represents a small fraction of the cost of the material impacts derived from inaction. Meanwhile, the benefits in terms of socio-economic development, such as food and energy security or air and water quality, also mean that investments in adaptation are cost-effective. Meanwhile, the longer substantial measures are delayed, the greater the price to be paid.*

*We must act now. There is no other option and no other time. Climate change is not only the effect of a type of development but could also be the cause of heightening the poverty and non-viability of many economies in the region.*



## Climate Change in Latin America: Economic and Social Impacts

The available evidence reveals that climate change has economic and social consequences on biodiversity and, in general, on the well-being of the population, and will be one of the key factors in the style of development during the 21st century (IPCC, 2007; Stern, 2007). This evidence furthermore indicates that ecosystems and the set of economic activities, and hence the earnings of different groups, are sensitive among other factors to climate variability and evolution (ECLAC, 2009 and 2010). There is, thus, a growing concern at the effects of extreme climatic events associated, partially, with climate change on economic activities and social conditions.

Faced with such a scenario, countries will be required to dedicate simultaneous efforts to withstanding climate impacts and adapting to new climate conditions while, at the same time, structuring a coordinated process to mitigate greenhouse gases. This will be one of the characteristics which will shape the style of development in the 21st century.

To illustrate the above: to stabilise climate conditions at an increase in temperature of no more than 2°C would require that the current flow of emissions be halted, and reduced from 7 to 2 tonnes per capita over the next 40 years. This in turn demands the introduction of major changes to the current characteristics of the economic system and lifestyles, while also acknowledging the inevitability of such climate modifications in order to structure an active process of adaptation.

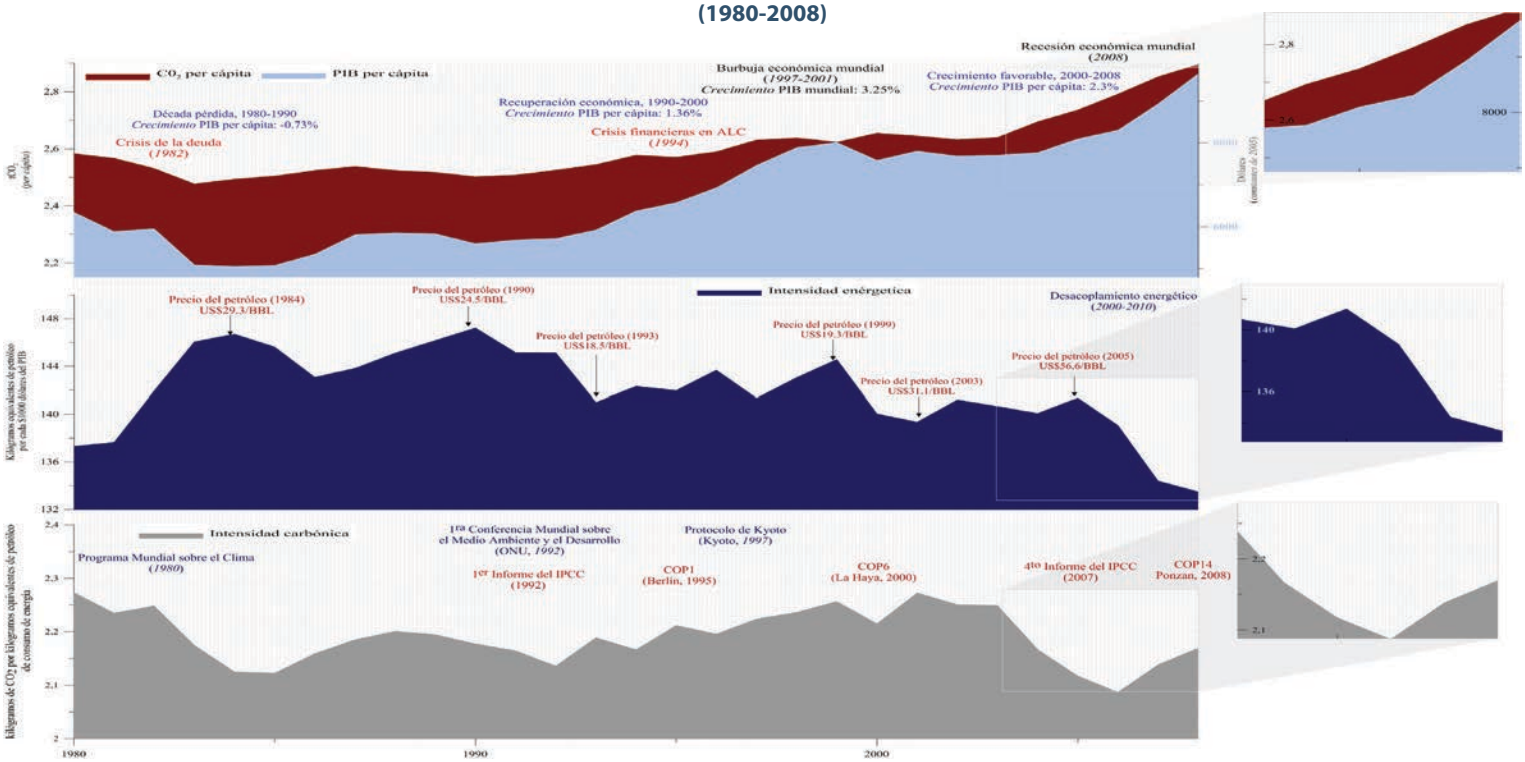
These processes must take into consideration the fact that climate change is characterised by a high level of uncertainty and the presence of asymmetric effects. In other words, those countries which historically have contributed a greater quantity of greenhouse gases are now those suffering the least damage, while those countries which have made a smaller contribution in the past are now suffering the greatest negative impacts. Against this backdrop, Latin America and the Caribbean face a dilemma in their immediate future: there is a positive association between per capita GDP, per capita energy consumption and per capita emissions accompanied by a discontinuous but still insufficient process of energy decoupling and reduced CO2 intensity in energy (see Graph, page 2). This will lead to a gradual increase in emissions which would be inconsistent with sustainable development.

The Economic Commission for Latin America and the Caribbean (ECLAC) and the European Commission have been working with the countries of Latin America, within the context of the EUROCLIMA Programme, to strengthen capabilities and the generation of information for decision makers, revealing the social and economic impacts of climate change in the region, in particular on poverty, income distribution and vulnerability. Further information regarding the results so far achieved and the initiatives undertaken by the socio-economic component within the context of the EUROCLIMA Programme is available at: http://www.cepal.org/ccas.

This newsletter, dedicated to "Economics and Social Effects of Climate Change" addresses some of the results of the studies undertaken by ECLAC to strengthen the capabilities of regional actors and provide useful information for decision-making.

*Dr. Luis Miguel Galindo*
*Climate Change Unit,*
*Sustainable Development and Human Settlements Division,*
*Economic Commission for Latin America and the Caribbean*

**Trajectory of per capita GDP and per capita $CO_2$, energy intensity and $CO_2$ to energy intensity in Latin America and the Caribbean (1980-2008)**




**Source:** Generated by the Climate Change Unit of the ECLAC SDHSD with statistics for per capita GDP valued at purchasing power parity in 2005 dollars, for GHG emissions (*tCO2e: tonnes of CO2 equivalent*) from energy consumption, for energy intensity (*kilograms of oil equivalent per 1000 USD of GDP*) and carbon intensity (*kilograms of CO2 per kilogram of oil equivalent from energy consumption*). The data were obtained from the database of World Development Indicators, Washington DC: World Bank Group.

**Notes:** Latin America and the Caribbean: Argentina, Plurinational State of Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and the Bolivarian Republic of Venezuela. The data for Haiti are for the period 1991-2008. "Energy intensity": Consumption of energy is measured as the total supply of primary energy in kilograms of oil equivalent. Per capita GDP is in constant 2005 dollars, adjusted for purchasing power parity. "Carbon intensity": Trinidad and Tobago is not included. Carbon dioxide emissions are those derived from the burning of fossil fuels and production of cement. They include the carbon dioxide generated during the consumption of solid, liquid and gaseous fuels, and the flaring of gas. Growth: Mean annual rate of growth.

*Source: UN Photo/Eskinder Debebe*

## RIO+20: Sustainable Development Goals (SDG)

During the United Nations Conference on Sustainable Development, Río+20, Colombia with the support of Guatemala succeeded in passing a proposal on Sustainable Development Goals (SDG), which presents the design, consensus and implementation of indicators to measure the sustainability of social, environmental and economic development.

With the consensus of the 193 delegations participating in the conference, held in June in Brazil, the proposal on the SDG is placed at the same level as the Millennium Development Goals. The SDG are intended to be a political and technical reference for developing national and regional intersectoral efforts facing the environmental outlook in the world. This is an instrument that seeks to identify gaps and specific characteristics of the populations in relation to the sustainable use of natural resources and food security.

For the definition of the SDG a group of 30 countries has been created that will work by regions throughout 2012. One of the groups is "Latin America and the Caribbean", responsible for setting common objectives for the region.

You can review the proposal here:
http://www.cancilleria.gov.co/international/politics/environmental/sustainable

European Commission

# RIO+20 Results for Latin America

## Interview with Mr. Joseluis Samaniego

*Director of the Sustainable Development and Human Settlements Division*
*Economic Commission for Latin America and the Caribbean (ECLAC)*

***What has been the most important development to come out of the Rio+20 Earth Summit?***

There are several points worth mentioning. Firstly, institutional change processes have been established linked to the Sustainable Development Objectives (SDO). For example, the decision to create a High Level Forum that will replace the Sustainable Development Commission (SDC). This forum will have the power to deliberate, coordinate and resolve; therefore, more coherence in the global processes towards sustainable development is expected. Furthermore, it was agreed to establish an intergovernmental process to create a sustainable funding strategy based on innovative mechanisms. At the same time the need to establish an environment conducive to the transfer of technology to developing countries was defined. Moreover, an improvement process is being introduced for the United Nations Environment Programme (UNEP) in order for it to have universal membership with a regular United Nations budget. It will also be granted greater powers, such as those required for coordination of the environmental pillar and for managing operational aspects and schedules. The third process has to do with the definition of the SDOs for all countries that must align themselves with the Millennium Development Goals (MDGs). This process must be started in 2012 and be completed in 2013 by means of a General Assembly resolution. This decision is important for the Regional Commissions as they are called on to support this process. Lastly, it is important to point out that the summit reinforces the operation of multilateralism, the validity of the Sustainable Development concept and endorses the commitments made at the earth summit in 1992.

***What alternatives or actions will allow the countries of the region to maintain their comparative and competitive advantages in the agricultural sector?***

Climate change is especially significant for Latin American and Caribbean (LAC) countries, due to the importance of primary production in the national economies and the vulnerability of the sector. As regards the alternatives for the region's countries, there are several ways of approaching this. One is through marginal improvements in current production processes. This involves introducing process improvements through research and development. One example can be seen in Brazil where cattle farming processes have been improved to increase productivity without increasing the extension. Uruguay and Argentina have also developed measures along the same line in cattle farming processes and no-till farming respectively. A second area of opportunity lies in payment for environmental services (PES), this is based on the recognition of environmental services created by afforestation, forestation and conservation of woods, which, in the jargon of the United Nations Framework Convention on Climate Change (UNFCCC), is known as REDD (Reducing Emissions from Deforestation and forest Degradation). Payment for environmental services may improve the opportunity cost scheme in favour of conservation. A third opportunity is to internalise the real costs in the production controlled by the region (soya, wheat and some minerals) in order to put pressure on the international price system and oblige real production costs to be acknowledged so that markets contribute to conservation and not to destruction.

***What actions or alternatives can the region's countries implement to develop a sustainable economy?***

Further to the traditional view of funding and technology transfers that would allow improved production patterns to be established, for example in energy, is improvement in the Governance of natural resources. Undoubtedly the Governance process would allow non-renewable resources to be converted into better and lasting alternatives. For example, an appropriate charge for the use and access to natural resources could strengthen public finances and, consequently, encourage the introduction of cleaner processes. In summary, to put an appropriate value on access to natural resources, to prevent tax losses with subsidies that are socially and environmentally counterproductive and to determine the real costs of the economic activity, including the environmental and health costs. This would allow a price system to be created that sends out the right signals to societies, investors, companies and consumers in favour of sustainable development. The significant point here is that we are not talking about a technological problem or lack of funding, but of understanding, vision, willingness, of a conceptual problem you could say.

***How do you think that the EUROCLIMA programme can provide the countries with the tools to address the arrangements or substantive elements agreed in the document "The future we want"?***

Climate change is one of the big problems facing mankind and is recognised as such in the "The future we want" document and EUROCLIMA is addressing this problem head on. Addressing the problems of adaptation and mitigation is a response to the hardest and widest ranging environmental challenge for mankind, the economy and biodiversity and is one of the most difficult to deal with.

Climate change is a symptom of an economy that is not being managed correctly, that improperly excludes costs; therefore, confronting this problem also allows many other environmental problems to be indirectly addressed such as local congestion, pollution, change of use of land, etc. Putting adaptation and mitigation management in place will create a number of very significant environmental, economic and social co-benefits; for this EUROCLIMA is one of the main levers for redirecting the economy toward sustainable development criteria.

# Adaptation to Climate Change: a View from Latin America

A substantial rise in temperature is inevitable this century, and structured adaptation processes are therefore vital for Latin America. These processes include any type of adjustment to natural or human systems, or activities in response to the expected changes in climate variables (IPCC, 2007).

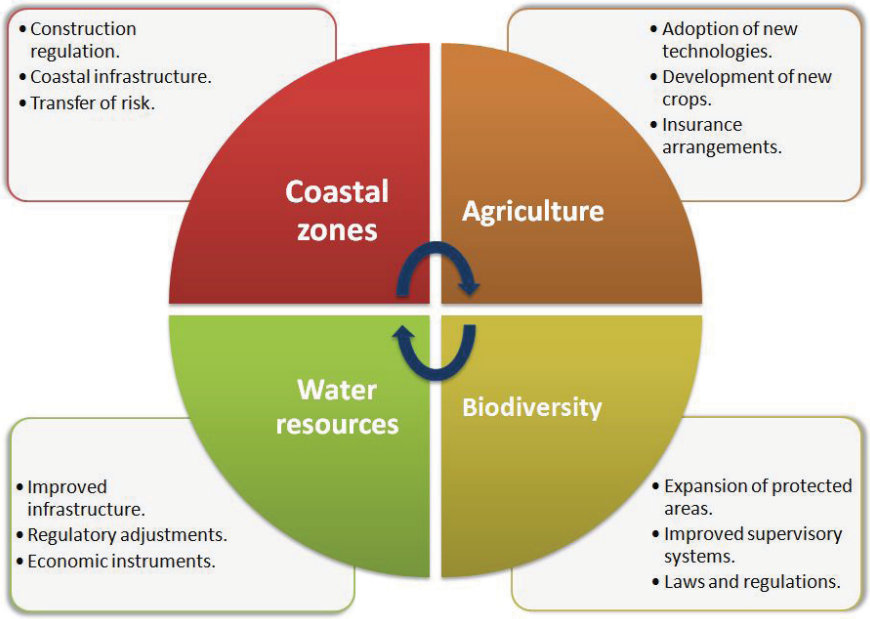
The scientific consensus suggests, with a major degree of uncertainty, that:

- Atmospheric concentrations of 450 ppm of CO2e are, with 80% probability, consistent with an increase in the mean annual global temperature of 2°C above pre-industrial levels.
- Atmospheric concentrations of 550 ppm of CO2e are, with almost 70% probability, consistent with an increase in global temperature of 3°C (Stern, 2008).
- Concentrations are currently estimated at 392 ppm of CO2 and 439 ppm of CO2e.

Given this climate scenario, the available evidence indicates that processes of adaptation are standard practice in economic activities and ecosystems, above all with regard to climate volatility, and even as a natural consequence of a more efficient economy. Although evidence regarding such adaptation processes is still preliminary and fragmented, and even reveals contradictory results (IDB-ECLAC-WWF, 2012), there is a broad portfolio of adaptation options with highly differing consequences and results. For example, some adaptation processes should be avoided as they bring additional problems in the long term, as in the case of an over-exploitation of aquifer layers to compensate for the increase in temperature in farming and cattle activities (Galindo, 2009).

Within this context, the international literature includes a number of adaptation measures for different sectors (see Graph):

a) In coastal zones the emphasis is placed on measures such as adjustments in construction regulations and improved coastal infrastructure;
b) In agriculture, new technologies can be adopted, new crops developed and insurance programmes introduced;
c) In biodiversity protected areas and biological corridors can be expanded, supervision programmes improved, along with laws and regulations;
d) As for water resources, improvements can be made to the infrastructure and management of the resource, along with the application of taxes and other economic instruments, while in the health sector improvements must be made to the infrastructure, prevention systems and information systems.




*Source: Economic Commission for Latin America and the Caribbean*

These measures may be classified in different ways, for example, in accordance with the Fankhauser classification (Fankhauser, 1988) it can be noticed that many of these adaptation measures correspond to public and/or private initiatives, applied both nationally and locally, while others correspond to technological or behavioural changes by agents. The body of evidence indicates that climate change represents one of the major challenges of this century and the transition towards sustainable development will be possible only if it is resolved.

For further information, please contact:
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## Document

**Vulnerability and adaptation to climate change. Initial diagnosis, progress, gaps and potential lines of action in Mesoamerica. September 2010**


*http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35404402*

*Adaptation to climate change and vulnerability has been diagnosed by the IDB, with particular emphasis on Mesoamerican countries. The document is a contribution to the construction of support programmes for the formulation of policies for climate change adaptation and South-South cooperation in this field. Information and significant data regarding the positions of countries are provided through examples and profiles.*

## Documents

### Towards Green Growth. A summary for policy makers, May 2011


*http://bit.ly/MXMc4Y*

*This OECD document aims to provide a reference framework as to how countries can achieve economic growth and development while also combating climate change and preventing costly environmental degradation and inefficient use of natural resources. Arises the search for new ways to produce and consume, as well as new business models, urban planning, transport arrangements, among other sectors. The challenge outlined is the development of indicators and sector studies for the establishment of green growth.*

### Costs and Benefits of Adaptation to Climate Change in Latin America


*http://www.riesgoycambioclimatico.org/CostosBeneficiosACC/documentos/peru/EstudioCosto-BeneficiodeACCenAmericaLatina.pdf*

*This document presents a methodology to evaluate investment projects connected with climate change adaptation. It starts out from a review of the economic impact of climate change from a regional perspective before then analysing individual case studies, along with a cost-benefit analysis regarding adaptation measures.*

European Commission

# Methodologies for the Analysis of Climate Change

Economic and social analysis of climate change is vital in order to examine the causes, their effects, and to design an efficient strategy allowing for the transition to sustainable development. Quantification of the impacts is surrounded by great uncertainty given the long-term time frame involved, along with the diverse methodologies, depending on the availability of local, national and regional information.

Economic and social analysis of climate change is a complex task involving a wide range of techniques and focuses, including quantitative predictive models, empirical studies, expert judgements and experimentation. Each of these focuses has its advantages and disadvantages, and a combination of approaches may thus prove an effective strategy. Meanwhile, given the heterogeneity of the sectors involved, the methodology must be adapted or modified in each case.

The methodology for studying climate change is based on the definition of a trend or baseline trajectory in economic activities, without including the impacts of climate change (business as usual), projecting trajectories of sectoral and overall economic growth, along with other key factors such as population, land-use change and consumption of water and energy. Definition of the baseline is fundamental, as it allows for comparisons of the different scenarios considered.

The impacts are, in general, calculated by means of quantitative models which compare the variables of interest reflecting the impacts of climate change against the corresponding baselines. The choice of method and the suppositions behind construction of the baseline are thus essential in order to estimate the costs of climate change.

Given that the impacts of climate change may be positive or negative, depending on the geographical region and economic sectors, the aggregation of the impacts of climate change must be subject to a Cost-Benefit Analysis (CBA) in order to devise an optimal economic strategy. This method comprises (i) identifying and quantifying the costs and benefits of the public policy measure under consideration, (ii) performing a monetary evaluation of the costs and benefits, which means predicting future flows, (iii) applying a discount rate to transfer the costs and benefits over time and so obtain the net present value, and (iv), using a decision-making rule to apply or exclude the selected public policy.

In the study undertaken by ECLAC, methodologies and tools for the calculation of the potential impacts of climate change on the main sectors of the economy are proposed. This selection is the result of the various analyses and studies performed.

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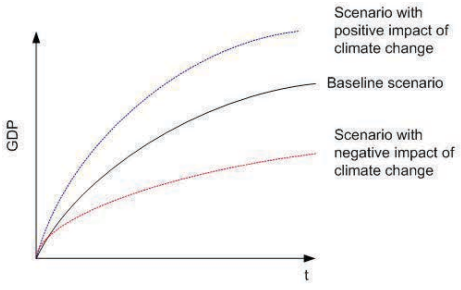
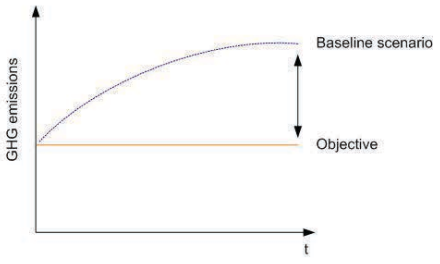
**Scenarios for economic impacts of climate change**




**Climate change mitigation scenarios**




*Source: Economic Commission for Latin America and the Caribbean (ECLAC)*

# Impacts of Climate Change on Income Distribution and Poverty

There now exists a consensus as to the relationship between concentrations of greenhouse gases and climate change, although we still lack knowledge about the channels of transmission and the magnitude of these effects on the well-being of households. The Economic Commission for Latin America and the Caribbean (ECLAC) undertook a study within the context of the EUROCLIMA Programme to help better understand the impact that climate change could have on household income, and hence on poverty and inequality in the region.

The evidence reveals that agriculture and cattle husbandry are particularly climate-sensitive activities, and thus represent a clear channel for transmission between climate change and household income. In other words, changes in climate have an impact on agricultural productivity, and as a result on the income of farmers. This is particularly significant in Latin America given that much of the poverty in the region is geographically located in rural areas.

The relationship between agricultural productivity and climate, and between climate and net income per hectare or land value, has been extensively established (Mendelsohn et al., 1994, 1996, 2001) and there is also evidence suggesting that the overall income of rural households is affected by climate, with the mechanism of transmission being specifically agricultural income (Mendelsohn et al., 2007).

As a result, on the basis of a survey and microdata at the household level, an estimate was produced in the case of Mexico for the contemporaneous correlation between climate variables and agricultural income in a manner similar to the well-known Ricardian method (Mendelsohn et al., 1994, 2007 & 2010). The results obtained for Mexico indicate that:

a) the annual total mean income for agricultural households is slightly more than 13,000 pesos, and the poverty and indigence line in the rural sector in Mexico stood at 928 and 530 pesos per month per person, respectively, in 2002 (reference period for the survey employed).
b) agricultural income is sensitive to climate variables, based on the supposition that household behaviour remains unchanged (Bourguignon and Spadaro, 2006).
c) an increase of one degree in temperature in the spring months will reduce the per capita agricultural income of agricultural households by almost 2,500 Mexican pesos, with all other factors affecting household income remaining constant.
d) for each millimetre reduction in monthly precipitation during Winter there would be an increase per capita in annual agricultural income of slightly more than 200 pesos.
e) the same reduction in the Spring would lead to a downturn in agricultural income of almost 130 pesos.

These results illustrate that there is a significant non-linear behaviour linking climate variables to agricultural income. It is meanwhile noted that expenditure on fertilisers and pesticides is associated with increased net agricultural income. This to some extent reflects the importance of processes of adaptation (IPCC, 2007; Agrawala & Fankhau 2008; World Bank, 2010a & 2010b; OECD, 2012).

These results take on greater significance because, according to the data from the survey employed, in the year 2002 38% of rural households were below the food poverty line, and income distribution inequality was high (Gini coefficient of 0.6).

The point estimators of poverty and inequality for three climate models reveal that both poverty and inequality increase as a result of changes in climate variables. The simulations of the HADLEY climate models (Hadley Centre for Climate Prediction and Research) and MIMR (Center for Climate System Research) produce similar results, with the HADLEY model revealing the greatest increases, with a 49% incidence of poverty in the rural population, and a Gini index of 0.74. The most moderate increases occur with the PCM (Parallel Climate Model); incidence rises to 40%, while the Gini index reaches 0.62 (see table).

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**Impacts on poverty and inequality in the different climate models**

| | | Poverty | | | Gini |
|---|---|---|---|---|---|
| | | Incidence | Depth | Severity | Inequality |
| Current Levels | | 38% | 0.221 | 0.193 | 0.599 |
| Climate Models | HADLEY | 49% | 0.444 | 0.598 | 0.737 |
| | PCM | 40% | 0.254 | 0.249 | 0.619 |
| | MIMR | 48% | 0.439 | 0.586 | 0.734 |

*Source: ECLAC, based on data from ENHRUM (Mexican National Rural Household Survey) for the year 2002.*

## Document

**The Economics of Climate Change in Central America. Technical Report, 2011**

*http://bit.ly/M7fU2m*

*This publication forms a part of the initiative coordinated by and between ECLAC, the Ministries of Environment and Economy and Finance of the seven countries of Central America, the Central American Commission on Environment and Development (CCAD) of the Central American Integration System (SICA) and the Secretariat for Central American Economic Integration (SIECA). It has received funding from the British government's Department for International Development (UKAID/DFID) and from Denmark's Development Cooperation programme (DANIDA).*

European Commission

## Documents

### Towards a GREEN economy Guide for sustainable development and the eradication of poverty


*http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_sp.pdf*

*This guide for policy makers argues the need to reassign public and private investments, incentivised through policy reform and the creation of conditions to develop and improve natural capital. The transition towards a green economy has the potential to achieve sustainable development and to eradicate poverty at a level and speed previously unseen.*

### The vision of the green economy in Latin America and the Caribbean


*http://www.sela.org/attach/258/default/Di_1-2012_La_vision_de_la_economia_verde_en_America_Latina_y_el_Caribe.pdf*

*Document generated in preparation for Rio+20, dealing with basic issues: what is the green economy? how could Latin America and the Caribbean, as a region and at the level of each country, move towards a green economy through an analysis of their energy matrix? and how could this help improve the quality of growth to reduce income inequalities, and so underpin the fight against poverty? It includes the Energy Matrix for 2009: by country and fuel type.*

European Commission

# Inventories of Greenhouse Gases

Estimating emissions and captures of greenhouse gases (GHGs) is an important element in achieving progress in fulfilment of the objective of successfully stabilising concentrations of greenhouse gases in the atmosphere at a level which could prevent dangerous human interference with the climate system. Accurate measurement of these gases thus offers fundamental guarantees in addressing this objective and moving forward in the process of negotiating and funding the required mitigation and adaptation measures. Efforts to reduce GHG emissions depend, among other factors, on the availability of transparent monitoring, reporting and verification (MRV) mechanisms. The above was clearly demonstrated by the agreements associated with the Bali Route and highlighted in particular at the Copenhagen, Cancun and Durban COPs.

The developed and developing countries (Annex I and Non-Annex I according to the categories established in the Kyoto Protocol) signatories to the UNFCCC have obligations to present and periodically to publish GHG emissions inventories through their National Reports. In the case of the developing countries they are required to present these reports (including emission inventories) every four years. Meanwhile, it is recommended that, in accordance with their capabilities and the level of financial support achieved, they perform reviews every two years of the GHG inventories, including information regarding the mitigation measures adopted, needs and support received.

Against this backdrop, ECLAC, within the context of the EUROCLIMA Programme, undertook the Study of Greenhouse Gas Emissions Inventories in Latin America, with the main aim of analysing the quality of the national inventories produced in Latin America and performing a critical analysis of the methodologies and data employed in estimating emissions. The results of the study illustrate that in the energy sector the values submitted are similar to those from other international sources, although major deficiencies are noted in the quality of emissions reporting, rather than the calculations performed. None of the countries included in the study reports levels of activity for the fuels employed with the degree of information required in order to reproduce the inventories independently, without the need to consult additional information from other sources.

In the case of the agriculture and land-use change sectors, there are substantial differences between the inventory reports and their own estimates. Despite the clarity of the differences, results must be viewed with caution. The inventories do not, in general, provide sufficient information in order reliably to replicate the figures reported in the inventories.

One recommendation derived from the report is the need for the GHG inventories in sectors other than energy to present a breakdown of emissions figures, the emission factors employed and the levels of activity used in the calculation. It was also recommended that the type of forest or species and the type of trees referred to in the figures be reported, using for example the classification employed by the IPCC for its emission factors in Land Use, Land-Use Change and Forestry (LULUCF).

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## Document

### Glossary of Climate Change Terms

*http://www.preventionweb.net/files/17281_17281glosariodecambioclimatico.pdf*

*PreventionWeb is a disaster reduction resource platform which has compiled a series of terms associated with the economics of climate change serving to clarify and distinguish the concepts employed in this field.*

## First Call

### Presentation of studies on climate change and its socio-economic impact

*ECLAC-EUROCLIMA invites academics and members of private and public bodies in Latin America are invited to present the results of their research into the impacts of Climate Change on the region, with particular emphasis on social and/or economic impacts. The aim is to disseminate the analysis techniques and tools employed in order to help underpin knowledge, exchange and discussion of the results.*

*The authors of the selected studies will be granted 5,000 USD to present their paper at an International Workshop bringing together relevant experts and a specialist audience.*

***Call deadline:** Tuesday, 11 September 2012,*

*The bases and related documents of this call are available on the Climate Change Network portal (http://www.cepal.org/ccas/)*

*More information: euroclima.cepal@cepal.org*

# Strengthening knowledge and socio-economic capacities for climate change

Within the context of the EUROCLIMA programme, the Economic Commission for Latin America and the Caribbean (ECLAC) undertakes actions intended to improve knowledge and facilitate the exchange of socio-economic information about climate change in Latin America.

The aim is to advance in our analysis as to the impacts of climate change on social equality, income distribution, poverty, social vulnerability, etc.. Tools are also facilitated and/or generated to analyse the costs and benefits of mitigation alternatives, assisting in decision-making and strategic planning.

Technical assistance was recently offered to the government of El Salvador in developing its Strategic Environmental Evaluation of the National Energy Policy, which will assist the Ministry of the Environment and Natural Resources in taking strategic decisions regarding the environmental, social and regional objectives of energy policy.

As for the generation and exchange of information, along with the dissemination of activities and resources, the Climate Change Network (RSCC) has been established to bring together members of three sectors of society (State, private enterprise and civil society) committed to the development of climate-compatible socio-economic systems.

This Climate Change Network aims to: a) improve studies and other initiatives involved in revealing the impacts of climate change in the region; b) broaden and disseminate knowledge; c) exchange experiences, approaches and strategies; d) facilitate planning and the development of collaborative initiatives; e) facilitate the structuring and mobilisation of resources.

As part of the strengthening of capacities in the countries of Latin America and the Caribbean, skills development and training courses have been held to address the exchange of information, methodologies and tools for the assessment and quantification of the socio-economic impacts and effects of climate change and the corresponding mitigation and compensation measures. During 2011, the ECLAC headquarters in Santiago de Chile hosted three international courses:

- "The Economics of Climate Change and Social Impacts: Methods and Techniques for Analysis" (23-25 February 2011).
- "Baselines and Evaluation of the Socioeconomic Impacts of Climate Change in Latin America" (12-14 September 2011).
- "Public Finance, Environmental Reform and Risk Management in the Context of Climate Change" (9-11 November 2011).

Seminars/workshops are also held (connected with the Calls for Papers) to promote forums for dialogue among experts and the general public with an interest in climate change and to set out the preliminary results of the studies which ECLAC is undertaking within the context of EUROCLIMA.

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## Websites related to Economics and Latin America

***The EUROCLIMA newsletter provides a series of information resources accessible via the web related to information on economics and climate change in Latin America and the Caribbean.***
***More links, http://www.euroclima.org/web-links/economics***

### Costs and Benefits of Adaptation to Climate Change in Latin America

http://www.riesgoycambioclimatico.org/CostosBeneficiosACC/

The AGROCLIMA working group of the GIZ Sector Network GADeR-ALC (Environmental Management and Rural Development in Latin America and the Caribbean) is promoting work focused on cost-benefit analyses of adaptation to climate change in the countries of Latin America where it has projects. The initiative is coordinated by GIZ Peru and includes case studies, publications and information about events connected with this theme.

### Forum on Climate Change and Trade. Economic Impacts of Climate Change in Latin America

http://www.ambienteycomercio.org/?p=755

This is an information platform covering all regulatory and international policy developments in the field of climate change and trade. The article on economics and climate change presents an overview of the issue from the Stern Report to the IPCC assessments and the ECLAC reports.

### ECLAC: Sustainable Development and Human Settlements Division. Climate Change

http://www.eclac.org/cgi-bin/getprod.asp?xml=/dmaah/noticias/paginas/2/35382/P35382.xml&xsl=/dmaah/tpl/p18f.xsl&base=/dmaah/tpl/top-bottom.xsl

ECLAC provides updated information on Latin America and the Caribbean in connection with the impact of climate change and the behaviour of the economy in the region and individual countries, in accordance with their characteristics of social and economic vulnerability. The website also provides access to explanations of its projects, events, news and documents dealing with Economics and Climate Change.

### ECLAC: The Economics of Climate Change in Central America

http://www.eclac.org/mexico/cambioclimatico/index.html

ECLAC website, from its subregional headquarters in Mexico, focusing on the issue of the Economics of Climate Change in Central America.

### IRENA: International Renewable Energy Agency

http://www.irena.org/REmaps/latinamericamap.aspx

Information on Renewable Energy Profiles for the countries of Latin America.

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