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**Evaluation of the Dutch foreign policy with  
respect to Latin America**

**Thematic study Sustainable Development**

**Case Study: Context study of Latin America region**

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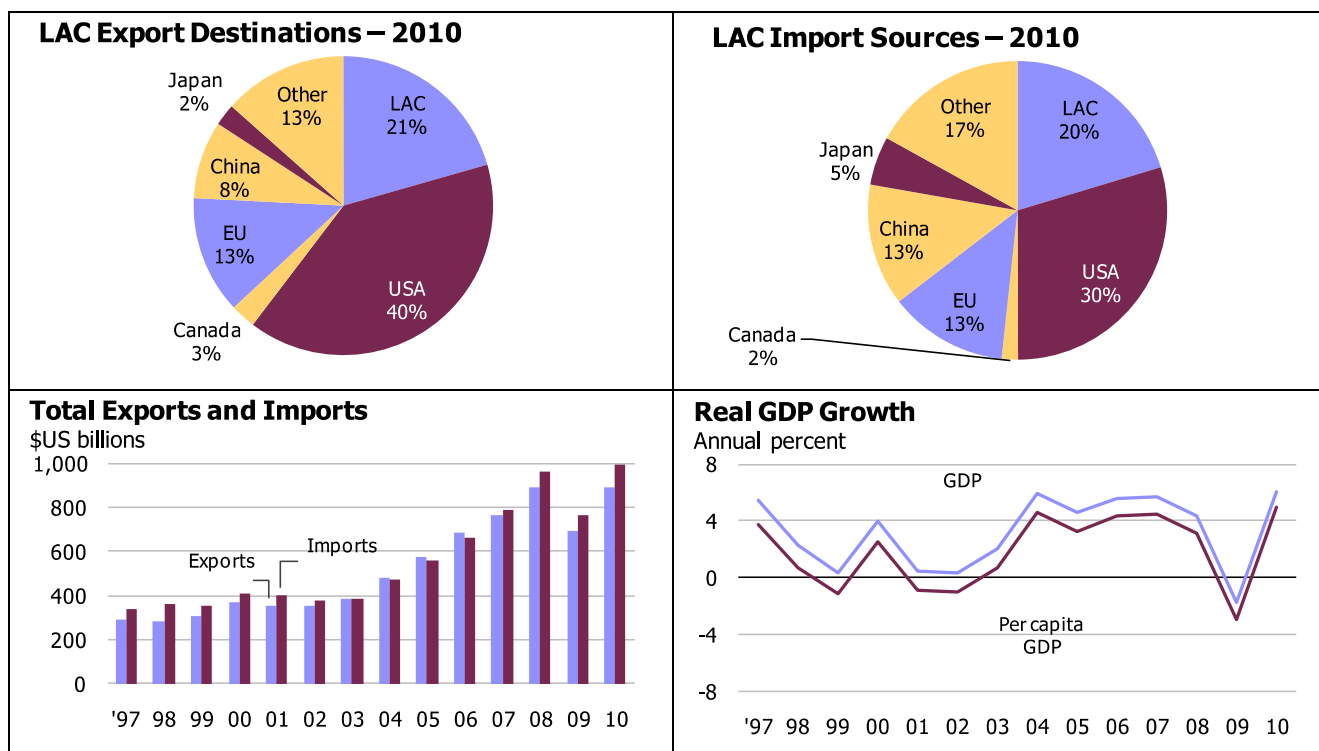
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# 1 Context: Developments in Latin America 2004 – 2011

## 1.1 Political and socio-economic developments

### 1.1.1 Economic and human development in LAC region

During the period covered by this study (2004-2011), the Latin America and Caribbean (LAC) region has shown a shift in development trends as compared to the previous period. In the '80s and '90s, the region has been experiencing slow growth, high inflation, political turmoil, high debts and defaults, and currency devaluations. Many would consider that period as 'lost' when compared to the economic growth in Europe and Asia. However, since the turn of the century the region has shown relatively stable growth (with a dip in 2009 due to the global crises). The main economic driver is a sustained strong demand in Asia, especially China, for primary commodities produced in the LAC region, including iron ore, coal, tin, timber and soy. This growth has been enabled by stable democratic governance and institutional, policy and fiscal reforms in the years before. These reforms created a stable macro-economic context facilitating foreign investments and growing export of commodities to USA (40% of all export), LAC region (21%) and EU (13%). While the USA and Europe experienced an economic turndown since 2008, many countries in the LAC region continue to grow. The LAC region is also becoming a stronger domestic market for its own producers. In the region GDP is expected to grow by 4.4% in 2011 and 4.1% in 2012.



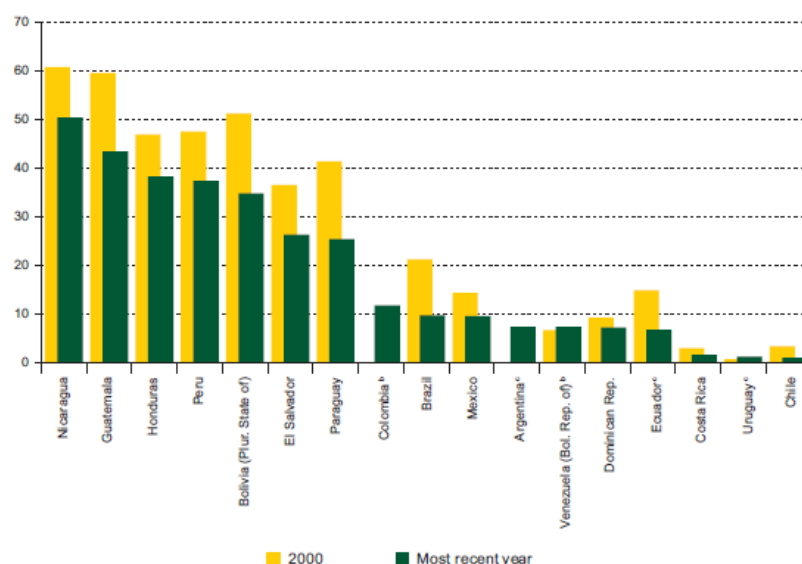
Source: USAID LAC Databook 2011 based upon OECD/DAC Statistics.

However, in terms of economic growth some critical remarks can also be made. First, there are important disparities between LAC countries. In 2010, only 9 out of 35 countries showed GDP growth rate of more than the average of 5%; 26 showed less than average growth. Seven countries had a negative growth rate. Second is the fact that the LAC region depends for around 50% on the export of primary goods based on natural resources and 60% of manufactured value added is based upon natural resource-intensive sectors (in comparison, in the USA 60% is based on knowledge-intensive sectors). The LAC region has not witnessed a structural shift towards knowledge-intensive manufacturing sectors between 1990 and 2007, and the index of relative

productivity has shown a decline.<sup>1</sup> The trade balance deterioration has been offset in recent years by high prices for the region's agricultural and mining exports, sharpening the dependency on these products.

In the past 20 years the LAC region has made headway in reducing poverty. The average poverty rate has declined from 44.4% in 2003 to 31.4% of the population in 2010 and a projection of 30.4% in 2011.<sup>2</sup> Despite this positive trend, the number of people still living in poverty in the LAC region is still 177 million in 2010 and the gap with the developed countries has not narrowed. Also, when looking at country level there are still great disparities, with low levels of poverty in countries like Chile and Costa Rica, and remaining high levels in countries like Bolivia and Nicaragua as well as some Caribbean island states. Looking at the period of 1990 to 2004, Brazil, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Mexico and Panama show a decline in poverty while Argentina, Colombia, Peru and Venezuela show an increase in poverty.<sup>3</sup> However, trends over the last 5 years (2004-2010) seem to be positive across almost the entire LAC region, as based on both World Bank and ECLAC statistical data.

**LATIN AMERICA (17 COUNTRIES): MULTIDIMENSIONAL POVERTY RATES, 2000-2009<sup>a</sup>**  
(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.

<sup>a</sup> The survey year used differs between countries. The period 2000 corresponds to the latest survey available in 2000, and the period 2009 represents the latest surveys available between 2006 and 2009.

<sup>b</sup> The surveys available around the year 2000 do not support a comparable estimate of multidimensional poverty.

<sup>c</sup> The data relate to urban areas only.

Source: ECLAC, 2012. *Sustainable development 20 years on from the Earth Summit*

Other positive trends can be recorded over the period of 2004-2010 in the Human Development Index, access to energy, access to water and sanitation services and inequality. The proportion of people living in slums has declined but the numbers have increased to 110 million, with 60% of slum dwellers living in Brazil, Argentina and Mexico. In spite of an improvement in the Gini index<sup>4</sup>, in terms of inequality the LA region still has a bad score: ten countries rank among the 15 most unequal countries in the world (based on Gini-data). Inequality has historical roots in the unequal distribution of land and wealth inherited from colonial times, but has been reinforced by more recent industrial and financial wealth concentration. Inequalities occur in terms of household

<sup>1</sup> ECLAC 2012, *Sustainable development 20 years on from the Earth Summit*

<sup>2</sup> Economic Commission for Latin America and the Caribbean (ECLAC), CEPALSTAT Database.

<sup>3</sup> GDAE (2007), "Declining Poverty in Latin America: A critical analysis", Working Paper 07-02

<sup>4</sup> The Gini-coefficient measures inequality: zero means perfect equality and 100 (on the percentile scale) means maximal inequality.

income (or expenditure) but also in terms of education, health, safety, and access to services (IBRD, 2003<sup>5</sup>). With regard to gender inequality, women generally make up approximately one-third of the LAC labour force, but they account for approximately half of all informal wage jobs, are over-represented in the self employment sector and are underrepresented in the formal sector (Cunningham, 2001). In addition, differences in conditional average earnings can be noted between different racial and ethnic groups (for example in Bolivia, Ecuador, Guatemala, Mexico and Peru: Hall and Patrinos, 2004). Inequality also has a strong territorial component: the LAC region shows highly uneven patterns of land use.<sup>6</sup> Inequality enhances poverty, it hinders economic growth and may lead to violence. More unequal countries need to have a higher economic growth in comparison to egalitarian countries to obtain the same 1% reduction in poverty. The majority of Latin Americans (89%) regard the distribution of income and assets as unfair and the level of trust in its institutions is low (IBRD, 2003).

During the first decade of the 21st century, changes in the political landscape took place, responding to the transitions in economy and the break with the previous period. This resulted in three general political tendencies: a group of countries with the stronger economies of the region (Brazil, Chile, Argentina) with a strong transition economy applied a market based, socialistic model, looking actively for new markets and searching for south-south integration. Other countries (Colombia, Peru) chose a more liberalized political-economic model, supported by free trade agreements with, particularly but not only USA. A third group of countries (Venezuela, Ecuador, Bolivia; united in the Bolivarian Alliance for the Americas, ALBA ), in search of a radical change with previous weak governmental systems that were highly influenced by external forces, chose a socialist, anti liberal direction: national resources were increasingly nationalized or new conditions were enforced upon multinationals. These three directions caused a certain polarization and even political tension between the ALBA states on one side and the liberal states (including USA) on the other. The third group (particularly Brazil) frequently acted as mediator in these conflicts.

Besides relative macro-economic stability, the OECD LAC Economic Outlook 2012 states that “a key challenge is creating mechanisms and incentives for a knowledge and innovation-based economy that would achieve higher productivity levels and a more diversified economy, in an environment where incentives and signals – like the exchange rate – often strengthen profitability and the expansion of natural resource-based sectors”. Or in other words, economic growth and profitability should not be based on low wages and profits by natural resources production and expansion in pristine areas, but rather stimulate more income for its people (reduce poverty, enhance social inclusion and expand the consumer base) and investment in existing agricultural lands (value added activities while preserving natural areas). If not, economies will remain dependent on the export of primary products with low added-value and sensitive to world commodity price fluctuations. Low levels of fiscal revenues in Latin America impede states from making necessary investments in education, infrastructure and productive development & innovation, which together with health and social protection, are considered key levers to increase productivity, competitiveness and social inclusion. In order for this to change, specific fiscal reforms are necessary.

### **1.1.2 Political and socio-economic developments in Bolivia 2004 - 2011**

Bolivia had a tumultuous start of the century, with several government changes and heavy social uproar but it entered in a relatively stable political and economic situation after Evo Morales took office in 2006. Since then, there has been a decisive shift towards satisfying the demands of Bolivia's majority indigenous population, and in particular the social movements which represent them. The "democratic and cultural revolution" of Evo Morales aims to “re-found” the Bolivian state as "multi-national" to include the poor. The drafting of a new constitution has been the

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<sup>5</sup> IBRD kunnen we consequent zijn? (dus of IBRD of World Bank) (2003), “Inequality in Latin America and the Caribbean: breaking with History?”

<sup>6</sup> ECLAC 2012, Sustainable development 20 years on from the Earth Summit

cornerstone of this transformation. The Morales administration has implemented an array of economic and social policies to empower indigenous peoples and reduce poverty and inequality. Bolivia's main governmental policy is the National Development Plan, designed during President Morales' first administration. Its goals are to boost economic growth through public investment, promote productive development and improve infrastructure. In the social sectors, it aims to reduce inequality, eradicate exclusion and increase the coverage of public social services.

Bolivia continues to be divided both ideologically, between right and left, and geographically, between east and west. On one side are the central government of President Morales' *Movimiento Al Socialismo* (MAS) and the MAS-governed departments, which are mainly supported by the rural, indigenous poor and the lower middle classes. On the other side are the eastern departments of the so-called "*Media Luna*" (Santa Cruz, Tarija, Beni and Pando), which draw support primarily from the business sector as well as the non-indigenous population. Control over natural resources and land redistribution are also critical issues. The new constitution outlaws land tenure that does not fulfil any social or economic function. The government has given indigenous Guarani people title deeds to 38,000 hectares that were the property of landholders in Santa Cruz.

Over the period of 2004 to 2011, Bolivia's total population increased from 9 million to 10 million, a growth rate of around 1.5% per annum. Total GDP was US\$ 9 billion in 2005 and has grown steadily (4-5%/yr) to 13 billion in 2011 (30% increase). GDP per capita was US\$ 5,130 in 2011, ranking Bolivia at 111 among 180 countries (world bank data). Economic growth was driven by high commodity prices (especially in the hydrocarbons and mining sectors) and prudent fiscal and monetary policies. Current national budget surpluses have prevailed since 2003, and the fiscal balance turned positive in 2006 for the first time in decades. Thanks to this positive macroeconomic performance and debt relief, gross public debt dropped from 96% of GDP in 2003 to 40% in 2010. Deposits have tripled and credits doubled in the last seven years while banks have strengthened their solvency and liquidity. In the period of 2004 to 2011 the economy grew with 30% but per capita income grew by only 18%. The poverty reduction strategy included in the National Development Plan resulted in a slight decrease of the national poverty rate, from 63% in 2005 to 59% in 2008, but extreme rural poverty fell sharply, especially among rural indigenous groups. Although the Gini index decreased slightly from 0.62 in 2000 to 0.56 in 2007, it is still one of the highest in the LAC region. Inequality is greater in rural areas (Gini of 0.64) compared to urban areas (0.51), caused by a still unequal land distribution.

Bolivia still faces major development challenges. It still has very low income levels and high poverty and inequality, restricting its domestic market. Recent economic growth is vulnerable to shifts in international commodity prices and total (foreign and domestic) private investment is low, limiting economic expansion. Public sector governance is weak, limiting policy effectiveness and outcomes. And while much abated since the Government's re-election in December 2009, social and political tensions could return to the fore, especially if economic development slows. In recent years, some social groups that initially supported the government have participated in protests to demand specific investment projects and to oppose government policies, including the proposed withdrawal of subsidy for hydrocarbon derivatives and a project to build a highway through a protected area and indigenous lands. Six out of every ten urban workers is employed in the informal sector (about 75% of women and 60% of men)—one of the highest informality levels in the world—constraining the development opportunities of micro and small enterprises, tax revenue and overall economic growth

Although net foreign investment steadily grew from under US\$ 100 million in 2004 to over US\$ 800 million in 2011, it still is relatively low compared to other countries in the region. According to the World Bank's country strategy<sup>7</sup>, a reason for this is that Bolivia's private sector continues to face significant challenges, ranging from the country's geographical isolation, heavy operating costs, to burdensome red tape. Productive enterprises in the rural sector—where one-

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<sup>7</sup> The World Bank Group (2011) Country partnership strategy for the plurinational state of Bolivia for the period FY2012-2015

third of the population lives—remain hampered by inadequate infrastructure. Nationalization of some firms in the hydrocarbons, smelting, electricity, telecommunications, water and cement sectors poses additional challenges, which might be compounded by ongoing reforms of the regulatory framework. The Government has created and strengthened public enterprises in several sectors including food, mining, manufacturing and banking.

### **1.1.3 Political and socio-economic developments in Brazil 2004 - 2011**

The population of Brazil was 182 million in 2004, which increased with 11% to 203 million people in 2011 (IMF, July 2011 estimate). Between 1995-2002, the then President Cardoso introduced far-reaching economic, fiscal, market and social reforms in line with IMF policy views. Foreign Direct Investment – especially from EU countries – increased significantly due to liberalisation of the economy (UNCTAD, World Investment Reports). In 2003, Luiz Inacio Lula da Silva was installed as President and re-elected in 2006. Lula continued many of the existing liberal economic policies but also introduced new social policies and programmes, which enhanced macro-economic stability, repaid Brazil's international debt and reduced poverty.

In 2005, Brazil produced 2.4 million motor vehicles, 33 million tons of steel, 34.4 million tons of cement, 5.9 million television sets, 23.3 million cellular phones, and 4.8 million refrigerators annually. The country's paved road network increased between 1960 and 2006 from 36,000 to about 190,000 kilometers. Brazil had 90,700 megawatts of installed electric power capacity in 2004, and over 60% of its exports consisted of industrial products (Baer, 2008). In 2004, the agrifood sector was responsible for 35% of total employment (Choices, 2006). Brazil has a young population and is urbanising fast. As a result of rural-urban migration and population growth, in 2006, 85% of the people lived in cities and Brazil now has 12 metropolitan areas of more than 1 million people. Brazil would be comparable to the EU in terms of its standard of living, industrial production, availability of modern services and appliances and connectivity.

However, Brazil is not yet considered a 'developed country' mainly because its GDP per capita 2011 is still relatively low (US\$ 11,769 as compared to US\$ 31,607 for the EU) (IMF figures 2011). Moreover, its income distribution (based on the Gini-coefficient) is very poor<sup>8</sup>. In 2009, 21.4% of the population could be considered poor by World Bank standards in comparison to 30.5% in 2005 (World Bank data). In Brazil 16.2 million people (8.5% of the population) still live in extreme poverty in 2010 (defined as having 70 Reais /28 euro per month). Of these, 59% lived in the historically most impoverished Northeast region. However, one of the successes of the last decade is the income growth and reduction of poverty, thus also creating a more solid domestic market.

The Brazilian government understands the social agenda is intrinsically connected to the economic agenda and by its social-economic policies positions itself somewhere between the USA's liberal and market-oriented policies and Europe's social welfare policy views. Brazil's former President Lula considered the fight against poverty and hunger a priority and launched the Zero Hunger programme. The programme supported social protection measures and ensured social rights. In 2004, the Ministry of Social Development and Fight against Hunger was created (in 2009 it had a budget of US\$14.21 billion). The two main policy lines are: a social assistances programme with conditional cash transfers ('Bolsa Familia') and a programme for creating opportunities for social inclusion. 'Bolsa Familia' supports around 45 million poor people and participating families must keep their children in school and pursue basic health care. The aim is to break the poverty cycle across generations. The programme also increasingly promotes opportunities for work and income generation for poor people through training, support for entrepreneurship, family agriculture and production-oriented micro-credit. In addition, Brazil has a support programme called Continuous Cash Benefit, which pays a minimal wage to 2.5 million elderly people and people with disabilities. Studies show that the income support is mainly used to purchase food and has positive impacts on local and regional economies. A new law related to the National System of Food and Nutrition

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<sup>8</sup> Brazil ranks 13<sup>th</sup> in 2011 of countries with the highest Gini-coefficients with 54%. Bolivia and Colombia are even worse with 57% and 56%. The Netherlands stands at 31% (World Bank, Gini-index).

Security requires the state to be involved in food production through strengthening family agriculture, commercialisation and storage, food education, and access to water and food. Despite the success, Brazil still has many poor people and is a very unequal society. Brazil's new President Dilma Rousseff launched a new welfare scheme (called 'Brasil sem Miséria', Brazil without poverty) to lift people out of poverty by 2014.

#### **1.1.4 Political and socio-economic developments in Colombia 2004 - 2011**

During the last decade, Colombia has shown two distinct faces to the world: while it is still engaged in its ongoing internal conflict and suffers from the complex situation of drug trade, it also has shown a stable growth of a diversifying economy and resilience to the recent global economic crisis. Colombia has been engaged in an internal armed conflict between guerrillas, government forces and paramilitary groups for over 40 years. The Government is trying to restore the authority of the state by the deployment of regular armed forces throughout the country. Currently between 1.5 and 3 million people are displaced by the conflict. Colombia is also the world's leading producer of cocaine. The resultant parallel economy is both a consequence and a cause of the conflict. According to UNODC, coca cultivation and cocaine production fell from 1.4% to 0.3% of Colombia's gross national product between 2001 and 2009, thanks to shifting drug routes, tighter controls and crop eradication. However, this still represents more than 1 billion US\$.

Successive governments have implemented a variety of policies in an attempt to deal with the situation, without finding a definitive solution. President Álvaro Uribe Vélez' government (2002-2010) implemented the "Democratic Security" policy and took forceful measures to restore the rule of law throughout the country. This policy has resulted in a greater feeling of security in the country and served to alter the dynamics of the conflict. Most of the indicators of violence have fallen. The major guerrilla groups (FARC-EP and ELN) have diminished their number of combatants and their territorial control is now limited to their historical areas (southern Andes and Amazon, parts of *Llanos Orientales*). Talks on the demobilisation of the paramilitary groups resulted in the adoption of the "Justice and Peace Law", which supplements the legal mechanism for the demobilisation of illegally armed groups. In spite of the improved security situation, the situation as regards human rights and democracy is still critical. Indigenous peoples and Afro-Colombians, as well as, social leaders, trade-union leaders, journalists and human rights defenders, are still highly vulnerable.

In August 2010, President Juan Manuel Santos took office, heading a national unity coalition. Its approach is to maintain the fundamentals of the democratic security policy towards the armed conflict but a wider national development policy. This National Development Plan "Prosperity for All" was launched in 2010 with the overarching goals to increase employment, reduce poverty, and improve security. The Plan has three strategic areas: (1) Sustainable Growth and Competitiveness, (2) Equality of Opportunities for Social Prosperity, and (3) Consolidation of Peace. Major achievements in recent years include the restoration of diplomatic and trade relationships with Venezuela and a normalization of relations with Ecuador, and the agreement reached with the United States to implement the bilateral Free Trade Agreement. Santos' administration also showed more openness to a diplomatic solution to the conflict with guerrilla groups, leading to an initiation of peace talks in late 2012.

Between 2004 and 2011 the population of Colombia increased from 42 million to 47 million people (12.5% increase). In this period, GDP (based on purchasing-power-parity) has increased from US\$ 292 billion to 472 billion (62 % increase: IMF data). Between 2004 and 2011 GDP per capita (at PPP) grew from US\$ 6,898 to US\$ 10,103 in 2011 (46% increase). This situates Colombia at an intermediate position among all countries in the world (83 among 180) but relatively low in South America. Between 2004 and 2007, GDP growth averaged 5.0% per year on account of an improving security situation and a favourable external environment. Following a period of economic growth, the economy was little affected by the global economic crisis thanks to the country's strong macroeconomic framework and the resilience of the financial sector: the economy



slowed down in 2008 to a growth rate of 3.5% and 1.5% in 2009. By 2010, the economy had largely recovered (GDP growth of 4.3%), although a collapse in exports to Venezuela has held back some economic expansion.

Poverty has fallen since 2003, but remains high at 37.2% in 2010 while 12.3% of Colombians are extreme poor. The relatively slow response of poverty to economic growth is explained by a highly unequal income distribution: the Gini coefficient is the 7th highest worldwide (World Bank country strategy 2012).

Colombia's economy is well endowed with natural resources, including oil, coal, gas, iron, and gold. The domestic market is sizeable, making it important for aggregate demand growth. Agribusiness (particularly coffee) and manufacturing (e.g. the car industry) are also relatively well developed. Improved security combined with business-friendly investment rules has led to a surge in foreign direct investment (EU country strategy paper 2007-2012). Foreign investment is steadily increasing and now at US\$ 2.5 billion. The EU is the leading contributor of FDI (26% of the total), mainly in the electricity, gas and water sectors, the financial sector and the metal-mining industry. Colombia now has a slightly positive trade balance (US\$ 54 billion exports vs. US\$ 51 billion imports). The USA is the main destination of Colombian products and expected to increase following the signing of the free trade agreement between the two countries. The second most important market is the Andean Community, followed by the EU. In June 2012 the EU signed a Trade Agreement with Colombia (and Peru). This Agreement is estimated to be worth half a billion Euros in duties saved alone and is expected to boost Colombia's economies by close to 1% of GDP.<sup>9</sup> Export to EU totals approx. 10 billion US\$. Total external debt is almost US\$ 60 billion (12.7 % GDP).

Between 1997 and 2008, there were significant improvements in social indicators such as opportunities for children to receive health care and education, and a general improved access to electricity and telephones. Main challenges remain in terms of access to quality social services, particularly in terms of unequal access to safe water, nutrition, food security, early childhood development (ECD) and education and health services.

Colombia's dependence on a healthy natural environment and its vulnerability to natural disasters was shown by the 2010-2011 floods. Extremely high rainfall led to widespread flooding and landslides. Almost 3 million people, especially poor, were affected through loss of homes or public services. The fiscal cost of the disaster increased the Central Government deficit by 0.2 and 0.4% of GDP in 2010 and 2011, respectively.

## 1.2 Trade and the structure of LAC economies

### 1.2.1 Global context

During the '90s globalisation was promoted, i.e. a closer integration of countries and people of the world by reducing barriers to the flow of goods, services, capital, knowledge and (much less) people. This was based on a view promoted by the USA, the IMF and the World Bank on macro-economic stabilisation, trade and investment. This 'Washington consensus'<sup>10</sup> of the '90s argued that state interventions distort the functioning of markets and prevent the emergence of a dynamic private sector and supported the view that a high level of integration into global markets stimulates economic growth. While 'globalisation' had measurable benefits, the opening up of economies (i.e. reducing trade barriers and tariffs), privatisation and de-regularisation also led to negative effects on poverty reduction and employment within countries and reduced financial and economic

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<sup>9</sup> <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/regions/andean/>

<sup>10</sup> Many ideas of the Washington consensus are a response to problems in Latin America, where governments had let budgets get out of control resulting in high debts, and had loose monetary policies, which led to high inflation.

stability. Capital market liberalisation proved inappropriate for countries in early stages of economic development or for countries in transition (Stiglitz, 2001).

Although many countries in the world still largely depend on the consumer markets in the EU and USA, the importance of South-South trade has increased. This is one reason why Brazil, Russia, India and China and other countries with a strong transition economy (Indonesia, México, Perú, South Africa) have suffered less than the OECD countries from the recent economic crisis. It has given rise to a changing economic balance at global scale with a particularly important role for China, nowadays the second largest economy and one of the main credit providers and importer of raw materials, food products and minerals. The changing economic balance has resulted in the increasing importance of the G20 (19 countries plus the EU, including Brazil, China and India: representing 90% of the world's economic output).<sup>11</sup> Also in other international fora like the World Trade Organisation and Climate Change Convention the emerging economies form influential coalitions and lobbies.

The global consumer demand will increase sharply over the next decades because of population increase (expected 9 billion in 2050) and per capita consumption increase especially in China and other emerging economies. This causes an exponential increase of demand for natural resources, energy, agricultural and manufacturing products. Several Latin American countries, particularly Brazil, Mexico and Argentina and to a lesser degree Perú and Colombia are important providers of natural resources (wood, mining products) and agricultural products (soy, meat). They will benefit economically from this increased demand, leading to more pressure on their natural capital and associated social sustainability challenges (such as land tenure and labour conditions). Countries whose economies highly depend upon natural resource extraction may also show low economic growth and development, a phenomenon known as the 'resource curse'. To solve these sustainability challenges, international co-operation is needed.

### **1.2.2 The dependence of LAC economies on global commodities**

During the period of this evaluation (2004-2011), the economies of LAC countries were characterised by increasing 'globalisation' and its economies generally showed growth, apparently as a result of export of primary products. Three mechanisms are considered particularly important for export-led growth: capital (including technology and innovation capacity), labour productivity and enabling state policies. Because the LAC countries responded differently to the political, economic and social challenges they faced domestically and internationally, the level of state intervention (high or absent) and level of free trade and globalization cannot wholly explain the current state of the economy, poverty levels or employment (World Bank, 2005). The picture is more complicated and context-dependent.

While LAC's economies *as a whole* are primarily based on natural resources intensive sectors, there are great disparities.<sup>12</sup> The more populous and economically larger countries in the region—Mexico and the South American nations—tend to be net commodity exporters. The less populous and smaller countries—mostly in Central America and the Caribbean—tend to be net commodity importers. Net commodity exporters house 93% of the LAC population and contribute 97% to LAC's GDP. In numbers, however, they make up just more than half of the LAC countries. The net commodity importers are mainly in Central America and the Caribbean. A country's status as an exporter or importer determines whether it gains or loses when commodity prices move sharply up or down. Thus, while most of the larger economies were winners (e.g. Bolivia, Venezuela) from the 2001–08 commodity boom, smaller countries in Central America and the Caribbean lost (e.g. El Salvador, Guatemala). The seven largest economies in the LA region on average gained 22%. It is also worth keeping in mind that, especially in a heavily urbanized region such as LAC, a large part

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<sup>11</sup> On September 25, 2009 the G20 leaders announced that this group would become a new permanent council and replace the G8 as the main economic council of wealthy nations.

<sup>12</sup> Sinnott et al. (2010). Natural Resources in Latin America and the Caribbean Beyond Booms and Busts? Worldbank, Washington

of the population, especially the urban poor, are losers when prices of essential or socially sensitive commodities (such as foods and fuels) rise.

Compared to high-income resource-abundant countries (e.g. Norway), LAC commodity exporters have lower (known) natural resource endowments per capita but are more dependent on natural resource revenues.<sup>13</sup> One explanation for the late exploitation of resources in Latin America is the lack of accurate knowledge about the extent and distribution of mineral deposits. The share of natural resources in total revenues has increased in the last decade in all LAC commodity exporting countries except Mexico. This is mainly because of higher prices in both oil and non-oil commodities. The latest global commodity boom (2001 - 2008) was for LAC the longest lasting and most comprehensive in numbers of commodities affected, and countries benefiting. As a result, the importance of commodities in LAC's export basket has declined far less than in other middle income regions such as East Asia, South Asia, and Eastern Europe and Central Asia. Commodities still account for half the value of total exports. This shows that LAC countries have managed to diversify exports significantly less than the other middle-income regions, where in 30 years the commodity share in exports was reduced significantly. But there is great heterogeneity among LAC countries, with dependence remaining high for some countries (Chile, Peru and Venezuela have a commodity share of 75% of exports) and falling for others (such as Brazil and Mexico).

LAC countries currently derive on average 24% of total fiscal revenues from commodities compared with 9% for the advanced resource-rich economies. The seven economies which make up 85% of LAC regional GDP all have a substantial commodity revenue share in overall revenues, ranging from 10 to 49% on average over 2004–08.<sup>14</sup> These countries are: Argentina (agricultural commodities), Chile (copper), Colombia (hydrocarbons), Mexico (hydrocarbons), Peru (mining), Venezuela (hydrocarbons) and Brazil (agricultural export commodities). In addition to these countries, some smaller economies in the region are highly dependent on commodity revenues, particularly Bolivia (natural gas), Ecuador (hydrocarbons), and Trinidad and Tobago (hydrocarbons). For many countries, the growing dependence on commodities as a source of fiscal revenue has been matched by an increase in dependence on commodity revenues to finance large increases in fiscal spending. Chile is a notable exception: while its public spending did increase every year from 1999 to 2009, it saved a large share of the copper boom.

There are differences between commodities in terms of development opportunities and thus between producing countries (Bulmer-Thomas, 2003). Some products like cattle and soy stimulate forward linkages in the value chain through processing before export, whereas products like bananas do not require processing. Commodities with forward linkages stimulate industrial development and innovation. Commodities also differ in their demand for input (backward linkages). Different commodities require different levels of labour, water, chemicals and machinery input to allow for profitable commercialization. There are also strong differences in market and consumer characteristics. Is the commodity for basic consumption or a luxury good? Are there synthetic alternatives and how are these perceived? For the producing countries important variables are competition with other regions in the world, production factors (soil fertility, salaries etc.), proximity to the market (including infrastructure) and potentials for branding. The variable ecosystem characteristics of LAC countries determine the suitability for certain commodities and specialization, which in turn has important implications for the potential of creating a value chain (soy from Brazil and Argentina versus bananas from Costa Rica and Ecuador). For the producing country the level of dependency on a single commodity will enhance vulnerability to economic shocks in consumer markets.

One might intuitively expect that greater natural resource wealth is associated with higher GDP per capita. However, some research has called into question whether a high dependence on incomes

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<sup>13</sup> Sinnott et al. (2010). *Natural Resources in Latin America and the Caribbean Beyond Booms and Busts?* Worldbank, Washington

<sup>14</sup> Sinnott et al. (2010). *Natural Resources in Latin America and the Caribbean Beyond Booms and Busts?* Worldbank, Washington

from natural resources is good or bad for development. This has led to the concept of the 'resource curse' or 'Dutch disease' which suggests that large rents from commodity production generate effects of concentrated production and export structures, high fiscal revenue dependence and high levels of public spending, which makes a country vulnerable to volatile commodity prices. Thus, these dynamics go beyond the simple impacts of price shocks on incomes, but suggests structural changes in institutional systems affecting economic performance, ultimately with negative effects on welfare in a country. Although there is no general evidence for these dynamics, if not managed properly, fluctuations can be reflected in shocks to the real economy, amplified through pro-cyclical government expenditures and exacerbated by the concentrated structure of production, exports, and fiscal revenues.<sup>15</sup> This, in turn, can compromise growth prospects. Another legitimate concern about resource extraction is that if rents are not reinvested in human or other productive capital, the economy's real stock of wealth will diminish over time.

### **1.2.3 Bolivia**

During the first half of previous decade, Bolivia suffered an economic crisis, characterized by a slowdown in economic growth, increased unemployment, large fiscal imbalances and an acute process of credit crunch in the banking system. Acute shortages of resources prevented the government from implementing countercyclical policies aimed at boosting aggregate demand and activity and at ameliorating the negative effects of the crisis on the most vulnerable segments of society. Starting from 2006, however, the country began to benefit from an extraordinary international economic environment. The prices of the main commodities exported by Bolivia, such as hydrocarbons and minerals, experienced significant increases in world markets. As a result, Bolivia's export revenues went up from \$2.2 billion in 2004 to \$6.8 billion in 2008. Hydrocarbon exports jumped from \$851 million to \$3.5 billion in the same years. This significant boost, coupled with an increase in the royalty rate paid on hydrocarbon production, which was approved in the new Hydrocarbon Law of 2005, represented a major increase in fiscal revenues.

Bolivia benefited from a significant reduction in its external public debt, under the G8 initiative. Between 2005 and 2008, the public external debt that Bolivia owed to multilateral organizations such as the International Monetary Fund (IMF), the World Bank and the Inter-American Development Bank (IADB) was reduced by \$ 2.9 billion, equivalent to 64% of the stock of public debt Bolivia owed to multilateral institutions at the end of 2004. Furthermore, remittances by Bolivian nationals who had migrated abroad experienced an increase, jumping from \$169 million in 2004 to \$1.1 billion in 2008. This had a significant impact on Bolivian households' incomes, which in turn contributed to reducing poverty incidence. As a result of all these positive shocks and events, Bolivia's fiscal position improved considerably. The consolidated fiscal balance presented surpluses averaging 3% of gross domestic product (GDP) between 2006 and 2008<sup>16</sup>. Increasing hydrocarbon and mining exports, together with high remittance inflows, led to a record-high current account surplus and large reserve accumulation. International reserves grew from 2 to 8.6 billion US\$ between 2002 and 2009.

Increases in food prices, combined with external surpluses, caused inflation to rise to double figures in 2007-2008. As part of its policy response, the central bank gradually allowed the Boliviano to appreciate, which contributed to a significant reduction in deposit dollarization. However, despite the predominantly positive trends, private investment rates remain among the lowest in the region. Trade negotiations with the European Union have proved difficult. FTA are not accepted by Bolivia. The government, supported by a significant part of Bolivian society, considers FTA's a threat to sovereignty and associated them with instability of labour,

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<sup>15</sup> Sinnott et al. (2010). Natural Resources in Latin America and the Caribbean Beyond Booms and Busts? Worldbank, Washington

<sup>16</sup> ODI (2010) Bolivia. Case Study for the MDG Gap Task Force Report

environmental degradation irrational natural resource exploration, unlimited enrichment of multinational companies and political imposition.<sup>17</sup>

The outbreak of the global financial crisis in 2008 found Bolivia in a relatively strong position to cope with the negative effects of the crisis<sup>18</sup>. The crisis reduced growth but Bolivia still presented a positive growth rate in 2009. Fiscal revenues went down, without causing a fiscal imbalance. The positive fiscal position allowed the government to implement countercyclical policies in order to offset the negative effects of the crisis on the poorest segments of the society. Thus, the crisis did not have a considerable negative impact in terms of bringing Bolivia off its track towards achieving the MDGs (see Box 1 for more details).

Although Bolivia was not totally immune to the global financial crisis, its major commodity exports such as natural gas and zinc experienced dramatic price increases in 2008, making price levels still high relative to 2006 even after subsequent declines by the latter quarter of 2008 (see Annex). Total exports decreased from \$6.8 billion in 2008 to \$5.3 billion in 2009, which is still higher than in 2007 and much higher than at the beginning of the decade. The composition of exports has changed during the decade, with hydrocarbons gaining the lion's share in total exports from 29% in 2003 to 50% in 2008 and 39% in 2009, owing to both price and quantity increases in natural gas exports. Mining has steadily increased its share, from 21.9% in 2003 to 27.8% in 2008 to 33.9% in 2009. Bolivian mining participates in the GDP in a 4.9% (average 5 years) and 31% of national exports. The value of production is more than 2 billion USD (2008), generating around 60,000 direct jobs (2008), of which 85% corresponds to the small-scale mining. On hydrocarbons, Bolivia proven natural gas reserves are estimated at 651,8 billion cubic meters and oil in 440,5 million barrels (2006).<sup>19</sup>

If we filter out the effects of prices, exports have actually increased in volume for all three macro sectors in almost each year of the decade except for hydrocarbons, which have declined somewhat since 2006. This is mainly because the country reached full capacity in hydrocarbon production in 2006 and because of lower demand by Brazil in 2009. Agro-industry's and manufacturing's share in total exports diminished from 36.9% in 2003 to 16.6% in 2008 and 24% in 2009 but the total figures were more stable. Agro-industry and manufacturing exports basically comprise soya and soya products, wood and wood manufacturing, textiles, Brazil nuts and sugar, among others (Table xx).

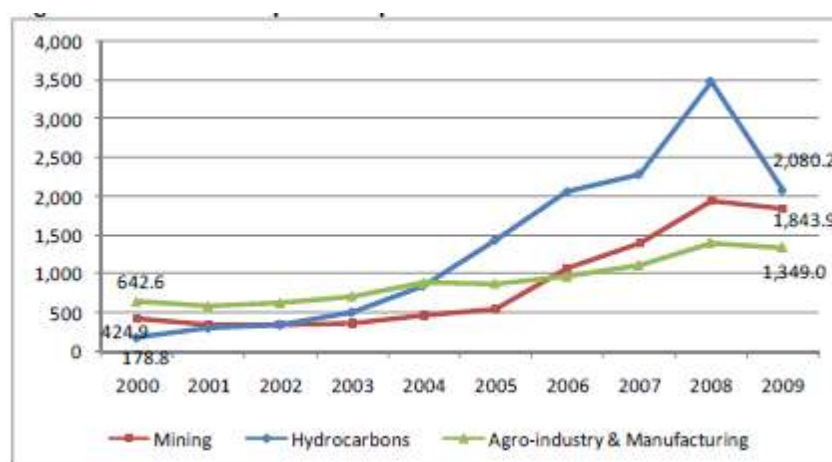


Figure XX. Total export development in Bolivia 2000-2009.

<sup>17</sup> EU (2010) Mid Term Review and National Indicative Programme 2011-2013

<sup>18</sup> Jemio, L.C. and O. Nina (2010) 'Bolivia'. Global Financial Crisis Discussion Series Paper 13: Phase 2. London: ODI.

<sup>19</sup> EU (2010) Mid Term Review and National Indicative Programme 2011-2013

Table ...: Bolivia, Production of selected agricultural commodities between 1990 and 2010 (in MT = metric tonnes).

Commodity	1990	1995	2004	2008	2010
Sugar cane (4)	3,880,190	4,263,630	5,496,110	7,009,200	7,437,700
Soybeans (1)	232,743	870,074	1,585,850	1,259,680	1,637,000
Maize	390,952	515,439	538,091	1,001,800	981,700
Potatoes	619,759	604,735	748,095	747,968	782,800
Plantains	325,000	339,191	432,818	451,204	464,200
Sorghum	50,720	104,051	165,275	404,446	403,200
Cassava	393,590	298,772	362,866	361,329	364,500
Rice	211,263	264,612	331,336	337,800	362,700
Sunflower (2)	n.f.	n.f.	76,540	27,3191	153,000
Brazil nuts (3)	n.f.	n.f.	40,000	42,629	39,080

(nr) = Top 4 exports of this list based on 2009 ranking of export commodities in value.

Source: FAO Statistics

#### 1.2.4 Brazil

In the 1980's Brazil adopted agricultural policies that promoted agri-business and agricultural expansion and opened their economy (see annex ...). At the WTO, Brazil started lobbying for reduction of agricultural trade barriers and continues to do so until today. Brazil has created a diverse economy: agriculture, cattle-raising, forestry and manufacturing industry (e.g. cars, airplanes, textiles) are the main engines of the economy. The policy reforms of the '90s reduced agricultural subsidies and made the Brazilian agribusiness sector very competitive. Agriculture production increased mainly through expansion in the Brazilian savannah area (called Cerrado) and the Amazon forests. In 2011, Brazil was the 7<sup>th</sup> economy of the world with a GDP of US\$2.1 trillion and total export grew to US\$250.8 billion<sup>20</sup>. The Netherlands (also as main port to the EU) ranked as the fourth export partner for Brazil with 5.3%, after China (17.3%), USA (10.1%) and neighbouring Argentina (8.9%)<sup>21</sup>. Though (basic) agricultural commodities are important, Brazil also exports many other products such as round wood and furniture, airplanes, cars, processed food, rubber, textiles and household apparel. In 2011, the top export products by value were iron ore, crude oil, transport material, soy, metallurgic products, raw sugar and ethanol. Primary products represented 48% of total exports, followed by manufactured products with 38%.

In 2011, the agricultural sector was responsible for 5.8% of GDP (6.9% in 2004) and the industrial sector accounted for 26.8% (30.1% in 2004). Brazil is one of the world's leading exporters on various commodities (e.g. coffee, iron ore, soy, orange juice, refined sugar). Between 2004 and 2010 the production of sugar cane (+42%: sugar and ethanol), soybeans (+28%: meal and oil), chicken (+19%: meat) and cattle (meat -8%, and milk +24%) increased significantly.

Table ...: Brazil, Production of selected agricultural commodities between 1990 and 2010 (in MT = metric tonnes).

Commodity	1990	1995	2004	2008	2010
Sugar cane (2)	262,674,000	303,699,000	415,206,000	645,300,000	719,157,000
Soybeans (1)	19,897,800	25,682,600	49,549,900	59,833,100	68,518,700
Maize	21,347,800	36,267,000	41,787,600	58,933,300	56,060,400
Cow milk	14,933,400	16,985,100	24,202,400	28,440,500	31,667,600
Cassava	24,322,100	25,423,000	23,926,600	26,703,000	24,354,000

<sup>20</sup> On the ranking of exporting countries Brazil stands at 22<sup>nd</sup> place with an export value of 202 billion in 2010 (The Netherlands stood at 5<sup>th</sup> place with a value of US\$ 572 billion) In 2010, Brazil ranked 20<sup>th</sup> on the list of importers with a value of US\$191 billion (the Netherlands ranked 7<sup>th</sup> with a value of US\$517 billion). Source: 'Brazil in Numbers', published by the Brazilian Ministry of Development, Industry and Trade MDIC).

<sup>21</sup> Website CIA World Fact Book.



Oranges	17,520,500	19,837,200	18,313,700	18,538,100	19,112,300
Chicken meat (3)	2,356,060	4,052,550	8,679,640	1,0247,200	10,733,000
Cattle meat (4)	4,098,320	5,627,680	7,778,570	6,700,720	7,196,140
Coffee	1,464,860	930,135	2,465,710	2,796,930	2,874,310
Tobacco (5)	445,489	455,986	921,281	851,058	780,942

(nr) = top 5 exports of this list based upon 2009 ranking of export commodities in value.

Source: FAO Statistics

In 2004, the agricultural sector was responsible for 35% of total employment. Due to mechanisation (e.g. in sugar cane plantations) and replacement of family farms by monoculture plantations, employment decreased to 20% of the labour force in 2011, while industry accounted for 14% (Choices 2006, CIA World Fact Book). Agriculture is also the sector that hires most unskilled labour. During the trade liberalisation and agricultural growth of the '80s and '90s wage and income inequality and poverty figures remained constant (Green, Dickerson and Arbache, 2001). In 2009, the International Food Policy research Institute researched the effect of agricultural trade liberalisation on the social-economic circumstances in Brazil (IFRI, 2009). The research shows positive aggregate effects on poverty and income distribution. However, the results differ across Brazilian states. Changes in employment in the agricultural sector have to be absorbed by other industrial sectors if Brazil wants to further improve its social-economic position.

### 1.2.5 Colombia

Colombia steers its trade policy towards greater openness, setting its sights on closer integration with Latin America and the Caribbean, as well as with the rest of the world, through the negotiation of preferential agreements to increase external trade and foreign investment flows. To this end, Colombia has participated in various negotiations to consolidate existing bilateral and regional agreements, and has signed and continues actively negotiating new agreements with the aim of ensuring preferential access to strategic markets, including EU and USA.

Colombia's shows strong economic indicators over the last decade. Nevertheless, poverty levels and unemployment rates, although reduces, remain high. During the financial crisis, Colombia used fiscal policy as an instrument to boost medium-term growth and reduce unemployment, and this led to an increase, albeit a modest one, in expenditure and fiscal deficit levels. At the same time, however, Colombia has committed itself to maintaining fiscal discipline, a commitment enshrined in the Constitution. Accordingly, 2011 saw the introduction of a fiscal regulation to enhance public sector discipline and a reform of the system of royalties to improve their management and distribution. This countercyclical fiscal policy was also accompanied by an expansive monetary policy, resulting in a sharp decline in the intervention interest rate between late 2008 and mid-2010. With the rise in inflation in 2011, however, a contractionary monetary policy was adopted<sup>22</sup>.

International trade in goods and services represented some 36.5 per cent of GDP and merchandise trade 32 per cent. Colombia's current account balance traditionally shows a deficit stemming mainly from the deficits in the income and services balances. The 2011 current account deficit is estimated at 3 per cent of GDP. The balance of trade in goods has shown a surplus for the last decade. The surplus increased mainly as of 2008 on the back of highly dynamic exports in a context of rapid import growth. Colombia has benefited from the improved terms of trade and from strong demand for commodities. The steady expansion of investment flows has also played a significant role and reflects the increased investor confidence in Colombia.

Colombia's trade is relatively concentrated, both geographically and in terms of export products. The United States continues to be the main market for Colombian goods and mining products accounted for approximately 65 per cent of Colombian exports in 2011. Colombia has also

<sup>22</sup> World Trade Organization (2012) Trade Policy Review. Report by the Secretariat COLOMBIA

benefited from improved terms of trade and strong demand for raw materials. Although the contribution of net exports to GDP continues to be negative primarily due to strong import growth combined with dynamic domestic demand, itself being fuelled by an ample supply of credit, Colombian exports have grown rapidly despite the unfavourable international environment. Measured in US dollars, Colombian exports grew at an annual rate of 43 per cent in 2011, chiefly on the back of higher sales of mineral - based commodities (crude petroleum and its derivatives, coal, ferronickel and gold), which rose at an annual rate of 56 per cent.<sup>23</sup> Imports still consist mainly of intermediate and capital goods, which represent 80 per cent of the total. In the case of these two groups as in that of consumer goods, the annual growth rate for 2011 surpasses 34 per cent when measured in US dollars.

Colombia is an important exporter of agricultural commodities, particularly coffee and bananas (in terms of value). During the last two decades, most commodity export has increased, particularly palm oil, milk and bananas. Coffee and Sugarcane (the most important export commodity based on volume) reduced, particularly after a lower global demand after 2008 (Table xx)

Table ..: Colombia, Production of selected agricultural commodities between 1990 and 2010 (in MT = metric tonnes).

Commodity	1990	1995	2004	2008	2010
Sugar cane (4)	27,790,700	32,000,000	40,000,000	38,500,000	20,272,600
Cow milk	4,037,290	5,078,080	6,700,000	7,431,480	7,500,000
Plantains	2,515,900	2,936,000	3,072,800	3,379,740	2,815,050
Rice	2,116,600	1,742,550	2,907,040	2,792,230	2,412,220
Cassava	1,939,020	1,801,080	1,655,470	1,803,910	2,363,530
Potatoes	2,464,400	2,891,240	2,035,930	2,372,860	2,121,880
Bananas (2)	1,243,610	1,631,580	1,702,570	1,987,600	2,034,340
Cattle meat (3)	746,148	705,335	766,466	919,713	935,147
Coffee (1)	845,000	821,820	674,400	688,680	514,128
Palm oil (5)	251,961	387,646	630,400	777,800	800,000

(nr) = top 5 exports of this list based upon 2009 ranking of export commodities in value.

Source: FAO Statistics

## 1.3 Trade relations between LAC, EU and the Netherlands

### 1.3.1 Historical relations between LAC and EU

There are strong historical ties between EU member states and Latin America. Many were former colonies and until the first World War, Latin America was Europe's main trading partner and Europe was the main provider of immigrants, capital, technology and culture. This role was then taken over by the USA. With the increasing power of the USA, they considered the region their backyard (Monroe doctrine). After the second World War, Europe was occupied with its own economic recovery and further integration between EU member states. When Spain and Portugal entered the EU in 1986, interest in Latin America was renewed (before that, EU interest was focused on the Caribbean region, having former British, French and Dutch colonies).

During the cold war, Central America was a region in turmoil with strong right wing governments supported by the USA and guerrilla groups supported by the USSR. On invitation by the President of Costa Rica (1984), the EC accepted the role of intermediate in peace negotiations. For the EC this was the opportunity to establish a common Foreign Policy. During the '90s the political and economic relations between the EU and Latin America intensified. Both regions saw the opportunity to diversify their market base and trade in commodities and manufactured goods. Latin America also became interesting for European companies because of its relatively cheap labour and growing consumer market. There were five main themes in EU Latin American policy: (1) political co-operation; (2) economic co-operation and trade; (3) public aid to development; (4)

<sup>23</sup> Banco de la República (2011).



support to regional integration processes (like Andean Pact and Mercosur); (5) promotion of human rights and democratization. Within these decades the Netherlands mainly followed EU developments, except for its political and economic relations with its former colonies Surinam and the Dutch Antilles. For many countries in Latin America, economic and trade relations with the EU and member states was determined by the EU Generalized System of Preferences under which there were no (or low) import tariffs for manufactured goods and some agricultural goods. Many European countries also provided bilateral ODA to LAC countries.

The dependency of LA countries on development co-operation strongly varies, in line with the marked differences in GDP. The main donors<sup>24</sup> to the LAC region in 2009 were the USA (30.8%), Spain (22.8%), Germany (13.9%) and Canada (6.9%). Before, countries like Japan and France (4<sup>th</sup> place when only South America is considered) were in the top-5 of donors.<sup>25</sup>

At the turn of the century, the LAC region grew in economic and political power. This was also expressed in the reduction of ODA as most donors phased out bilateral aid in the period 2004-2011 and continue to do so. The increased co-operation between the EU and the LAC region and their growing importance was also expressed in the EU Latin America policy of 2005. It described both regions as two world players joining forces.

Overall, Latin America became an important consumer market (522 million people with a GDP per capita of EUR 2,800) in the last decade and plays a key role in supplying Europe with commodities. The EU is however losing ground to USA and China in trade figures and foreign investment. Also, the relations are still asymmetrical. While the EU is the main trading partner for many LAC countries, the position of Latin America in total EU trade is low. In 2007 the EU represented about 14% of total export from the LAC region.

Since the 1990s the EU has started negotiations with LAC countries on Free Trade Agreements and Association Agreements. With Chile (2002) and Mexico (2000) the EU has signed Free Trade Agreements and since then, trade with these countries has increased by 70% and 250% respectively. In 2010 a successful conclusion was also reached with Colombia and Peru in 2010 and the FTA entered into force in 2012. The negotiations with Bolivia and Ecuador are continuing. In June 2012 the EU and Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) signed a comprehensive Association Agreement (AA). The AA contains three pillars – political dialogue, cooperation and trade.

### **1.3.2 Export and trade with the EU and the Netherlands**

#### *European Union*

The relationship between the EU and LAC is not only about trade but has historical and cultural linkages. There is political willingness to collaborate on international issues of common interest, although differences exist. It is important for the desired EU-LAC strategic partnership that economic and trade relations grow. For the LAC region, the EU is the third largest export destination (after USA and other LAC countries). However, among the top-3 export or import countries for the EU there are no LAC countries.

Since 2002, the trade balance between the EU27 and the LAC region shows a trade deficit (see figure below). In 2008 the deficit peaked at Euro 20 billion. After a 20% drop in exports in 2009 exports to the LAC region rebounded with a 36% growth to Euro 84 billion in 2010, with Brazil (Euro 31 billion) and Mexico (Euro 21 billion) as main markets. In 2010 imports from LAC region were valued at almost Euro 90 billion (a 27% increase from 2009). Brazil is by far the largest trade

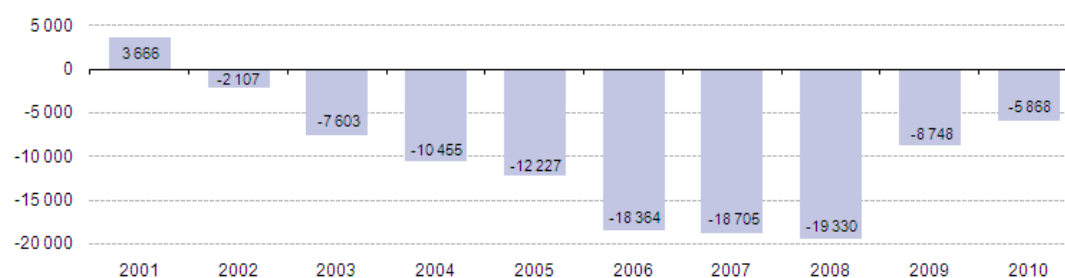
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<sup>24</sup> If the EU as a whole would be taken, i.e. the EC and bilateral support by member countries, the EU would be the primary donor.

<sup>25</sup> For the Caribbean, the Netherlands ranks in the fourth place of donor support because of its support to the Dutch Antilles.

partner with Euro 32 billion and a share of 36% (others are Mexico, Argentina, Chile, Costa Rica and Peru. Imports from Bolivia rank low with a value of Euro 332 million).

Figure ...: EU27 trade balance with Latin America 2001-2010 (in millions euro).



Source: EC Eurostat website, data from Eurostat.

Table ...: EU27 imports of goods from selected LAC countries in 2010 (value in millions euro).

	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	El Salvador	Guatemala	Honduras	Mexico	Nicaragua	Panama	Paraguay	Peru	Uruguay	Venezuela	Latin America
0: Food and live animals	5562	77	8783	1585	1306	1153	1749	151	274	504	568	154	171	120	1545	488	45	24 236
1: Beverages and tobacco	203	0	688	572	11	0	6	0	33	5	226	7	9	4	2	1	35	1 802
2: Crude materials, inedible, except fuels	1187	136	11021	2315	163	89	155	8	50	36	380	13	5	811	2026	712	263	19 371
3: Mineral fuels, lubricants and related mat.	14	0	2207	1	2271	0	28	0	0	0	2483	1	17	0	121	0	2898	10 042
4: Animal and vegetable oils, fats and waxes	312	9	90	10	18	9	4	0	2	13	16	2	2	14	68	1	10	581
5: Chemicals and related products, n.e.s.	1181	24	2092	434	64	5	12	0	22	1	1033	1	3	4	150	25	110	5 161
6: Manufactured goods classified chiefly by material	391	75	2853	4153	375	15	20	9	4	2	446	5	6	24	870	61	370	9 680
7: Machinery and transport equipment	420	1	3366	39	44	4119	6	27	1	3	6010	1	404	0	13	7	22	14 485
8: Miscellaneous manufactured articles	44	8	924	15	58	147	10	7	11	44	1603	6	10	1	105	28	3	3 024
9: Commodities and transactions n.e.c.	19	1	151	197	49	2	2	1	1	0	230	1	2	0	206	2	3	865

Source: EC Eurostat website, data from Eurostat.

In 2010, the largest export categories of the EU to the LAC region were road vehicles, general industrial machinery and equipment and medicinal and pharmaceutical products, accounting for 70% of exports. The largest trade import categories in 2010 were “food and live animals” (25%) and “crude materials” (21%), mainly from Brazil and Argentina (>50%).

For Brazil, the EU is the largest trading partner, accounting for 21.9% of its total trade. On the other hand, Brazil is the EU’s 9<sup>th</sup> trading partner. Goods imported from Brazil in 2011 valued 27,933 M€ (1.7% of total trade) while exports from the EU valued 35,7297 M€ (2.3%). According to the EU, the Brazilian market is relatively highly protected. Brazil thinks the same of the EU market (see ethanol case study). For Colombia, the trade relation with the EU27 is smaller in value: the USA is the largest trading partner (EU27 is 2<sup>nd</sup>, China 3<sup>rd</sup>). Colombian exports to the EU totalled 6,897 M€ (0.4%) and EU exports totalled Euro 4,986 m (0.3%), ranking Colombia at 41 on total traded volume (in value). Trade with Bolivia is even smaller. In 2011, imports valued 355 M€ and exports to Bolivia Euro 391 M€. Bolivia’s main trading partner is Brazil (32.4%), followed by Chile (12.4%) and the USA (10.9%). The total trade volume includes all manufactured products and raw materials, not only agricultural commodities.

The above figures do not fully reflect the importance of agricultural commodities in the trade between the EU and the LAC countries under consideration– Bolivia, Brazil and Colombia – which shows a significant increase in export quantities of most agro-commodities (see tables below).

*Table ...: **Bolivia**, Export quantity (in metric tonnes of top 10 agricultural commodities (of 2009), ranked on Export Value.*

Commodity	2004	2005	2006	2007	2008	2009
1 Cake of soybeans	1,101,560	1,040,330	1,112,990	1,022,270	808,350	961,024
2 Soybean oil	213,129	213,321	225,421	198,535	147,687	204,595
3 Sunflower oil	21,523	22,465	51,298	61,306	77,848	112,609
4 Brazil nuts	14,052	16,256	19,320	19,708	19,560	21,083
5 Sugar refined	103,264	42,478	24,034	72,045	133,312	170,414
6 Soybeans	89,622	146,479	70,235	66,057	86,681	125,686
7 Cereals, nes	n.f.	n.f.	n.f.	n.f.	n.f.	14,425
8 Alcohol Non Food	49,864	41,357	47,466	62,503	71,381	96,204
9 Beans dry	26,396	20,715	23,146	31,681	34,422	57,486
10 Flour of oilseeds	56,321	79,461	78,912	78,674	56,518	86,696

Source: FAO Statistics

*Table ...: **Brazil**, Export quantity (in metric tonnes) of top 10 agricultural commodities (of 2009), ranked on Export Value.*

Commodity	2004	2005	2006	2007	2008	2009
1 Soybeans	19,247,700	22,435,100	24,958,000	23,733,800	24,499,500	28,562,700
2 Sugar (raw)	9,565,750	11,579,000	12,806,900	12,443,200	13,624,600	17,925,500
3 Chicken meat	2,424,520	2,761,970	2,585,710	3,007,080	3,267,890	3,265,750
4 Cake of soybeans	14,485,600	14,421,700	12,332,400	12,474,200	12,287,900	12,253,000
5 Coffee	1,410,800	1,352,100	1,475,720	1,488,260	1,566,920	1,639,390
6 Cattle meat boneless	923,659	1,083,930	1,221,700	1,281,270	1,017,860	922,688
7 Tobacco	579,365	616,467	566,027	694,325	677,877	661,738
8 Sugar refined	6,198,180	6,568,080	6,063,240	6,915,800	5,847,940	6,368,560
9 Alcohol Non Food	1,926,760	2,080,660	2,733,350	2,824,150	4,095,050	2,646,730
10 Maize	5,031,000	1,070,020	3,938,000	10,933,500	6,432,660	7,781,900

Source: FAO Statistics

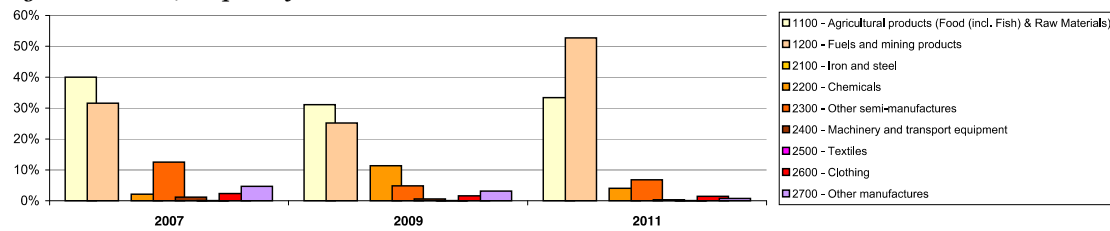
*Table ...: **Colombia**, Export quantity (in metric tonnes) of top 10 agricultural commodities (of 2009), ranked on Export Value.*

Commodity	2004	2005	2006	2007	2008	2009
1 Coffee	574,935	616,380	600,724	637,421	602,879	457,728
2 Bananas	1,471,390	1,621,750	1,5679,00	1,639,830	1,696,510	1,972,230
3 Cattle meat	10,272	7,810	17,017	72,153	120,228	64,373
4 Sugar refined	648,326	730,984	627,586	546,484	313,730	653,426
5 Cattle Meat boneless	n.f.	n.f.	n.f.	9,593	26,632	31,764
6 Sugar confectionery	108,528	115,250	12,7011	134,122	126,005	120,356
7 Coffee extracts	13,969	16,892	16,506	15,666	17,511	16,694
8 Palm oil	213,889	228,343	213,666	315,575	292,137	214,283
9 Food Prep Nes	69,314	80,237	40,251	43,734	52,880	47,954
10 Sugar (raw)	517,033	378,266	319,027	208,198	102,990	265,329

Source: FAO Statistics

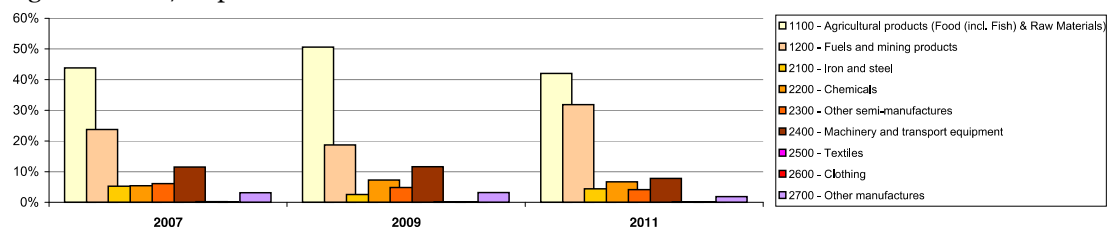
The Bolivia exports to EU in 2011 consisted for 86% (134 M€) of primary products, with 33% agricultural products (118 M€) and 52% of fuels and mining products (see below). Brazil export to EU consisted for 74% of primary products with 42% in agricultural products (with a value of 15,855 M€). Colombia exports to the EU consisted for 92% of primary products of which 25% agricultural and 67% fuels and mining products (see case study coal).

Figure ... : EU27 imports from Bolivia.



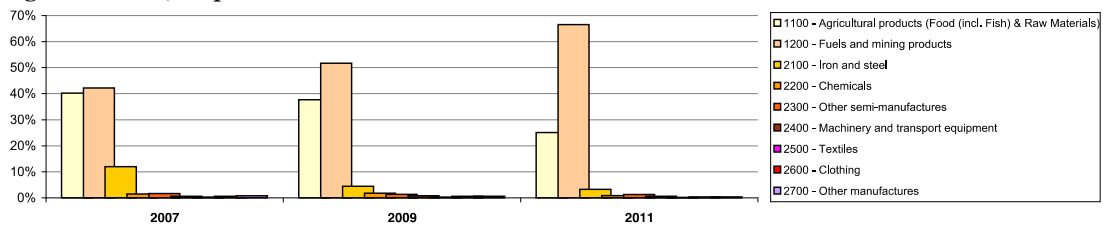
Source: Eurostat.

Figure ...: EU27 imports from Brazil.



Source: Eurostat.

Figure ...: EU27 imports from Colombia.



Source: Eurostat.

With respect to trade between the EU and the LAC region, it can be concluded that export to the EU is dominated by primary products (around 60%), and even higher from the three selected countries (74-92% in 2011). This is higher than the average export of primary products for the LAC region (at average 51.6% over the period of 2000-09, Sinnott et al., 2010). Imports in the LAC region from the EU is dominated by manufactured products.

#### Netherlands

The trade relation between the Netherlands and the LAC region is strong. The value of trade export from the Netherlands to the LAC region has increased between 2004 and 2011 from Euro 5.8 to 10.6 billion (106% increase). The value of trade import from the LAC region to the Netherlands has increased in the same period from Euro 1.8 to 5.0 billion (177% increase). Thus, though imports have increased more strongly, there is still a trade deficit. There is strong difference in trade export and import categories – see table below. It can be seen that with respect to trade with the Netherlands, we see a similar pattern as trade with the EU. While export is strongly dominated by manufactured products (50-64%), with limited primary products (in fact this is strongly dominated by the export of mineral oils to Mexico), import is strongly dominated by primary products and natural resource-intensive products (70-77%). Again, the proportion of primary products in the export from the LAC region to the Netherlands in the period 2004-11 is more dominated by primary products (73%) than the average for the LAC region (51.6% over the period of 2000-09, Sinnott et al., 2010). Moreover, this proportion has increased in the period of 2004 to 2011 from 70% to 77%.

*Value of trade between LAC region and the Netherlands (in Euro million), based on CBS report on trade with LAC region.<sup>26</sup>*

<sup>26</sup> CBS, 2012. Evaluatie Nederlandse handel en investeringen met Latijns-Amerika 2002-2011.

<i>Category</i> <sup>27</sup>	<i>Export</i>		<i>Import</i>	
	<i>2004</i>	<i>2011</i>	<i>2004</i>	<i>2011</i>
Primary products	322	1,871	3,607	7,717
Natural resource-intensive products	29	37	464	470
Unskilled labour intensive products	30	149	86	86
Technology intensive products	1,151	2,460	1,596	1,746
Human capital intensive products	276	479	67	638
Unknown	2	7	0	4
Total	1,809	5,000	5,820	10,661

## 1.4 Developments and trends regarding sustainable development

### 1.4.1 Sustainable development in LAC region

#### *Overview*

The economies of many LAC countries are based upon primary natural resources and economic growth is mainly based on expansion. Environmental consequences are deforestation and land degradation, GHG emissions mainly originating from land-use change, pollution of water bodies, and the spread of dangerous chemicals throughout the food chain. These effects have serious impacts on biodiversity as well as humans. In addition, Latin America has seen a rapid urbanization as a result of population growth and rural-urban migration. Accompanied by industrialization and industrial growth this has led to many 'big city' problems such as the expansion of slums and an informal economy, soil, water and air pollution, and waste disposal problems. Several social problems are related to the above dynamics, such as conflicts over land, poor labour conditions, forced labour, labour health and safety issues. An additional problem in the LAC region is the drugs related conflict, mostly associated with cocaine production and causing various social and environmental impacts, most noticeable in Colombia. The focus of this evaluation is related to commodity trade and regarding sustainable development is therefore oriented at natural resources and associated social-economic issues, not on urban sustainable development issues. The key issues are discussed in more detail below.

#### *Land-use change and deforestation*

Over the period of 1990 to 2009 the growth rate of arable and pasture lands in the LAC region was about 0.6% per year, which is the 2<sup>nd</sup> highest worldwide (after sub-Saharan Africa). However, there are great disparities within the LAC region: growth was at average 0.15% per year in Central America but 0.87% per year in South America. In Central America growth of arable land was dominated by oil palm and sugarcane, followed by maize and cassava while land under cultivation for most other crops has tended to shrink. In South America, over the same period, high growth rates occurred for soybean, oil palm and sugarcane, which are crops often planted in large-scale and capital-intensive production systems, while there were negative rates of growth for maize, rice, wheat, cassava and beans, which are crops largely associated with smallholder farming systems. In the same period, pasture lands decreased 2.7 million ha in Central America and grew 11.3 million ha in South America (0.14% per year).<sup>28</sup>

Forest cover in the LAC region was around 9 million km<sup>2</sup> in 2010, representing roughly 49% of the region's land area. Between 1990 and 2010, deforestation in the region accounted for more than one third of global deforestation. Between 2000 and 2010, the annual rate of loss was 0.46%, nearly four times the global annual rate of 0.13%. Deforestation rates for the period 1990–2005 were significant in both Central and South America, equivalent to 0.71% and 0.47%, but they have tended to decrease in the period 2005–2010. Well known is the loss of Amazon forests caused by

<sup>27</sup> Based on the van Marrewijk classification based on factor use. See van Marrewijk (2002) International Trade and the World Economy. Oxford University Press.

<sup>28</sup> Pacheco et al., 2011

transformation to, particularly, grazing lands and agroindustrial crops. Less known is the (earlier and continuing) massive agricultural expansion in the savannah lands of South America<sup>29</sup>, for cattle ranching but also for soy and oil palm monocultures.

Figure ...: Grasslands of South America.



Source: Neotropical Grassland Conservancy

About a fifth of the total rural population in Latin America draws on forest resources to support their livelihoods. Around 25 million people make a living in tropical forest zones: 12 million occupy forestlands in Mexico, 10 million in Amazonia, and three million in Central America.<sup>30</sup>

With regard to forest use, in 2005 wood removals marketed in the LAC formal market were worth a total of US\$ 6.8 billion, accounting for 7% of global extractions. The region is emerging as a leader in high-productivity forest plantations, in many cases benefitting from government policies. South America (particularly Brazil, Uruguay and Argentina) has become an important producer of pulp and paper. The forest area set aside for production, based on a management plan approved by the State, has increased from 78 million hectares in 2000 to 83 million hectares in 2010. The area assigned to FSC certified forest in the region grew from 3 million hectares in 2002 to 12.9 million hectares in 2010 (of which 6.5 million in Brazil).<sup>31</sup> In many countries there have also been efforts to develop non-timber forest products or supply chains, including such products as nuts, fibers, latex and vegetable oils. In addition, markets have begun to realize the value of some ecosystem services provided by forests, such as carbon sequestration and hydrological regulation. The LAC region is in advance in developing mechanisms for the management of ecosystem services, especially schemes for payment for hydrological ecosystem services, of which by 2008 most of the cases globally were located in the LAC region.<sup>32</sup> Almost all Central and South American countries, as well as Caribbean states with tropic forest cover, are involved in developing REDD (Reduced Emissions

<sup>29</sup> Includes for example the woodland savanna (Cerrado) mainly in Brazil and some in Bolivia and Paraguay; the Gran Chaco in Argentina, Brazil, and Paraguay; the grassland savanna (Pampas) in Argentina and Uruguay; and wet tropical Llanos in Colombia and Venezuela and Guianan savanna in Guyana and Brazil.

<sup>30</sup> Pacheco et al., 2011

<sup>31</sup> FSC website

<sup>32</sup> Porrás, Grieg-Gran and Neves (2008): Developing markets for watershed services and improved livelihoods. IIED, London.

from Deforestation and Forest Degradation) pilots, either through the UN-REDD programme, World Bank's Forest Carbon Partnership Facility or spublic (Brazil's Amazon fund) or private initiative.<sup>33</sup>

### *Biodiversity*

The LAC region is the most ecologically diverse area on the planet. It includes 6 of the world's 17 so called megadiverse countries (Venezuela, Brazil, Colombia, Ecuador, Mexico and Peru), as well as the most biologically diverse area on the planet: the Amazon basin. The LAC region is home to 30 to 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. The region has a high level of endemism: e.g. 50% of the plant life found in the Caribbean subregion exists nowhere else in the world. The Mesoamerican Reef is the largest barrier reef in the Western Hemisphere. Although Central America accounts for only 0.5% of the world's land mass, it contains 10% of its biological diversity.

The LAC region also offers considerable potential for bioprospecting. Peru, for example, is home to 14 language families and at least 44 different ethnic groups, 42 of which live in the Amazon region. The country has around 4,400 native plant species with known uses and nutritional, medicinal, ornamental, seasoning, colouring, aromatic and other properties. The market for biodiversity-based medicinal products could enable the region to position itself as a leader in the sector. For example, plant-based medicinal products have an estimated global market of US\$ 60 billion.<sup>34</sup>

The CBD (Convention of Biological Diversity) goal of reducing the rate of biodiversity loss by 2010 has not been met. Five principal pressures on biodiversity in the region have been identified: habitat loss and degradation; over-exploitation and unsustainable use of resources; climate change; invasive alien species; and excessive nutrient load and other forms of pollution. The greatest risks to biodiversity stem from land-use change and resulting deforestation. In addition, there are threats to coastal zone and marine biodiversity hotspots, with pressures from tourism and unplanned urban sprawl, pollution from land-based sources and aquaculture. Attempts to safeguard the coastal and marine zone by declaring protected areas are still very modest. In the past 10 years, the region's marine and coastal ecosystems have contributed between 15% and 30% of the world's total fish supply.<sup>35</sup>

### *Environmental and social challenges of oil, gas and mining*

Several countries in the LAC region base their economic growth on the exploitation and export of fossil fuels (Venezuela, Mexico, Brazil, Ecuador, Colombia) and mining (Perú, Chile, Brazil, Bolivia, Colombia). This sector is important in terms of foreign investment opportunities and revenues for the state but is also associated with environmental and social problems. Environmental problems posed by mining and oil drilling activities include the use and pollution of groundwater and surface water, direct deforestation and the consequent loss of plant cover, and soil erosion, along with the resulting destabilization of land areas and increased sedimentation of water courses, which disturb watersheds. In addition, there is the risk of accidents, such as oil spills and the rupture of tailings reservoirs. Sensitive areas of the Amazon basin have been contaminated with mercury from gold mining operations, for example. Indirect environmental consequences of oil and mining are infrastructure development, migration and occupation of forested land area, causing invasion and higher transformation of forest lands. For instance, the entire road network development in the Ecuadorian Amazon, and subsequent colonization, has been triggered by oil exploration. Finally, massive migration, land tenure problems and access to benefits associated with oil and gas have caused social conflicts all around the continent (e.g. the recent cases of Bagua (Perú), Tipnis (Bolivia), Cajamarca (Perú), Santurbán (Colombia)). These conflicts show a delicate balance but evident interaction between non renewable resources, land and water management and human rights.

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<sup>33</sup> <http://www.un-redd.org>

<sup>34</sup> ECLAC 2012, Sustainable development 20 years on from the Earth Summit

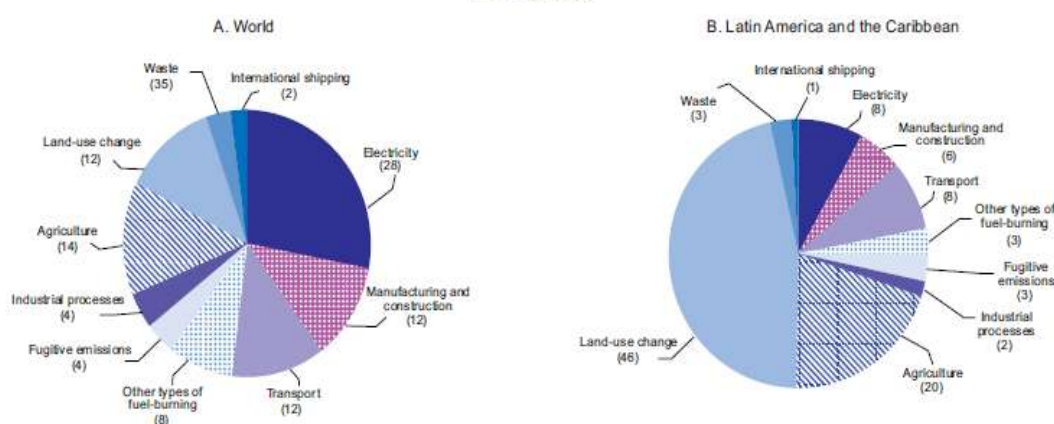
<sup>35</sup> ECLAC 2012, Sustainable development 20 years on from the Earth Summit



### Climate change

The LAC region makes a smaller contribution to global climate change than other regions. If GHG (greenhouse gasses) emissions from land-use change are excluded, the region contributes only 8% of global emissions; 12% if land-use change emissions are included. Greenhouse gas emissions from the LAC region have been increasing between 1990 and 2005 at an average annual rate of 1.2%, similar to the global average. However, the structure of emissions in the LAC region differs from that of global emissions, with land-use change accounting for nearly half of all emissions (46%, global average 12%) and agriculture accounting for 20% (globally 14%), while all other shares (especially electricity, transport and manufacturing) are lower than the global average.<sup>36</sup> Brazil, Mexico, Venezuela and Argentina together, were responsible for 79% of the region's total greenhouse gas emissions in 2005. Although per capita CO<sub>2</sub> 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 II.7), there are wide disparities within the region.<sup>37</sup>

SHARE OF GREENHOUSE GAS EMISSIONS BY SECTOR, 2005  
(Percentages)



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.

Source: ECLAC, 2012. *Sustainable development 20 years on from the Earth Summit*

The LAC region harbors extensive areas of landscapes that are generally considered as being highly vulnerable to Climate Change; flat coastal areas, high mountain region, arid and semi arid areas, wetlands and small oceanic islands. According to the Intergovernmental Panel on Climate Change or IPCC (2007), the following climate scenarios can be forecast for Latin America:

- Increase in temperature and the corresponding decrease in soil humidity would lead to tropical rainforests on the eastern side of the Amazon region being gradually replaced by savannahs.
- Semiarid vegetation would gradually be replaced by arid land vegetation.
- Significant losses of biological diversity could occur, with the extinction of species in many areas of tropical Latin America.
- The productivity of some important crops would decrease, leading to a decrease in the productivity of cattle farming, with adverse consequences for food security. The yield of soy bean crops would improve in temperate areas. Together with this, the number of people threatened by hunger would generally increase.
- Changes in rainfall patterns and the disappearance of glaciers would notably reduce the availability of water for human, agricultural and hydroelectric consumption.
- An increase in sea level would cause more floods, storm surges, erosion and other dangerous coastal phenomena.

<sup>36</sup> According to the World Bank, the share of land-use change accounting for total emissions in the LAC region in 2005 is even as high as 62%. <http://blogs.worldbank.org/latinamerica/node/633>

<sup>37</sup> ECLAC 2012, *Sustainable development 20 years on from the Earth Summit*



- The deterioration of conditions on the coast, for example as a result of beach erosion or the de-colouration of corals, would affect local resources.

The Europaïd report on Climate Change in Latin America (2009), notes that adaptation measures can reduce this vulnerability, especially when they are taken as part of wider reaching initiatives in the sector. There is also a political awareness that information and experiences have to be shared with the sector in charge of managing the risk of disasters during the time when adaptation measures are put in place.

Some Latin American countries have made efforts to adapt by conserving ecosystems, setting up early warning systems and putting strategies in place to deal with droughts and floods, as well as managing their coastal areas and providing support to their health systems. However, there is a clear lack of basic information and there are few systems in place to observe and monitor poverty conditions and the settlement of populations in very vulnerable areas.

#### *Renewable sources of energy*

The early 1990s marked a turning point in terms of energy supplies in the region as it increased output of oil and natural gas. For Central and South America, the renewable portion of total of installed energy capacity is around 60%. However, the majority of this renewable energy supply is from hydropower (55%). The supply in renewable energy continues to increase by about 2% annually; again mainly due to hydropower supply).<sup>38</sup> In spite of the obvious environmental benefits of hydropower in terms of fossil fuel use and CO<sub>2</sub> emissions, it also has serious environmental consequences, especially because of the flooding of large areas (including primary forest), the interruption of biological connectivity in waterways and the influence on watershed hydrology. The large-scale hydroelectric plants that have been built in the region in recent years or that are in the process of being built have sparked disputes with other users of the same watersheds, local population groups (especially indigenous communities) and environmental groups. Since 2000, most of the countries in the region have passed laws to promote investment in renewable energy sources and, in some cases, have taken other specific steps to this end.

In 2008, the global average of per capita CO<sub>2</sub> emissions was 4.4 tons, compared with 2.9 tons in the LAC region. In all likelihood, emissions from energy sources in the region will continue to increase because, in spite of rising energy efficiency, a growing share of renewable energy sources, energy decoupling (where energy consumption increases proportionally less than GDP growth and decarbonization of energy. These efforts are not enough to offset increasing energy demand.<sup>39</sup>

#### *Land conflicts*

Socio-environmental conflict in the region currently occurs in the context of a growing economy with persistent levels of poverty and extreme poverty, especially in rural areas, and a marked expansion in extractive activities, such as mining, oil and gas, fisheries, forestry and hydropower. The situation is aggravated by unclear land tenure situation in rural areas of most countries. The number of social and environmental conflicts or disputes associated with mining activities has been on the rise since 1990 (UNEP, 2010).<sup>40</sup> Other causes of conflicts are the expansion of large-scale plantations (for soy, palm oil, sugarcane) and the increasing creation and expansion of forest plantations (encouraged partly by carbon trading initiatives). In Brazil, there are detailed statistics available on land conflicts, showing that between 1997 and 2005, the total number of land conflicts has increased 45% (involving more than 10 million ha), mainly associated with land allocation for soy exploitation in forested areas. Since then, the number of land conflicts has further increased to 14

<sup>38</sup> <http://www.energici.com/energy-profiles/by-country/central-a-south-america-a-l/>

<sup>39</sup> ECLAC 2012, Sustainable development 20 years on from the Earth Summit

<sup>40</sup> <http://www.conflictosmineros.net/>

million ha in 2011.<sup>41</sup> There are also specific reports on labour issues and land conflicts related to sugar cane.<sup>42</sup> The number of such conflicts does not appear to decline.

A fast increase in the infrastructure network triggers processes that cause land use conflicts. In response to the identification of a huge gap in the region between the supply of transport infrastructure and its demand (for economic development), the countries engaged in regional infrastructure development for physical integration and trade facilitation. In the last decade, initiatives were implemented in central Central and South America, through the Mesoamerica Projects and the IIRSA Initiative (Initiative for the Integration of Regional Infrastructure in South America), respectively<sup>43</sup>. These initiatives increased access to formerly remote areas, strongly impacting local economy and trigger colonization causing new sources for land conflicts<sup>44</sup>.

#### *Forced labour, slavery and child labour*

In 2004, there were an estimated 1.3 million forced labourers in the LAC region, out of a global total of 12.3 million. Of these, 75% are victims of coercion for labour exploitation, while the remaining victims are either in state-imposed forced labour or in forced commercial sexual exploitation. Documented cases by the ILO include forced labour in the state of Pará in the Brazilian Amazon region associated with large-scale agriculture and deforestation, forced labour and child labour in the sugar, brazil nut and mining industries and on private ranches in Bolivia, forced labour in logging camps in Peru and discrimination and employment conditions of indigenous people in the cattle farms in Paraguay. Since then, several governments have been tackling forced labour. Brazil has taken measures against forced labour in agriculture and in remote logging camps and a National Action Plan against Slave Labour has been implemented since March 2003. Bolivia, Peru and Paraguay have taken steps to develop, jointly with workers' and employers' organizations, new policies to combat forced labour.<sup>45</sup>

#### *Corporate Social Responsibility*

In the LAC region progress has been made in business environmental performance since the early 1990s, by the adoption of environmental management technologies and systems to prevent and combat pollution and fulfill environmental regulations and standards; efforts to provide products and services that meet environmental criteria or employ cleaner processes that exceed the requirements of legislation and the development of corporate social responsibility strategies. The number of firms in the LAC region with the ISO 14001 certification on environmental management systems has gone up. Nevertheless, the number of certified companies is still very low. Only 6,423 firms in the region had been certified in 2010, which is very few if compared to Europe (103,126) or the Far East (124,922). On the other hand, the growth of the number of certificates is high. Within the LAC region, Brazil is the country with the highest number of certificates and the most rapid growth. For ISO 9001 on quality management systems the situation is comparable.<sup>46</sup>

The situation with respect to ISO certificates can be partly explained by two underlying factors. Firstly, attention for CSR in the LAC region seems to be of a relatively recent date. Secondly, a significant proportion of commercial activity in the LAC region concerns sectors and activities that are highly sensitive environmentally, since they involve the extraction of natural resources. Of the 50 largest firms in the region, 25 (including the five largest) operate in primary activities or the processing of natural resources (hydrocarbons, mining, agribusiness, steel-metallurgy, petrochemicals). For these, CSR certificates are relatively difficult to achieve.

### **1.4.2 Sustainable development in relevant countries and the Amazon**

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<sup>41</sup> <http://www.cptnacional.org.br>

<sup>42</sup> <http://www.reporterbrasil.com.br>

<sup>43</sup> SELA 2011: Physical Infrastructure for Integration in Latin America and the Caribbean

<sup>44</sup> Proteger, Ecolex, UICN, 2007. IIRSA: ¿Iniciativa para la integración?

<sup>45</sup> ILO, 2005. Forced labour in Latin America. Cornell University, ILR School.

<sup>46</sup> <http://www.iso.org/iso/iso-survey2010.pdf>

Within South America, the Amazon rainforest with its 7 million km<sup>2</sup> and high biodiversity traditionally received most international attention for nature conservation. The Amazon biome represents half of the world's remaining rainforest and is considered important for its influence on continental and even global water flows, climate and rain patterns, carbon storage and oxygen production. The largest part belongs to Brazil (60%) but other countries also have large stretches including Peru (13%), Colombia (10%) followed by Bolivia, Ecuador, Guyana, Peru, Surinam and Venezuela. Because Brazil contains the largest part of the Amazon and also has much information and statistics, the Amazon is discussed mainly under this heading.

## **Bolivia**

### *Geography and climate*

Bolivia occupies the central part of South America. Its total area is 1.1 M km<sup>2</sup>. The country is geographically divided the country into two major regions: the highlands in the Andes (38%) and the lowlands in the East (62%). The latter is covered by tropical humid rainforest of the Amazon biome, and drier and open ecosystems (shrub and forest savannas): the Chaco and the Chiquitania. The transition between the Amazon and the Andes is composed of the Yungas (wet montane forests). In the fast South-East, Bolivia includes part of the *Pantanal* wetland.

In the highlands, the climate is temperate to cool and and relatively dry. Three main zones can be distinguished: (2) the altiplano, flat high country between 3000 and 4000 m alt, surrounded by (2) the natural grasslands of the puna , on the slopes of the snow capped peaks op over 6000 m, and finally (3) interandean valleys, with a Mediterranean like climate (temperate and subhumid) towards the East and South of the *altiplano*. Bolivia climate is very varied, from tropical warm and humid in los Eastern lowlands to cold on the high mountains. Temperatures and rainfall gradually increases from West to East in accordance with the change in topography. There is a wide regional variation in the duration of the rainy season, from 11 months or more in the Chapare and the Yungas until less than a month in salar de Uyuni (*altiplano*).

Bolivia's population in concentrated in the Andes, with mayor cities in the Altiplano (La Paz, El Alto, Oruro, Potosí), and in the valleys (Sucre, Cochabamba, Tarija). In eastern lowlands, the largest city of the country is found (Santa Cruz de la Sierra), but furthermore this region is very sparsely populated. The geographical division of the county coincides with a cultural and economic division. The *altiplano* is mostly inhabited by indigenous peoples of Aymara and Quechua origin, while the lowlands have mostly mestizo population, including immigrants from Europe and from other countries in South America. The altiplano is characterized by minifundios and subsistence crops, the interandean valleys produce the food stock for the country and the East produces agrocommodities (soy, suger cane). The natural gas reserves are found in the Tarija and Santa Cruz departments. These geographical and cultural differences are the underlying reason for recurring internal conflicts over natural resources, like the water conflicts in Cochabamba (2000), the gas conflict (2005) and the TIPNIS (road construction through forest reserve) conflict in 2011.

### *Forests and deforestation*

The area covered by tropical forests in Bolivia represents 10% all natural forest of South America, but this is rapidly declining in the last decade due to deforestation. The main causes are expansion of the agricultural frontier, the conversion of natural areas to grazing land, ill planned timber exploitation and forest fires by burning to enable land and pastures. According to the current forest and land use map, total forest area is 60 M hectares. This represents 55% of the total area of the country, mainly distributed in the Amazon (42%), Chiquitania (14%), Chaco (19%), Yungas (13%) and in the interandean valleys (8%). Deforestation in the country between 1993 and 2000 was 1.8 M hectares, implying an annual deforestation of 0.4 - 0.5% or 240 000 hectares<sup>47</sup>. From 2000 to

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<sup>47</sup> Bolfor, 2003

2004, the average annual deforestation rate reached 300,000 hectares<sup>48</sup>. Deforestation was strongest in the Chaco and Chiquitanía regions Chiquitana and the Chaco.

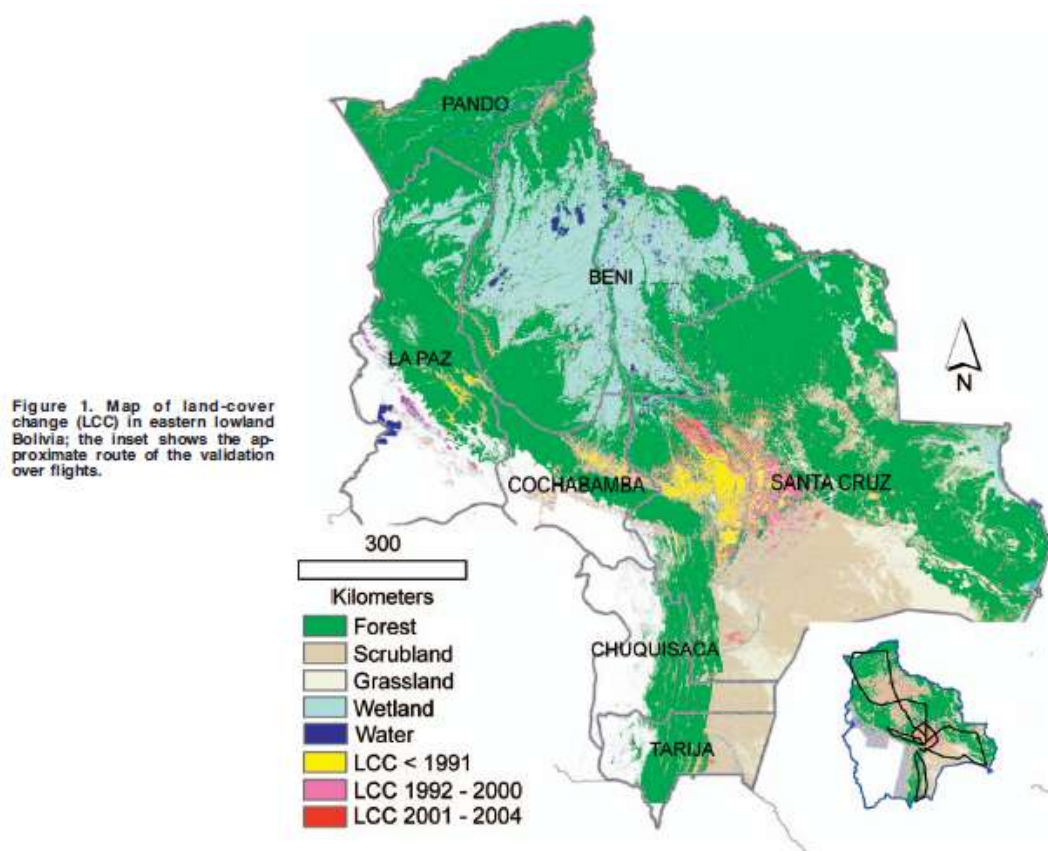


Figure XX. Deforestation map. Source: Killeen et al., 2007

Table XX. Deforestation per department in the last three decades. Source: Killeen et al., 2007

B	Total remnant forest <sup>2</sup> (km <sup>2</sup> )	Rate of deforestation (km <sup>2</sup> y <sup>-1</sup> )					Annual deforestation as (% y <sup>-1</sup> ) of total remnant forest <sup>1</sup>
		<1976 <sup>a</sup>	1976-1986	1987-1991	1992-2000	2001-2004 <sup>f</sup>	
Beni	98 028	15	25	134	80	208	0.21%
Chuquisaca	15 161	0	0	0	9	4	0.03%
Cochabamba	20 745	37	50	218	101	238	1.15%
La Paz	62 258	67	67	38	51	41	0.07%
Pando	58 213	7	12	96	30	88	0.15%
Santa Cruz	192 612	249	329	870	1229	1608	0.84%
Tarja	13 683	27	28	23	7	59	0.43%
Total	460 700	402	495	1380	1506	2247	0.49%

In February 2001, a supreme decree was promulgated (D.S. 26075) to declare an area of 42 M hectares permanent production forest. Bolivia is one of the leading countries in the sustainable management of forests. It counts 2.2 M hectares of certified forest areas. However, the current management systems are not ensuring the regeneration of intervened forest or maintaining the quality of the forest. On the other hand, the clandestine and illegal logging increases deforestation processes that are occurring in Bolivia.<sup>49</sup>

<sup>48</sup> Killeen et al. (2007) Thirty years of land cover change in Bolivia. *Ambio* 36: 600-606

<sup>49</sup> USAID/Bolivia (2002) "Analysis of Bolivia on forests and biodiversity"

The country's forest sector generates annually about 130 million dollars in exports, and about 50,000 direct jobs. These economic and social benefits are seriously affected by the threats on forest (land conversion, forest fires) since these reduce the productive potential of forests. Another of the current problems of the forestry sector are land tenure conflicts. Companies having forestry concessions blame the Government of legal uncertainty and, as a result, according to data from the Camera Forestal de Bolivia, certified forest areas have been reduced in recent years.

Due to its diversity of altitudinal and ecological regions, Bolivia is one of the countries with highest species richness on the planet; it is one of the fifteen biological megadiverse countries. Threats to this wealth of flora and fauna are loss of habitat, the expansion of the agricultural frontier, forest exploitation, illegal trade in species, ill practiced fishing and hunting, the opening of roads, mining, oil activities and colonization. In Bolivia there are more than 40 legally established protected areas. The national system of Protected Areas (SNAP) consists of 22 areas, important for its biogeographical and ecological representativeness. These occupy more than 18 M hectares, representing 17% of the land area of the country. Most protected areas are inhabited by indigenous and peasant communities, making one larger population to 70,000 inhabitants.

### *Water*

Bolivia ranks 16 global in terms of abundance of water resources<sup>50</sup>. Nevertheless, it ranks 67 in water quality. Urban population generally does not enjoy good quality drinking water and rural areas mostly drink unsafe water. Water pollution is a significant environmental problem because it affects public health and quality of life of the inhabitants. In Bolivia much of rivers and lakes as well as the underground waters near major cities and mines are contaminated. One of the best known cases are the rivers Rivera and Tarapaya, tributaries of the Pilcomayo River and lake Poopó, suffering from contamination from mining. The levels of pollution produced by direct discharges of wastewater from the network of sewers, especially in industries, are high in all Bolivian cities. Of particular interest for sustainable development are conflicts over the different uses of water, between consumption, irrigation and industry (mining). This has even reached international standards, particularly with Chile, who Bolivia has conflicts of long time on the use of fresh water that originates in the Bolivian Andes but is intended to be used by Chile in the coastal desert mining (e.g. case Silala River).

### *Soils and land use*

Both in highlands and lowlands, soils generally have a fragile consistency, are shallow and easily eroded. These conditions make that only 3% of the territory is suitable for intensive agriculture: the best soils found in the interandean valleys of the Cochabamba, Chuquisaca, Potosí and Tarija departments. Even here, because of misuse, soils are in a continuous process of erosion. The FAO estimated that between 1954 and 1996 the eroded surface of soil has increased by 86%. Other causes of loss of soils are the advance of urbanization, as well as pollution of rivers with mining waste water as in the case of the valleys of the Pilcomayo basin and its tributaries. The problems of salinity and alkaline soils are widespread especially in the arid zones of the country. According to the map of coverage and current land use of the Superintendencia Agraria (2001) the total area used for agriculture reaches 3.7 M hectares (3.4% of the total territory)

The great existing inequality with regard to land tenure causes that this constitutes one of the major problems in the country. Besides generating social conflict, it also is a source for ongoing land degradation. In the highlands where small holders prevails, the land continues to be divided giving as a result the so-called "*surcofundio*" situation that obliges farmers to overuse soils and vegetation. Meanwhile in lowland areas, the latifundio prevails (for cattle, soy, sugarcane). Here, there have been frequent examples of exploitation and repressive relations between land owners and indigenous peoples and *campesinos*.

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<sup>50</sup> UNESCO (2003) World Water Report

Soy is by far the largest agricultural land use in Bolivia, increasing from 6000 km<sup>2</sup> to over 900 km<sup>2</sup> during the first decade of the century (Table XX). other importante crops, in terms of area, are maize, sunflower, rice, potatoes, wheat and suger cane. Most of the crops have seen a steady increase during the period under observation, with the exception of plantains and cassava.

Table XX. Land use development in Bolivia (harvested area x 1000 has) Source FAOSTAT

Main crop	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Soybeans	617	615	637	684	804	941	950	958	786	902	922
Maize	307	306	310	296	314	338	343	364	433	417	314
Sunflower seed	130	135	178	83	89	98	94	123	176	311	235
Rice, paddy	156	146	130	141	152	188	168	170	155	187	194
Potatoes	125	124	127	130	133	134	135	137	138	183	180
Wheat	120	114	135	114	109	122	129	181	155	157	176
Sugar cane	84	86	102	106	107	108	116	128	160	156	153
Sorghum	43	43	61	57	63	73	104	120	126	130	87
Quinoa	37	37	38	38	39	39	42	45	46	60	63
Plantains	37	40	41	42	41	42	42	42	42	36	36
Cassava	35	35	35	36	36	36	36	37	37	29	29

Coca has been cultivated in medium-altitude parts of the Bolivian Andes since at least the Inca era. Cultivation expanded substantially in the 1980s into the Chapare region of Cochabamba and some production flowed into the international cocaine market. Coca growers from both the Yungas and the Chapare have advocated for policies of "social control" over coca growing, maintaining a pre-set maximum area of cultivation as an alternative to drug war policies. Preseident Morales has pursued a combined policy of legalizing coca production in the Chapare and Yungas and eradication of the crop elsewhere. It is estimated that there are 30,900 hectares of coca in Bolivia in 2009, making Bolivia the third largest producer of coca after Colombia and Peru. Sales of coca leaf amounted to approximately US\$265 million in 2009, representing 14% of all agricultural sales and 2% of Bolivia's GDP<sup>51</sup>.

### Climate change

The Bolivia contribution to the global emissions of GHG barely reached 0.3% of global GHG emissions. Emissions in Bolivia in total along the 86 million tonnes of CO<sub>2</sub> in the year 2004, of which 31 million in the energy sector and nearly 55 million in land-use and land-use change. The vulnerability to climate change in the country is heterogeneous; with agriculture being the most vulnerable productive sector. Most affected natural ecosystems are andean humid and semi-humid ecosystems (humid puna, wetlands, Yungas), that will be seriously threatened (the projections indicate that the extension of these ecosystems will be reduced between 30 to 50% of its extension by 2050). The most arid ecosystems show an increasing trend up to almost 25% by 2050. The observed effects of climate change are: 1) reduction of glaciers, causing impacts on volumes of water for human consumption, power generation and agriculture (Tuni and Condoriri glaciers have lost 39 % of its area since 1983); (2) increased intensity and frequency of extreme events, generating extensive flooding and droughts, hail, and frost; generating annual losses of the order of 5% of GDP; (3) crops are strongly influenced by the impacts of climate change, especially in areas where there is a further increase of temperature and a decrease in precipitation, which will trigger serious problems of food security for the country. Simulation models indicate that the increase in

<sup>51</sup> UNODC. 2010., Estado Plurinacional de Bolivia: Monitoreo de Cultivos de Coca 2009



temperature would result in decreased. (4) climate change has a direct impact on certain diseases, such as malaria, which has reappeared in vast areas that traditionally for its conditions of altitude and climate did not allow the development of this type of disease<sup>52</sup>.

### ***Brazil and the Amazon rainforest***

Brazil is a big country (8.5 million km<sup>2</sup>) with diverse ecosystems and biodiversity ranging from the pampa (campos) area in the South, the Cerrado savannah, atlantic forest and Pantanal swamp in the center, to the Amazon tropical rainforests (40% of the country). and caatinga dry forest in the North Tropical rainforests occur in the Amazon region and the the Atlantic forest (6% left). In relation to sustainable development, international attention mainly focuses on the Amazon rainforest. It is the world's largest rainforest and its destruction would lead to major biodiversity loss and climatic changes. Therefore, in line with most donors, e.g. World Bank, USA, Norway and Germany, development support provided by the Netherlands targeted this region. Brazil considers the Amazon a domestic issue and always kept international co-operation at arm's length. For decades Brazil actively promoted agricultural expansion and emigration into the Amazon region and perceived international conservation concerns as being at odds with its own economic and political objectives. The Federal government defined the 2007 Accelerated Growth Plan (PAC: Plano de Aceleração de Crescimento) and the 2008 Sustainable Amazon Plan (PAS: Plano Amazônia Sustentável) and supports large infrastructure expansion project as part of IIRSA<sup>53</sup>. The ambition is to establish Manaus, Porto Velho and Santarem as major commodity transport harbours. In relation to road infrastructure development, agricultural expansion, logging and commodity trade, deforestation also increased in the Amazon. Other ambitious economic development initiatives include hydropower development. Given that most of the southern watersheds have already been used to a maximum of their capacity for hydropower, Brazil feels forced to implement large hydropower initiatives in the Amazon region. Several dozens of initiatives of different size are underway, and conflicts over the enormous Belo Monte has drawn much international attention.<sup>54</sup> The rate of deforestation still continues on a large scale (see table below).

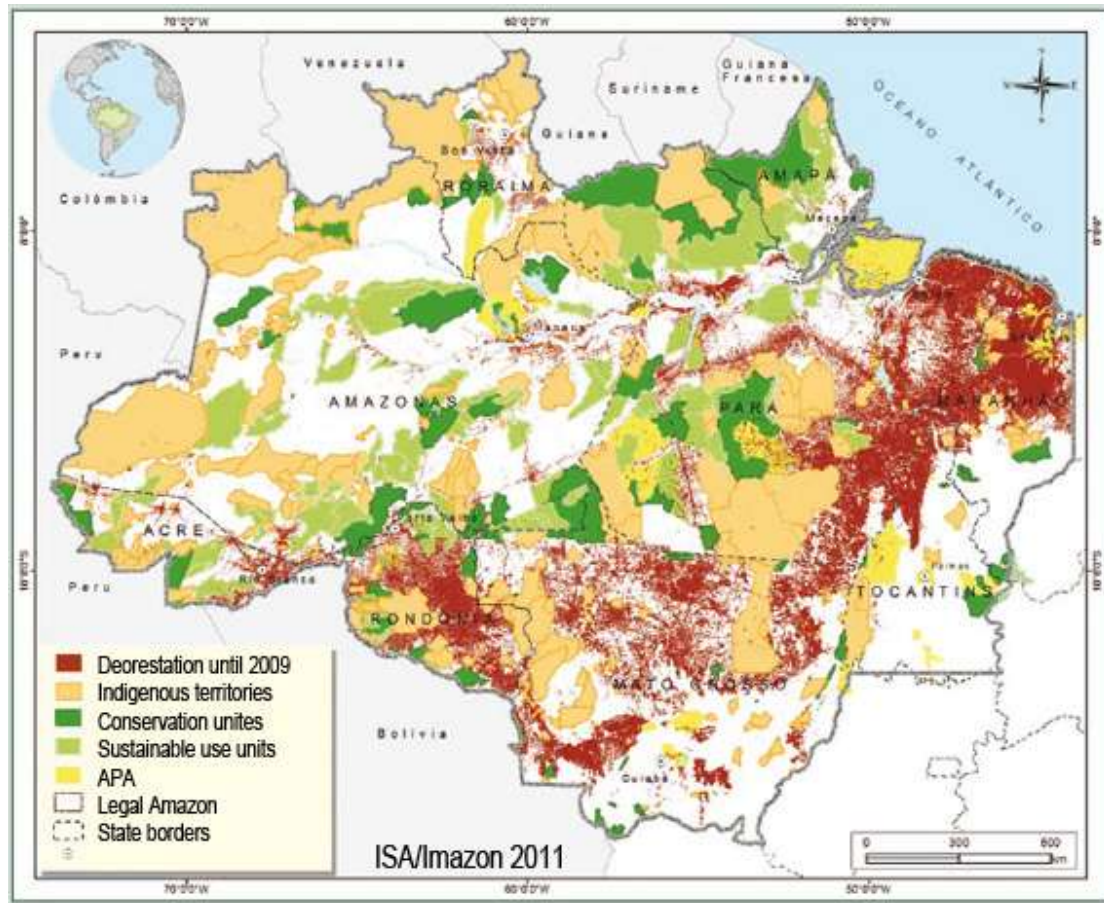
*Figure ...: Original forest cover Amazon and deforestation.*

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<sup>52</sup> Bolivia's second national communication to UNFCCC; 2009

<sup>53</sup> Initiative for the Regional Infrastructure Integration of South America

<sup>54</sup> <http://www.nytimes.com/2012/07/01/opinion/sunday/the-dam-boom-in-the-amazon.html>



Source: ISA, Imazon (2011)

Table ...: Deforestation in the Brazilian Legal Amazon (in km<sup>2</sup> per year).

Amazonian States	2000	2001	2002	2003	2004	2005
Acre	547	419	883	1,078	728	592
Amazonas	612	634	885	1,558	1,232	775
Amapá	n.f.	7	0	25	46	33
Maranhão	1,065	958	1,085	993	755	922
Mato Grosso	6,369	7,703	7,892	10,405	11,814	7,145
Para	6,671	5,237	7,510	7,145	8,870	5,899
Rondonia	2,465	2,673	3,099	3,597	3,858	3,244
Roraima	253	345	84	439	311	133
Tocantins	244	189	212	156	158	271
<b>Total</b>	<b>18,226</b>	<b>18,165</b>	<b>21,651</b>	<b>25,396</b>	<b>27,772</b>	<b>19,014</b>

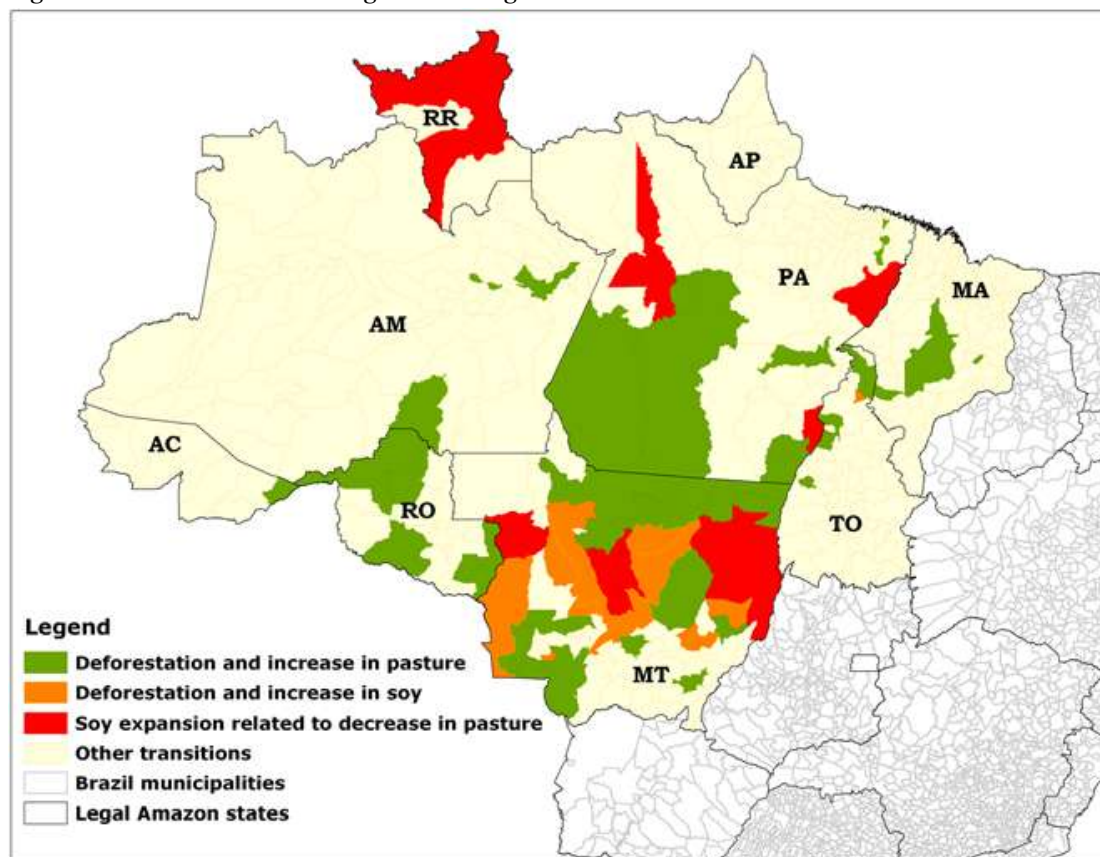
Amazonian States	2006	2007	2008	2009	2010	2011
Acre	398	184	254	167	259	280
Amazonas	788	610	604	405	595	502
Amapá	30	39	100	70	53	66
Maranhão	674	631	1,271	828	712	396
Mato Grosso	4,333	2,678	3,258	1,049	871	1,120
Para	5,659	5,526	5,607	4,281	3,770	3,008
Rondonia	2,049	1,611	1,136	482	435	865
Roraima	231	309	574	121	256	141
Tocantins	124	63	107	61	49	40
<b>Total</b>	<b>14,286</b>	<b>11,651</b>	<b>12,911</b>	<b>7,464</b>	<b>7,000</b>	<b>6,418</b>

Source: INPE Brazil



The highest deforestation level was recorded in 1995 with 29,059 km<sup>2</sup>/yr, followed by 2004 (27,772 km<sup>2</sup>/yr). Since 2005 deforestation has been declining to a record low of 6,418 km<sup>2</sup> /year in 2011 (measured since 1988). Reasons cited for this decline are low commodity prices and more effective law enforcement. During the period 2004-2011 a major concern was the increasing demand for biofuels (from sugarcane and soy), which could replace pasture land with biofuel crops in the Cerrado and subsequently move cattle farmers to the Amazon region. The linkages and actual effects of this Indirect Land Use Change (ILUC) is debated by Brazilian and International experts<sup>55</sup>.

Figure ...: Indirect land use changes in the Legal Amazon between 2000-2006.



Source: Barone et al (2010).

*Note: Land-use transitions between 2000 and 2006 in the Legal Amazon. In the municipalities where deforestation occurred over this period (green and orange), those in which pasture increased were separated from those where soy increased (in municipalities where both soy and pasture increased, the dominant change was labelled). Similarly, municipalities were identified where soy expanded while pasture decreased (and the decrease in pasture exceeds deforestation).*

The main causes for deforestation in the Amazon today are cattle ranching (85% of the land in use), infrastructure development (roads), colonisation and related agriculture, commercial agriculture (soy, sugar cane) and logging. Forest conversion for agriculture and grazing is by far the largest cause. People often associate deforestation in the Amazon with international tropical timber trade. However, in Brazil around 75% of the timber is consumed domestically (construction, iron ore industry) and most is from illegal sources. Of the exported volume 78% is certified (mainly FSC<sup>56</sup>). Certification proved to be an effective way to keep forests standing (De Koning, 2008). Also in Brazil environmental awareness and concerns for sustainability are growing. Massive fires and the droughts of 2005 and 2010 in the Amazon gives rise to concern. Scientists from the Brazilian National Institute of Amazonian Research (INPA) argue that effects of deforestation on the regional climate could reach a 'tipping point' (estimated at 60% forest standing with more

<sup>55</sup> <http://environmentalresearchweb.org/cws/article/news/46082>

<sup>56</sup> FSC = Forest Stewardship Council.

attention to forests in the Eastern part of the basin) after which large part of the rainforest would permanently turn into a savannah. Brazil has already declared large tracts of land as protected areas, sustainable use areas or indigenous territories (44%). Though law enforcement has improved considerably over the years, encroachment, illegal logging and mining continues. The economic and political influence of the logging and agriculture sector is big. A much debated recent development within Brazil is the proposed changes in the forest code. Opponents criticise the new law for legalising illegally cleared land and minimising the obligations for landowners to keep forest standing on their land. The data in the table above and the increasing domestic and worldwide demand and higher prices for meat, timber, soy etc. suggest that deforestation will continue.

Although international attention focuses on the Amazon, most agricultural land lies to the South in the woodland savannah (Cerrado, 20% of the country). Here, large cattle ranches and monoculture soy and sugar cane plantations are found. Overall, cattle ranches occupy around 76% of all agricultural land in Brazil. In 2006, the number of hectares decreased a little while the number of cattle increased, reflecting higher stocking rates. Today, expansion mainly occurs in the Amazon region. The Economist (26 August 2010) called the cultivation of the savannah with soy an economic miracle. Brazil is now one of main commodity exporters. The rate of Cerrado deforestation during the period of 2002 to 2008 has been about 20,000 km<sup>2</sup> per year,<sup>57</sup> as compared to about 19,000 km<sup>2</sup> of Amazon tropical forest being lost annually. The greatest rate of loss is due to soy, cattle grazing and sugarcane (for bio-ethanol production). Less than 10% is under any form of protection. In 2010, Brazil presented the Action Plan to Prevent and Control Deforestation and Wildfires (PPCerrado) as part of Brazil's ambitions to reduce CO<sub>2</sub> emissions. In addition there are also eucalyptus and pine plantations throughout the country producing timber, charcoal and pulp. From a biodiversity perspective, all monoculture plantations have a low biodiversity value and impacts can only be mitigated by setting aside land to preserve the original ecosystem and biodiversity.

Table ...: Land use and expansion in Brazil (number of hectares)

Land use	Hectares				
	1990 / 1995	2004	2006	2008	2010
Pastures	177,700,472	n.f.	172,333,073	n.f.	n.f.
Crop lands					65,371,447
Soy	11,487,300	21,601,340	22,082,666	21,063,721	22,339,094
Sugar cane	4,272,600	5,633,700	5,815,151	8,210,877	9,164,756
Corn	11,394,300	12,864,838	12,997,372	14,747,249	12,987,578
Coffee	2,908,960	2,389,598	2,331,560	2,250,491	2,160,605
Beans	4,680,090	4,325,777	4,243,474	3,967,518	3,655,538
Plantation Forests		5,500,000			
Eucalyptus		3,300,000			
Pine		1,900,000			
Other		300,000			
Certified Natural Forests	-	1,400,000	3,000,000		
Total					

Source: various including IBGE Brazil, FAOSTAT

In Brazil, water is a key element for sustained agricultural growth, energy production, and health (drinking water, pollution). Brazil has many large river systems (average total flow of 183,000 m<sup>3</sup>/s) and large groundwater reservoirs. The Amazon river basin alone accounts for 16% of all river flow on earth. Related to heavy pollution and overuse, in for example the Sao Francisco river basin and the city of Sao Paulo, Brazil started implementing the principles of Integrated Water Resource Management (IWRM), included in the National water Resources Policy (1997) and the activities of the National Water Agency (ANA 2000).

<sup>57</sup> WWF, 2011. Soya and the cerrado. Brazil's forgotten jewel.

Brazil is urbanising fast with a growing middle class an increasing education level and access to communication and information. At the same time, also environmental and social awareness is growing. There is more attention to indigenous rights, slave labour, sustainable sourcing of products (e.g. supermarkets), health issues, and preservation of the natural heritage. In 2012, Brazil was the host of the World Summit for Sustainable Development where the main subject was a 'green economy'. At the moment, Brazil has a higher biological capacity than its ecological footprint, and opportunities to develop a green economy exist. To what extent Brazil will actually invest and give preference to such a development process remains to be seen. Brazil's first priority is economic growth but it tries to make it more sustainable and equitable. Agricultural expansion and deforestation will continue. Brazil invests in both off-shore oil exploitation, nuclear energy and hydro-electric dams. As described in the previous paragraphs many social and environmental challenges remain, mainly associated with land-use changes.

## **Colombia**

### *National and regional characteristics*

Colombia is a country blessed by its environmental situation. Its geographical location, in the extreme north-west of South America and with a varied topography, is the basis for an enormous diversity of landscapes and species. It features six macroregions: Amazon, Orinoco (Llanos), Andean, Pacific coastal (Chocó), Caribbean coast and the Insular region, each one with its specific environmental characteristics. It harbours a great diversity of natural ecosystems, including tropical rainforest, mountain forests, semi-dry and dry forests, deserts, wetlands, mangroves, beaches, hard rock savannas, wet savannas (llanos), riverine (flooded) forests), páramo and glaciers. In climates it ranges from extremely wet (pacific coast, Amazon and Andean footslopes) to semi arid (interandean valleys) and dry (Caribbean coast), and tropical hot to high mountain cold climates. The geographic location and geographic diversity makes Colombia one of the countries with the greatest biodiversity on the planet. It ranks first in bird richness, second in vascular plants and fourth in mammals and herpetofauna. The population of Colombia, and most economic activity, is concentrated in two macroregions: the Andes (both on *altiplanos* as well as in the interandean valleys) and the Caribbean coast. In spite of growing population through colonization, the Amazon, Orinoco and Pacific coast regions remain sparsely populated and relatively well covered by the original ecosystems<sup>58</sup>.

Over 40% of the 1.1 million km<sup>2</sup> of terrestrial Colombia was originally covered the Amazon rainforest. It forms part of the most diverse biome in the world in terms of species and with many timber, water, and mineral resources. The Colombian section of the Amazon biome, relatively close to the Andes, has been one of the areas where the conditions have been relatively stable in the evolutionary history and why it is considered a Pleistocene refuge (time in much of the Amazon was a semi-arid savanna) and centre of radiation for biodiversity. Therefore, it is highly diverse even in comparison to other part of the Amazon. The Colombian Amazon has two contrasting realities: the Western part (most of the departments of Caquetá, Guaviare and Putumayo) are accessible from the Andean region, have a mixed population and is characterized by colonization and deforestation by conversion to agriculture. The Eastern part (departments of Amazonas, Vaupés and Guania) have difficult access, mostly indigenous population, little colonization, and much better conserved.

Approx. 15% of the country is covered by the Orinoco region. It has a particular ecological formation (*llanos orientales*), dominated by savannas, gallery forests and wetlands. It is sparsely populated, because of difficult access, extreme climate and soils with challenges for agricultural production. It is characterized by large scale but extensive cattle ranching. More recently, there is increasing agro-industrial development in the Orinoco region, particularly with oil palm and sugarcane.

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<sup>58</sup> Salazar-Holguín, F. et. al. 2010. Informe sobre el Estado de los Recursos Naturales Renovables y del Ambiente, Componente de Biodiversidad Continental - 2009. Instituto Alexander von Humboldt.

Both in the eastern llanos and in the Amazon region, there are a number of indigenous peoples who maintain a life based on their traditional agriculture and use of forest products. There is oil drilling activity in different parts (particularly in the Llanos) and the entire area has had to suffer from the installation of illicit crops and associated public order challenges.

The Colombian Andes forms part of the wet tropical portion of the longest mountain range in the world. It covers 27% of the country, divided into three *cordilleras* that reach over 5000 m.a.s.l. at its highest points. This created an enormous geological and geographical diversity, a mosaic of climatic conditions of range from hot and humid to semi-arid in valleys, to cold in the highlands and large volcanoes. This gives rise to an enormous amount of types of forests and other natural ecosystems in a relatively short distance, with many species of endemic flora and fauna. Thanks to its hydrological situation, the cordillera de los Andes is the water tower for the country. At the same time, due to its ideal conditions of soil and climate in many parts, it is a fertile land for cash crops like coffee, cocoa, sugarcane, potatoes and many types of fruits.

The Andean region holds about 75% of Colombia's population, 70% of which live in large cities (Bogotá, Cali, Medellín, Bucaramanga, etc.). Although most of the mountain range is inhabited by mixed-race groups, in the South (Cauca, Nariño) there is an indigenous population with a strong cultural identity, applying a more diversified land use.

Apart from intensive agriculture, the Andean region also has strong development of the industrial (manufacturing, food processing) and services sectors. In spite of having an intensive infrastructure network, the complex topography and vulnerability to natural disasters form a challenge and deficient infrastructure is mentioned as a key barrier to economic development of the Andean region. The advancement of urbanization and agriculture caused that the Andean region in general has little forest left, preserved forests, with the exception of certain regions as the Eastern slopes of the *Cordillera Oriental*, the Paramillo node (North) and the *Cordillera Occidental*, is vulnerable to erosive processes. In the inter-Andean valleys there are poles of development and intensive agriculture.

The Pacific coast region (*Chocó*; 6% of the country) was originally covered by a unique type of tropical rainforest. It is one of the wettest areas of the world (with records of over 10 m annual rainfall) and little urban and infrastructure development. The forests are lush with giant trees and large biomass. For this reason, and for its relative proximity to the coast, it is an area with many logging (formal and informal) activities but not much land conversion. On the coast there are stretches of mangroves, important as a basis for the fishery and the harvesting of molluscs and crustaceans. The population is mostly Afro-Colombian, but there are also scattered groups of indigenous people. There are few medium sized cities, two of them (Buenaventura and Tumaco) at the end of the only two roads that cross the area East-West. The population here lives from the harbour activities and fisheries. The population in the rainforest live from wood extraction and artisanal gold mining. Deforestation for illegal extraction of wood and, particularly in Nariño and Cauca, the cultivation of coca are threats to this region.

The Caribbean coast occupies almost 15% of the country, in the North. It has three distinct subregions: the semi arid coastal plains in the western part, including coastal savannahs and flood plains close to the main rivers draining from the Andes (Cauca and Magdalena). The centre is formed by a massif of extra-Andean mountains with heights of almost 6000 meters (Sierra Nevada de Santa Martha) and in the eastern part, the desert of the Guajira peninsula is found. For this reason, ecosystems in the Caribbean region are very varied, including moorland, montane forests, dry forests, mangrove swamps, deserts, beaches, flooded forests and riparian vegetation. The Sierra Nevada de Santa Marta is one of the most unique ecoregions on the planet, for being a huge, ancient massif directly at the edge of the sea, completely included in protected areas and home to an indigenous population that maintains a permanent culture since prehispanic times.

About 20% of Colombian population lives in the Coastal plains, concentrated in several sea-side (Cartagena, Santa Marta, Barranquilla, Riohacha) and more land inwards cities (Montería, Valledupar). The coastal plain is used intensively for agriculture (bananas, rice, sugar cane, oil

palm) and livestock, most of the savanna and semi arid shrub disappeared but forests remain in the mountainous areas. The land inward cities are centres of agriculture while the economy of the sea-side cities is based on trade (harbour), tourism, industry and services. The plains are occupied by mestizo population and the coast by an Afro-Colombian population. The Guajira desert is sparsely populated, but home to the main coal mine of the country (Cerrejón). The entire coastal area is susceptible to floods and desertification and suffered.

### *Deforestation*

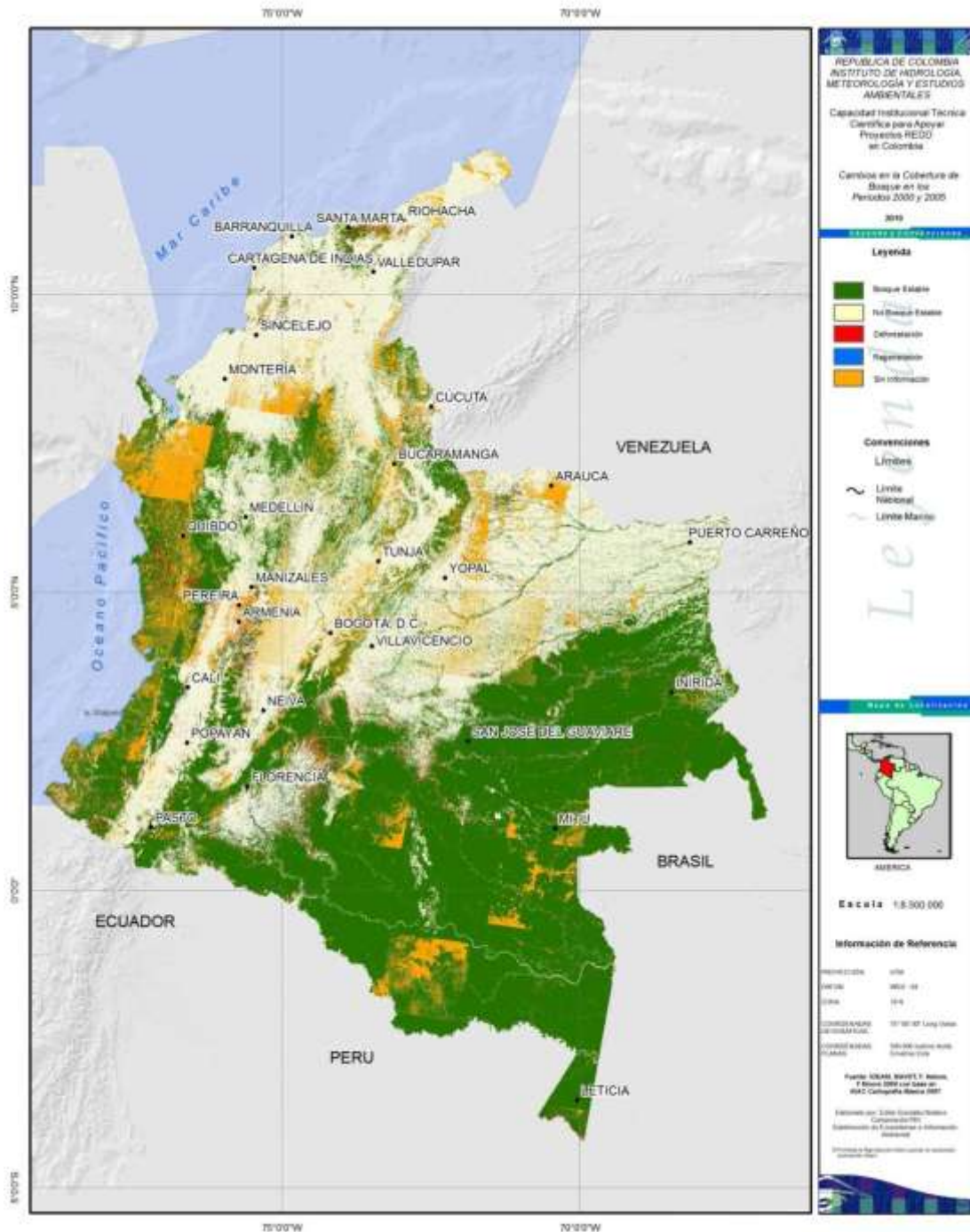
The current total coverage of forests in the country is 56 million hectares; approximately half of the national territory. Two-thirds of these forests are in the Amazon region, 20% in the Andes and 8% on the Pacific coast. Other important natural biomes are the deserts, tropical savannas (Llanos), wetlands and páramos, each of them providing important environmental services to society. Of the total area of the country, 63% is covered by natural ecosystems<sup>59</sup>. The system of national parks of Colombia (SPNN) has a total of 58 areas, with an area of approximately 13 million hectares, which is more than 10% of the Colombian territory. In addition to the protected areas of the SINAP, there are indigenous reserves and peasant reserve areas which also include formal arrangements of conservation<sup>60</sup>.

Generally, the regions with larger population density and development of economic activities (Caribbean coast, interandean valleys and *altiplanos*) are mostly deforested and transformed into productive areas, while in the regions with less human presence (Amazon, Orinoco, Chocó-Darien and high Andes) natural ecosystems are more preserved. The rate of deforestation in the 1990-2000 period was 0.5 %/year, or approx. 300 000 has annually. This places Colombia at an intermediate level among other South american countries. However, the deforestation rate varies per region, from 0.3% in the Amazon to almost 2% in the Caribbean coast. In absolute figures, the Amazon region is where most deforestation takes place (> 100 000 has/year) mostly in the colonization frontiers in the Western and Northern Amazon. Deforestation in the Andes has reduced from 100 000 has/year (0.9%) in the 1990-2000 period to less than 75 000/year (0.6%) in 2000-2005. The continuous high deforestation figures in the Andes and Caribbean coast are particularly worrying given that these are the regions with most population concentration and the regions that suffer most from climate related natural disasters.

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<sup>59</sup> IDEAM, MAVDT, 2010. Cuantificación de la tasa de deforestación para Colombia. Periodos 1900-2000, 2000-2005

<sup>60</sup> Unidad Administrativa Especial de Parques Nacionales Naturales; [www.parquesnacionales.gov.co](http://www.parquesnacionales.gov.co)



**Figure XX: Deforestation map (land cover change from forest - no forest) in the period 2000-2005. Source: IDEAM 2010**

The main reasons for deforestation and environmental degradation in Colombia are the advance of the agricultural frontier, improper or illegal use of forest resources practices and inadequate practices of agriculture and livestock (including illicit crops). Underlying causes are (forced or voluntary) migration and colonization, land tenure insecurity, the development of infrastructure and extractive mining and oil development activities.

There is a direct relationship between the armed conflict in Colombia, economic development in rural areas and deforestation. The conflict traditionally has been located in areas of greater coverage of natural ecosystems (forests, páramo, *Llanos*; including protected areas, in the Andean



foot slopes, Southern and Northern Andes, Chocó, border areas) because of the facilities (lack of infrastructure and urban centres) that these areas present for illicit activities, and the presence of a certain social basis for these activities. The presence of the conflict has minimized the governance and limited the command and control of natural resources in these areas. Recent data on deforestation at national level, show a concentration in areas where until recently, the armed conflict was highly present but that have an increased state control now ("*zonas de consolidación*"). Deforestation related to illicit cultivation is high, especially because of the highly mobile character of illicit crop cultivation. Each year, between a third and half of the coca crops are renewed, usually in forest plots that are cleared for this purpose. Added to this is the dynamics of destroyed (by government control) and new crops in other areas. For instance in the 2008-2009 period, 45,000 of the detected 60,000 has of coca cultivation was new and another 51,000 was abandoned<sup>61</sup>. This high mobility of crops has caused a net deforestation (conversion of primary and secondary forest to coca plantation) of up to 20,000 has/year (approx. 7% of all deforestation) during the first decade of the 21<sup>st</sup> century. Also noticeable are the indirect effects of the conflict over forests and páramos. Migrations are an important phenomenon, both emigration (displaced people, obliged to colonise other areas to grow, creates new deforestation) like immigration (groups reaching a zone, taking advantage of the profits of the illicit cultivation, protection or the conflict itself). Crops, military activities and human displacements have always had a negative environmental effect by direct deforestation, forest degradation and pollution of rivers, among others. Associated with them, are illegal, informal mining and illegal logging activities, leveraging the absence of control of State<sup>62</sup>.

### *Agriculture*

In 2009, 51 million hectares of continental Colombia is used for agricultural purposes<sup>63</sup> (44% of all surface area); 5 million for agricultural crops, 40 million for animal husbandry (of which only 5 million has improved grasslands) and 400 000 hectares for commercial forestry. Of all crop land, 60% is used for permanent crops and the rest for annual crops (this balance was inverse in 1990). The main productive structure of the Colombian agriculture is small but diversified farms, and traditional food crops (tubers, grains, vegetables, fruit) continue to occupy the largest area under cultivation. Ninety percent of cultivated area is planted with food crops; non food (cotton, tobacco, flowers, biofuels) occupy less than 2.5 %. The most extensive crop is coffee (18% of total), followed by maize (13%), rice (10%), plantain, sugarcane, oilpalm and fruits (less than 10% each). These six products together cover almost 55% of all cultivated land.

In the period 2000-2008, the area of annual crops did hardly increase, while permanent crops increased 6% (Table XX). Among the annual crops, there were few changes (more rice and soy, less sorghum and potato). Permanent crops showed more development, especially because of a steady increase of oil palm (63% increase) and coffee (reaching a top of over 800 000 hectares in 2005) but also to increasing surface areas of cocoa and other fruits.

**Table XX. Agricultural land use 2000-2008, in thousands of hectares (source: DNP<sup>64</sup>)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Annual crops (total)</b>	<b>1607</b>	<b>1612</b>	<b>1558</b>	<b>1633</b>	<b>1729</b>	<b>1640</b>	<b>1602</b>	<b>1605</b>	<b>1609</b>
Cotton	48	53	44	45	67	74	56	47	40
Rice	476	481	472	515	537	468	443	447	505
Potato	171	166	163	164	162	152	162	158	158
Beans	116	116	109	115	113	124	117	131	123
Maize	572	574	553	567	612	584	606	609	592
Sorghum	68	70	70	74	78	68	53	43	21
Soy	18	24	27	27	34	40	29	29	26
Wheat	20	15	18	20	20	21	18	18	14

<sup>61</sup> Sistema Integrado de Monitoreo de Cultivos Ilicitos (Proyecto SIMCI II), UNODC. [www.biesimci.org](http://www.biesimci.org)

<sup>62</sup> Dávalos, L.M. et al. 2011. Forests and Drugs: Coca-Driven Deforestation in Tropical Biodiversity Hotspots *Environ. Sci. Technol.*, 2011, 45 (4), pp 1219–1227

<sup>63</sup> MADR, 2009. Estadísticas del sector agropecuario

<sup>64</sup> Departamento Nacional de Planeación; [ww.dnp.gov.co/Programas/Agriculturapecuarioforestalypesca](http://ww.dnp.gov.co/Programas/Agriculturapecuarioforestalypesca)

Vegetables	96	95	87	88	89	92	101	104	114
Other annual crops (barley, peanuts, sesame, etc)	22	19	16	16	18	18	18	18	16
<b>Permanent crops (total)</b>	<b>2154</b>	<b>2192</b>	<b>2185</b>	<b>2233</b>	<b>2310</b>	<b>2360</b>	<b>2378</b>	<b>2403</b>	<b>2303</b>
Banana	41	41	42	43	44	44	44	42	44
Cocoa	93	93	99	101	105	107	110	106	109
Oil palm	135	138	142	147	153	164	178	199	220
Sugar cane	400	389	383	388	394	389	386	384	358
Name	23	22	22	25	27	24	25	25	25
Plantain	377	382	368	369	373	370	369	367	347
Yuca	179	190	171	175	175	175	190	190	182
Other fruits	162	168	182	194	201	209	221	223	220
Coffee	675	705	711	721	771	807	786	798	733
Other permanent crops (Coco, fique fiber, arracacha, tobacco, etc)	67	64	66	72	69	72	71	69	65

### Energy

The electricity sector in Colombia is dominated by large hydropower generation (65%) and thermal generation (35%). Despite the country's large potential in new renewable energy technologies (mainly wind, solar and biomass), this potential has been barely tapped. A 2001 law designed to promote alternative energies lacks certain key provisions to achieve this objective, such as feed-in tariffs, and has had little impact so far. Large hydropower and thermal plants dominate the current expansion plans. An interesting characteristic of the Colombian electricity sector (as well as of its water sector) is a system of cross-subsidies from users living in areas considered as being relatively affluent, and from users consuming higher amounts of electricity, to those living in areas considered as being poor and to those who use less electricity. About half the generation capacity is privately owned. Private participation in electricity distribution is much lower. Colombia is a net power exporter. In 2005 the country exported 1.76 TWh of electricity to Ecuador (3.5% of total production), and interconnection with Panamá is underway. According to the Ministry of Mines and Energy, exports are estimated to increase at 5 percent annually<sup>65</sup>

Electricity supply in Colombia relies on the National Interconnected System (SIN) and several isolated local systems in the Non-Interconnected Zones (ZNI). SIN encompasses one third of the territory, giving coverage to 96 percent of the population. The ZNI, which covers the remaining two thirds of the national territory, only serves 4 percent of the population. Thirty-two large hydroelectric plants and thirty thermal power stations feed electricity into the SIN. Hydropower dams are concentrated in the Andes and, contrary to other countries in the Amazon biome, few are in tropical lowlands. The ZNI is mostly served by small diesel generators, many of which are not in good working conditions. At the end of 2005, installed net effective capacity was 13.4 Gigawatt (GW), with the following share by source:

Electricity generation in Colombia (% of total; Source; UPME)<sup>66</sup>

Large hydropower:	64 %
Thermal (gas):	27 %
Thermal (coal):	5.2 %
Small hydropower:	3.08 %
Mini-gas:	0.17 %
Cogeneration:	0.15 %

<sup>65</sup> World bank 2004. Colombia: Recent Economic Developments in Infrastructure (REDI). Balancing Social and Productive Needs for Infrastructure.

<sup>66</sup> Unidad de Planeación de Minero Energética [www.upme.gov.co/](http://www.upme.gov.co/)



Wind:	0.07 %
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The share of thermal participation in generation has increased since the mid-1990s. This has happened in response to the 1992/1993 crisis caused by El Niño-Southern Oscillation associated droughts and the high reliance of power generation on hydroelectric installations that lacked multi-year storage capacity. As a result of the new policies adopted by the country, the dominance of hydropower in the generation portfolio has been reduced from 80 percent in the early 1990s to less than 65 percent today. There are several CDM projects in renewable electricity generation.

#### Climate change

Based on the behaviour of temperature and rain in historical series, IDEAM identified the evidence of climate change in Colombia<sup>67</sup>. For example, in the areas of mountain forest and páramo, an increase in maximum temperature between 0.3 and 0.6 °C per decade has been measured; much higher than the global average. With respect to the behaviour of the glaciers, an accelerated loss of area was found, especially in the last three decades, with 3-5% loss of glacier cover by year and retreat of the glacier front of 20 to 25 m per year. Based on the evaluation of global climate models that best represent the regional climate and with the help of regional climate models of high spatial resolution, various scenarios were simulated. These predict that the potentially most affected regions in Colombia are the Caribbean coast (by floods and drought), the Andes (by increasing temperature and extreme rainfall) and the Pacific coast and insular region (by sea level rise). All the biomes of the country would be affected somehow, producing great challenges for adaptation. At the same time, the reality of climate change also offers opportunities for Colombia for the options that have the country to mitigate the effects through initiatives of capture of carbon by reforestation and avoided deforestation (REDD+).

According to the 2004 GHG emissions estimate, included in Colombia's second national communication to UNFCCC, the country contributes with 0.37% (180.010 Gg) to the global emissions. Per capita emissions individuales are below the world average. The sectors that cause most GHG emissions in 2004 were agriculture (38%); energy (37%) and LULUCF (14%), followed by solid waste (6%) and industrial processes (5%).

### **1.4.3 Challenges for sustainable economic growth in LAC region**

Given the expected increase in population both in the LAC region and world-wide, as well as increasing urbanisation in LAC and the expected continuing importance of primary commodities, the main challenge for sustainable economic growth can be captured under the heading 'sustainable production and consumption'. Promoting the right kind of economic growth is essential. According to the OECD, sustainable (or green) economic growth also addresses the future resource scarcity and reduced quality (making investments more costly), and expected imbalances in natural systems (as a result of climate change and ecosystem degradation) which increases the risk of abrupt, highly damaging effects on people and the economy. Both the LAC as well as the EU countries face the challenge to diversify their economies and promote more knowledge-intensive and innovation-based economies (OECD, ECLAC). Specific policies are needed to promote a structural shift towards more technology-intensive goods would also decouple economic growth from environmental degradation. Energy intensity is one area in which productive structure and sustainability (and particularly its environmental pillar) must be reconciled. But all the challenges mentioned earlier will have to be tackled together in order to advance towards a green economy in the context of sustainable development and poverty eradication, one of the themes of Rio+20 (General Assembly resolution 64/236). More investment

<sup>67</sup> IDEAM (2010) Segunda comunicación nacional ante la convención marco de las Naciones Unidas sobre cambio climático. [www.cambioclimatico.gov.co](http://www.cambioclimatico.gov.co)

in research, innovation and development is necessary in LAC and EU as well as the transfer of funds, technologies and capacity-building<sup>68</sup>.

Because of the globalization and growing international trade, this of course also relates to production and consumption patterns elsewhere. The European Union is determined to promote sustainable economic growth and adopted the Europe 2020 strategy (2010), aiming to transform the EU into a knowledge-based, resource efficient and low carbon economy. This has a direct effect on the demand for primary resources like crops and oil. Although there are already many appropriate national policies and legislation, actual implementation or enforcement is slow or absent worldwide (see the results of the Rio+20 in 2012). Many environmental goals (see for example international conventions on climate change and biodiversity) or social goals (see Millennium Development Goals) will not be reached within their set time frame.

The Economic Commission for Latin America and the Caribbean together with representatives of the LAC countries defined in 2009 the necessary main responses to the challenges for sustainable consumption and production (as a guiding paradigm for development) in the LAC region:

- *Information, education and public awareness* (for example on the cost of environmental and social problems).
- *Build state capacity* (to follow-up, monitor, manage and negotiate with other countries and companies).
- *Use the potential for public-private partnerships and the participation of multiple actors* (to transform public policies and legal instruments into concrete actions, to transfer technology, to create linkages with local economies, and to ensure financing for critical issues to corporate activities).
- *Use the potential for regional cooperation* (could include regional coordination in international negotiations, consolidation of common positions, an exchange of successful experiences, adaptation of homogenous standards, common policies for infrastructure).
- *The need for a sub-regional approach* (given the diversity of the Caribbean, South America, Central America and Mexico a sub-regional approach is necessary to explore issues of common interest for groups of countries, while taking into consideration the concerns and challenges of smaller countries).
- *Cooperation, financing and technology transfer* (as crucial issues for effective implementation. The absence of adequate technology is frequently a significant factor that hinders the environmentally appropriate use of resources).

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<sup>68</sup> See for example EC communication on “Rio+20: towards the green economy and better governance” (COM2011-363).

## 2 Netherlands policies and aid to Latin America 2004-2011

### 2.1 Inputs and aid

#### 2.1.1 Official Development Assistance by the Netherlands 2004-2011

In the period 2004-2011 the Netherlands provided official development assistance (ODA) to countries in the LAC region, through bilateral aid as well as financial assistance through regional programs and civil society organisations. Bilateral aid between 2004-2010 focused mainly on the Amazon region (no figures yet on 2011 in the OECD DAC database), Bolivia (US\$ 312 m), Brazil (US\$ 35 m), Colombia (US\$ 209 m), and the Central American countries Guatemala (US\$ 169 m) and Nicaragua (US\$ 241 m). Total support to the environment and water sectors over the period of 2006 to 2010 was Eur 107 m. The main recipient however was Surinam with US\$ 456 m under the special agreement between Surinam and the Netherlands after Surinam became independent. Due to a policy change in 2006 by the new government, bilateral aid to several countries was phased out (e.g. Brazil, Ecuador). In its latest policy reform, the Netherlands decided to phase out all bilateral aid to LAC.

Table X: Sector support to environment and water in LAC partner countries 2006-2010 (in mln EUR)

Land/year	2006	2007	2008	2009	2010	total
Bolivia	1.370	1.963	2.261	5.278	7.233	18.105
Colombia	12.120	9.451	11.116	9.783	10.320	52.790
Guatemala	5.797	9.409	7.517	7.322	5.897	35.942
Totaal	19.287	20.823	20.894	22.383	23.450	106.837

Source: HGIS Annual reports 2006-2010

Table XX: Official Development Assistance by The Netherlands to LAC.

At the beginning of this century, the Netherlands decided to focus its bilateral co-operation on the poorest countries and the MDGs. Brazil was considered too rich with good prospects for future economic growth. The Netherlands decided to officially close its co-operation programme with Brazil at the end of 2005. In 2004, US\$ 16.3 m ODA was provided and US\$15.44 m in 2005, which subsequently dropped to US\$ 1.95 m in 2006.

Before closure, the focus was on supporting sustainable development and environment. The main support went to the multi-donor programme PPG7 ('Programa Piloto para Proteção das florestas tropicais do Brasil'). This programme supported research and pilot projects to protect and sustainably use tropical rainforest. The Netherlands contributed US\$5.25 m to the PPG7' Rain Forest Trust Fund and US\$ 2.87 m for sustainable business management, forest management and coordination. Support was also provided to the Brazilian NGO IEB (US\$4 m) for grass-root capacity building and the NGO Amigos da Terra (US\$ 2.5 m) for promotion of sustainable business in the Amazon. Support was also given to three budget lines (US\$3.1 m) of the government national environment fund (FNMA: 'Fundo Nacional de Meio-Ambiente'). In addition, the embassy had a Small Grants Fund (annual volume of Euro 100,000) to finance small-scale activities in the environment sector. For example, in 2005 a study on biodiversity was supported focusing on three main transport corridors and as an input to the spatial planning and zoning along these transport routes. In 2004, The Netherlands signed an MoU with Brazil on the development of activities of the Clean Development Mechanism (CDM).

Although bilateral co-operation was phased out, The Netherlands wanted - in line with its own forest and development policies - to remain involved in developments in the Amazon region. Therefore, a regional cooperation programme was developed with the Amazon Cooperation Treaty Organisation (ACTO), through a silent partnership with German GIZ. The countries with part of the Amazon - Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Surinam and Venezuela - in 1978 signed a treaty recognising the transboundary character of the Amazon rainforest. In 1995 the

Treaty was strengthened with a Permanent Secretariat, which implements activities in support of preservation and sustainable use of the Amazon rainforest (which in turn was supported by The Netherlands and Germany).

After 2005, Dutch NGOs such as Cordaid, ICCO, Oxfam-Novib and Solidaridad remained active in Brazil or supported Brazilian organisations focusing on human/indigenous rights, poverty reduction and environment. Some new activities in cooperation with Brazilian organisations were triggered such as the establishment of the Round Table of Sustainable Soy (RTRS).

## ANNEX

**Table : Net Official Development Assistance by the Netherlands.**

Source : OECD/DAC 2012 database.

	2004	2005	2006	2007	2008	2009	2010	2011	Total
Barbados	0.02	0.01	-	-	-	-	-	nf	0.03
Belize	-	0.35	-	-	-	-	-		0.35
Costa Rica	12.18	3.25	1.03	1.82	4.70	3.80	3.44		30.22
Cuba	1.40	1.30	0.43	0.15	0.12	0.10	0.10		3.60
Dominica	0.01	-	-	-	-	-	-		0.01
Dominican Republic	1.89	1.31	0.07	0.02	-	-	0.24		3.53
El Salvador	6.46	6.21	0.89	0.42	0.31	0.40	0.14		14.83
Grenada	0.32	-	-	-	-	-	-		0.32
Guatemala	20.92	26.42	20.00	25.22	27.42	28.35	20.94		169.27
Haiti	7.12	3.32	0.20	-	4.64	0.22	19.15		34.65
Honduras	16.11	16.32	1.07	0.41	1.15	0.75	0.29		36.10
Jamaica	7.72	-3.98	-2.98	-5.25	-5.25	-4.25	-2.94		-16.93
Mexico	0.20	0.19	-0.15	-0.32	-0.34	-0.32	-0.27		-1.01
Nicaragua	40.84	33.89	34.61	36.96	36.96	30.95	26.37		240.58
Panama	0.31	0.14	0.07	0.11	-	-	-		0.63
Trinidad & Tobago	0.08	-0.01	-	-	-	-	-		0.07
Central America regional	12.33	4.69	0.38	0.88	3.47	0.39	0.48		22.62
<i>Total Central America</i>	<i>127.91</i>	<i>93.41</i>	<i>55.62</i>	<i>60.42</i>	<i>73.18</i>	<i>60.39</i>	<i>67.94</i>	-	
Argentina	1.03	0.31	0.13	0.03	0.25	0.22	0.52		2.49
Bolivia	48.06	46.68	34.41	48.26	41.43	45.56	47.54		311.94

Brazil	16.30	15.44	1.95	0.22	0.48	0.64	0.41		35.44
Chile	1.35	0.78	0.10	0.06	0.19	0.20	0.28		2.96
Colombia	25.96	29.89	33.52	28.00	32.57	32.47	26.31		208.72
Ecuador	12.88	13.17	1.91	0.49	3.25	1.62	0.49		33.81
Guyana	4.85	0.01	-	-	-	-	-		4.86
Paraguay	1.87	1.92	0.01	0.05	-	-	-		3.85
Peru	18.10	13.49	-0.32	-0.09	-1.37	0.28	0.32		30.41
Surinam	9.14	29.20	34.30	124.04	67.58	115.51	76.30		456.07
Uruguay	0.04	0.02	-	-	0.04	0.02	0.07		0.19
Venezuela	0.12	0.06	0.05	0.03	0.16	0.12	0.13		0.67
South America, regional	17.3	4.8	2.8	2.1	7.8	1.7	1.5		37.94
<i>Total South America</i>	<i>156.97</i>	<i>155.78</i>	<i>108.81</i>	<i>203.14</i>	<i>152.39</i>	<i>198.36</i>	<i>153.90</i>	-	

nf = no figures.

**“net”** : after deductions for amortization payments or loans and for the impact of other measures reducing debt (e.g. forgiveness, repatriation of capital, and occasionally recoveries of grants).



## ANNEX ...: BRAZIL

**Figure ...: Evolution of Agricultural policies in Brazil.**

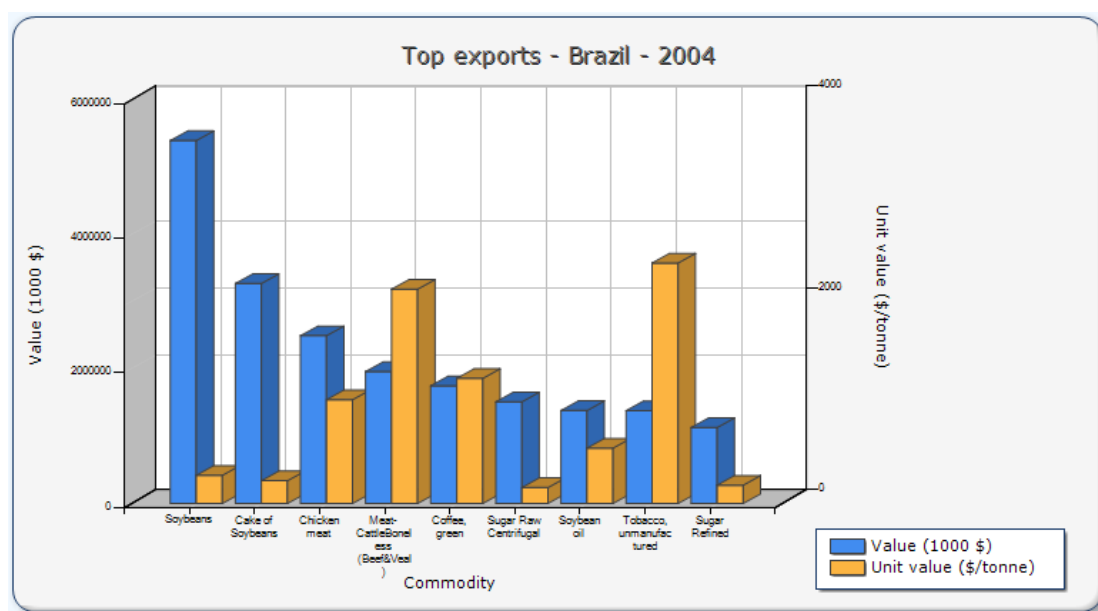
	1965-1985	1985-1995	1995-2005	Proposed Agenda
<b>Macroeconomic conditions and policy</b>	<ul style="list-style-type: none"> <li>- High inflation</li> <li>- Controlled exchange rate</li> <li>- High growth rate</li> <li>- Increased government expenditures in farm policy</li> </ul>	<ul style="list-style-type: none"> <li>- Uncontrolled inflation and low growth (stagflation)</li> <li>- Heterodox plans</li> <li>- Debt crisis</li> <li>- Land as real asset</li> <li>- Decreased government expenditures in farm policy</li> </ul>	<ul style="list-style-type: none"> <li>- Control of inflation</li> <li>- Volatile exchange rate</li> <li>- High real interest rates</li> <li>- Modest growth rate</li> <li>- Privatization</li> </ul>	<ul style="list-style-type: none"> <li>- Low inflation</li> <li>- Structural reforms and fiscal balance</li> <li>- Less volatile exchange rate</li> <li>- Lower interest rates</li> <li>- Sustained growth</li> <li>- Investments in infrastructure</li> </ul>
<b>Agricultural policy goals</b>	<ul style="list-style-type: none"> <li>- Food security</li> </ul>	<ul style="list-style-type: none"> <li>- Deregulation</li> <li>- Liberalization</li> </ul>	<ul style="list-style-type: none"> <li>- Land reform programs</li> <li>- Family farming and social inclusion</li> </ul>	<ul style="list-style-type: none"> <li>- Competitiveness</li> <li>- Sustainability (economic, social, and environmental)</li> </ul>
<b>Price support and government storage</b>	<ul style="list-style-type: none"> <li>- Massive intervention: public agencies, government purchases and storage, price controls</li> <li>- Commodity price support</li> </ul>	<ul style="list-style-type: none"> <li>- Decreased intervention</li> <li>- Agricultural commodity market deregulation</li> </ul>	<ul style="list-style-type: none"> <li>- Modest and selective intervention</li> </ul>	<ul style="list-style-type: none"> <li>- Modest and selective intervention</li> </ul>
<b>Rural credit</b>	<ul style="list-style-type: none"> <li>- Government supply of credit financed by Treasury (SNCR)</li> <li>- Negative real interest rates</li> </ul>	<ul style="list-style-type: none"> <li>- Decreased government supply of credit</li> <li>- Interest rates less subsidized</li> </ul>	<ul style="list-style-type: none"> <li>- Credit lines targeted to family farms (PRONAF)</li> <li>- Specific programs for investment credit (BNDES)</li> <li>- Agricultural credit crisis and debt rescheduling</li> </ul>	<ul style="list-style-type: none"> <li>- Crop insurance</li> <li>- Private instruments for agricultural finance</li> <li>- Targeted credit lines to family farms</li> <li>- Credit cooperative development</li> </ul>
<b>Agricultural trade policy</b>	<ul style="list-style-type: none"> <li>- Closed economy</li> <li>- High tariffs</li> <li>- Import Substitution model</li> <li>- Export taxes on primary commodities</li> </ul>	<ul style="list-style-type: none"> <li>- Unilateral openness to trade</li> <li>- International integration (Mercosur)</li> <li>- Elimination of export taxes</li> </ul>	<ul style="list-style-type: none"> <li>- Aggressive policy against agricultural trade barriers</li> <li>- WTO dispute panels</li> <li>- Leadership in G-20</li> <li>- Negotiation of regional agreements (FTAA, EU-Mercosur)</li> </ul>	<ul style="list-style-type: none"> <li>- Aggressive trade policies: negotiations, litigations</li> <li>- Increased emphasis on NTBs: technical, sanitary, and social barriers</li> <li>- Conclusion of regional and bilateral trade agreements</li> </ul>
<b>Agricultural research and extension</b>	<ul style="list-style-type: none"> <li>- High investment in public research (Embrapa, federal and state universities)</li> <li>- Development of public extension service network</li> </ul>	<ul style="list-style-type: none"> <li>- Leveling-off of public investment</li> </ul>	<ul style="list-style-type: none"> <li>- Crisis of public research and extension services</li> </ul>	<ul style="list-style-type: none"> <li>- Renewed public commitment to agricultural R&amp;D, including GMOs</li> <li>- Increased role of public-private partnerships</li> <li>- Intellectual property rights</li> </ul>
<b>Social policies (family farms and land reform)</b>	<ul style="list-style-type: none"> <li>- Minimal</li> </ul>	<ul style="list-style-type: none"> <li>- Initial stage (Extraordinary Ministry of Land Reform)</li> </ul>	<ul style="list-style-type: none"> <li>- Ministry of Agrarian Development (MDA)</li> <li>- Distributive programs: land reform, "Bolsa Família," rural retirement, PRONAF</li> </ul>	<ul style="list-style-type: none"> <li>- Policy evaluation and monitoring</li> <li>- Retarget programs to different types of family farms</li> <li>- Farm cooperative development and modernization</li> </ul>

Source: Choices (2006), "The Evolution of Agricultural Policies and Agribusiness Development in Brazil", in Choices magazine, 2<sup>nd</sup> quarter 2006 – 21(2)

**Table and Figure ...: Export figures Brazil 2004.**

Source: FAO Statistics

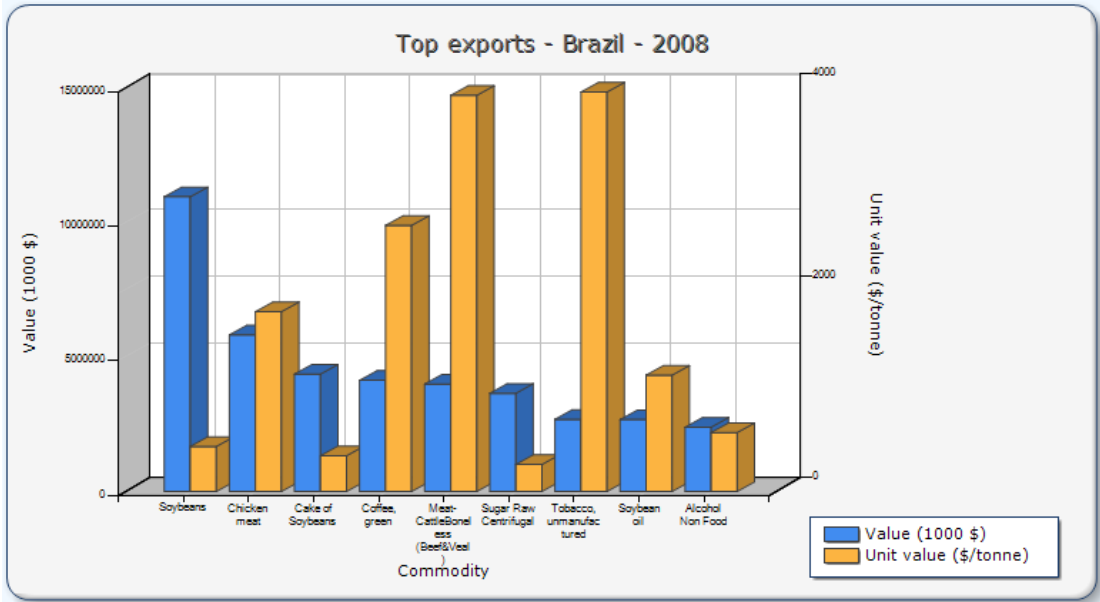
	Commodity	Quantity (tonnes)	Value (1000 \$)	Unit value (\$/tonne)	World rank
1	Soybeans	19,247,700	5,394,910	280	
2	Cake of Soybeans	14,485,600	3,270,890	226	
3	Chicken meat	2,424,520	2,493,930	1029	
4	Meat-Cattle Boneless (Beef&Veal)	923,659	1,961,470	2124	
5	Coffee, green	1,410,800	1,750,090	1240	
6	Sugar Raw Centrifugal	9,565,750	1,510,980	158	
7	Soybean oil	2,517,240	1,382,100	549	
8	Tobacco, unmanufactured	579,365	1,380,460	2383	
9	Sugar Refined	6,198,180	1,129,250	182	
10	Orange juice, concentrated	1,010,260	789,683	782	



**Table and Figure ...: Export figures Brazil 2008.**

Source: FAO Statistics

	Commodity	Quantity (tonnes)	Value (1000 \$)	Unit value (\$/tonne)	Rank Prod/exp
1	Soybeans	24,499,500	10,952,200	447	2 / 2
2	Chicken meat	3,267,890	5,821,980	1782	3 / 1
3	Cake of Soybeans	12,287,900	4,363,520	355	2 / 2
4	Coffee, green	1,566,920	4,131,670	2637	1 / 1
5	Meat-Cattle Boneless (Beef&Veal)	1,017,860	3,994,750	3925	2 / 1
6	Sugar Raw Centrifugal	13,624,600	3,649,550	268	1 / 1
7	Tobacco, unmanufactured	677,877	2,683,200	3958	?
8	Soybean oil	2,315,840	2,670,690	1153	1 / 2
9	Alcohol Non Food	4,095,050	2,390,280	584	?
10	Sugar Refined	5,847,940	1,833,480	314	1 / 1



## Literature

### Aidenvironment

- Bulmer-Thomas (2003), "The Economic History of Latin America since Independence"
- Cunningham, W. (2001) "Sectoral Allocation by Gender of Latin American Workers over the Liberalization Period of the 1990s", Policy Research Working Paper 2742 (World Bank: Washington, DC).
- Da Matta (1984) 'O que faz o Brasil, Brasil?'
- Barona et al (2005), "The Role of pasture and soybean in deforestation of the Brazilian Amazon", In Environment Research letters 5 (2010).
- Bárcena A., Prado A., Samaniego J. and R. Pérez. (2012). Sustainable development 20 years on from the Earth Summit. UN/ ECLAC
- EC Country Strategy Papers
- ECLAC (2010) Sustainable Development 20 years on from the Earth Summit. Progress, gaps and guidelines for the LAC region.
- EU (2005) A Stronger Partnership between the European Union and Latin America. GM Soy Debate (2009) : Agro-ecological impacts of GMO soy produced in Argentina and Brazil
- Cunha da Costa (2004) : Potential for producing biofuel in the Amazon deforested areas.
- GDEI (2007), Declining Poverty in Latin America: A Critical Analysis ([pdf](#))
- Hall, G. and H. Patrinos (2004), "Indigenous People, Poverty and Human Development in Latin America: 1994-2004". World Bank, Washington, D.C.
- IADB (2006), "Agriculture in Brazil and China. Challenges and Opportunities".
- IBRD (2003), Inequality in Latin America and the Caribbean: Breaking with History ([pdf](#))
- IFPRI (2009), "Agricultural Trade Liberalization and Poverty in Brazil" by J. Bento de Souza Ferreira Filho, Sao Paulo University. IFPRI Discussion paper 00874.
- Green, Dickerson, Arbache (2001), "A Picture of Wage Inequality and the allocation of labor through a period of trade liberalisation: the case of Brazil". World Development Report 29 (11): p. 1923-1939.
- Kleiman F. (2011), "Social Developments in Brazil".
- Sinnott, E., Nash J. and A. de la Torre (2010). Natural Resources in Latin America and the Caribbean Beyond Booms and Busts? Worldbank, Washington
- Souza P.H. (undated), "The Fight Against Hunger and Poverty in Brazil", Essay.
- Stiglitz Commission (2009), "The Measurement of Economic Performance and Social Progress"
- OECD 2012, "Latin American Economic Outlook 2012."
- UNEP, 2010. Latin America and the Caribbean. Environmental Outlook.
- USAID, Development Statistics for Latin America and the Caribbean (<http://lac.eads.usaidallnet.gov/>), Based upon OECD/DAC statistics and WB Development indicators.
- World Bank Development Reports between 2004 and 2011
- World Bank (2005), "Pending issues in protection, productivity growth, and poverty reduction in relation to the labour market"
- World Bank (2011), "On the edge of uncertainty : poverty reduction in Latin America and the Caribbean during the great recession and beyond" ([link](#))

### Statistics :

- IBGE produção agrícola
- ECLAC database
- FAO database
- OECD DAC Aid statistics ([link](#))
- CBS The Netherlands