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# EU-Andean Trade Sustainability Impact Assessment



**Inception Report**

February 2009





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**European Commission**  
**DG Trade**

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## **INCEPTION REPORT**

**February 2009**

Implemented by:

DEVELOPMENT  
Solutions



MANCHESTER  
1824

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## Glossary

<b>CAN</b>	Andean Community
<b>CGE</b>	Computable General Equilibrium
<b>ELN</b>	National Liberation Army
<b>FARC</b>	Revolutionary Armed Forces of Columbia
<b>FDI</b>	Foreign Direct Investment
<b>FTA</b>	Free Trade Agreement
<b>IMF</b>	International Monetary Fund
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPR</b>	Intellectual Property Rights
<b>NGO</b>	Non-Governmental Organisation
<b>NTBs</b>	Non-tariff Barriers
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>SCM</b>	Stakeholder Consultation Meeting
<b>SOP</b>	Standard Operating Procedures
<b>TRIPS</b>	Trade Related Intellectual Property Rights
<b>(T)SIA</b>	(Trade) Sustainability Impact Assessment
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organisation
<b>WITS</b>	World Integrated Trade Solution
<b>WTO</b>	World Trade Organization



## Executive Summary

This **Inception Report** for the EU-Andean Trade SIA is an overview of the proposed conceptual framework of sustainability assessment analysis and methodologies to be employed, including the consultations activities, for the study. The **Inception Report** follows a review of literature, covering prior studies of relevance to the economic, social and environmental context of the regions, as well as previously implemented studies of similar design using quantitative or qualitative analysis. The **Inception Report** is designed to prompt discussion and preliminary analysis of global and sectoral issues related to EU-Andean trade negotiations, and define indicators of importance for the detailed global and sectoral analysis to be undertaken in the study. The **Inception Report** is also designed to provide indicative timings for the research, consultation and reporting deliverables of the project.

**Feedback on the Inception Report is encouraged from interested stakeholders. Information regarding the project and access to project documents is available at [www.euandean.org](http://www.euandean.org). Feedback on the project in general, or the Inception Report in particular, can be sent to [enquiries@euandean-sia.org](mailto:enquiries@euandean-sia.org)**

More specifically, the **Inception Report** in Section One provides a background to the EU-Andean region countries trade and the context that has created opportunities for deeper economic partnership. This section provides an economic context of the trading relationship and the social and environmental context of key impact areas. The work plan of the SIA and the reports that will be produced and the structured consultations that will take place is detailed in Section Two. Section Three outlines the methodology to be employed in the study, examining the quantitative modelling components and the qualitative approaches, include the social and environment impact assessment. Finally, Section Four highlights the consultation tools that will be used in the study to solicit feedback from key stakeholders to inform the work of the project.



## 1. Introduction and background

### 1.1 Historic Context

The Andean Community (CAN) was created on 26 May 1969 with the signing of the Cartagena Agreement between Bolivia, Chile, Colombia, Ecuador and Peru. The original group has changed shape since - Chile withdrew under General Pinochet's rule in 1976; and Venezuela joined in 1973 only to withdraw in 2006 over a dispute regarding FTAs with the United States and individual CAN countries.

In the years in between the Andean countries have established a series of institutional frameworks to help foster integration: the Andean Council of Foreign Ministers, the Andean Parliament and the Andean Court of Justice were established by 1979; while the process of further legal and economic integration continues to progress via policies including the Common Foreign Policy Guidelines, the Advisory Council of Treasury and Finance Ministers, Central Banks and Economic Planning Authorities.

In terms of economic history, in the 1970s and 1980s import substitution saw the use of high import duties to protect predominantly state-planned economies. These were contributing factors to the economic crises of the 1980s, leading in turn the coordinated opening up of economies from 1989, specifically via the signing of the Strategic Design "Globalisation through Integration". This initiative helped forge the Andean Presidential Council in 1990, while a free trade zone was realised in 1993.

"The Andean regional integration system is one of the oldest on the Latin American continent. Despite the considerable differences between the Andean Community member countries, leading at times to serious hitches in the process, integration is being deepened and extended from purely economic and commercial matters to a wide variety of sectors, such as social cohesion, job creation, the fight against drugs and protection of the environment."

Andean Community Regional Strategy Paper 2007-2013

European Commission

In the recent past the European Union (EU) has played an increasing partnership role with the Andean region. The EU's Generalised System of Preferences (GSP) is one instance of formal efforts to advance economic integration between the two regions. Under the GSP+ system, participating Andean countries that can demonstrate sustainable development and good governance practices (including the implementation of international treaties on human and labour rights) gain preferential tariff access to the EU market. In 2003, the EU and CAN jointly

launched a Political Dialogue and Cooperation Agreement that would eventually lead to trade agreement negotiations which began in 2007. The aim of these trade agreement negotiations is to achieve significant progress in the areas of trade and political cooperation and is proceeding on two tracks – a political dialogue and cooperation agreement with the whole Andean region; and a trade agreement with certain participating Andean countries – Colombia, Peru and Ecuador<sup>1</sup>

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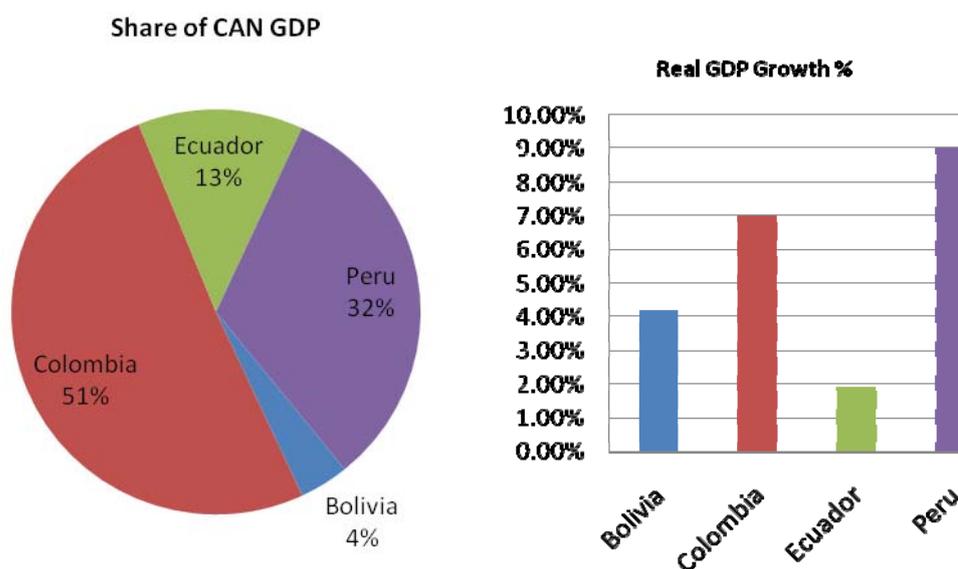
<sup>1</sup> The EU has extended an open invitation for Bolivia to participate in the EU-Andean trade agreement negotiations. For this purpose, Bolivia is included in this study.

## 1.2 Economic Context

### 1.2.1 Economic Structure

In 2007 the Andean countries combined GDP totalled approximately €222 billion, the four years up to which national real GDP growth rates had ranged from 4.9% and 6.8%.<sup>2</sup> Divergence between aggregate GDP levels between states however is much greater, with Colombia accounting for the majority of total output, as revealed in **Figure 1**.

**Figure 1: 2007 Andean Community GDP Share and Real Growth Rate by Member**

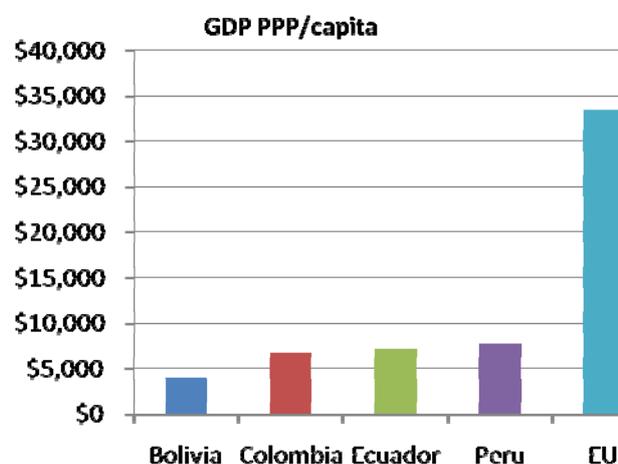


Source: CIA World Fact Book

Evidently, Bolivia has the most marginal economic impact of the group, and this is spite of it having a labour force roughly equal to that of Peru in size (4.38 million versus 4.51 million, 2007). Overall, Bolivia is by far the least developed of the group, not helped by its landlocked status and a fact that is apparent across much of the data presented in this paper.

<sup>2</sup> EU Trade with the Andean Community, European Commission DG Trade, 1 August 2008

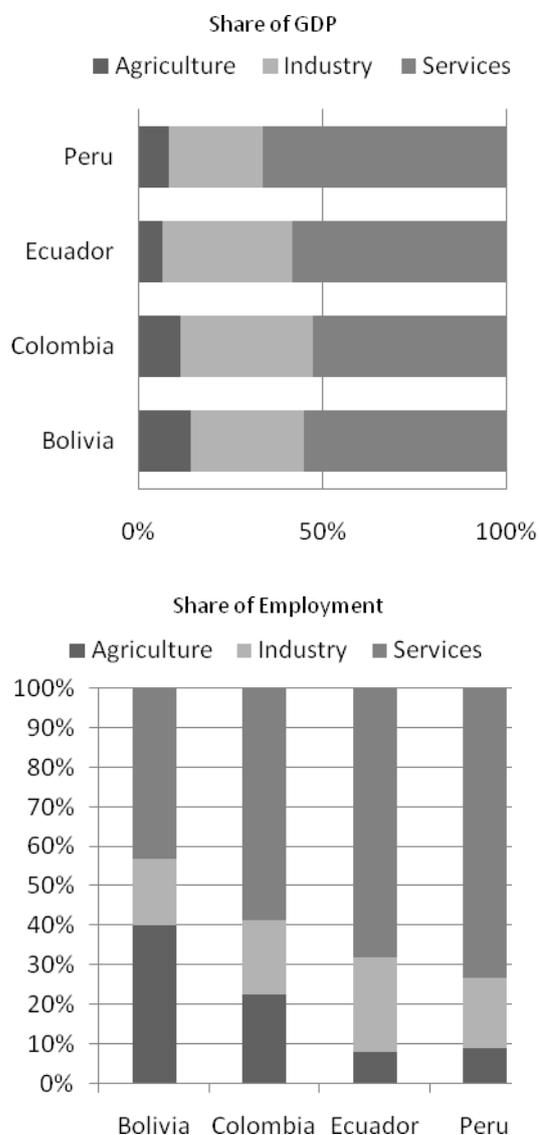
Figure 2: Andean countries – Per Capita GDP (PPP, 2007)



Source: CIA World Fact Book

GDP per capita figures provide a further means of identifying characteristics of the regional economic picture. As revealed in **Figure 2**, Peruvians enjoy the highest relative living standards, while Bolivians are the poorest, even using the purchasing power parity method. A potential cause and potential result of this results in Bolivia having relative difficulty attracting foreign direct investment (FDI). In 2007 its FDI stock was just US\$ 6.88 billion; one third of Ecuador's (US\$16 billion), a quarter of Peru's (US\$ 24 billion) and a ninth of Colombia's (US\$ 54 billion).

In terms of sector breakdown, matching its status as the poorest of the Andean member countries Bolivia's economic dependence on agricultural is highest, with 14% of output and 40% of employment from that sector (see **Figure 3**). In the other member countries, on average agriculture contributes 10% across the region, while the share of employment in the sector is also lower outside of Bolivia, ranging from 8% to 22% of total employment. Peru meantime has the largest services sector, possibly most influenced by its large tourism sector.

**Figure 3: GDP Output and Labour Employment by Economic Sector**

Source: CIA World Fact Book

### 1.2.2 Trade

Patterns of trading between the EU and Andean countries reveal significant growth during the last decade - bilateral flows have increased from €9.1 billion in 2000 to €15.8 billion by 2007, at an average annual growth rate of 8.25%. **Table 1** reveals the product groupings that are most important to the EU and Andean countries trading relationship: natural resources including mineral fuels, ores, slag and ash and copper have maintained a strong portion of Andean exports over this period, while trade volume in other traditionally strong sectors, such as fruits, coffee and pearls and precious metals have declined, in some cases significantly.

Conversely, European exports of high-value added industrial goods, such as machinery, electrical machinery or high tech equipment have remained consistent. The EU's high value added chemicals sub-sector of pharmaceutical products has notably experienced growth in its export share while organic chemicals have declined, highlighting a possible interpretation that increasing fuel costs are putting upward pressure on the cost of shipping relatively heavy commodity liquids and exacerbating fluctuations in relative prices.

**Table 1: EU-Andean countries Trade – Key Sectors 2000<sup>3</sup> and 2007**

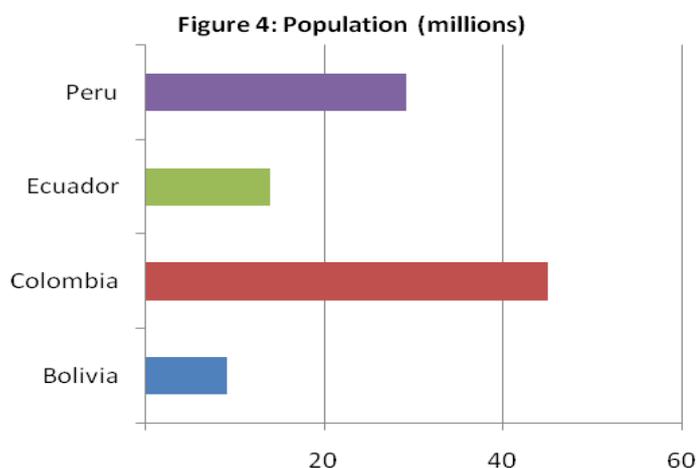
Andean countries exports to EU			EU exports to Andean countries		
Harmonised System 2-digit	2000	2007	Harmonised System 2-digit	2000	2007
27 Mineral Fuels and Oils	14.00%	16.37%	84 Nuclear Reactors, Boilers, Machinery	21.92%	27.61%
26 Ores, Slag and Ash	4.32%	16.14%	85 Electrical Machinery	11.16%	11.34%
08 Edible fruits and nuts	17.44%	15.49%	87 Vehicles other than Railway, etc	4.48%	7.68%
09 Coffee, Tea, Spices	12.89%	7.65%	30 Pharmaceutical products	4.92%	5.21%
74 Copper	2.84%	6.81%	90 Optical, Photographic, Measuring, etc Apparatus	3.39%	4.71%
72 Iron and Steel	3.58%	5.12%	29 Organic Chemicals	6.58%	3.15%
71 Pearls, Precious Stones and Metals or Articles thereof	11.65%	0.48%	88 Aircraft and Spacecraft	2.11%	0.28%

Source: Eurostat Easy XNet

<sup>3</sup> Note: Figures for the year 2000 include Venezuela.

## 1.3 Social Context

### 1.3.1 Population



Source: CIA World Fact Book; International Monetary Fund

The population of the Andean countries is a sizeable 97 million, with Colombia clearly having the largest population, as revealed in **Figure 4**. All Andean countries presently have positive yet low population growth: Bolivia 1.38%, Colombia 1.41%, Ecuador 0.94%, and Peru 1.26%. Such growth, however, is affected by relatively high rates of emigration, generally believed to be linked to poverty and security concerns. Citizens in Andean countries most frequently emigrate to the United States, where they comprise a significant number of Hispanic arrivals.<sup>4</sup> Specifically, and excluding Mexicans, Andean members comprise approximately the following proportions of Hispanic arrivals to the United States: Colombians (26.4%); Ecuadorians (15.5%); Peruvians (14.4%).<sup>5</sup> Bolivia's exclusion from the list is attributable to the country's relatively small population. Colombia's prominence meanwhile owes to its 3<sup>rd</sup> global ranking for internally displaced refugees (2.9 million), as well as previous estimates placing 1 in 10 Colombians as living abroad.<sup>6</sup> According to the International Organisation for Migration, information is published only when a certain group attains a certain quantitative weight in the country, and very few European countries have published such information on Andean countries' migration numbers. The more significant Andean country nationals settling in European countries include citizens from Ecuador, Colombia and Peru settling in Spain and citizens of Peru settling in Italy.<sup>7</sup>

<sup>4</sup> CIA World Fact Book, 21 August 2008

<sup>5</sup> Dixon, David, Detailed Characteristics of the South American Born in the United States, Migration Information Source, May 2006

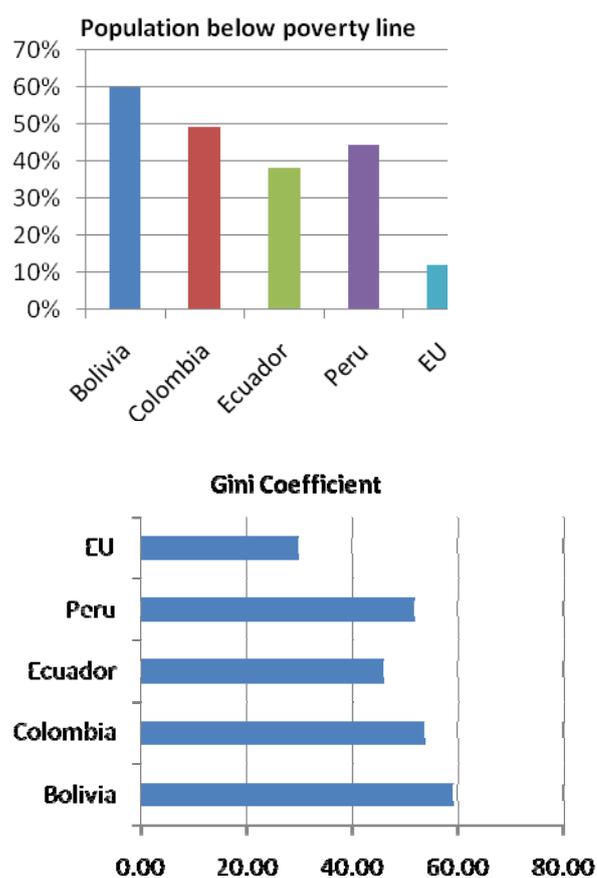
<sup>6</sup> Castles, Steven, Confronting the Realities of Forced Migration, Refugee Studies Centre, University of Oxford, May 2004

<sup>7</sup> For additional information, please see "Migration from Latin America to Europe: Trends and Policy Changes", Adela Pellegrino, University of the Republic of Uruguay, May 2004, published by the International Organisation for Migration

### 1.3.2 Equity

The Andean countries population in general experiences a much higher incidence of poverty and inequitable distribution of wealth than the population of the European Union. As revealed in **Figure 5**, poverty is endemic in all Andean countries, with Bolivians incurring the highest incidence - over 60% of the population live below the poverty line. Ecuadorians enjoy the highest average living standards, with just 38.3% below the poverty line. Similarly, Bolivia's Gini coefficient in 2006 was 59.2, a regional high, marking a significant rise in inequality from its 2004 score of 50.45.<sup>8</sup> Reducing poverty levels is an important goal for the region.

**Figure 5: Population living in poverty and Gini Coefficients by country, 2006**



Source: CIA World Fact Book; Secondary Indicators, The Poverty Site, New Policy Institute

<sup>8</sup> World Income Inequality Database, United Nations University – World Institute for Development Economics Research

“In recent years, a substantial rise in social spending has brought about significant improvements in the social sectors, notably education and health. These are very positive developments...Considerable efforts are still required to improve the poor quality of public services, to develop integrated social cohesion strategies, to promote regional cooperation in support of social cohesion, and to mobilise public policy, including dialogue with the business community and trade unions. It is for all these reasons that social cohesion will continue to feature prominently in our economic and development cooperation program. But also because this is an area where we believe both our regions can learn from each other, where we can develop a mutually enriching co-operation.”

José Manuel Barroso

President, European Commission

4th EU-Latin America and Caribbean Summit

### 1.3.3 Health

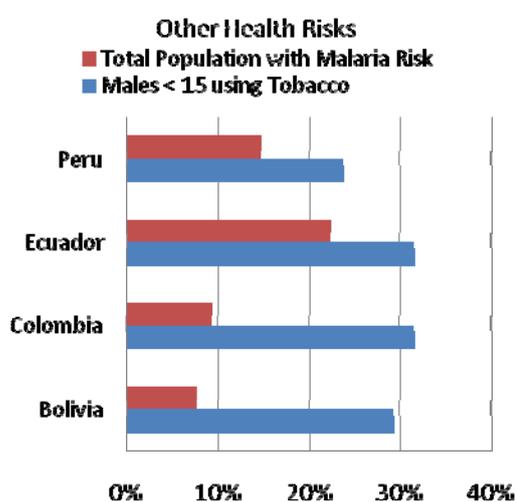
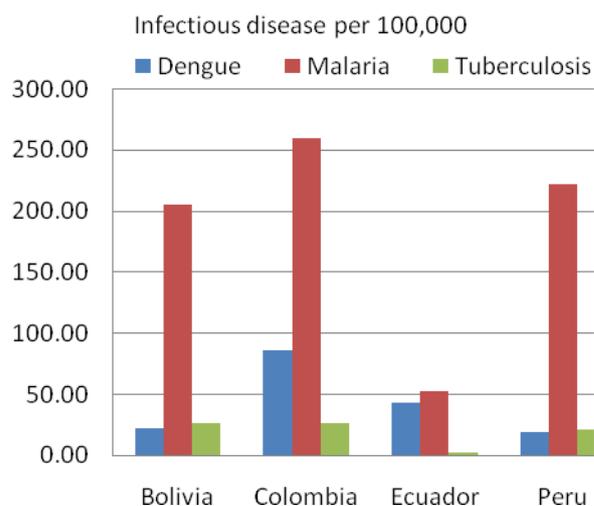
According to the World Health Organisation, in 2006 general government expenditure on health as a percentage of total government expenditure is highest in Columbia at 17% and lowest in Ecuador at 7.3%. The per capita government expenditure on health (PPP int USD) was again highest in Columbia at \$534 and lowest in Bolivia at \$128.

By non-OECD standards, Andean countries HIV rates are relatively low. Specifically these vary between .1% in Peru and .7% in Colombia, which has the highest rate. Such rates compare to EU rates as low as .2% in UK and as high as .5% in Spain.<sup>9</sup> A number of other infectious diseases do however more commonly affect daily life, especially in rural areas. These include two illnesses associated with the Millennium Development Goals, malaria and tuberculosis.

Colombia for example experiences the highest rate of most infectious diseases among Andean countries, including dengue fever, malaria and tuberculosis (although Bolivia’s rate is only one less infection per 100,000) (see **Figure 6**). The rate of malaria meantime is lowest in Ecuador despite that that country has the highest percentage of its population considered “at risk”.

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<sup>9</sup> EuroSum, Averting HIV and AIDS, available at: <http://www.avert.org/eurosum.htm>

**Figure 6: Incidence of Infectious Disease and Major Health Risks in Andean countries**

Source: Regional Core Health Data Initiative, Pan American Health Organisation, World Health Organisation, accessed 4 September 2008

In terms of social health trends, Colombia has the highest rate of male youths whom smoke. The rate of smoking is high across the Andean countries, where on average 29% of persons smoke, compared to the rest of South America having an average of 20.85%. Finally, by regional standards Andean countries suffer a low rate of persons being overweight, with Peru experiencing a high rate of overweight adults, measured by Body Mass Index  $\geq 25/m^2$ , at 55%.<sup>10</sup>

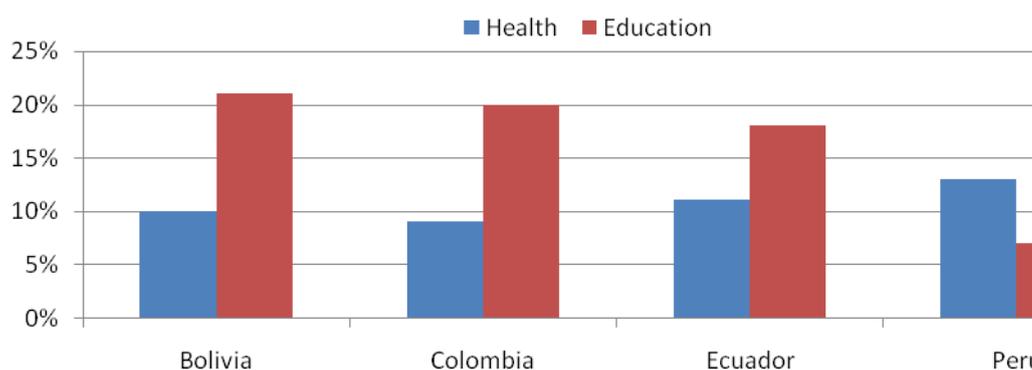
### 1.3.4 Education

According to the UNESCO Global Education Digest 2008, school life expectancy across the Andean

<sup>10</sup> Regional Core Health Data Initiative, Pan American Health Organisation, World Health Organisation, accessed 4 September 2008

region countries is around 11 years from primary to secondary for all 4 countries. In addition, Andean literacy rates, which range between 86% and 92%, reflect the region's imperfect education sector. Gender differences in literacy rates vary: the Bolivian female literacy rate is reported to be as low as 80%. In Colombia however, male and female literacy levels are all but equal.

**Figure 7: Spending on Education and Health as a Percentage of GDP**



Source: Information by Country, UNICEF, accessed 12 September 2008

**Figure 7** illustrates the relative economic commitment of each of the Andean countries to spending on education and health. Peru differs from the rest of the region in terms of spending relatively more on health than education, while both Bolivia and Colombia spend more than twice as much on education as on health care, reflecting different national priorities.

### 1.3.5 Labour

The Andean countries have a combined labour force of 39 million persons. Most recent estimates of the unemployment rate are 7.5% in Bolivia, 11.2% in Colombia, 9.3% in Ecuador and 6.9% in Peru. *Underemployment* however is much more widespread, especially so in Bolivia outside its 8 urban centres and throughout Peru outside of the capital city Lima.<sup>11</sup> In addition to relatively high rates of unemployment or underemployment throughout the region, a number of adult labour rights issues affect individual countries.

In Ecuador meanwhile, while workers do have the right of assembly, complex rules governing assembly and protests make it difficult to exercise this right without breaking the law. These rules for example include a minimum size of 30 workers required for forming a union, a policy criticised by the ILO. Additionally, forming unions across companies even within the same occupation is not permitted. In Bolivia meanwhile, freedom of association in the workplace is generally respected.

<sup>11</sup> Bolivia, Peru, CIA World Fact Book, August 2008

The requirement to have at least 20 employees to form a union excludes approximately 70% of the countries workforce from union activities.

Colombia has had similar difficulties ensuring the right to assembly, which has persisted throughout its economic growth in the last decade. In the first 5 months of 2008, 26 trade union officials were killed, a 70% rise over the same period in 2007. Of a labour force of 20 million, only 1%, or 200,000 people, can exercise their legal right to strike, a result of tangible threats of violence.<sup>12</sup> The government has made labour rights an increasing priority, with funds to protect trade union officials growing from US\$ 1.7 million to US\$ 34 million in 2007.

Further to collective action restrictions, forced labour is also a persistent concern. In Bolivia, up to 7,000 indigenous Guaranis work as indentured servants in remote areas of Chuquisaca, and up to 30,000 indigenous people in forced work on agricultural operations in the Beni and Santa Cruz Departments of the country.<sup>13</sup> Such patterns arise despite that the country's national minimum wage of 436 Bolivianos per month (2007) and maximum hours per week of 48, which are not effectively enforced.

Furthermore, a large number of informal workers earn wages below minimum levels, in turn undermining efforts to protect legal workers' rights. In Bolivia's mining sector for example, workers earn an average of 21 Bolivianos per 12 hour days, with work safety conditions having improved little in the last decade.<sup>14</sup> In any case, in both Ecuador and Colombia typical wages amount roughly to merely half the necessary amount for daily living expenses, capturing workers in a cycle of debt. Meanwhile, in agricultural areas injudicious pesticide use contributes to high levels of premature births, congenital malformations and miscarriages.<sup>15</sup> In Ecuador alone, 55% of female workers also state they have been victims of on the job sexual harassment.<sup>16</sup>

In addition, child labour is also a persistent yet not so widespread problem. In cases where children manage to be removed from worksites, they in any case usually lack sufficient assistance to resume a normal lifestyle and end up returning to work. Among Peru's 14 child labour inspectors all lack appropriate training, logistical support and supplies, and even often lack a vehicle with which to reach inspection sites. Given that Peru is not the poorest member of the Andean countries, the situation in other member countries is not likely to be better. Child

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<sup>12</sup> Capdevila, Gustavo, COLOMBIA: ILO to Keep an Eye on Labour Rights, Inter Press Service, 13 June 2008

<sup>13</sup> Enganche y servidumbre por deuda en Bolivia, International Labor Organisation, Geneva, January 2005

<sup>14</sup> Bolivia, Country Report on Human Rights Practices, Bureau of Democracy, Human Rights, and Labor, US Dept of State, 11 March 2008

<sup>15</sup> Worker Justice and Basic Rights on Flower Plantations in Colombia and Ecuador, International Labor Rights Forum, 13 February 2007

<sup>16</sup> Ibid

prostitution is also a problem, but specific data is difficult to obtain. The Bolivian government has a Defender of Children and Adolescents program, with a total of 260 offices in operation in 2007 to try to protect children from such circumstances.<sup>17</sup>

### 1.3.6 Housing

Housing conditions vary markedly between urban, semi-urban and rural areas. In Ecuador in 2001 (the most recent for which year data is available) only 52.1% of households had running water, while 21.9% lacked access to piped drinking water in their vicinity.<sup>18</sup> Meantime, the half of the population with access has this only intermittently since 95% of water systems nationwide experience regularly outages.

Similarly, only 15.6% of Ecuadorian households have a functioning latrine. In Colombia a high rate of infectious disease transmission and risk has been attributed partly to the housing situation, with overcrowding in large cities such as Bogota and poor ventilation observed in most houses and apartments countrywide, contributing to tuberculosis.<sup>19</sup>

### 1.3.7 Security & Crime

Security issues adversely affect the region, especially Colombia with its long-running armed conflict. Now over 40 years old, the conflict has seen outright battles between the Colombian government, the leftist guerrillas of the Revolutionary Armed Forces of Colombia (FARC) and the National Liberation Army (ELN) as well as various small-scale paramilitary groups. Kidnapping has long been a preferred tactic of guerrillas and drug traffickers in Colombia. These peaked in 2001 at 3572, and with help from US enforcement agencies has declined since then, to 687 in 2006.<sup>20</sup>

Guerrilla groups have also been complicit with the region's drug trafficking problems, working in cooperation with drug cartels in all aspects of production, transportation and security. Rural areas are especially affected, in turn adversely affecting social and economic development in those already relatively deprived regions. Despite security improvements, and the support of United States, for example through Plan Colombia, the fact that the Andean countries continue to be the world's largest producers of coca leaf and its derivative, cocaine, is likely to compromise security for some years to come.

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<sup>17</sup> Bolivia, Country Report on Human Rights Practices, Bureau of Democracy, Human Rights, and Labor, US Dept of State, 11 March 2008

<sup>18</sup> Ecuador, Pan American Health Organisation, World Health Organisation, accessed 5 September 2009

<sup>19</sup> Colombia, Pan American Health Organisation, World Health Organisation, accessed 5 September 2009

<sup>20</sup> ESTADÍSTICAS SECUESTRO A 2006, Fundación País Libre Estadísticas del secuestro, 2006

In this context of cocaine production, in 2006 Colombia was ranked first world-wide with 545 metric tons of pure cocaine produced, followed in a distant second and third by Peru with 245 metric tons and Bolivia with 115 metric tons.<sup>21</sup> While the security situation has improved drastically in Colombia since 2001, in terms of violence and kidnappings, and in spite of several high profile rescues, the situation is far from resolved. In April 2008 the FARC exploded a bomb at a traditional festival in the small town of Ituango, killing 7 and wounding 52 severely.<sup>22</sup>

Peru has experienced significant improvement in its security situation, with a number of high profile trials ongoing for government officials and guerrillas alike complicit in the 20 year armed conflict from 1980 to 2000 which claimed over 70,000 lives.<sup>23</sup> Despite a recent period of active justice and reconciliation promotion, ratification of the *Convention against Torture and Other Cruel, Inhuman and Degrading Treatment or Punishment* in September 2006, 78 complaints of torture by criminal suspects in police custody were registered between January 2005 and October 2007. Unfortunately, journalists are disinclined to report on local abuses and corruption due to the threat of violent retribution.

Finally, violence is a problem in Bolivia also, although it is less well organised and more sporadic than in neighbouring countries. Vigilante crime though is particularly prevalent, with 11 deaths from lynching for petty crimes in the middle sized urban area of El Alto in 2007 alone.<sup>24</sup> It is possible that this may be the manifestation of a poorly implemented judicial system. The Inter-American Commission on Human Rights noted in June 2007 that of 327 municipalities only 180 had a judge, only 76 a prosecutor and only 11 a public defender. A 2005 Anti-Corruption Network study corroborates this, noting in 2005 over 25% of local court cases involved a bribe in their resolution.

## **1.3 Environmental Context**

### **1.3.1 Atmosphere**

In the Andean countries air pollution is a persistent issue in the region's large urban centres. In Colombia the capital city of Bogota is especially affected, although Medellin and Cali are also known for poor air quality. The primary cause in Bogota is a combination of altitude, at over 2,500 meters above sea level, with over a million cars in daily use and the prevailing

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<sup>21</sup> CIA World Fact Book, 21 August 2008

<sup>22</sup> Colombia: Bomb at Party Kills Many Civilians, Human Rights News, Human Rights Watch, 18 August 2008

<sup>23</sup> Universal Periodic Review of Peru, Human Rights Watch, 5 May 2008

<sup>24</sup> Bolivia, Country Report on Human Rights Practices, Bureau of Democracy, Human Rights, and Labor, US Dept of State, 11 March 2008

meteorological conditions and topology exacerbating the high rate of emissions.<sup>25</sup> While emissions in Cali and Medellin are less visible, they are actually composed of more detrimental components such as heavy metals and DDT, which are carcinogenic, due to the type of industrial activity that takes place in these cities.

The Andean countries have been identified by the Intergovernmental Panel on Climate Change (IPCC) as particularly vulnerable to the impacts of climate change, despite the fact that the region contributes less than 2.5% to global emissions and 28% of regional energy production from carbon free methods.<sup>26</sup> The IPCC has predicted that as a result of climate change the region could lose up to 2.6% of its GDP, although this figure grows to 14% in Ecuador and 7% in Bolivia. The impact on these countries is even more significant when taking into account the level of poverty they experience. The Andean countries are also home to some 95% of the world's subtropical glaciers, which have been reduced and will continue decline due to climate change, raising concerns both about these countries water supplies and ability to generate hydroelectric power.<sup>27</sup>

### 1.3.2 Water

In Ecuador, water pollution which is often attributed to the country's oil facilities, has negatively affected the environmental quality in both the Amazon Basin and as far away as the Galapagos Islands. In 2001, a 3 million litre spill of diesel and bunker fuel on the island of San Cristobal killed low numbers of local wildlife immediately; however, in the following twelve months the islands' marine iguanas suffered a devastating 62% mortality rate which has been attributed to lingering residual traces of oil.<sup>28</sup>

In Bolivia effluent waste, organic pollution and industrial and mining waste along major watersheds have led to concerns about water quality for drinking water and irrigation.<sup>29</sup> The problem can be seen within a regional context since many water sources are shared between neighbouring countries. One example is Lake Titicaca, which is shared by Peru and Bolivia. Over the past 50 years both governments have been aware of a rising level of pollution, but disputes between the two parties and the complexity of multiple feed-in river systems have made progress difficult.

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<sup>25</sup> Zarate, Erika, Understanding the origins and fate of air pollution in Bogota, Colombia, Ecole polytechnique fédérale de Lausanne EPFL, no 3768, 2007

<sup>26</sup> Climate Change, Andean Environmental Agenda, Andean Community Secretary General, accessed 10 September 2008

<sup>27</sup> Ibid

<sup>28</sup> Wikelski, Martin; Wong, Vanessa; Chevalier, Brett; Rattenborg, Niels; Snell, Howard L, Galapagos Islands: Marine iguanas die from trace oil pollution, Nature, Volume 417, Issue 6889, pp. 607-608, June 2002

<sup>29</sup> Bolivia, CIA World Factbook, 21 August 2008



### 1.3.3 Land

In Bolivia deforestation is a significant problem, fuelled by high international demand for tropical timber as well as domestic demand for arable land. Specific methods of agriculture further exacerbate this issue; techniques such as slash-and-burn agriculture are common and contribute to soil erosion. Deforestation is also a concern in Colombia, Peru and Ecuador. There is a high degree of illegal logging and soil erosion in Peru fuelled by overgrazing by rural farmers while Ecuador has experienced desertification since at least 1995 due to low rates of rainfall in coastal provinces.<sup>30</sup>

### 1.3.4 Biodiversity

The Andes mountain range, which covers over 1.5 million square km, includes virtually every type of terrestrial ecosystem, from isolated valleys, deep canyons, snowy peaks and steep slopes. As a result of the immense variation in environmental conditions throughout the Andes an equally diverse level of biodiversity is observed – and while the region only accounts for 1% of the Earth's land area, it accounts for over one sixth of the world's biodiversity.<sup>31</sup>

While certain rural and inhospitable areas of Colombia, as well as the eastern slopes of the Andes in Bolivia, Peru and Ecuador are relatively well sheltered from human impacts, biodiversity in general is threatened throughout the region. Economically important crops such as potatoes and tobacco continue to expand, in addition to the aforementioned deforestation, placing unique forest systems and fauna in these ecosystems at risk.

In valley ecosystems, which are most readily inhabited by humans, the expansion of urban populations (at a rate of 1.25% annually) further exacerbates these threats to endemic species. In cloud forest ecosystems, which have particularly fertile soil, the key causes of biodiversity loss are tied to agriculture (including for the drug industry) which is often coupled with deforestation, excessive pesticide use and runoff and soil erosion. In these areas guerrilla activity related to the illicit drug trade places local activists such as environmental NGOs in significant danger when promoting sustainable conservation activities. In lower altitudes of the Andes, primary risks to the environment stem from resource extracting industries, such as in oil, diamonds, gold, iron ore and bauxite sites, which are expanding rapidly in the region due to improved exploration technologies and globally commodity prices.

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<sup>30</sup> Ecuador, United Nations Convention to Combat Desertification, 23 January 2008

<sup>31</sup> Tropical Andes, Biodiversity Hotspots, Conservation International, September 2008

## 2. Work Plan of EU-Andean Trade SIA

The EU-Andean Trade SIA will be undertaken across three reporting stages January to late August 2009 as follows:

### **Inception Report (January 2009) – Set-up, scoping and scenario definitions**

Lasting approximately for one month, this report serves as the baseline for research methodologies and information sourcing. Beginning with the Kick-off meeting on 16 January 2009, a consortium of teams - the Management and Research Coordination Team, the Modelling Team, the Sustainable Policy Team and the Local Impact Assessment Team - will undertake research and analysis toward the outputs for the **Inception Report**. That report will in turn provide a summary of the collective preliminary results of the qualitative and quantitative research, which will be presented at the initial Civil Society Dialogue meeting in Brussels on 30 January 2009.

### **Interim Report (February – March 2009) – Parallel field work and computational modelling work**

The **Interim Report** delivers the significant quantitative and qualitative impact assessment and provides the preparation for the Civil Society consultation in both Brussels and Bogota, Colombia. The report will see a parallel process - teams undertaking their work actively in the Andean countries in terms of data collection and at research and coordination points internationally. At the same time, quantitative modelling will be undertaken by the modelling team, based on scenarios developed in consultation with the EC for the **Inception Report**. The findings of the local and modelling teams will in turn be used to recommend sector selection for deeper analysis of social and environmental issues in the **Final Report**, and will be summarised in the quantitative and qualitative impacts assessment presented in the **Draft Interim Technical Report**.

The **Draft Interim Technical Report** will be submitted in early April, and once approved by the EC will be published on the project website. A portion of the interim report, most likely a summary, will be made available in Spanish ahead of the stakeholder meeting in Bogota.

### **Final Report (April – late-August 2009) – Consultations and detailed social and environmental assessment**

The **Final Report** begins with the revision of the **Draft Interim Technical Report** as per adjustments resulting from the project steering committee meeting and comments received online or through the consultation network. The **Final Interim Technical Report** expected to be available in mid-April 2009 and will be followed by a local workshop in Bogota in early May 2009,

subject to conditions. In the meantime, dynamic feedback will be taking place between project teams to ensure new information is constantly included into final scenarios and teams will be working towards refining and concluding their research and analysis. At this stage *ex post* indicators to analyse the key impacts resulting from the phasing of an agreement will also be selected, and policy conclusions and recommendations will be discussed. This will provide input into the preparation of the **Draft Final Report** and an additional Civil Society Dialogue Meeting in Brussels. The collective results from which are fed into the **Final Report** are expected to be available at the end of August 2009, including a list of preventative, enhancement and mitigation measures.

### 3. Methodology of the EU-Andean Trade SIA

#### 3.1 Analytical Tools

The models to be used build on the latest developments in trade modelling in areas of goods and services trade, and are able to analyse dynamic effects, short and long term implications; imperfect competition; heterogeneous households; and with social and environmental indicators inclusive where required.

Specifically, the modelling team will take an integrated approach in that qualitative economic, social and environmental data and civil society survey results will be incorporated into the modelling process. Such a methodology builds on those used in previous Trade SIAs, and focuses on quantitative economic (and, where possible, social and environmental) factors and outputs. Where discrete data is not available, qualitative sources relating to, for example, labour conditions, impacts on quality of health, biodiversity, water quality impacts and other economic issues such as regulatory and non-tariff barriers will be used to derive indirect measures.

#### 3.2 Quantitative Modelling Components

##### 3.2.1 Prospective CGE Modelling

Application of a multi-region computable general equilibrium (CGE) model will be used to derive the core economic impacts of the proposed trade agreement, a method standard which is to policy analysis procedures as undertaken by the World Bank, IMF and OECD. This will be completed in **Interim Report** of the project, as it serves as the basis of much of what is analysed in the **Final Report**. The scenarios will be developed in consultation with the EC. We will develop the scenarios in the first weeks of the project, in consultation with the EC, in parallel with identification of sectors. We envision a range of 3 scenarios, from least to most ambitious.

##### Baseline Scenario

The development of a baseline scenario for the model requires some starting assumptions regarding the “current situation.” The study proposed to proceed as follows:

- We will conduct macro extrapolations of the base year of 2004 to 2017 to allow for the long run effects to be included, and to allow meaningful inclusion of recent trade agreements.
- Projecting the baseline also means we will include various trade agreements into the baseline scenario, like the EU enlargement in mid-2004, the phasing out of the ATC, a notional WTO agreement under the DDA, and recent Western hemisphere FTAs.

It is important to note that the study will not be focusing on these other FTAs or the DDA in the model as such, but we build them into the baseline scenario. In other words the effects or relative efficiency of bilateral trade agreements vis-à-vis multilateral agreements will not be included in the analysis.

The macro projections of the 2004 baseline to 2017 increase the relevance of the model analysis because it takes us past the implementation of a possible FTA and focuses on the medium term horizon. Furthermore, such projections better reflect the implications of differential growth in the medium term, when the proposed FTA comes fully into affect.

### **Policy Scenarios**

In addition to the baseline scenario, we aim to analyse two liberalisation scenarios that include reductions in tariffs, quotas, export subsidies and NTBs.

An ambitious scenario, with deep integration, showing the potential benefits of a far-reaching agreement:

- full tariff reduction for all goods,
- free trade in services
- 2% reduction of trade costs from NTB reduction (custom and trade facilitation), noting that 2% is a “standard” benchmark for trade facilitation measures.

A limited scenario, with much less ambitious integration, especially with respect to agriculture and regulatory approximation:

- partial liberalisation on goods (after identifying sensitive products in consultation with the EC)
- partial liberalisation of services (50%)
- 1% reduction of NTBs from less ambitious customs and trade facilitation measures

For the EU, we will focus on aggregated effects at EU level. For the FTA partners, estimates will be presented both at aggregate and individual country level (with the exception of countries that do not feature separately in the GTAP database). The aggregation will reflect the proposed aggregation from our proposal.

### Proposed Regional Aggregation

EU27  
 Bolivia  
 Columbia  
 Ecuador  
 Peru  
 Other South American Countries  
 United States  
 Other Developing Countries  
 Rest of World

The CGE model is a variation of the family of models that rely on the Global Trade Analysis Project dataset<sup>32</sup>. This study's version is based on the Francois, Van Meijl, and Van Tongeren model (FMT 2005)<sup>33</sup> and is implemented in GEMPACK – a software package designed for solving large applied general equilibrium models.<sup>34</sup> The model builds on Francois (2000),<sup>35</sup> and versions have recently been employed for studies for the EC of World Trade Organisation negotiations, and prospective EU-Korea and EU-MERCOSUR free trade agreements, as well as a large-scale Asian Development Bank assessment of regional integration schemes in Asia (Francois and Wignarajan 2008).<sup>36</sup> It includes dynamic mechanisms linking policy shocks to capital stocks.

The model will be used to examine static impacts and long-run impacts from the FTA. The difference between these two scenarios quantifies the impact of changes in investment following from the FTA. We also include a dynamic link, whereby changes in investment, following from policy changes, lead to changes in installed capital stocks and hence ultimately to production and trade volumes. This is based on steady-state capital market conditions using the long-run model-based approach (known as a steady-state closure) developed by Francois, McDonald, and Nordstrom (1997, 1999).<sup>37</sup> Conceptually, for both the static and dynamic analysis we will be

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<sup>32</sup> A technical annex containing relevant modelling and database files will be provided by the project consultants.

<sup>33</sup> Francois, J.F., H. van Meijl and F. van Tongeren (2005), "Trade Liberalization in the Doha Development Round," *Economic Policy* April: 349-391.

<sup>34</sup> The full model code for Francois, van Meijl and van Tongeren can be downloaded from the Internet at <http://www4ide.org/francois/data.htm/>.

<sup>35</sup> Francois, J.F., *THE NEXT WTO ROUND: North-South stakes in new market access negotiations*, CIES Adelaide and the Tinbergen Institute, CIES: Adelaide, 2001. ISBN: 086396 474 5.

<sup>36</sup> Francois, J.F. and G. Wignarajan (2008), "Asian Integration: Economic Implications of Integration Scenarios," *Global Economy Journal*, forthcoming.

<sup>37</sup> Francois, J.F., B. McDonald and H. Nordstrom (1996b), "Trade liberalization and the capital stock in the GTAP model," GTAP consortium technical paper.

working with a projected baseline. As such, these dynamic effects can be thought of as including induced investment effects along an alternative path to the benchmark, wherein we have implemented the policy changes in time for investment effects to be realised in the projected equilibrium.

### 3.2.2 Basic Model Structure

The CGE model incorporates standard Walrasian assumptions: optimising behaviour on the part of economic agents (consumers, producers, and government); utility-maximising consumers acting subject to a budget constraint; producers maximising profits by minimising inputs and primary factor costs for a set level of technology.

In general it is further assumed that the regional economy comprises firms producing output through use of land, labour, capital and natural resources. This output, which itself may have utilised intermediate products, is purchased by consumers, government, the investment sector, as well as by other firms. Capital and labour move freely between production sectors. Land, labour and natural resources are restricted in their movement between regions. Barriers to trade in services will be estimated econometrically with a gravity model. Ideally, this will be based on bilateral trade data. However, if data precludes this, we will use a gravity model with aggregate (trade with world flows) to estimate barriers.

Taxes are included at several levels. Production taxes are placed on intermediate or primary inputs, and/or on output, depending on the policy data in the underlying social accounting data. This also includes trade taxes applied at the border, as well as additional internal taxes on intermediate inputs as indicated again by social accounting data. Where reported in social accounting data, taxes on primary factor income are also included. Trade policy instruments are represented as a mix of import or export taxes/subsidies, as well as frictional trade costs. The full set of tariff vectors are based on the MacMAPS database of preferential and applied tariffs, and WTO tariff schedules, combined with possible Doha and regional initiatives, as well as trade preferences. In short, the model represents, as close as possible given available data, the actual policy situation. This policy benchmark also reflects an assumed successful Doha Round, as also implemented in recent EU Trade SIA studies on India and ASEAN FTAs. This also reflects the December 2008 draft Doha text.

Due to limitations in the amount of data available on FDI, FDI and investment are not included in

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[http://www.gtap.agecon.purdue.edu/resources/res\\_display.asp?RecordID=310](http://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=310). Francois, J.F. and D.W. Roland-Holst (1996).

"Trade Policies, Scale Economies, and

Imperfect Competition in Applied Trade Policies." in J.F. Francois and K.A. Reinert, eds., Applied Methods for Applied Commercial Policy Analysis: A Handbook, Cambridge University Press: forthcoming.

the CGE model. Project experts have also confirmed with CEPII, during recent and ongoing projects, that much of the CEPII bilateral FDI data are actually synthetic, having been produced using a reverse gravity model to generate missing data. This data rules out zero FDI stocks and flows, even though this could be a realistic and important situation. Given the lack of access to real, as opposed to synthetic, FDI data, we must accept FDI and investment as a limitation to the model. There are, however, other options, in which FDI will be explored. The study will undertake a more descriptive analysis on FDI trends and policy in the chosen sectors and – data allowing – some gravity modelling on projected FDI and investment flows. The project experts are in the process of checking data sources: UNCTAD, IADB, OECD, IMF, EUROSTAT, and depending on the quality and depth of data, we will include empirical analysis of actual and potential FDI flows. This will hinge critically, however, on actual data quality, which is likely to limit detail, however the project team acknowledges the importance of FDI in the study.

### **3.2.3 Model Output and later stages of the SIA**

It is intended to use the CGE model to quantify as many variables as possible that describe the economic, social and environmental changes that would predictably result in the EU and Andean countries from a trade agreement. The ideal outcome would reflect the model of the DG Trade Handbook for TSIA.

More specifically, the model will provide output on the expected changes in a number of economic indicators: the percentage change in bilateral export, output, value added and employment will be estimated for example. With respect to social variables, the model includes a number of indicators designed to capture the relevant dynamics: for example employment effects for high and low-skilled labour, wage effects on these groups as well as the employment effects per sector. These social variables will be supplemented at a later stage with qualitative analyses on topics such as gender issues, child labour, labour mobility, etc. Social experts will further estimate such social effects qualitatively, based on the model outcomes, among others through causal chain analysis. With respect to environmental variables, model outputs will include an estimate of changes in CO<sub>2</sub> emissions as a result of implementation of the FTA amongst other environmental changes.

### **3.3 Qualitative Methodology**

This part of the EU-Andean Trade SIA analysis is designed to complement the broad indications of the economic, social and environmental impacts of the proposed agreement between the EU and Andean countries as identified by the quantitative modelling. From our experience of analysing behind the border issues, our team will go further in evaluating the level of integration and trade performance in the region in goods and services of specific regulatory alignment. Once the

aggregate orders of magnitude have been established under appropriate scenarios, the analysis will use more detailed country data to break down the on-the-ground implications. A series of microeconomic indicators, as these are available from the Andean countries, will be used for this purpose.

More specifically, this analysis will entail examination of Revealed Comparative Advantage and the Finger-Kreinin Indices, and the extent of intra-industry trade (both vertical and horizontal) and the presence of NTBs to trade. Trade and investment flows will be examined, which will include a broad evaluation of the relative likelihood of trade creation and trade diversion. The World Bank's NTB database together with any reliable source identifying the presence and significance of existing NTBs to trade between Andean countries and partner countries will be used. The Local Impact Assessment Team, in their role as on-the-ground local researchers, will play a crucial role in supporting this aspect of the study by strengthening data analysis from local statistics, research and the analysis of regulations. The Local Impact Assessment Team will consist of members fluent in Spanish so as to ensure maximum access to all possible information.

The following issues meanwhile are noted as being of particular importance within this range of research: forestry, biofuels, public procurement, competition, IPR, sustainable development and dispute settlement, while agriculture and processed agricultural products, industrial products, and services such as telecoms, financial services construction and distribution would be the sectors of focus for more detailed study.

The analysis will be carried out at the national level, and where appropriate, at the state/regional and sectoral levels. Mostly, the consortium will rely on the national statistical agencies of the countries and secondary sources for disaggregated data on integration, competitiveness and trade performance indicators. Where this is not available, the Local Impact Assessment experts will review specific cases at the sectoral/state level to evaluate the level of impacts and explore possible areas of future sustainable development.

The quantitative models used will give early approximations of the level of regional integration and trade performance and will be complimented with a deep qualitative analysis that will look at more disaggregated indicators. Looking at the economic impact, for instance, we would assess the performance of Andean countries trade with the EU by country and sector, and map this to data on production and Gross Fixed Capital Formation (GFKF) for the concerned country and sector.

### 3.3.1 Sectoral Selection: Sectoral Priority Scale

Experience from prior studies provides the foundations for prioritisation of different sectors in the study. This is summarized around the following techniques:

- (1) Using the indicators outlined in the *Handbook for Trade Sustainability Impact Assessment* (DG Trade, 2006), pages 52-56, as well as noted additional indicators in the descriptions in subsequent pages of the handbook, economic, social and environmental relevance rankings are determined for each sector. These rankings are then assigned scores between 12 for rank 1 and 1 for rank 12. Environmental, social and environmental scores are averaged to compute Average Impact Scores.
- (2) Average Impact Scores and FTA Relevance Scores are cross referenced to form the Sectoral Priority Scale. This scale indicates which sectors have both a high potential impact in addition to being highly relevant to FTA negotiations with Andean countries. High priority sectors are located in the red quadrant (top right) while lower priority sectors are in the blue quadrant (bottom left).
- (3) Average Impact Scores and FTA Relevance Scores are totalled to determine overall priority sectors. Sectors with an overall score greater than 12 are selected for analysis.

As a result of this process for an earlier study, twelve initial sectors were selected and ranked for preliminary analysis. It is noted that while a sector such as environmental goods and services might rank lowly on economic criterion, by weight of political considerations it may move closer toward being top priority. We also note that there are sectors that may not feature in the CGE modelling in the **Interim Report** for reasons related to data, but that may be picked up in the qualitative elements of the **Final Report**.

### 3.3.2 Environmental and Social Assessment

Results from the quantitative equilibrium modelling will identify the expected magnitude of the increase or decrease in production in each economic sector. In turn, this will form the baseline for the environmental and social assessment of liberalisation of trade in agricultural and non-agricultural products. Areas found to be significantly affected will be further examined using qualitative techniques, alongside social and environmental effects associated with the economic effects that have been assessed separately from the equilibrium model.

Further, the baseline environmental study for the EU-Andean Trade SIA will outline the Andean countries wide range of geographical, climatic and other environmental characteristics, as well as variations in biodiversity value in many areas, and varying degrees

of pressure on natural habitats, land degradation, water resources and pollution levels, with considerable differences between rural and urban areas. The potential impacts of climate change will be included in the baseline assessment of trends. The baseline study will also review the status of the regulatory systems through which social and environmental pressures are managed.

Finally, since production changes resulting from liberalisation will in turn induce social and environmental changes, the results obtained from the economic analysis will be used in conjunction with information on the regulatory regime. The latter is important since the impact of social and environmental regulation has a significant influence on how economic changes in turn affect social and environment issues. Preventative, enhancement and mitigation measures will be suggested, including for example, incentives for voluntary measures such as product certification and labelling.

At the methodological level, the three aggregate environmental indicator themes of the SIA methodology - biodiversity, environmental quality and natural resource stocks - will capture the principal impacts of the manufacturing sector, specifically as these relate to the use of raw materials, water usage, discharge of untreated effluents, air pollution and the production of hazardous wastes. Impacts to be considered in the agricultural sector will include water source depletion, deforestation, soil erosion, salinity, degradation of marginal land, and contamination of land and water from agri-chemicals and animal wastes. Forestry issues in particular will be examined closely in the environment and social assessment, and will include the consideration of the environmental effects of trade in forestry and wood products under FTA conditions. In both manufacturing and agriculture the trade agreement may also influence opportunities and incentives for the use of cleaner and more efficient production techniques. Similarly, the three aggregate social indicator themes of the SIA methodology - poverty, equity, and health and education - will capture the principal social impacts, alongside reference to international objectives such as ILO indicators for decent work and the Millennium Development Goals. Account will also be taken of interactions between the agricultural and non-agricultural sectors related to the environmental effects of rural-urban migration and urbanisation.

### **3.3.3 Services Component of Negotiations**

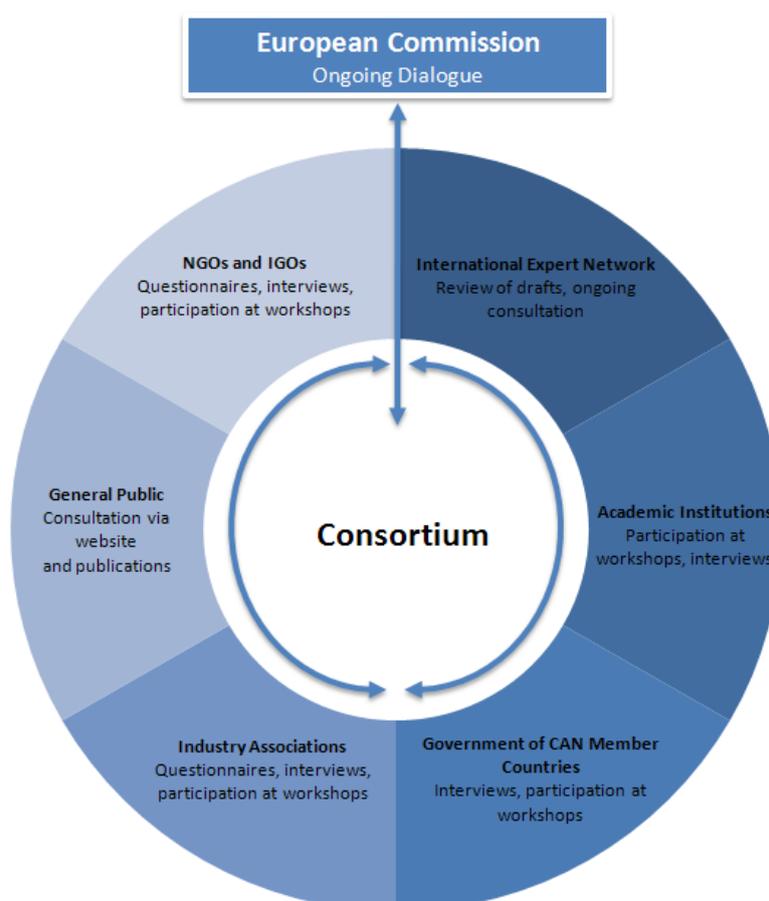
The best possible combination of qualitative and quantitative information will be used to assess the social and environmental effects of the services and investment component of the trade agreement, which will differ considerably between the different service sectors. For example, tourism and leisure services can have significant social environmental impacts which may be affected, directly and indirectly. It will also be important to examine potential changes in environmental management techniques. Furthermore, the multiplier impact of liberalisation in areas such as public procurement and establishment of investment and trade facilities will also be examined, in this case mostly through qualitative assessment methodologies.

### **3.3.4 Ensuring Relevant Policy Recommendations**

Beyond the policy recommendations that follow directly from the results obtained by the study, the SIA will also examine potentially very influential multiplier effects. For example, a change in the Andean countries subsidy regimes could lead to the exclusion of low income earners from basic service rights. Access to improved technologies and services may meanwhile stimulate service offerings to only certain segments of the population which in turn exacerbates social tensions. In responding to such impacts, it is important that policy recommendations for the EU-Andean Trade SIA are closely linked with the negotiating mandate and thus provide policies which are useful to negotiators. To this end, policy recommendations that are inclusive on secondary effects will be developed by the respective project teams and include advice from the Steering Committee meetings.

### 3.4 Consultation Tools

Intensive stakeholder consultation is integral to the data-collection and analysis for this SIA. The consortium has developed procedures for consultation with stakeholder groups through the use of interviews, questionnaires, website and online communications and the implementation of workshops. The consultation framework is displayed in the following diagram and a preliminary list of the stakeholder Network is attached as Annex 1 to the **Inception Report**.



#### 3.4.1 Interviews

Held via the telephone or face-to-face these constitute the most direct form of stakeholder engagement. A list of key stakeholders in Europe and the Andean countries has already been identified by the consortium. A provisional list of stakeholders to be consulted includes relevant ministries, trade associations, agencies and associations, diplomatic delegation including the EC delegation, UN agency representatives, as well as leading Andean and other universities, NGOs, trade unions and think-tanks.

### 3.4.2 Questionnaires

The contents of the survey itself is the product of extensive consultation by the consortium with input from Local Impact Assessment experts. Areas to be covered in the questionnaire include business stakeholders in key sectors would be consulted to highlight key issues on the ground impacting foreign investment and trade and business facilitation. The questionnaire will ask business to measure the opportunities lost from these key impacts identified as a portion of their overall business. The stakeholder network would be surveyed to highlight key sectors and horizontal issues affecting the economy and solicit the indication of key issues which have acute social and environmental implications. Key stakeholders with a range of viewpoints (e.g. businesses, academics, civil society groups) may, for example, be asked to score the effectiveness of existing systems and provide estimates of associated costs. For example, relating to FDI and non-tariff barriers, we will ask firms to rank the relative impact of general level of barriers in Andean countries to their access to the market, relative to other countries in the region.

Specifically, questions targeting both quantitative and qualitative data will be included. Quantitatively, continuous data (e.g. numerical values on a continuous scale, for instance, monetary value) will be sought so as to best enable onward statistical analysis. As a second preference, categorical data will be sought (e.g. grading on a 5-point scale). It is proposed to use quota sampling for the data, which after random sampling is the statistically most reliable form of sampling available. The survey results will be distributed in hardcopy and electronically via the consortium members existing internet platforms.

### 3.4.3 Electronic SIA-Trade Newsletter

As part of the project's consultation activities, a EU-Andean Trade SIA newsletter will be disseminated electronically to the consultation network at key points during the project, coinciding with the release of each report and other project deliverables. Downloadable from the project website, the newsletter will include a summary of the project progress and results, and provide updates on notable economic, social or environmental news events in the region. Learnings from concurrent SIA projects will also be included in the newsletter.

### 3.4.4 Website

The EU-Andean Trade SIA project will develop a project website to support the project's visibility as well as generate stakeholder feedback. The website can be accessed at [www.euandean-sia.org](http://www.euandean-sia.org) and feedback can be sent to [enquiries@euandean-sia.org](mailto:enquiries@euandean-sia.org). The website contains all relevant information concerning the SIA's progress, reports, minutes, background information, current related news items, and contact information of the consortium partners. The main website content will be in English. A Spanish translation of all its homepage sections will be included and

will provide links to those publically available documents which exist in Spanish. A core component of the website is the communication platform, through which European and Andean stakeholders will be able to contribute towards the EU-Andean Trade SIA process.

### 3.4.5 Consultation Workshops

Designed to establish a dialogue and to gather the views of interested parties (business, local public administrations and civil society in particular), a full one-day consultation workshop with project stakeholders will be held in Bogota, Columbia. In addition, two Civil Society Dialogue meetings will be held in Brussels for European based project stakeholders in January and July 2009. Further information in relation to these meetings can be obtained from the project website, [www.euandean-sia.org](http://www.euandean-sia.org).

#### TRANSPARENCY AND DOCUMENTATION

The terms of reference for this project states that Reports submitted by the consultants should also be accompanied by the original statistical databases, modelling files and other data inputs that formed the basis for the analysis carried out in the approved reports. To this end, we propose to supply a detailed technical annex as a supplement to the main body of the report. The consultants will discuss with the European Commission the making available of relevant databases and model files following further liaison regarding software licensing and availability issues. The technical annex to be provided will include tables reported in the text, tables not reported in the text but serving as a basis for analysis, detailed tables of computational modelling (CGE) results (i.e. computational modelling output files in a reader-friendly format) that served as a basis for analysis but may be otherwise only summarized in the main report itself, detailed tables of econometric modelling results (i.e. econometric modelling output files in a reader-friendly format) that served as a basis for analysis and that may be otherwise only summarized in the main report itself, full documentation of source data used in the report, and documentation of important technical aspects (an overview of basic theoretical assumptions) of the computational and econometric models used to support the analysis in the main report. The underlying tables will also be supplied in Excel format, to supplement the annex and make follow up analysis by the EC and others easier, where based on the results reported.

## Annex 1: Preliminary Stakeholder Network

Governments and other relevant entities in the Andean countries						
Field Related to “Expected Commitments to be Negotiated”	Core			Auxiliary	Periphery	
<i>Trade in Agricultural and Fisheries products; SPS measures</i>	<b>Andean countries</b>	Secretariat General	Andean Rural Development and Agricultural Competiveness Programme	<ul style="list-style-type: none"> <li>• Andean countries’ agricultural and rural development banks</li> <li>• Andean countries’ food safety competent authorities</li> </ul>	<ul style="list-style-type: none"> <li>• Local authorities</li> <li>• Local Businesses</li> </ul>	
		Ministry of Rural Development, Agriculture, and Environment (Bolivia)	Vice Ministry of Rural Development and Agriculture			<ul style="list-style-type: none"> <li>• Andean countries’ food safety competent authorities</li> </ul>
			Vice Ministry of Biodiversity, Forest Resources, and Environment			
		Ministry of Agriculture (Peru)	National Service of Agrarian Health (SENASA)			National Institute of Development (INADE)
			Ministry of Production (Industry and Fisheries)			Colombian Agricultural

		Rural Development (Colombia)	Institute Colombian Institute for Rural Development		
		Ministry of Agriculture, Livestock, Aquaculture, and Fisheries (Ecuador)	Ecuadorian Service for Agricultural Health (SESA)		
			National Institute for Agricultural Development (INDA)		
			Sub secretary of Fisheries Resources		
<i>Trade in industrial products; Trade in services</i>	<b>Andean countries</b>	Secretariat General		<ul style="list-style-type: none"> <li>• Andean countries' sector specific industry associations, such as those for textiles, chemicals and machinery / vehicles</li> <li>• Industry Forums</li> <li>• Regional sector specific industry associations</li> </ul>	<ul style="list-style-type: none"> <li>• Local businesses</li> </ul>
		Ministry of Development Planning (Bolivia)			
		Ministry of Hydrocarbons and Energy (Bolivia)			
		Ministry of Production and Microenterprises (Bolivia)			
		Ministry of External Trade and Tourism (Peru)			
		Ministry of Transportation and Communication (Peru)			
		Ministry of Production (Industry and Fisheries) (Peru)			
		Ministry of Industry and Competitiveness (Ecuador)	Sub secretary of External Trade		
		Ministry of Commerce, Industry, and Tourism (Colombia)			
		Ministry of Communications (Colombia)			
<i>Technical Barriers to Trade; Tariff and non-Tariff Measures; Trade Defence Instruments; Customs</i>	<b>Andean countries</b>	Ministry of Economy and Finances (Peru)		<ul style="list-style-type: none"> <li>• Andean countries' economic</li> </ul>	
		Ministry of Finance (Ecuador)			

<p><i>and Rules of Origin; Dispute settlement; Trade and Sustainable Development; Investment issues</i></p>		<p>Ministry of External Relations (Colombia)</p>		<p>institutions</p> <ul style="list-style-type: none"> <li>• Andean countries' Central Banks</li> <li>• Latin American Reserve Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Local organisations</li> <li>• Local businesses</li> </ul>
		<p>Ministry of Exterior Relations and Culture (Bolivia)</p>			
		<p>Secretary General</p>	<p>Andean Community Advisory Council of Treasury or Finance Ministers, Central Bank Presidents, and Economic Planning Officers</p>		
			<p>Andean Multinational Enterprises</p>		
			<p>Permanent Technical Group on macroeconomic convergence</p>		
<p><i>Regulatory issues (Public Procurement, Competition, IPR)</i></p>	<p><b>Andean countries</b></p>	<p>Andean Parliament</p>	<p>Government of Peru</p> <p>Government of Ecuador</p> <p>Government of Bolivia</p> <p>Government of Colombia</p>	<ul style="list-style-type: none"> <li>• Relevant regulatory institutions from the Andean countries</li> </ul>	<ul style="list-style-type: none"> <li>• Local institutions</li> <li>• Local businesses</li> </ul>
		<p>General Secretariat</p>			

European Government Missions in Andean countries			
<i>The EC Delegation is the permanent mission of the European Commission in the Andean countries.</i>	EC Delegations	EU-Andean countries Dialogues and Cooperation Programmes	Stakeholders of EU-Andean countries projects
<i>EU Member States also engage in a number of development cooperation projects.</i>	Member States' Missions to the Andean countries	Member States' Cooperation Programmes	Stakeholders of Member States' projects
Industry/trade associations			
<i>European Chambers of Commerce in the Andean countries Business on a wide range of issues.</i>	European Chambers of Commerce in the Andean countries	Various sectoral Working Groups and local chapters	Individual European Businesses
<i>Umbrella organisation representing Andean countries business, which houses sectoral and sub-sectoral chambers of commerce.</i>	Andean Business Advisory Council, Sub regional Committee on Small and Medium Industry, etc	Sectoral and sub-sectoral Chambers of Commerce	Individual Andean country Businesses
Academic/research institutions			
<i>Leading universities throughout Andean countries</i>	National Universities with disciplines in relevant areas (e.g. Simon Bolivar Andean University)		
International Organisations & NGOs			

<p><i>The World Bank provides technical assistance and development-related loans to Andean countries across a wide range of sectors.</i></p>	World Bank	Local-level projects	Local-level project stakeholders, local communities
<p><i>UNDP, along with the UN Environmental Programme, are implementing a wide range of projects covering health, poverty alleviation, environment and energy.</i></p>	United Nations Development Programme		
<p><i>The WWF has a wide range of environmental programmes in Andean countries covering biodiversity, climate change and waste generation. It has also done considerable work on trade- and investment-related issues.</i></p>	World Wildlife Fund		
<p><i>The IISD is one of the leading research institutes in the world that produce research on sustainability issues. IISD currently is involved in a number of projects in Andean countries.</i></p>	International Institute for Sustainable Development		