



UNITED NATIONS
ECLAC



UN HABITAT
FOR A BETTER URBAN FUTURE



United Nations
Educational
Scientific and Cultural
Organization



United Nations
World
Food
Programme



SUSTAINABLE DEVELOPMENT 20 YEARS ON FROM THE EARTH SUMMIT

Progress,
gaps and
strategic
guidelines for
Latin America
and the
Caribbean



United Nations



RIO+20

United Nations Conference
on Sustainable Development



SUSTAINABLE DEVELOPMENT 20 YEARS ON FROM THE EARTH SUMMIT

Progress, gaps and strategic guidelines for Latin America and the Caribbean



Alicia Bárcena
Executive Secretary

Antonio Prado
Deputy Executive Secretary

Joseluis Samaniego
Chief, Sustainable Development and Human Settlements Division

Ricardo Pérez
Chief, Documents and Publications Division

This document, which summarizes the report *Sustainable development 20 years on from the Earth Summit: progress, gaps and strategic guidelines for Latin America and the Caribbean*, was prepared under the supervision of Alicia Bárcena, Executive Secretary, and Antonio Prado, Deputy Executive Secretary of the Economic Commission for Latin America and the Caribbean (ECLAC). Joseluis Samaniego, Chief of the Sustainable Development and Human Settlements Division of ECLAC, was responsible for the coordination and overall drafting of the report, and the following persons were involved in its preparation: Márcia Tavares, Carlos de Miguel, Heather Page and Valeria Torres.

This document was prepared in conjunction with the technical teams of the following specialized agencies, funds and programmes of the United Nations system: United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP), United Nations Population Fund (UNFPA), Food and Agriculture Organization of the United Nations (FAO), United Nations Human Settlements Programme (UN-Habitat), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), United Nations Children's Fund (UNICEF), Office of the United Nations High Commissioner for Human Rights (ONCHR), Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Centre for Regional Development (UNCRD), World Food Programme (WFP), Pan American Health Organization (PAHO), United Nations Office for Project Services (UNOPS), International Labour Organization (ILO), World Tourism Organization (UNWTO), United Nations Conference on Trade and Development (UNCTAD), UN-Water Decade Programme on Advocacy and Communication, Global Mechanism of the United Nations Convention to Combat Desertification, and International Strategy for Disaster Reduction (ISDR).

Financial support for this document was received from the United Nations Development Account. The funds, programmes and agencies that participated in its production also made financial contributions.

Contents

Foreword.....	5
I. Introduction.....	9
II. Advances in sustainability.....	11
A. Human beings at the centre.....	11
B. Economy and sustainability.....	17
C. Strengthening the environmental pillar.....	20
D. Information for decision-making and civil society participation.....	23
E. Science and technology.....	24
III. Gaps.....	25
A. Human beings at the centre.....	25
B. Economy and sustainability.....	30
C. Strengthening the environmental pillar.....	34
D. Information for decision-making and civil society participation.....	39
E. International cooperation, trade, science and technology.....	40
IV. Guidelines for achieving sustainability.....	45
V. International conditions for moving forward with the cross-cutting guidelines.....	53
VI. Closing remarks.....	55

FOREWORD

In December 2009 the General Assembly adopted resolution 64/236 and agreed to convene the United Nations Conference on Sustainable Development in Brazil in June 2012. This Conference, which will be held in Rio de Janeiro 20 years after the United Nations Conference on Environment and Development, or the Earth Summit, represents a historic opportunity to take stock of developments over the past two decades, assess the progress made and the difficulties encountered and explore new forms of cooperation capable of expediting the transition towards sustainable development. The Member States have also agreed to analyse two main themes at the Conference: (a) a green economy in the context of sustainable development and poverty eradication, and (b) the institutional framework for sustainable development.

The present document is divided into two parts: an analysis of progress made and difficulties encountered in Latin America and the Caribbean in implementing global commitments on sustainable development since 1992, and proposed guidelines for moving towards sustainable development in the region.

One of the milestone achievements of the Earth Summit in 1992 was the international community's acceptance of the concept of sustainable development, which was broadly disseminated in the Rio Declaration on Environment and Development. Yet, twenty years later —and despite significant advances— the development model is still unable to bring about simultaneous and synergic progress on the social, economic and environmental fronts.

The world now faces an imperative for change: to move towards a new model of development with the value of equality at the core of its actions, one which is capable of carrying forward simultaneous social development, economic growth and environmental sustainability. Development cannot continue to perpetuate poverty and inequality and to deplete natural resources and ecosystems. Undeniable evidence now exists that protecting ecosystems and ecosystem services improves health, physical integrity, food security and other basic aspects of human security and of individual and community well-being.

A recurrent, cross-cutting problem is resistance to fully considering all the costs of economic activity in investment policies, standards and decisions —or, indeed, the inability to do so. Hence the multiple negative environmental and health externalities which lie at the root of almost the entire array of environmental issues. And, by exacerbating these externalities, the high discount rates employed in investments lay a disproportionate share of the costs of economic activity on the present generation's most disadvantaged members and on future generations.

The proposal by the United Nations to reflect upon a “green economy in the context of sustainable development and poverty eradication” aspires to catalyse the changes needed in the region. Under the principle of shared but differentiated responsibilities, the green economy is understood in opposition to a brown economy, which compartmentalizes, pollutes, excludes and destroys. A green economy is one which augments and affords priority to human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

This proposal advocates the redesign of specific public policies that promote a low-carbon development pattern resistant to disasters and climate change, create green jobs and factor into decision-making the economic costs and benefits associated with the use of ecosystem services and materials. An economy for sustainable development reduces negative environmental impacts, such as carbon emissions and pollution, promotes efficient use of energy and resources and avoids the loss of biological diversity and ecosystem services, thus improving well-being now and in the future.

International agreements, at both the global and regional levels, can and must contribute to these objectives, by fostering an environment and incentives to guarantee greater social inclusion, access to fair and

sustainable exchanges of ecosystem goods and services and sound stewardship of global environmental public goods.

The preparation of this report was coordinated by the Economic Commission for Latin America and the Caribbean (ECLAC), in its capacity as Coordinator of the Regional Coordination Mechanism, in close collaboration with the regional offices of other bodies in the United Nations system, in particular the United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP), United Nations Population Fund (UNFPA), Food and Agriculture Organization of the United Nations (FAO), United Nations Human Settlements Programme (UN-Habitat), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), United Nations Children's Fund (UNICEF), Office of the United Nations High Commissioner for Human Rights (ONCHR), Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Centre for Regional Development (UNCRD), World Food Programme (WFP), Pan American Health Organization (PAHO), United Nations Office for Project Services (UNOPS), International Labour Organization (ILO), World Tourism Organization (UNWTO), United Nations Conference on Trade and Development (UNCTAD), Global Mechanism of the United Nations Convention to Combat Desertification, UN-Water Decade Programme on Advocacy and Communication and International Strategy for Disaster Reduction (ISDR).

We hope that this document will stimulate and inform discussions on development in Latin America and the Caribbean and play a part in garnering renewed political commitment to sustainable development and to the establishment of equitable and sustainable development goals towards which the region can progress as a whole.

Alicia Bárcena

Executive Secretary
Economic Commission for
Latin America and the Caribbean (ECLAC)
Coordinator of the Regional
Coordination Mechanism

Heraldo Muñoz

Assistant Administrator and Regional Director
for Latin America and the Caribbean
United Nations Development
Programme (UNDP)
Coordinator of the Regional
Development Group

I. INTRODUCTION

This document summarizes the report *Sustainable development 20 years on from the Earth Summit: progress, gaps and strategic guidelines for Latin America and the Caribbean*. Written from the perspective of the United Nations agencies in Latin America and the Caribbean, the report describes the progress made and the gaps that remain in implementing global commitments on sustainable development since the Earth Summit of 1992 and proposes guidelines for advancing sustainable development.

The frame of reference for this assessment is the set of principles defined in the Rio Declaration on Environment and Development (1992). Other reference documents, which have guided implementation of the principles of the Declaration, include Agenda 21 (1992), the Johannesburg Plan of Implementation (2002), the Rio de Janeiro Platform of Action on the Road to Johannesburg (2001); the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (1994) and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (2005); the Climate Change and Biological Diversity Convention signed in 1992, together with the multilateral environmental agreements and the international cooperation commitments reflected in Goal 8 of the Millennium Development Goals (2000). The Rio Principles should be interpreted in the light of the evolution of the concepts and approaches adopted by the international community at successive conferences. The sustainable development commitments made by States are closely related to human rights, in that they reinforce each other mutually and pursue a common objective: human well-being and the dignity of individuals.

Reflecting the wide diversity of countries, peoples and cultures that make up the region, different visions of development exist and must be recognized. In recent years, the visions and values of indigenous peoples and measures designed to enhance coexistence with nature have been enshrined in legislation in some countries. Bearing in mind the diverse visions of development in the region, the guidelines proposed in chapter VI do not seek to provide a single solution but rather to present to countries a set of recommendations based on characteristics observed across the region for their consideration as they move towards a more sustainable pattern of development. How these guidelines are applied should be defined in light of the agreements adopted at the United Nations Conference on Sustainable Development (Rio+20), among other factors.

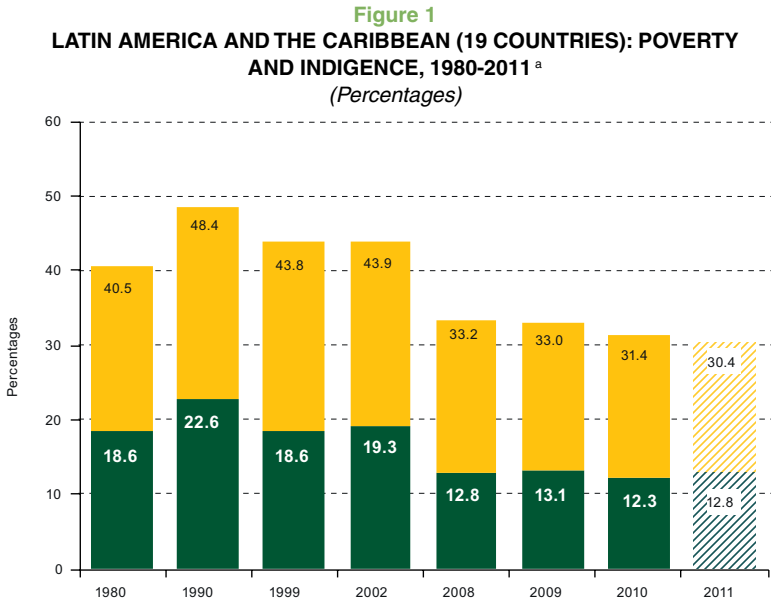
The situation in Latin America and the Caribbean today is very different from what it was when the Earth Summit was held in 1992, when the region was emerging from a “lost decade” of low growth, high inflation and external debt constraints. Despite the recent global economic crisis and its serious impact on Caribbean countries in particular, the region has enjoyed nearly a decade of relatively high growth; inflation is under control in nearly all countries and, in general, stable economic conditions prevail. The economic situation, combined with a new wave of social policies, has made it possible to reduce poverty indices. Prices of the region’s main exports will likely remain high, States are more robust and the region is playing an increasingly important role in the world economy. Some countries have started to reinforce their policies on productive development, innovation, science and technology, and have returned to development planning. In much of the region there is still an opportunity to take advantage of the demographic dividend by investing in universal access to basic services and quality education. Latin America and the Caribbean is thus better placed than ever to lay the foundations for change towards sustainability.

II. ADVANCES IN SUSTAINABILITY

Efforts to promote sustainable development in Latin America and the Caribbean over the past two decades have yielded advances as well as setbacks. Some of the positive changes are described below.

A. Human beings at the centre

- Between 1990 and 2010 poverty fell by 17 percentage points, from 48.4% to 31.4% (see figure 1).

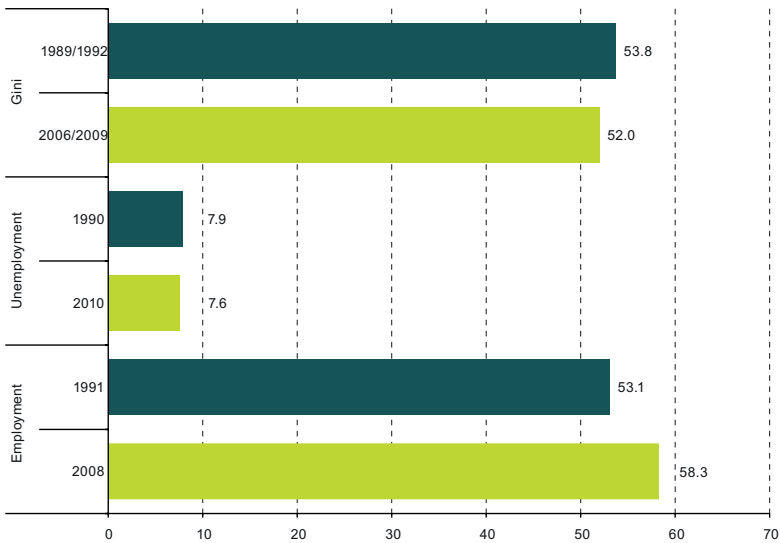


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

^a Estimate for 18 countries of the region plus Haiti. The figures at the top of the bars represent the percentage of poor persons (indigent plus non-indigent poor). The figures for 2011 are projections.

- To a lesser extent, the Latin American and Caribbean region has also made headway in narrowing inequality and improving employment indicators in the past 20 years. Between the early 1990s and around 2009, the Gini coefficient, which measures income distribution inequality, also improved, moving down from 0.538 to 0.520. This may be a small change, but it is highly significant in a region where inequity has always been particularly recalcitrant (see figure 2).

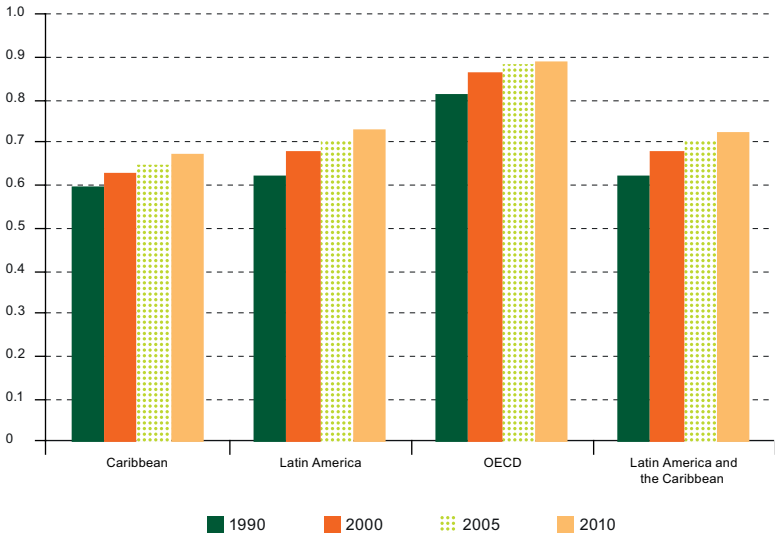
Figure 2
LATIN AMERICA AND THE CARIBBEAN: EMPLOYMENT, UNEMPLOYMENT
AND GINI COEFFICIENT, AROUND 1990 AND MOST RECENT YEAR
(Gini coefficient x 100 and percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), CEPALSTAT database.

- The region's Human Development Index (HDI) showed substantial improvements between 1990 and 2010 (see figure 3).

Figure 3
LATIN AMERICA AND THE CARIBBEAN AND OECD: HUMAN DEVELOPMENT INDEX 1990, 2000, 2005 AND 2010



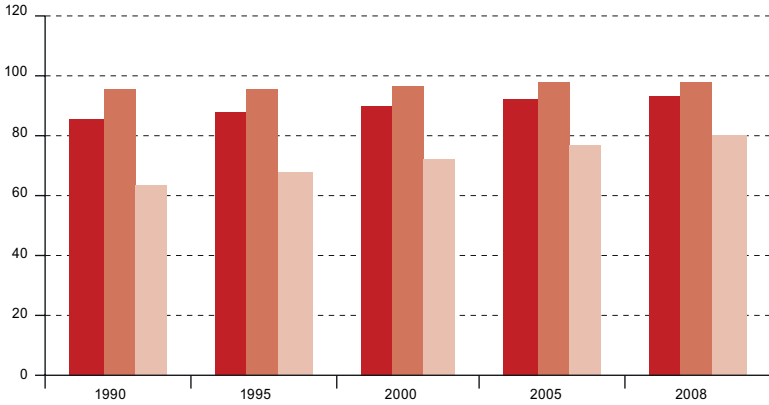
Source: United Nations Development Programme (UNDP), "Human Development Index. International Human Development Indicators" [online] <http://hdrstats.undp.org/en/tables/default.html> [date of reference: 21 December 2011].

- The region has made significant progress in expanding drinking water and sanitation services. The proportion of the population using an improved source of drinking water has risen slightly (from 95% in 1990 to 97% in 2008) in urban areas and considerably (from 63% to 80%) in rural areas. With regard to sanitation, the proportion of the urban population using improved sanitation facilities has risen from 81% in 1990 to 86% in 2008, whereas in rural areas it has risen from 39% in 1990 to 55% in 2008 (see figure 4).

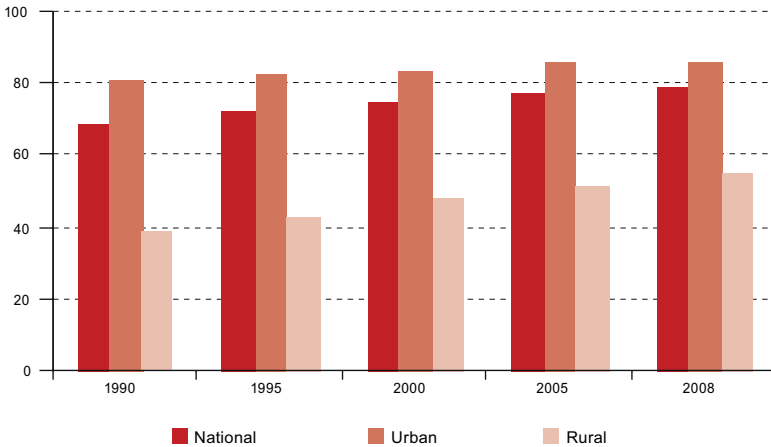
Figure 4

LATIN AMERICA AND THE CARIBBEAN: PROPORTION OF NATIONAL, URBAN AND RURAL POPULATION USING AN IMPROVED DRINKING WATER SOURCE AND AN IMPROVED SANITATION FACILITY, 1990-2008

A. Proportion of national, urban and rural population using an improved drinking water source



B. Proportion of national, urban and rural population using an improved sanitation facility



Source: United Nations, Millennium Development Goals indicators database [online] <http://unstats.un.org/unsd/mdg/Default.aspx>, on the basis of information from the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). Date of reference: December 2011.

- Almost all countries in Latin America and the Caribbean have achieved electric power coverage rates of over 80% and, in some cases, close to 100% (see table 1).

Table 1
LATIN AMERICA (SELECTED COUNTRIES): ESTIMATE OF POPULATION WITHOUT ELECTRIC POWER
(Thousands of persons and percentages)

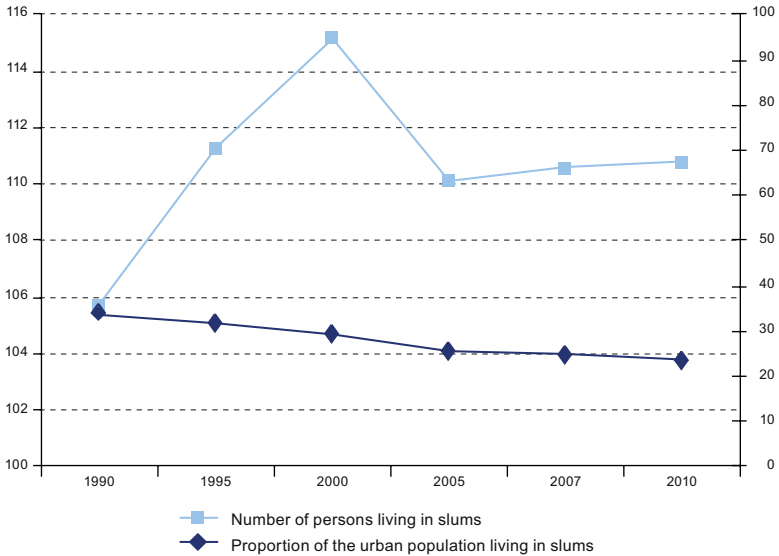
Country	Poor without electric power (thousands of persons)	Non-poor without electric power (thousands of persons)	Total without electric power (thousands of persons)	Poor without electric power as a percentage of total in each country
Argentina	57	91	148	38
Bolivia (Plurinational State of)	2 904	708	3 611	80
Brazil	5 123	2 753	7 875	65
Chile	62	168	231	27
Colombia	420	956	1 376	31
Costa Rica	34	18	52	66
Ecuador	51	15	66	77
El Salvador	751	191	942	80
Guatemala	2 569	687	3 256	79
Honduras	2 272	210	2 482	92
Nicaragua	1 377	219	1 596	86
Paraguay	510	75	585	87
Peru	5 264	1 982	7 245	73
Venezuela (Bolivarian Republic of)	16	19	35	46
Total	21 410	8 092	29 501	73

Source: Economic Commission for Latin America and the Caribbean (ECLAC)/United Nations Development Programme (UNDP)/Club de Madrid/German Agency for Technical Cooperation (GTZ), "Contribución de los servicios energéticos a los Objetivos de Desarrollo del Milenio y a la mitigación de la pobreza en América Latina y el Caribe. Síntesis ejecutiva", Project documents, No. 281 (LC/W.281), Santiago, Chile, October 2009.

Note: The estimate is calculated on the basis of the latest poverty records for Latin America and the Caribbean, and is applied to the total population of each country for which information is available. The estimate of the number of households lacking electric power is then applied to this figure.

- In the past 20 years, the proportion of the population living in slums in Latin America and the Caribbean has fallen significantly, from 34% in 1990 to 24% in 2010 (see figure 5).

Figure 5
LATIN AMERICA AND THE CARIBBEAN: URBAN POPULATION
LIVING IN SLUMS, 1990-2010
(Millions of persons and percentages of the urban population)^a



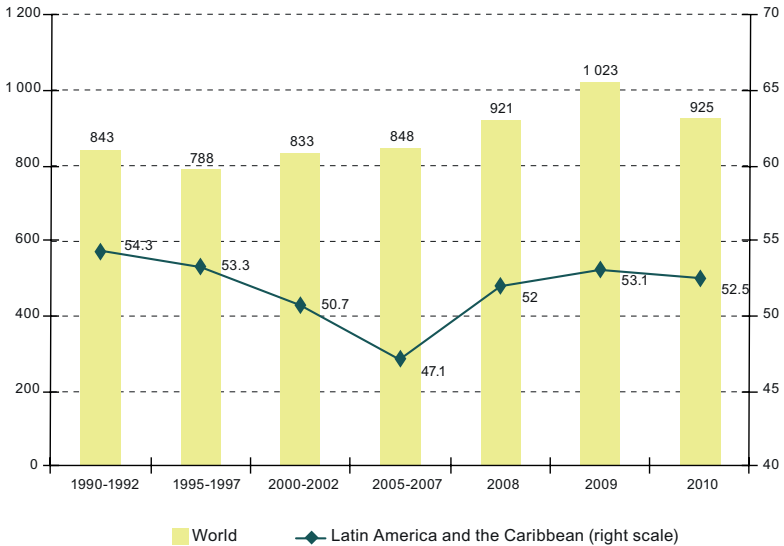
Source: United Nations Human Settlements Programme (UN-Habitat), *State of the World's Cities 2010/2011. Cities for All: Bridging the Urban Divide*, Earthscan, 2010.

^a Figures are based on estimates, since not all the countries have data on informal settlements and the interpretation of the indicators may vary from one country to another.

- With respect to human health, the general age-adjusted mortality rate in the region fell from 6.6 to 5.7 per thousand inhabitants between 1995 and 2008. Moreover, there has been progress in reducing some communicable diseases, such as malaria, the incidence of which fell 53% between 1992 and 2009.
- The prevalence of HIV has remained stable in Latin America in recent decades, at between 0.3% and 0.5% of the general population. In the Caribbean, the epidemic has slowed considerably since the mid-1990s. In addition, advances have been achieved in terms of coverage of antiretroviral treatments for those living with HIV.
- Tuberculosis-related deaths in the region fell from 8 per 100,000 inhabitants in 1990 to 2.1 in 2009.

- The number of people suffering from hunger in Latin America and the Caribbean decreased slightly between 1990 and 2010, which contrasts with the change in the global average (see figure 6).

Figure 6
NUMBER OF UNDERNOURISHED PEOPLE IN THE WORLD AND IN LATIN AMERICA AND THE CARIBBEAN, 1990-1992 TO 2010
(Millions of persons)



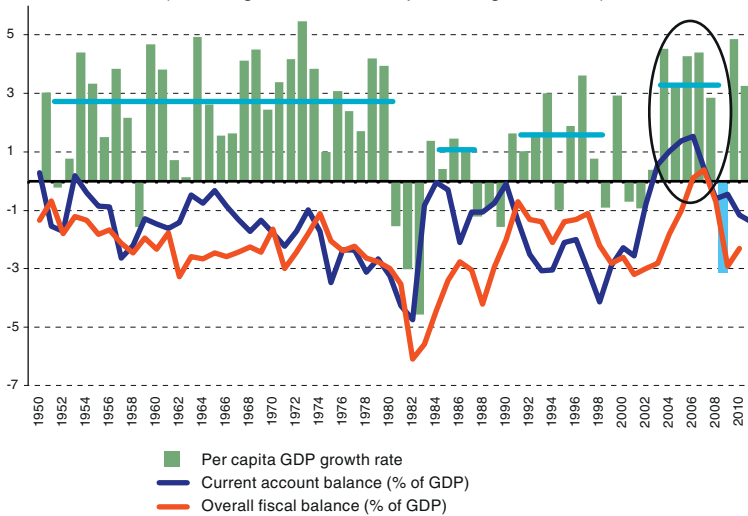
Source: Food and Agriculture Organization of the United Nations (FAO), *Panorama of Food and Nutrition Security in Latin America, 2010*, Santiago, Chile, 2010.

- Since the 1990s, and particularly since 2004, unmet family planning needs fell, the coverage of prenatal care and skilled birth attendance rose and infant mortality came down.
- Maternal mortality also declined.

B. Economy and sustainability

- By the early 1990s inflation was under control in the region. The performance of the external sector improved in 2003 and, until the global crisis of 2009, smaller deficits and some surpluses were posted on the balance-of-payments current account (see figure 7). Gross fixed capital formation expanded significantly through domestic saving.

Figure 7
LATIN AMERICA AND THE CARIBBEAN: PER CAPITA GDP GROWTH, CURRENT ACCOUNT BALANCE AND OVERALL FISCAL BALANCE
(Annual growth rates and percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

- In the second half of 2009, the region began to yield a stronger economic performance than the more developed countries, thanks to prudent management of fiscal and monetary policies and high raw material export prices, among others. The international financial crisis, which broke out in the developed countries late in 2008, had an impact on Latin America and the Caribbean which, although temporary, dragged the region's growth rate into negative territory in 2009 (-2.0%), after which it rebounded rapidly, posting growth of 6% in 2010 (see table 2).

Table 2
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES):
GDP GROWTH, 1971-2010
(Annual rates of variation)

	1971-1980	1981-1989	1990-1997	1998-2008	1990-2008	2009	2010	ENDP 2009 ^a
Antigua and Barbuda	0.3 ^b	6.8	3.2	4.9	4.2	-11.3	-5.2	
Argentina	2.8	-1.0	5.0	3.0	3.8	0.9	9.2	
Bahamas	1.3	2.2	1.8	-5.4	0.9	
Barbados	3.9 ^c	1.4	0.1	2.0	1.2	-4.7	0.3	
Belize	5.1 ^d	4.9	2.0	5.6	4.1	0.0	2.9	
Bolivia (Plurinational State of)	3.9	-0.3	4.3	3.5	3.9	3.4	4.1	
Brasil	8.6	2.3	2.0	2.9	2.5	-0.6	7.5	
Chile	2.5	2.8	7.0	3.6	5.0	-1.7	5.2	
Colombia	5.4	3.7	3.9	3.0	3.4	4.5	4.3	
Costa Rica	5.7	2.4	4.7	5.3	5.0	-1.3	4.2	
Cuba	-3.3	5.6	1.8	1.4	2.1	
Dominica	...	4.2	3.3	2.1	2.6	-0.4	0.1	
Dominican Republic	7.2	3.3	4.5	5.6	5.2	3.5	7.8	
Ecuador	9.1	2.1	2.8	3.5	3.2	0.4	3.6	
El Salvador	2.4	-0.9	5.2	2.9	3.9	-3.1	1.4	
Grenada	17.6 ^e	11.3	1.6	3.9	2.9	-8.3	-0.8	
Guatemala	5.7	0.7	4.0	3.9	4.0	0.5	2.8	
Guyana	2.2	-3.1	5.8	1.4	3.3	3.3	3.6	
Haiti	5.2	-1.0	-0.4	0.9	0.4	2.9	-5.1	
Honduras	5.5	2.7	3.3	4.3	3.9	-2.1	2.8	
Jamaica	-0.7	3.1	1.7	1.1	1.3	-3.0	-1.3	
Mexico	6.5	1.4	3.1	3.1	3.1	-6.1	5.4	-8.5
Nicaragua	1.0	-1.4	2.4	3.7	3.2	-1.5	4.5	
Panama	5.6	0.9	5.6	6.1	5.9	3.2	7.5	
Paraguay	8.8	3.1	3.2	2.3	2.7	-3.8	15.0	
Peru	3.9	-0.7	3.9	4.5	4.3	0.9	8.8	
Saint Kitts and Nevis	5.7 ^g	6.3	4.6	3.4	3.9	-6.3	-5.0	
Saint Lucia	4.4 ^g	7.4	2.9	2.5	2.7	-1.1	3.1	
Saint Vincent and the Grenadines	6.4 ^f	6.4	3.4	4.4	4.0	-1.2	-1.3	
Suriname	2.1 ^f	0.6	-0.5	3.5	1.8	2.2	4.4	
Trinidad and Tobago	5.3	-2.7	2.9	7.7	5.7	-3.5	2.5	
Uruguay	2.7	0.4	3.9	2.6	3.1	2.6	8.5	
Venezuela (Bolivarian Republic of)	1.8	-0.3	3.8	2.9	3.3	-3.3	-1.4	
Latin America and the Caribbean	1971-1980	1981-1989	1990-1997	1998-2008	1990-2008	2009	2010	
Total GDP (dollars at constant 2000 prices)	5.6	1.5	3.6	3.3	3.4	-2.0	6.0	
Per capita GDP	1971-1980	1981-1989	1990-1997	1998-2008	1990-2008	2009	2010	
Latin America and the Caribbean	3.1	-0.6	1.9	2.0	1.9	-3.0	4.8	
China	4.3	8.9	10.2	9.4	9.6	8.5	9.8	
India	0.8	3.3	3.4	5.4	4.6	7.7	-	
OECD ^g	2.6	2.8	1.7	1.7	1.7	-4.0	-	
United States	2.2	2.5	1.7	1.6	1.7	-3.5	-	
World	1.9	1.6	1.2	1.8	1.5	-3.0	-	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Time for equality: closing gaps, opening trails* (LC/G.2432/SES.33/3), Santiago, Chile, 2010; for 2010 data Economic Survey of Latin America and the Caribbean, 2010-2011, Briefing paper, June 2011; World Bank, World Development Indicators (WDI); National Institute of Statistics and Geography (INEGI), Sistema de cuentas nacionales de México. Cuentas económicas y ecológicas de México, 2005-2009 [online] http://www.inegi.gob.mx/prod_serv/contenidos/espanol/bvinegi/productos/derivada/economicas/medio%20ambiente/2009-09/SCEEM2005-2009.pdf.

^a ENDP = Ecological Net Domestic Product, in which GDP is adjusted for depletion and degradation of natural resources, on the basis of the methodology employed by the United Nations. Only Mexico publishes this data. For 2009, Mexico's ENDP corresponds to 81% of GDP, with the 19% loss being explained by the consumption of fixed capital (11% of GDP) and the total cost of environmental depletion and degradation (8% of GDP).

^b Refers to the average of the growth rates for the period 1974-1980.

^c Refers to the average of the growth rates for the period 1975-1980.

^d Refers to the average of the growth rates for the period 1977-1980.

^e Refers to the average of the growth rates for the period 1978-1980.

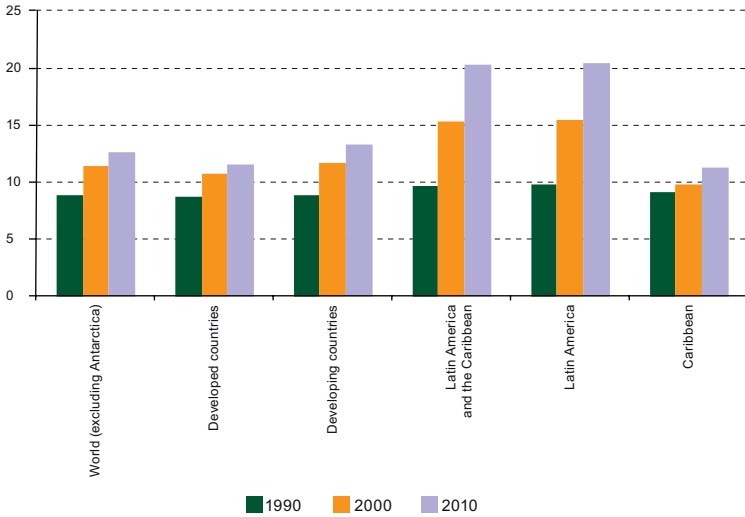
^f Refers to the average of the growth rates for the period 1976-1980.

^g Does not include Chile, Mexico or Turkey.

C. Strengthening the environmental pillar

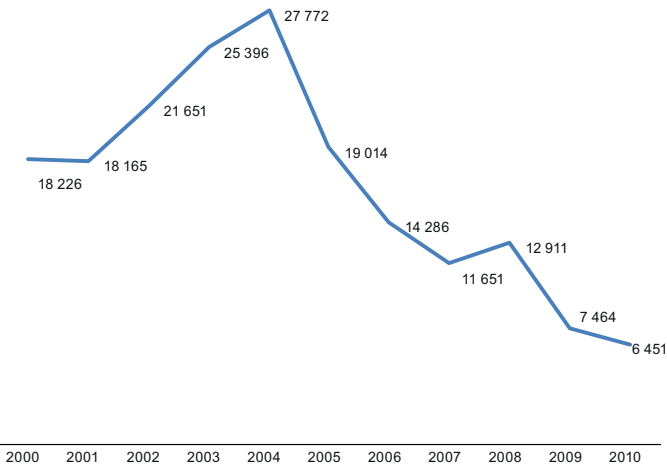
- Since 1992, environmental legislation and institutions have been strengthened and sustainable development has become an established concept in the context of public policies. Environmental rights and obligations have now been enshrined in the constitutions of most Latin American and Caribbean countries. In addition, all countries in the region have enacted general or framework laws on the environment, some of which have already been reformed, as well as supplementary legislation incorporating instruments and principles of the Rio Declaration. All countries in the region now have a ministry, secretariat or equivalent devoted to the environment.
- Since the 1990s, the region has made considerable headway in developing regulations on atmospheric and waterborne industrial emissions and waste, although it still lags somewhat behind developed countries with regard to environmental regulation as a whole.
- In the past two decades, the countries of the region have developed better environmental laws with regard to mining exploration.
- Most countries in the region have implemented energy efficiency programmes. Moreover, since 2000, most have passed laws to promote investment in renewable energy sources and, in some cases, have taken other specific steps to this end.
- Many countries in the region already have or are developing emissions reduction strategies. All have ratified both the United Nations Framework Convention on Climate Change and the Kyoto Protocol.
- Since 1990 the proportion of officially protected marine and terrestrial areas in Latin America and the Caribbean has doubled, surpassing the global average, including the averages in developing and developed countries (see figure 8). These areas represent 20% of the world total.
- The past five years have seen significant progress in the control of deforestation, especially in the Amazon (see figure 9).

Figure 8
PROPORTION OF TERRESTRIAL PROTECTED AREAS, 1990–2010
(Percentages of the world's land mass)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Database on Protected Areas [online] www.wdpa.org/Default.aspx [date of reference: December 2011].

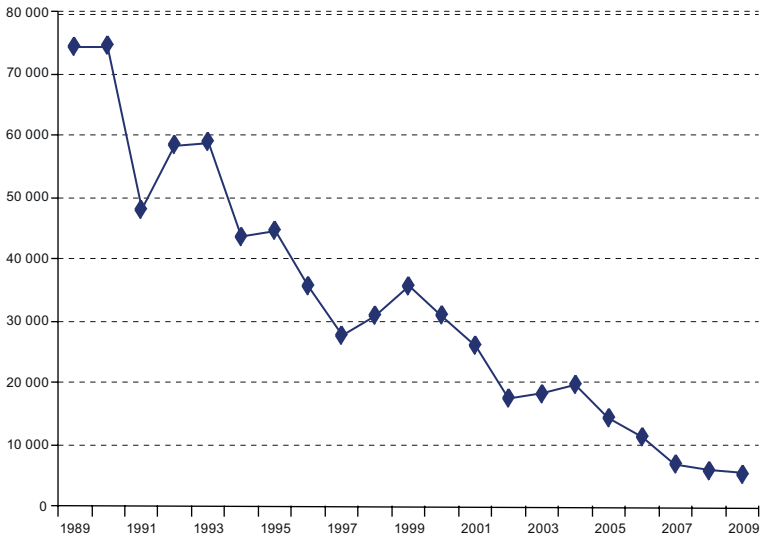
Figure 9
BRAZIL: ANNUAL DEFORESTATION RATE IN THE LEGAL AMAZON, 2000-2010
(Square kilometres/year)



Source: Instituto Nacional de Pesquisas Espaciais (INPE), "Taxas anuais do desmatamento - 1988 até 2010" [online] www.obt.inpe.br/prodes/prodes_1988_2010.htm

- The region's emissions of ozone-depleting substances have fallen steadily in the past 20 years, reflecting the efforts made in the framework of the Montreal Protocol (see figure 10).

Figure 10
LATIN AMERICA AND THE CARIBBEAN: CONSUMPTION OF OZONE-DEPLETING SUBSTANCES, 1990-2009
(Ozone-depleting potential (ODP) tons)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Millennium Development Goals indicators database based on figures from the Ozone Secretariat of the United Nations Environment Programme (UNEP) [online] http://ozone.unep.org/Data_Reporting/Data_Access/ [date of reference: May 2011].

- All Latin American and Caribbean countries have ratified the 1994 United Nations Convention to Combat Desertification (UNCCD), have appointed focal points based in ministries of environment or agriculture and conduct programmes to combat desertification and land degradation. A number of countries have also developed national action programmes.
- There have been institutional advances in chemicals management, with new international and domestic regulations and improved methods of risk assessment. All countries in the region have now eliminated lead from petrol and some progress has been made in reducing arsenic

levels in sources of water for human consumption. Programmes have been established to reduce the use of mercury in artisanal gold-mining processes in countries of the Amazon basin. Moreover, most countries of the region have adopted strategies and have ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and (mainly since 2002) they have ratified the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants.

- Governments have made notable progress in their policies for the disposal and management of solid wastes, although they are still far from an optimal solution.

D. Information for decision-making and civil society participation

- Countries have made considerable progress in giving legal recognition to the rights of access to information, participation and environmental justice.
- Despite persistent challenges since 1992, the countries of the region have invested heavily in producing environmental statistics. Whereas in the 1990s only a few countries published official environmental statistics and sustainable development indicators, most now publish systematic statistical compendia and reports on environmental indicators. Some countries have also invested in formulating sustainable development indicators, based on different approaches.
- Technology developments are a significant factor to consider in comparing the environmental information available now with the situation in the early 1990s. Information and communication technologies (ICTs) have become key tools not only for providing access to existing information but also for generating and analysing data.
- Due to advances in satellite technology, vulnerable areas such as the Amazon can now be monitored almost in real time. Government agencies can therefore provide a timely response to crises and chart the course of long-term policies more effectively.

- Most countries have incorporated provisions on citizen participation into environmental legislation or into thematic or sectoral laws and have created a variety of citizen participation councils.
- Some countries in the region have progressed in designing and establishing specialized bodies with environmental jurisdiction in justice systems or in institutions attached to ministerial or autonomous agencies.

E. Science and technology

- Over the last few years, Latin American and Caribbean countries have increased their use of information and communication technologies (ICTs) in various fields. Access to these tools is positive for environmental administration and management, since they improve processes for generating, managing, integrating and exchanging information as a basis for decision-making in different spheres.
- The number of scientific publications in Latin America and the Caribbean doubled between 1997 and 2006, and accounted for 4.9% of the world's total in 2008.

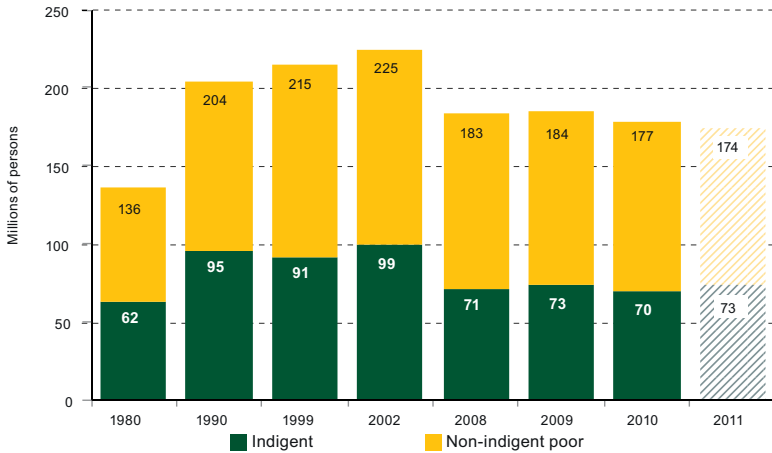
III. GAPS

Despite the undeniable, noteworthy advances mentioned, the Latin American and Caribbean region is still facing significant challenges in achieving social inclusion and equality, eradicating poverty and protecting the environment. It is increasingly clear that environmental degradation—at both the local and global levels—has a more severe impact on disadvantaged groups, which are more vulnerable to diseases related to environmental deterioration (such as air and water pollution and changes in the patterns of vector-borne diseases); disasters caused by extreme weather events; and livelihood loss due to the degradation of ecosystems and natural resources. The challenges facing the region to grow with equality and make headway in eradicating poverty will be exacerbated by climate change, which presents new problems or intensifies existing ones. Overcoming these problems will require strengthened public policies and budgets and greater commitment by civil society and the private sector. Climate change is also making it more urgent to eliminate factors causing vulnerability, such as poverty and lack of access to basic services.

A. Human beings at the centre

- Although as a percentage it was significantly lower, the poor and indigent population in 2010—177 million—was larger in absolute terms than in 1980 (see figure 11).
- Despite advances in income distribution, the region is still the most unequal in the world. The average Gini coefficient for Latin America and the Caribbean is higher than the average for all other regions (see figure 12).

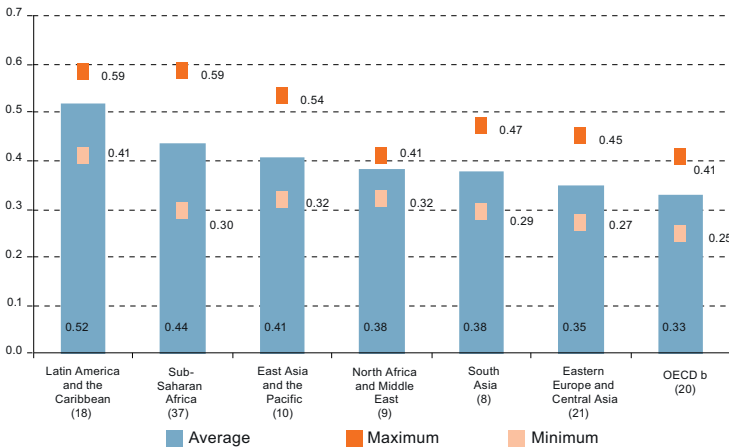
Figure 11
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): POVERTY AND INDIGENCE, 1980-2011^a
(Millions of persons)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

^a Estimate for 18 countries of the region plus Haiti. The figures at the top of the bars represent the percentage of poor persons (indigent plus non-indigent poor). The figures for 2011 are projections.

Figure 12
LATIN AMERICA AND OTHER REGIONS OF THE WORLD: GINI COEFFICIENT, AROUND 2009^a



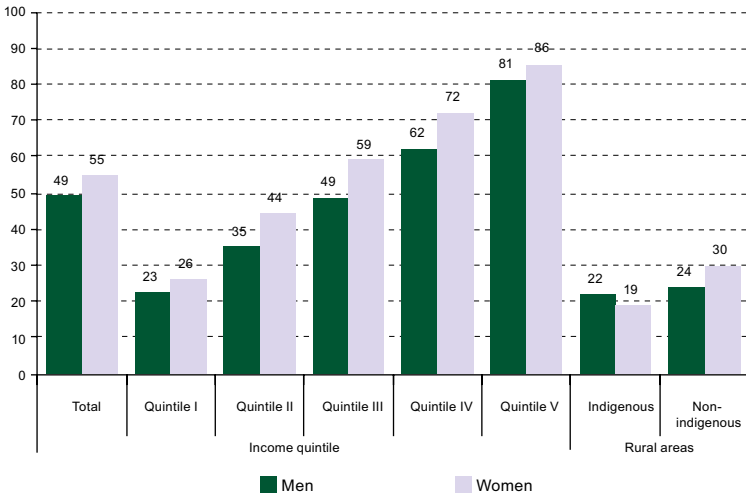
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries; World Bank, World Development Indicators [online] <http://databank.worldbank.org/ddp/home.do>.

^a The regional data are expressed as simple averages, calculated using the latest observation available in each country for the 2000-2009 period.

^b Organization for Economic Cooperation and Development.

- The region’s Human Development Index (HDI) in 2010 was below that recorded by countries in the Organization for Economic Cooperation and Development (OECD) in 1990 (see figure 3).
- The quality of education remains highly uneven between different socioeconomic levels and between the rural and urban populations in the countries of Latin America and the Caribbean (see figure 13).

Figure 13
LATIN AMERICA (18 COUNTRIES):^a POPULATION AGED 20-24 WITH COMPLETE SECONDARY EDUCATION BY PER CAPITA INCOME AND SEX, AROUND 2008
(Percentages)



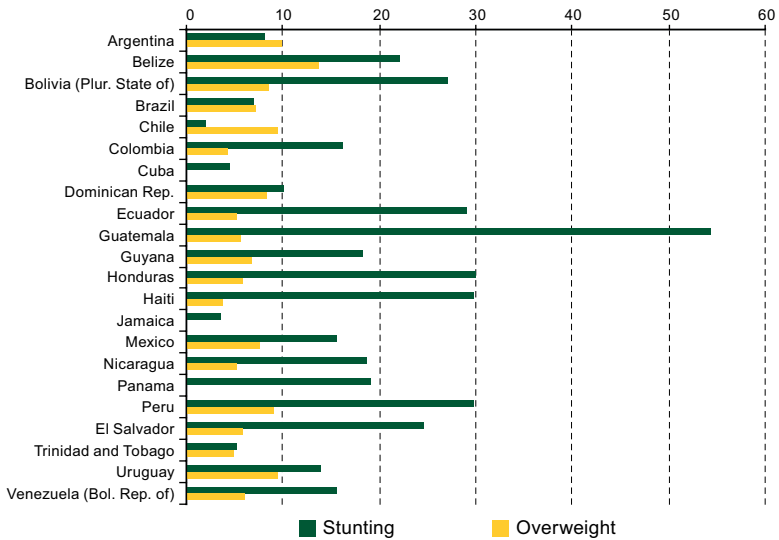
Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2010* (LC/G.2481-P), Santiago, Chile, 2010. United Nations publication, Sales No.E.11.II.G.6.

^a The data for indigenous and non-indigenous youth refer to eight countries and correspond to 2007.

- Around 22% of the Latin American and Caribbean population does not have water piped into the household but relies on public taps or other forms of water capture.
- In 2008, 45% of the rural population and 14% of the urban population still lacked sanitation facilities (see figure 4).
- Much remains to be done in terms of properly disinfecting drinking water and reducing problems of leakage and intermittent service, as well as in treating urban sewage and ensuring the sustainability of services amid growing competition for water, destruction of catchment basins, contamination and climate change.

- Between 35 million and 40 million people in the region still do not have access to basic energy services.
- The absolute number of people living in slums in the region has risen from 105 million in 1990 to 110 million in 2010 (see figure 5).
- Despite the efforts made to reform and restructure health-care systems, millions still lack access to health care and other basic conditions needed to live a healthy life. Health systems throughout the region remain fragmented and ill-prepared to adapt to epidemiological or demographical shifts.
- Dengue is an unresolved challenge: the number of cases has risen constantly.
- Rapid-spread communicable diseases such as influenza A (H1N1) have emerged. There have been recurrent outbreaks of leptospirosis, yellow fever and other viral haemorrhagic fevers, and a resurgence of cholera in Haiti.
- HIV continues to seriously affect certain groups which have long suffered institutional discrimination and neglect, such as transexuals and sex workers.
- Air pollution continues to constitute a major threat to the health of people living in urban areas. Close to 100 million of the region's inhabitants are exposed to concentrations of ambient air pollutants in excess of the maximum permissible levels established by the World Health Organization. In Latin America and the Caribbean air pollution costs the lives of around 35,000 people per year.
- Chemical contamination remains a serious challenge in the region. Some of the main health problems are caused by the use of dichlorodiphenyltrichloroethane (DDT) and by chemical and technological accidents. In addition, despite institutional advances, chemicals production in the region is an activity that generates significant negative environmental and health-related externalities.
- The progress made in reducing the number of people suffering from hunger was halted by the food crisis of 2007-2008 and the economic crisis of 2008-2009. Child undernutrition continues to be high in some countries. In 2010, there were still over 52 million undernourished people in the region and the outlook is not particularly encouraging in view of food price developments (see figure 6).
- At the same time, the nutritional transition has led to alarming levels of obesity in some countries (see figure 14).

Figure 14
UNDERNUTRITION AND OVERWEIGHT IN CHILDREN
UNDER 5 YEARS, 2000 TO 2009



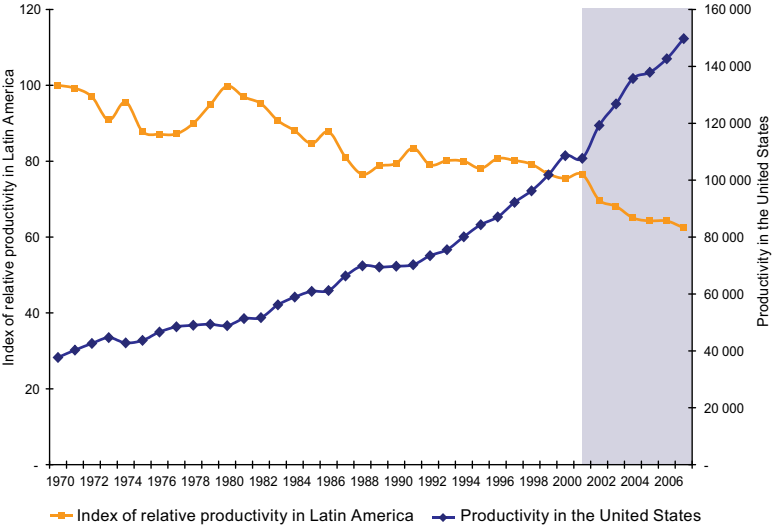
Source: Food and Agriculture Organization of the United Nations (FAO), Panorama of Food and Nutrition Security in Latin America, 2010, Santiago, Chile, 2010.

- Despite the decline in maternal mortality, the absolute number of maternal deaths has virtually stood still and many of these appear to have been from avoidable causes.
- Adolescent fertility rates are high in Latin America and the Caribbean and, unlike in other regions, show no sign of systematically decreasing.
- Natural threats including hydrometeorological hazards tend to worsen with climate change and affect disadvantaged groups disproportionately. In recent decades, investments in natural disaster risk management have been insufficient; moreover, post-disaster recovery and reconstruction have often been postponed or incomplete. These impacts imply setbacks in the already complex process of development in the countries of the region. Small countries, in particular small island developing States (SIDS) are the most seriously affected by economic losses caused by disasters (see box 1). The gravity of the impacts of future natural disasters will depend largely on the ability of countries in the region to reduce their vulnerability.

B. Economy and sustainability

- The productivity gap between the region and developed countries is becoming wider and the region has not succeeded in transforming its production structure, which remains heavily based on natural-resource-intensive sectors. A comparison between the productivity levels of the countries of the region and those of the United States illustrates the magnitude of the challenge of technological convergence (see figure 15).

Figure 15
RELATIVE PRODUCTIVITY INDEX OF LATIN AMERICA (SELECTED COUNTRIES) AND PRODUCTIVITY IN THE UNITED STATES
(Index: 1970=100 and constant dollars at 1985 prices)



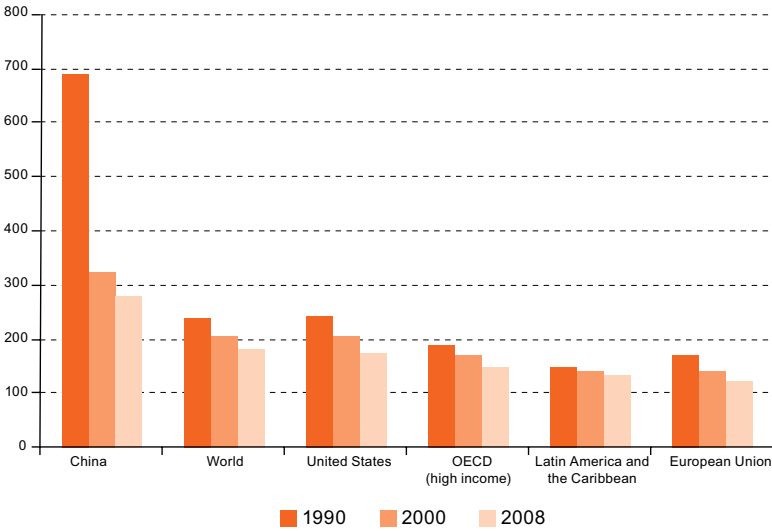
Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Time for equality: closing gaps, opening trails* (LC/G.2432(SES.33/3)), Santiago, Chile, 2010.

- Despite the economic achievements made, the region’s growth rates have not been high enough to result in improvements in social indicators. Between 1990 and 2008, yearly per capita GDP growth in the region stood at 1.9%, far below the rate for China and India and similar to that of the United States (whose per capita income is, however, almost five times that of Latin America and the Caribbean) (see table 2).

- In 13 countries for which information is available, the unemployment rate for women in 2010 was 1.4 times higher than the rate for men. Women who work the same number of hours and who have the same level of education still earn less than three quarters as much as their male counterparts. The youth unemployment rate for 2010 was three times as high as the total unemployment rate. Nearly half of all employed persons are not covered by any pension system. On average, in the case of 36% of households, none of the household members are registered under the social security system, or receive public welfare transfers or any type of pension or benefit.
- Extractive industries are a major driver of economic activity in the region but the environmental problems associated with these industries include the pollution of groundwater and surface water, deforestation, soil erosion, the destabilization of land areas, increased sedimentation of water courses, the risk of accidents and mercury contamination.
- The growth in agriculture —a positive factor— is also putting pressure on the environment in various ways.
- In the agricultural and livestock sectors, there is a scarcity of environmental regulation mechanisms.
- Family farms, which can play an important role for environmental and local development, have been largely neglected by public policy in Latin America and the Caribbean.
- Energy intensity has been declining much more slowly in Latin America and the Caribbean than in other regions. The slow pace of progress in this respect is attributable to the region's production patterns, the fact that environmental and health costs are not factored into policy decisions, the use of hydrocarbon consumption and production subsidies, and the low priority that policymakers have assigned to energy efficiency, among other factors (see figure 16).

Figure 16
ENERGY INTENSITY OF THE ECONOMY

(Kg of petroleum equivalent per US\$ 1,000 of GDP at constant 2005 PPP prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, World Development Indicators [on line] <http://data.worldbank.org/data-catalog/world-development-indicators> [date of reference: December 2011].

Note: Energy intensity is measured as the amount of energy consumed per unit of GDP, which, to some extent, indicates how energy-efficient a country is. It also reflects, to a certain degree, a country's economic structure at the sectoral level, including the carbon content of the goods that it imports and exports. For example, two countries which have similar levels of energy efficiency by sector but in which economic activity has a different sectoral distribution will have different aggregate levels of energy intensity. By the same token, a country that imports carbon-intensive goods will have a lower degree of energy intensity than a country that produces and exports such products (WRI, 2009).

- Fuel subsidies for private vehicles and for cargo and transit services have been on the rise since 1992 due to the fact that international oil prices have been climbing sharply, especially since 2003. The fiscal cost of these subsidies is very high and their opportunity cost in terms of potential alternative uses of those resources (e.g., health care) is quite significant (see table 3). Cuts in these subsidies would not only demotivate the use of fossil fuels and reduce adverse environmental and health impacts, but would also boost the profitability of alternative energy sources, and free up government funds for use in other areas, such as investment in education and health.

Table 3
LATIN AMERICA (SELECTED COUNTRIES): SUBSIDIES ON FOSSIL FUELS
AND PUBLIC SPENDING ON HEALTH CARE, 2008-2010
(Billions of dollars and percentages of GDP)

	Subsidies on fossil fuels						Public spending on health	
	<i>(billions of dollars)</i>			<i>(percentages of GDP)</i>			<i>(percentages of GDP)</i>	
	2008	2009	2010	2008	2009	2010		
Argentina	18.1	5.9	6.5	5.5	1.9	1.8	5.3	(2008)
Colombia	1.0	0.3	0.5	0.4	0.1	0.2	1.9	(2009)
Ecuador	4.6	1.6	3.7	8.4	3.1	6.7	1.3	(2006)
El Salvador	0.0	0.0	1.2	0.0	0.0	5.6	3.4	(2007)
Mexico	22.5	3.4	9.5	2.1	0.4	0.9	2.8	(2008)
Peru	0.6	0.0	0.0	0.5	0.0	0.0	1.2	(2008)
Venezuela (Bolivarian Republic of)	24.2	14.1	20.0	7.8	4.3	5.1	1.8	(2006)

Source: Prepared by author on the basis of the subsidies on fossil fuels published in International Energy Agency (IEA), *World Energy Outlook 2011* [online] <http://www.iea.org/subsidy/index.html>; Economic Commission for Latin America and the Caribbean (ECLAC), Official figures of GDP and social expenditure database for public health-care spending.

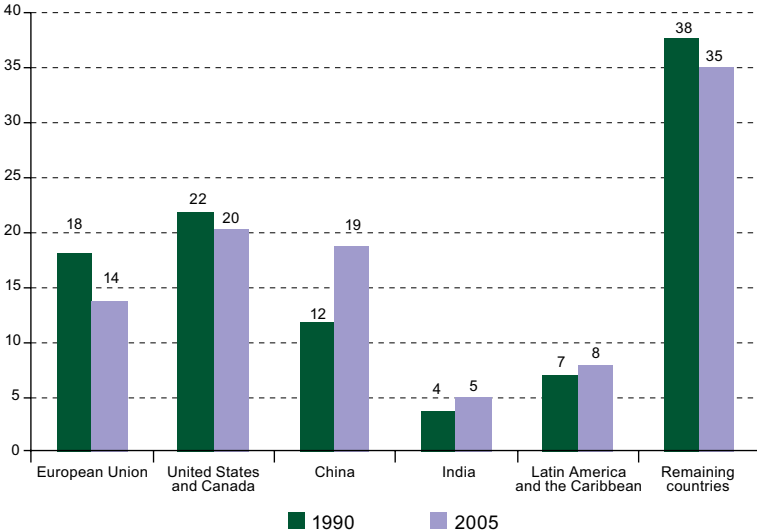
- In spatial terms, the population, economic activity and wealth are all highly concentrated in Latin America and the Caribbean. There is a very significant differential between per capita GDP in the richest and poorest regions of each country, and there has been very little change in this respect in the past two decades.
- The urban-territorial management schemes and public-private partnerships for the provision of services and urban infrastructure existing today in the region show poor understanding of the cross-sectoral complexity of urban issues. The structures and tools for promoting urban development and sustainable housing are institutionally, functionally and operationally obsolete and there is no strategic vision of urban-territorial management that links habitability, functionality, productivity and governance in the local area concerned. All of this delays progress in improving living conditions for the poorest and most vulnerable segments of the population, especially in terms of access to basic public goods and services.
- Urban and inter-urban transport infrastructure in the region is limited and institutions show a predilection for investments in motorways at the expense of other transport infrastructure. Some countries have delineated objectives, strategies and lines of action for enhancing the environmental sustainability of urban transport policies, but, in most cases, these criteria have not been incorporated into the benchmarks that they have established for those policies.

- Poorly coordinated public action and the limited visibility of the effects of environmental degradation create barriers to effective solutions. Governments and other institutions —public and private, and local, national and international— are promoting sustainable development and protection of the environment while maintaining practices that contradict this paradigm. In the absence of appropriate institutional, legal and economic mechanisms, the cost of environmental degradation is absorbed by groups of people not involved in decision-making —especially the disadvantaged— and by future generations.

C. Strengthening the environmental pillar

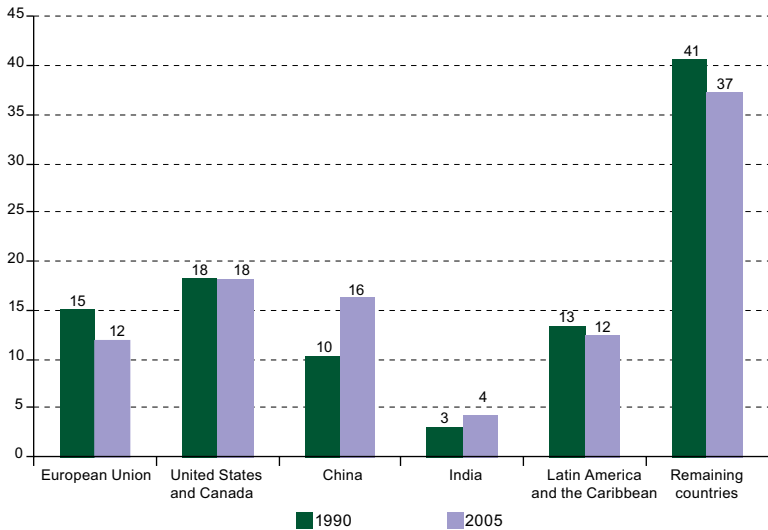
- Climate change represents a new challenge to the region’s development. If greenhouse gas (GHG) emissions from land-use change are excluded, the region contributes only 8% of global emissions but, when land-use change emissions are included, the region’s contribution rises to 12% (see figures 17 and 18).

Figure 17
SHARE OF GLOBAL GREENHOUSE GAS EMISSIONS EXCLUDING LAND-USE CHANGE EMISSIONS
(Percentages of the mass of carbon dioxide equivalent)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Climate Analysis Indicators Tool (CAIT), Version 7.0, Washington, D.C., World Resources Institute, 2010.

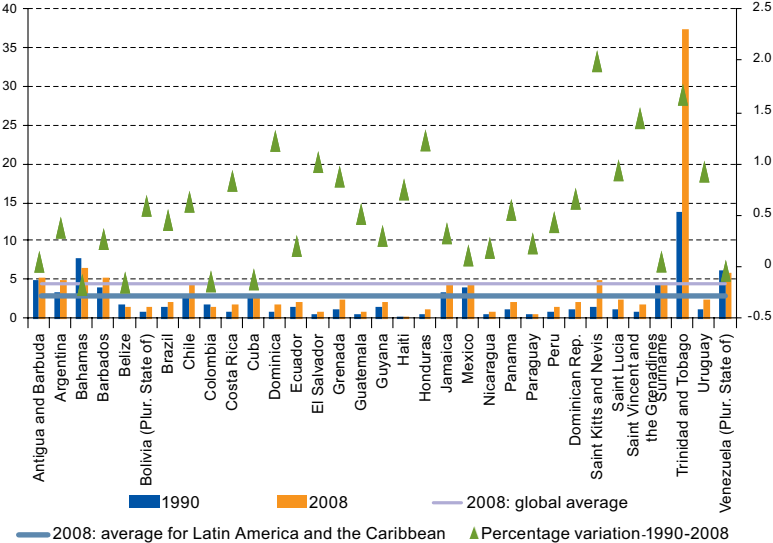
Figure 18
SHARE OF GLOBAL GREENHOUSE GAS EMISSIONS INCLUDING
LAND-USE CHANGE EMISSIONS
(Percentages of the mass of carbon dioxide equivalent)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Climate Analysis Indicators Tool (CAIT), Version 7.0, Washington, D.C., World Resources Institute, 2010.

- Greenhouse gas emissions from Latin America and the Caribbean have been increasing steadily since 1990. Between 1990 and 2005, they increased at an average annual rate of 1.2%, similar to the global average. Although per capita CO₂ emissions from the burning of fossil fuels remained fairly stable in Latin America and the Caribbean as a whole between 1990 and 2006 (see figure 19), there are wide disparities within the region.
- By 2050 climate change is expected to have a significant impact on fragile ecosystems (such as mangroves, glaciers and coral reefs) and the production sectors (especially agriculture). As a result of extreme weather events it is also expected to take a heavy socioeconomic toll, especially in Central America and the Caribbean.

Figure 19
LATIN AMERICA AND THE CARIBBEAN: PER CAPITA CO₂ EMISSIONS,
1990 AND 2008 OFFICIAL MILLENNIUM DEVELOPMENT
GOALS (MDG) INDICATOR 7.2.1
(Metric tons of CO₂ and percentages)

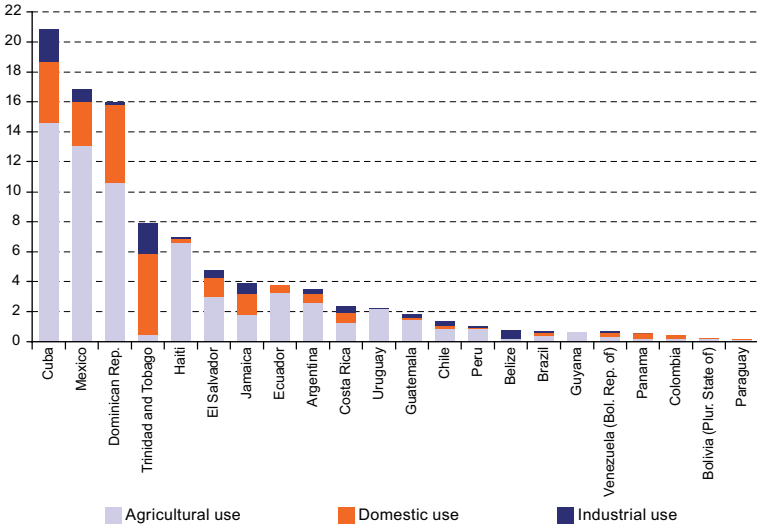


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the United Nations Millennium Development Goals indicators database [online] <http://mdgs.un.org/unsd/mdg/Default.aspx>, with CO₂ statistics compiled by the Carbon Dioxide Information Analysis Center (CDIAC) [date of reference: 10 November 2011].

- Despite the obvious importance of Latin American and Caribbean biodiversity for both the region itself and the world as a whole, the region’s enormous biodiversity is being lost or seriously threatened by human activity at all levels and throughout nearly all of the region. Latin America includes 6 of the world’s 17 megadiverse countries (Bolivarian Republic of Venezuela, Brazil, Colombia, Ecuador, Mexico and Peru). The region is home to between 30% and 50% of the world’s species of mammals, birds, reptiles, amphibians and fish, as well as a large proportion of its plant and insect species.

- Despite the progress made in recent years in controlling deforestation, between 1990 and 2010, the region's share of global forest cover fell from 25% to 24%. Deforestation in the region during the same period accounted for more than one third of global deforestation. Between 2000 and 2010, the annual rate of loss was 0.46%, three times the global annual rate of 0.13%. In addition to deforestation rates in the region, forest fragmentation has become a concern.
- A quarter of the land surface of the Latin America and the Caribbean region is comprised of desert and drylands. The degradation of these lands is contributing to the decline in the biological productivity of ecosystems and the economic productivity of agriculture, livestock production and forestry.
- Latin America and the Caribbean harbours one third of the world's renewable water resources and, although it has only 15% of the world's land mass and 8.4% of its population, it receives 29% of global precipitation. However, water distribution is highly unequal and water resources are strained by multiple factors, such as excessive abstraction for agriculture and mining (see figure 20), increasing water pollution, deforestation and the destruction of catchment basins and replenishment areas. The melting of glaciers in Andean regions that supply water for agriculture and cities is becoming an increasingly important factor in these areas. Climate change will compound existing problems.
- Regional trends point to a significant increase in water demand. From 1990 to 2004, region-wide demand grew by 76% (from 150 cubic kilometres (km³) per year in 1990 to 264.5 km³ per year in 2004). This was a result of population growth (especially urban), the expansion of industrial activity and the high demand for irrigation. As all this took place without a parallel development of wastewater treatment services, it led to widespread contamination of many water sources, especially near and beneath major cities. Locally, the continuing increase in water demand could create uncertainty regarding water availability and even heighten the risk of water shortages and conflict between the various uses and users.
- With regard to solid waste management, persistent problems include the lack of proper economic incentives, low collection coverage, shortage of suitable sites for final disposal, use of inappropriate technologies and the absence of a recycling culture.

Figure 20
LATIN AMERICA AND THE CARIBBEAN (SELECTED COUNTRIES): WATER WITHDRAWAL AS A PROPORTION OF RENEWABLE WATER, BY SECTOR, 1998-2002
(Percentages)



Source: Food and Agriculture Organization of the United Nations (FAO) [online] www.fao.org/nr/water/aquastat/main/indexesp.stm.

- Approximately 50% of the region’s population and many of its development activities are concentrated within 100 kilometres (km) of the coast. This exerts strong pressure on coastal ecosystems and poses a threat to the resources that ensure people’s survival in coastal areas. Around 86% of wastewater (up to 90% in the Caribbean) enters rivers and oceans untreated.
- Mangroves, wetlands and coral reefs are at risk because of urban and tourist development, aquaculture, invasive species, pollution and changes in water flows caused by land-use changes.
- Climate change will exacerbate the risks and vulnerabilities of the coasts of Latin America and the Caribbean. There is irrefutable evidence that sea levels rose gradually in the twentieth century and they are expected to rise further in the twenty-first century, due mainly to thermal expansion of ocean water and the melting of polar ice caps.
- Overfishing and depletion of fish stocks are affecting the whole region.

D. Information for decision-making and civil society participation

- Despite recent progress, greater attention, investment and training is required in the area of environmental statistics. One obstacle is the shortage of human and financial resources. Another challenge is to produce data disaggregated by sex, age and other factors such as race and ethnicity for variables relating to people (such as access to services and exposure to pollutants). This disaggregation will highlight any inequalities regarding these factors, in order to orient policies and measures.
- An outstanding issue with regard to use of information both in the region and internationally is how to account for wealth and assign value to the environment and to environmental degradation. This must be resolved in order to fully integrate the three pillars of development and ensure that the different areas of government act coherently.
- With regard to technology and environmental information, one challenge in the region is to ensure that governments and civil society have greater access to existing tools. It is also important to consolidate schemes and mechanisms for periodic reporting on the state of the environment and the impact of industrial activities by both private and public enterprises.
- Many countries have yet to enact legislation to facilitate implementation of principle 10 of the Rio Declaration on Environment and Development, which addresses access to information and environmental justice, and public participation, while others are encountering implementation difficulties. A lack of available information, including environmental statistics, impedes effective public action and the full participation of civil society in decisions. Even though there has been progress in incorporating the recognition of the right to participation into national legislation and in the creation of bodies for that purpose, the proper implementation of such mechanisms continues to be a challenge. With regard to access to justice, there is a lack of environmental courts and access to them is difficult. Where such courts exist, they tend to be concentrated in urban centres and major cities. Mechanisms for disseminating information on access to and the content of environmental justice also need to be improved.

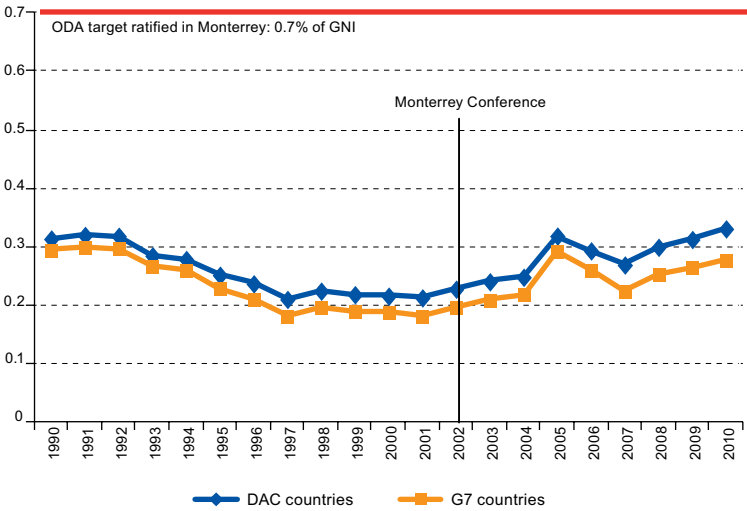
- Although it is recognized that the participation of women is important to achieve sustainable development, their participation in decision-making and in leadership positions is still low at every level.

E. International cooperation, trade, science and technology

- The failure to fully meet international cooperation commitments —on market access and financial and technological matters— plays a critical part in perpetuating the persistent gaps in implementing sustainable development commitments, especially in the smallest, least developed and heavily indebted States (see figure 21 and table 4).

Figure 21

OFFICIAL DEVELOPMENT ASSISTANCE GRANTED BY COUNTRIES OF THE DEVELOPMENT ASSISTANCE COMMITTEE (DAC), 1990-2010
(Percentages of gross national income of donor countries)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organization for Economic Cooperation and Development (OECD) statistics, Evolution on official development assistance (ODA) and World Bank, World Development Indicators for gross national income [date of reference: January 2012].

Table 4
DISBURSEMENTS OF NET OFFICIAL DEVELOPMENT ASSISTANCE (ODA) TO DEVELOPING COUNTRIES AND LATIN AMERICA AND THE CARIBBEAN, 1990-2010
(Millions of dollars at current prices and percentages)

	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Developing countries	58 548	59 142	49 776	52 388	62 033	71 742	80 121	108 650	107 339	108 494	127 916	126 968	131 087
Latin America and the Caribbean	5 233	6 384	4 838	5 970	5 026	6 129	6 838	6 708	7 340	6 987	9 288	9 022	10 812
Of which													
Bilateral aid provided by countries of the Development Assistance Committee (DAC)	4 188	4 811	3 858	4 470	3 901	4 580	5 134	4 855	5 276	4 832	7 008	6 573	7 885
Multilateral	1 032	1 543	941	1 469	1 069	1 519	1 685	1 828	2 050	2 109	2 257	2 429	2 895
ODA as a percentage of gross national income (GNI)	0.49	0.37	0.24	0.31	0.29	0.33	0.32	0.26	0.24	0.19	0.22	0.23	0.22
Share of world total	8.9	10.8	9.7	11.4	8.1	8.5	8.5	6.2	6.8	6.4	7.3	7.1	8.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures issued by the Organization for Economic Cooperation and Development (OECD), OECD Stat database [date of reference: 16 January 2012].

- Technical, scientific, technological and productive constraints in the region are hindering progress towards a model of productive development that is more inclusive, cleaner and less dependent on natural resources, as well as hindering the use, design and implementation of suitable solutions.
- In Latin America and the Caribbean, investment in science and technology and in research and development is generally small, concentrated in the larger countries and mainly dependent on the public sector. The challenges facing technological development include insufficient financing and poor links between the productive sector and academic institutions (see figure 22).

Box 1

KEY ISSUES FOR THE SUSTAINABLE DEVELOPMENT OF CARIBBEAN SMALL ISLAND DEVELOPING STATES^a

Much of the analysis relating to the other countries of the region, are also applicable to the small island developing States of the Caribbean. They have their own particular vulnerabilities, however, which make the transition to sustainable development especially challenging: their populations' size, their remote and isolated position, and the human, financial and technical constraints they face, in addition to their dependence on scarce natural resources. Their marine and coastal ecosystems are especially vulnerable to natural disasters and the impact of climate change and their economies are overly reliant on international trade. They are particularly vulnerable to adverse global developments and high transport and communications costs and some have weak and inefficient infrastructure and public administration. For all these reasons, international financing is vital for these economies if they are to make headway towards sustainable development and implement the policies and instruments proposed.

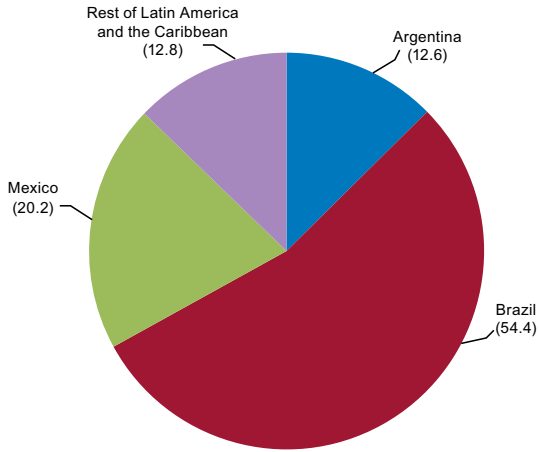
As noted in the assessment, the priority issues for the small island developing States of the Caribbean include reducing the risk of disasters; adapting to climate change; reducing dependence on fossil fuels; creating stronger incentives for proper waste and chemical management; protecting marine, coastal and freshwater resources and biodiversity; and ensuring that the tourism industry is compatible with sustainable development.

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

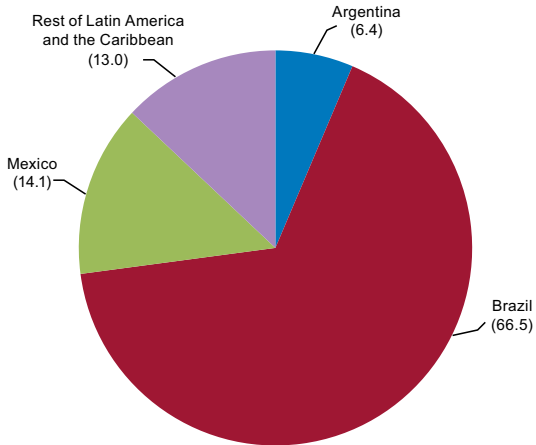
^a The Caribbean small island developing States considered here are: Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.

Figure 22
LATIN AMERICA AND THE CARIBBEAN: DISTRIBUTION OF INVESTMENT IN R&D, 1999 AND 2008 (OR LATEST FIGURE AVAILABLE)
(Percentages)

A. 1999



B. 2008



Source: Ibero-American Network of Science and Technology Indicators (RICYT), *El estado de la ciencia en imágenes*, 2010.

IV. GUIDELINES FOR ACHIEVING SUSTAINABILITY

Experiences in the region in the past 20 years have highlighted the importance of establishing strong, coordinated public policies in order to make progress in development, eradicate poverty and overcome the deep inequalities that characterize Latin America and the Caribbean. In addition to macroeconomic challenges and others relating to social protection, education, access to basic services, labour policies, productive development and territorial development policies, the region urgently needs to tackle the dual, cross-cutting challenge of ensuring that development is environmentally sustainable and building physical and economic resilience to the effects of environmental degradation, especially climate change. Countries must take steps to prevent heritage and livelihood losses and ensure that the advances made are not undermined by environmental threats.

The analysis demonstrates that investment in improving environmental legislation and institutionality is not enough and, as in other regions of the world, the greatest challenge lies in ensuring that the institutions created under the three pillars of development work towards sustainability in a comprehensive, coherent manner. It is essential that the economic system work in favour of sustainability, not against it.

In this context, seven cross-cutting guidelines are presented in an attempt to help governments in the region (and in some cases subnational governments) make progress in integrating the three pillars of sustainable development: environmental, social and economic. The guidelines are closely related to the two themes of the United Nations Conference on Sustainable Development (Rio+20), which were established in

resolution 64/236 adopted by the United Nations General Assembly: (i) a green economy in the context of sustainable development and poverty eradication; and (ii) the institutional framework for sustainable development. Guidelines 4 and 6 refer mainly to the institutional framework for sustainable development, whereas guidelines 1, 2, 3 and 7 concern the green economy. It is acknowledged, however, that the countries in the region have not yet reached agreement on the meaning of the term “green economy”. As a result, the concept will take on different connotations in line with the priorities and particular characteristics of each region and country and cannot be seen in isolation from the objectives of sustainable development and poverty eradication. Guideline 5 is related to both these objectives.

Certain basic principles underlie the guidelines, including respect for human rights and priority consideration of the interests of groups who are at a potential disadvantage, including women, indigenous peoples, Afro-descendants, older persons, children and persons with disabilities, who are in vulnerable situations due to discrimination, poverty, health and socioeconomic inequality.

Guideline 1

Create synergies among inclusion, social protection, human security, empowerment of people, disaster risk reduction and environmental protection

The following actions are suggested under this guideline:

- (a) Implement mechanisms such as public investment, regulation and public-private partnerships to expand services that can contribute to simultaneously overcoming social and environmental deficits, adaptation to climate change and disaster risk reduction, with an emphasis on the creation of decent jobs;
- (b) Strengthen policies designed to empower people and promote human security;
- (c) Implement disaster risk reduction strategies that include the expansion of social protection mechanisms, such as conditional transfers, temporary job creation schemes and microinsurance, and incorporate the nutritional dimension;
- (d) Promote a social and fiscal covenant to facilitate the above measures.

Guideline 2

Measure the sustainability of development

The following actions are suggested under this guideline:

- (a) Assign values to both wealth and heritage assets, including countries' natural and cultural heritage;
- (b) Improve the knowledge and analytical capacities of decision makers in the executive, legislative and judicial authorities regarding the economic and social importance of the environment as part of a country's heritage.

Guideline 3

Internalize the environmental and social costs and benefits of public and private economic decisions

The following actions are suggested under this guideline:

- (a) Adopt regulatory measures and economic instruments (such as fiscal tools, public investment and credit, and government procurement, among others) which attribute value to externalities (both positive and negative) and enable agents to calculate the overall costs and benefits of their activities;
- (b) Allocate financial, human and technological resources to strengthen the enforcement of environmental laws and regulations and increase the costs of non-compliance;
- (c) Increase the profitability of activities, sectors and technological choices that have a smaller environmental impact and create or enhance incentives to promote them. Eliminate direct or indirect subsidies for activities or technologies that damage the environment;
- (d) Encourage environmental and ecosystem protection by generating economic alternatives for communities located in areas prone to degradation, in accordance with the cultural values of each country and community;
- (e) Create or adjust mechanisms such as royalties to channel resources into human capital training and other sources of competitiveness to facilitate transformation of the production structure;
- (f) Send proper signals to essential sectors, especially energy, in order to encourage more sustainable patterns of production and consumption.

Guideline 4

Improve the coordination and consistency of public action in relation to sustainable development policies

The following actions are suggested under this guideline:

- (a) Create bodies to coordinate public action among different authorities, sectoral areas and levels of government to identify and discuss reforms in favour of sustainable development and their practical implications;
- (b) Plan for sustainable development;
- (c) Conduct land-use planning in regions and cities;
- (d) Carry out strategic evaluations of sectoral policies (on energy, agriculture, infrastructure, integration, urban development and fiscal matters, for example) to ensure that such policies are not working at cross-purposes and to identify possible unwanted effects;
- (e) Adopt sustainable development goals

Guideline 5

Produce and disseminate statistics and information on the environment and sustainable development

The following actions are suggested under this guideline:

- (a) Strengthen environmental information systems;
- (b) Enhance the integration of economic, social and environmental information systems;
- (c) Foster a territorial focus in gathering information for sustainable development;
- (d) Increase human and financial resources to boost the production, processing and dissemination of environmental and sustainable development statistics and indicators and develop awareness-raising strategies to expand their use.

Guideline 6

Formulate better policies based on a more informed, participatory process

The following actions are suggested under this guideline:

- (a) Establish an international agreement to take steps towards the effective implementation of principle 10 of the Rio Declaration, guaranteeing access to information, citizen participation and justice in decision-making on environmental issues, especially to persons who are disadvantaged as a result of discrimination, poverty or poor health;
- (b) Improve or establish clear national legal frameworks and procedures for obtaining environmental information, with the necessary oversight mechanisms and procedures for providing access to disadvantaged groups and groups who have traditionally been under-represented politically, such as women, young people, indigenous people and Afro-descendants;
- (c) Expand citizen participation in the adoption of State policies, plans and programmes, establishing clear and transparent mechanisms to consider citizens' views;
- (d) Consider creating judicial bodies specialized in environmental matters;
- (e) Establish standards for the adoption of eco-labelling and other information mechanisms that convey commitment by corporations to the principles of sustainability and that inform and educate consumers;
- (f) Improve or establish transparency and accountability laws applicable to national and subnational public bodies.

Guideline 7

Strengthen education, culture, science and technology in order to build human capital for sustainability

In line with Agenda 21, chapter 36, the following action must be taken to build human capital for sustainability:

- (a) Reform curricula to include education for sustainable development at all educational levels, adopting measures to institutionalize, finance and sustain it based on research, capacity-building and the exchange and systematization of experiences;

- (b) Address pre-existing needs, such as retaining children and young people in the education system, improving the skills and recognition of teachers in public education, mainstreaming information and communication technologies (ICTs) in education, and better management of schools and centralized and decentralized bodies;
- (c) Promote and encourage education for sustainable development outside the formal system;
- (d) Raise awareness of environmental issues and sustainable development among the general public, seeking cultural change and paying special attention to building technical capacity among disadvantaged and underrepresented groups, such as women, indigenous people and Afro-descendants;
- (e) Finance education, especially among the poor, young people and women, on sexual and reproductive rights, including a comprehensive sex education that deals from early childhood with gender equality and self-care issues, in order to help reduce gender violence, unwanted pregnancies, maternal mortality and the spread of sexually transmitted diseases such as HIV/AIDS;
- (f) Reform science and technology systems in order to improve their management and encourage innovation and knowledge generation, with a view to boosting competitiveness in knowledge-intensive and environmentally friendly sectors and thus enable a transition to more sustainable development;
- (g) Finance cross-disciplinary research that encourages the generation of new technologies aimed at meeting the needs of the countries of the region and, in particular, disadvantaged groups;
- (h) Promote South-South cooperation to link and coordinate common actions between different countries, in order to provide local scientific and technological solutions for development problems, emphasizing strengths and focusing on exploiting the opportunities identified;
- (i) Create an education programme on sustainable development in a context of climate change, the key elements of which are to generate resilience, reduce the ecological footprint and boost future professionals' knowledge of the challenges and opportunities presented by sustainable development;

- (j) Direct resources to the development of information technologies that generate spatial data infrastructure and innovation in remote sensing technologies, in particular for regional, national and local climate monitoring;
- (k) Direct resources to the development of renewable energy technologies, technologies for sustainable water management, alternative agriculture and cleaner production technologies, among others;
- (l) Create mechanisms for disseminating traditional knowledge and that of entities such as local universities, in order to integrate it into knowledge networks.

V. INTERNATIONAL CONDITIONS FOR MOVING FORWARD WITH THE CROSS-CUTTING GUIDELINES

International cooperation (in the form of financing or technology transfer) and the terms of international trade are not sufficient, either in relation to the commitments made or the region's needs. The region still faces international market barriers to its products, especially those of higher value added. With a few notable exceptions, developed countries have not honoured their commitments to provide financial assistance, or shown leadership in alleviating global public bads such as climate change. There are some examples of successful technology transfer in specific areas, in particular under multilateral environmental or trade agreements, but technological weaknesses and the world intellectual property system limit those transfers. On the trade front, the outcome of the Doha Round is still up in the air. The current state of multilateral governance has been incapable of addressing the pressing challenge of achieving greater consistency between the conditions arising from global mechanisms and forums and the real needs of countries of the region. In this regard changes must be made to the international governance for sustainable development so that there is greater consistency among organizations working in development and associated with various international agreements and in the negotiations and commitments undertaken in international forums (on trade, climate, environment and finance, for example).

Governments should be encouraged to ratify and implement international instruments promoting sustainable development and protecting the rights of disadvantaged groups. It is also essential to work towards region-wide cooperation and agreements to gradually internalize environmental costs, assign values to both wealth and heritage assets, including countries' natural and cultural heritage, and take steps towards the effective implementation of principle 10 of the Rio Declaration.

VI. CLOSING REMARKS

Rio+20 represents an opportunity to redefine the future development vision to which countries aspire, with human beings at the centre and set within the current context. The proposals made here, together with numerous other similar initiatives, are intended to nourish these visions. Yet the challenge of sustainable development lies ultimately at the doors of the main actors—States, private economic agents and civil society—who must choose the values on which to base their action. States, through Governments and the public apparatus, must guarantee citizens equal and equitable possibilities and potential and must work with the private sector to ensure that markets send the right signals in the short and long terms to promote sustainable development. Economic activity must focus on meeting human needs and maintaining the integrity of both the environment and people. Civil society must have the freedom to develop creatively and responsibly in the areas of health, education, culture and spirituality.

The establishment of regional or global agreements or shared commitments based on previously agreed sustainable development indicators could help to drive a faster transition towards full internalization of environmental costs, as well as the creation of compensation mechanisms for the sectors most disadvantaged in the short or medium terms by the relative price shifts arising from the recognition of environmental costs.

This report describes the progress achieved in relation to sustainable development since 1992 and the gaps still remaining. It draws attention to a pressing environmental, social, economic and institutional situation. Above all, however, it highlights the vast potential for advancing economic management towards a more comprehensive model in keeping with the notion of inclusive and sustainable development. The guidelines proposed aim to seize the opportunity Rio+20 offers to redefine the vision of future development to which the countries aspire.

“Both science and economics tell us our current path is unsustainable. Ecosystems are under stress. Economies are faltering. The human appetite for resources keeps growing. We need to chart a new, more sustainable course for the future, one that strengthens equality and economic growth while protecting our planet. Sustainable development offers our best chance to change course.”

Remarks by the Secretary-General of the United Nations, Ban Ki-moon, at the launch of the Global Sustainability Panel Report, “Resilient People, Resilient Planet: A Future Worth Choosing” (A/66/700) (Addis Ababa, 30 January 2012).

