

**Working Paper**

**BOLIVIA'S PARTICIPATION IN THE UN FRAMEWORK ON  
CLIMATE CHANGE**

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## Acronyms<sup>1</sup>

AIJ	Activities Implemented Jointly
CC	Climate Change
CDM	Clean Development Mechanism
CH <sub>4</sub>	Methane
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CICC	Bolivian Interinstitutional Committee on CC (acronym in Spanish)
COP	Conference of the parties (of UNFCCC)
CER	Certified Emission Reductions
DFID	Department for International Development
FAO	Food and Agriculture Organization
GEF	Global Environmental Facility
GHG	GreenHouse Gases
GTI	Working Group on International Environmental Affairs (Spanish)
G77/China	Initially a Group of 77 developing countries (now 134)
Gg	Thousand tonnes
GRILA	Latin American Initiative Group
GRULA	Latin American Group
IPCC	Intergovernmental Panel on Climate Change
ITTO	International Timber Trade Organization
JI	Joint Implementation (Carbon trading between two countries)
KP	Kyoto Protocol
LIDEMA	Environmental Defence League (NGOs Umbrella organization)
LULUCF	Land Use, Land-Use Change and Forestry
MDSP	Ministry of Sustainable Development and Planning
N <sub>2</sub> O	Nitrous oxide
NEDA	Netherlands Development Assistance
NSS	National Strategy Studies
PNCC	Bolivian National Programme on Climate Change
PRONIC	National Programme for Joint Implementation
SBSTA	Subsidiary Body for Scientific and Technological advise
SBI	Subsidiary Body for Implementation
SECO	Swiss Secretariat for Foreign Economic Affairs
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
WTO	World Trade Organization

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<sup>1</sup> The acronyms for Bolivian Organizations reflect the Spanish spelling

## **1. Introduction**

### **1.1 Climate Change Issues, the UNFCCC and the Kyoto protocol. Potential gains for Bolivia from CDM**

Global warming caused by GHG emissions and its possible effects on the economies of the countries which are considered vulnerable have aroused concern and a sense that it is necessary to act urgently. The predictions of the scientists say that many coastal areas will be flooded and that droughts or unstable rainfall will be more severe than in the past. Guided by these assessments, the global community signed, in the earth Summit of Rio-92, the Framework Convention on Climate Change (UNFCCC). Since then it has met annually in the so-called Conferences of the Parties (COP) to take decisions on how and to what extent GHG emissions can be reduced. In the third Conference of the Parties (COP-3), the Kyoto Protocol was adopted setting legally binding emission reduction targets for developed countries (Annex 1 countries) and three flexible mechanisms to provide for transboundary trading by Annex 1 countries of emission credits (CER). One of them includes the use of forests as carbon sinks (article 12 which defines the clean development Mechanism CDM). This last issue has been very controversial for ratification, and the lack of agreement on it was one of the causes of the collapse of the COP-6 held in The Hague in 2000.

Bolivia's government sees the inclusion of forest sinks in the CDM as a trade opportunity, and a chance to obtain funds and technologies from the developed world, and has based its negotiation strategy, within the UNFCCC, on the ratification of this point. It stated this in Kyoto and in The Hague in 2000.

An additional reason for Bolivia's interest in actively participating in the UNFCCC is its vulnerability, due to Bolivia's large food dependence on rain fed agriculture, the melting of the mountain glaciers and its susceptibility to drought or floods. Because of these factors the country has been classified as vulnerable to Climate Change.

### **1.2 Objectives of the report**

This report forms part of a wider study on effective negotiations by developing countries in trade organisations particularly GATT and the WTO, and in Multilateral Environmental Agreements, particularly the UNFCCC which includes cases studies of three developing countries: Bolivia, Ghana and Zimbabwe. The key questions/issues that this study aims to address are:

- What forms of participation by Bolivia in the UNFCCC have been successful and efficient in resource use and what types of assistance can improve its capacity?
- What negotiating strategies have been used by Bolivia to introduce tropical forestry carbon offsets in CDM and how have political and technical problems been overcome?
- What are the difficulties of making the policy and legal changes demanded under the UNFCCC?

- What are the most acute constraints to more effective participation of Bolivia's delegates? and thus, which measures should be recommended for more effective participation?
- Which policy changes are needed to improve implementation and how can donors help?
- What are the likely impacts of the outcomes of the negotiations for poverty alleviation?
- How to establish and maintain a research and a negotiating capacity in Bolivia.

This report first describes the country's socio-economic setting and the institutional framework in which the UNFCCC actions take place. Then it presents the situation of the country in terms of GHG emissions and its vulnerability to Climate Change. The substantive part begins by analyzing the way by which Bolivia has participated in the different events related to UNFCCC, the implementation of the commitments and the current institutional arrangements that Bolivia has created to deal with this Global issue.

The analysis focuses on the participation of Bolivia in the 6th Conference of Parties (the one held in The Hague) because this was the one where most of the negotiation and preparation skills were displayed. This part of the analysis covers the formulation of the Bolivian position, the consultation process for defining the position, the characteristics of the delegation, the negotiation techniques used, the work within the coalitions of like-minded countries, and the post-The Hague reactions. The study assesses the net gains/ losses for the country and the potential implications for poverty alleviation of working within this agreement. The report ends with a discussion of constraints, lessons for better practice, and policy implications, and points to some research issues that require further attention.

## 2. The Setting: Bolivia's Socio-Economic Circumstances

### 2.1 The country setting

Bolivia is a country with a high biophysical and socio-economic diversity manifested, culturally and geographically, in different regional identities and landscapes. In eco-geographical terms, the country is divided into three large eco-regions: the high plateau or *Altiplano* (surface area of 246,254 km<sup>2</sup>); the inter-Andean valleys (168,320 km<sup>2</sup>); and the tropical and subtropical lowlands (684,007 km<sup>2</sup>), which together make up a total of 1,098,591 km<sup>2</sup>, an area almost twice the size of France (Montes de Oca 1997). See map 1.

Bolivia's population is estimated to be around 8 million, of whom nearly two-thirds live in the highlands (*Altiplano* and inter-Andean valleys) and one-third in the lowlands. Although migration in Bolivia has been practised since ancient times to access resources of different ecological regions (from the sea to the mountains, and down to the tropics), from the 1950s there has been a state policy of promoting migration so as to alleviate population pressure in highlands. In addition there has been large rural to urban migration. By 1997 nearly 59% of the population was considered urban compared to 40% in 1976 (Pacheco 1998). Both rural-rural and rural-urban migration are still taking place as they provide an escape path from poverty in the rural areas. The population growth rate can be considered high (2.2 % p.a.), particularly in relation to other lower-middle income countries (1.2% p.a.). Compared with other South American countries, Bolivia still has the largest rural population

The large ecological diversity of the country is mirrored by its cultural and farming diversity. In Bolivia there are more than 40 indigenous groups who maintain a strong cultural identity and still use their own language, customs and traditions. According to the Bolivian Institute of Ethnology, more than 70% of the Bolivian people are considered to be indigenous in origin, the largest percentage in Latin America. The same holds true for farming systems. At least ten different types of land use systems can be differentiated: the smallholders in the highlands (*Altiplano*); smallholders in the inter-Andean valleys; the large/medium modern commercial farmers (>100ha under production every year) in the Santa Cruz lowlands (local and foreign); smallholders in the lowlands (colonists from the highlands and local farmers); the indigenous lowland groups; the large cattle ranchers in Beni and Chaco regions; the forest users (forest concessionaries, northern Bolivian owners of forest estates, forest dwellers).

### 2.2 Poverty situation

Bolivia has the highest percentage of people below the poverty line in South America (66% in 1997, Morales 2000), defined as people with a daily income below \$ US 2. The percentage of people living in extreme poverty is around 50% ( $\leq$  \$US 1 per day). Most of the poverty is concentrated in the rural areas of the Central valleys of the country where frequent droughts and other climatic hazards affect their agriculture. Not surprisingly the incidence of poverty is also

highest among women: they have a higher rate of illiteracy and a subordinate role in the decision-making and political structures of community development.

In addition to the per capita indicators of poverty, the lack of financial resources for public investment is manifested in the low salaries of school teachers (about \$ US 100 a month), health services and of civil servants in general. In most cases these salaries represent the lowest level in South America. This fact, in turn leads to the provision of limited services and hampers national development. The large area of the country (more than 1 million sq. km.) in relation to its population and its topography also increases the maintenance costs of the precarious civil infrastructure, particularly roads and other transport.

The industrial sector is small providing little employment in relation to agriculture or petty internal trade. The composition of its exports (mainly primary products) reveals its low transformation capacity to add value and its vulnerability to the price fluctuations of basic commodities (minerals and agricultural products).

The mining sector still represents an important share of GDP and of exports, although these are declining. Currently, it employs less than 5% of the labour force. The main reasons are the low prices for the main exploited minerals (tin, zinc, tungsten and lately gold). In addition most mining activities are performed under old and traditional technologies which can be highly polluting.

### **2.3 The Bolivian forests and the vegetation cover**

Considering that approximately 80% of all Green House Gas (GHG) emissions in Bolivia come from LULUCF (Land Use, Land Use Change and Forestry) and particularly from deforestation, in this section we will describe the main features of this activity.

Nearly half of Bolivia's land is still covered with different types of natural forests, most of which correspond to tropical humid and sub-humid types. The other half correspond to the Valleys and the Altiplano, these have little forest cover but their inappropriate use can contribute global warming (e.g. burning of grasslands, fuel wood or the conversion of the few dry forests) they and also constitute a vulnerable area for climate change effects, particularly the rain-fed agricultural areas. Through modeling it has been estimated that economically and socially the areas of the valleys and Altiplano where most rural poor are concentrated will be much affected if droughts increase and less water is available for irrigation purposes. The main environmental problems in these regions are associated with overgrazing and miscultivation of slopes leading to severe erosion problems.

However, the interest of Bolivia in UNFCCC has to do with the current and potential importance of forests for its economy. Production of round wood is 500,000 m<sup>3</sup> (ITTO 1998) and its annual export value is about USD 120 million. The forestry sector share in GDP is nearly 1.6% (Ministerio de Hacienda 1999). Although there is scope for a larger contribution, only a small proportion is exploited due to the small size of the domestic market and high transportation costs involved in export (PNUD 1994). Most of the extraction and processing takes place in Santa

Cruz in the eastern lowlands where more than 60% of the industry is based. The domestic market consumes near half of all timber production and the rest is exported to various countries, particularly the USA, Argentina, Mexico, Brazil and Europe. In 1998 forestry sector exports (timber and non-timber) represented 10.7% of all Bolivian exports. Only the most valuable species are exported (CNF 1998; CBF & SIFOR 2000). Gross investment in machinery and infrastructure at the national level is of the order of 150 million USD of which two-thirds are spent on extraction and one-third on processing (ITTO 1996).

Most of the policy framework is covered by the forestry law. In July 1996 a new forestry law was enacted, in the spirit of UNCED (law 1700). Its main aim was “to regulate the sustainable use of forest lands”. This new act is relevant to the eastern lowlands, given that most of these regions are covered by forest. Conflicts among concessionaires, communities, indigenous people and forest dwellers are frequent. This law regulates the different rights and ways of using forest resources to ensure they are used sustainably. The most evident implication of this measure is that it has encouraged resource use intensification and the use of a wider array of timber species - instead of selective logging of high valuable ones – (Bojanic 2001)

## 2.4 Institutional framework

In this section we describe the most important organizations involved in activities related to the UNFCCC process and those which will later be mentioned frequently during the discussion of Bolivian participation in the negotiations.

**The Ministry of Sustainable Development and Planning.** Most of the activities related to climate change and to CC negotiations in international fora are conducted and coordinated by the Ministry of Sustainable Development (MSDP). Aside from policy formulation, planning and coordinating, environmentally related activities, it is responsible for National Parks administration, biodiversity conservation and monitoring of the Forestry service activities. This Ministry at the central level regulates most activities in environmental matters and coordinates sustainable development projects, including decentralization of Bolivian Agenda 21 of UNDP and the Climate Change National Program (PNCC).

**The Climate Change National Program (PNCC).** It forms part of the Ministry of Sustainable Development with a direct dependency line on the Vice-minister for Environment. This programme was created in 1995 as a mean to implement the commitments to the UNFCCC and the COP. It has a planning and coordination role for implementation of policies on CC as well as for providing substantial technical data on the GHG situation. Initially it was more geared towards the technical aspects of the UNFCCC, generating the information on emissions which was the basis for negotiations in the COPs. Then it moved towards mobilising an increased participation of other CC actors by setting the Inter-institutional Committee on CC (CICC) as a national forum for dialogue and information exchange on GHG and climate change activities.

The PNCC has been very active in conducting diagnostics on emissions of GHG and has produced relevant indicators on the contribution of the country to global warming. The key studies that this programme has conducted are:

- National inventory of GHG emissions of Bolivia. 1997 & 2000
- Vulnerability and adaptation of the ecosystems to CC and mitigation analysis of GHG. Bolivia 1997.
- National Plan on CC: energy sector and non-energy sector. 1997
- First national communication (official report on GHG emissions) based on the methodologies set by IPCC and UNFCCC for non-annex 1 countries). 2000
- National strategy to implement the UNFCCC (EMI). 2000
- Study of the strategy for the participation of Bolivia in the CDM of the Kyoto protocol. 2001

In addition to these activities the PNCC performs a supporting role to national authorities negotiating the UNFCCC and projects within the Kyoto Protocol. The members of the PNCC have attended most COPs and have drafted the proposals that the Ministers submit to the COPs. In sum, it can be said that this programme is the national reference on CC activities and is a key player in CDM carbon emissions related trade. The staff of the PNCC is made up of five persons at technical level of which two have an MSc. and two of them have worked for more than five years in the programme, suggesting good resources and experience.

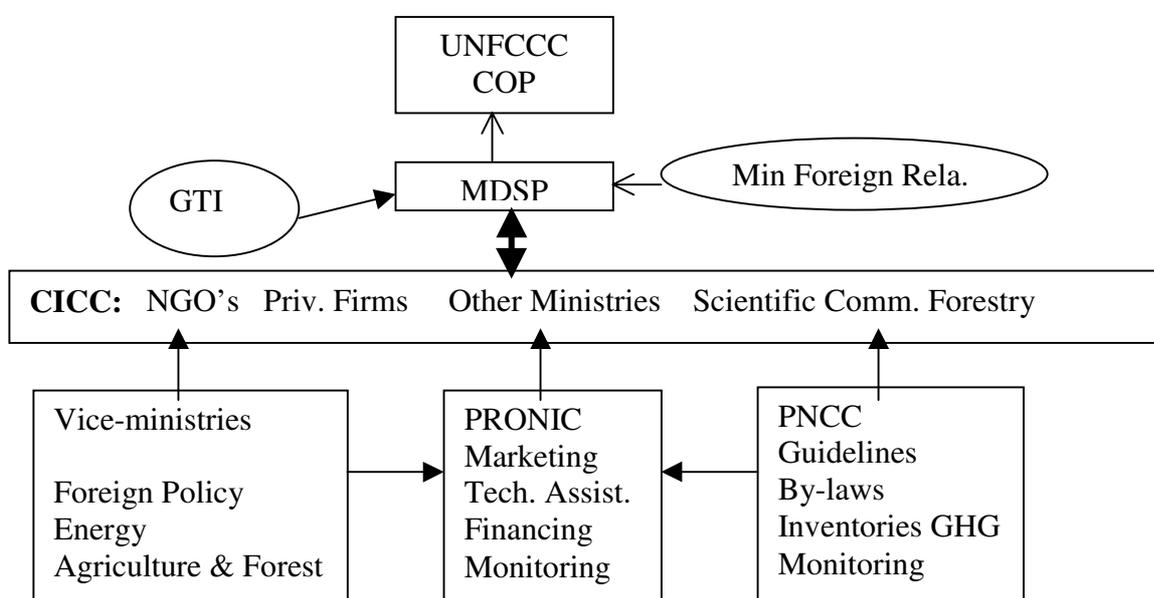
**The Inter-institutional National Council on Climate Change (CICC in Spanish).** The CICC is a public-private coordinating and reporting body on CC. This council is particularly active on the eve of the COPs and most reports of the PNCC are first submitted to the Council before becoming official positions of the Ministry (including the national strategy). The members of the CICC also shared the responsibility of implementing actions derived from the national strategy on UNFCCC. This council is made up of the following members: The Bolivian Sciences Academy, LIDEMA (umbrella organization for environmental NGOs), Chamber of Energy (private sector), Ministry of Sustainable Development and Planning, Ministry of Finance, Ministry of Agriculture and the Vice-ministry of Energy.

Besides the CICC there is a group (GTI) that seeks to provide technical inputs and to coordinate activities derived from the participation of the country in environmentally related international conventions (i.e. The UN Sustainable Development Commission; Biological Diversity Convention, RAMSAR, and UNFCCC). Though it did play an important role in the late nineties, currently GTI is not active.

**The Forestry service or *Superintendencia Forestal*** is the agency responsible for regulating, controlling and supervising the sustainable use of forest resources. It also grants forest concessions (on a bidding basis), approves management plans, issues certificates for conversion of forest lands into agriculture, and coordinates projects related to forest use. It is an autonomous body under the supervision of the Ministry of Sustainable Development. *The Superintendencia Forestal* is publicly funded and it is relatively well staffed. Part of its funds comes from the payment of fines and taxing of forest lands (*patente forestal*). In Bolivia, a large number of rural inhabitants particularly in the northern part derive their livelihoods from forest-related activities (timber, brazil nut harvesting, palm hearts, fishing and hunting) regulated by the *Superintendencia Forestal* (Forestry law 1996).

**Institutional arrangements for coordination and consultation on CC.** The approval of the participation strategy and the position that the Bolivian delegation took to the COP-6, went through a complex institutional circuit where different interests and actors intervened. Figure 1 schematically represents this flow and the institutional arrangement. From figure 1 it can be observed that the Ministry of Sustainable Development is the central actor in any negotiation related to Climate Change and the National Programme on Climate Change (PNCC) is its technical arm, providing the information and backstopping. The Vice-minister of Environment and the advisor of the Minister on Climate Change head most negotiations. In addition, the Ministry of Foreign Relations is also always involved and the strategy and the positions for the COP go through the filter of other actors that are members of the Inter-institutional Council for Climate Change (CICC).

**Figure 1: Flow of information in the consultation process between organizations involved in CC in Bolivia**



Source: Adapted GTI-PNCC, 1999

The PRONIC (national programme for joint implementation) is a private-public organization aimed at coordinating projects within the CDM framework. Currently most LULUCF projects are formulated or channeled through the PNCC but submitted to the board of the PRONIC for approval. This committee has the responsibility of ensuring that projects meet the CDM criteria. Until now this programme has had no budget (although it has been legally established), and most of its action has consisted of board meetings to consider new projects. PRONIC considers CER projects inside and outside the UNFCCC.

In sum, a proposal for a position paper for the COP starts in the PNCC, goes through the CICC and the final version is taken up by the authorities of the Ministry of Sustainable development, represented at the highest level. They coordinate at the diplomatic level with the Ministry of Foreign Relations. CDM projects are dealt within the PRONIC scheme.

Of all the Ministries intervening in the CICC the Ministry of Foreign Relations is the strongest and most stable in its staffing (and the least politicised), followed by the Vice-Ministry of energy (within the Ministry of Economic Development). The weakest are the Ministry of Sustainable Development and, finally, Agriculture.

**The Non Governmental Organisations.** Few NGOs are active in CC matters. They lack the expertise to make substantial contributions to the process of setting a national position. Their voice is mainly expressed through LIDEMA which participates of the CICC and has conducted several studies related to forests and CC. Representatives of LIDEMA have also participated in some of the COPs and in preparatory meetings. In sum, LIDEMA is the NGO of reference in Bolivia for CC issues. But they maintain a strong presence throughout the country, with more than 150 officially operating. They mainly provide technical assistance in the fields of health, environmental management and education.

**The donors and their CC projects.** Many refer to Bolivia as an over-aided country given the strong presence of multilateral and bilateral donors. Annually, an average of about 700 USD millions flow into the country in the form of grants or concessional loans (near 10% of GDP, UNDP 1998). A large percentage of such funds is invested in environmental projects and some of it on climate change related activities. The main donors which contribute to support CC studies and projects are GEF; World Bank; US; UNDP-CC Train; FAO; the Swiss Government through the Secretariat for Foreign Economic Affairs (SECO) and the Center for Socio-Economic Development; and the Government of the Netherlands (DGIS-NEDA-Vrije Univesiteit).

The national programme on CC was established thanks to the support of the US country programme funding which covered the basic technical studies on emissions. Then the Dutch government gave a significant contribution by providing the funds for the national inventory of GHG. These funds were administrated by the Free University. Almost simultaneously the Global Environmental Fund (GEF-PNUD) supported the PNCC by strengthening its working capacity and financing the first national communication.

The government of Switzerland, together with the World Bank, have been keen on financing the national strategy to make use of the CDM under the umbrella programme of National Strategies Studies (NSS), which operate in several developing countries (e.g. Colombia, Argentina, and Zimbabwe), and transition countries (Czech Republic, Russian Federation and Slovak Republic). Finally the FAO has contributed significantly to the discussion on the role of forests in Climate Change by sponsoring a series of seminars and conducting several studies.

Currently there are some projects with foreign aid that are being implemented in the framework of the CC joint implementation. These are:

- The carbon sequestration project of Noel Kempf Mercado national park (US Utilities)
- Electrification with photovoltaic panels in San Ramon (the Dutch)
- The alternative energies of CRE in Santa Cruz (US)
- The hydro-electrical project of Takesi
- The hydro-electrical project of Tahuamanu in Pando

### 3. Environmental Situation, Green House Gases and Forests.

In this section we will review the status of GHG emissions in Bolivia, its vulnerability to Climate Change and the potential of its forests to be used as forest sinks for CER trade.

#### 3.1 GHG emissions (sources and quantities)

Most GHG emissions in Bolivia come from land use changes and forestry and to a lesser extent from the energy and industrial sectors. Table 1 shows the different sources of GHG and the type of gases that are emitted.

**Table 1: Summary of total GHG emission in Bolivia during year 1994<sup>2</sup> (Inventory).**

GHG	SOURCE						TOTAL
	Transport	Burning Natur.Gas	Residential	Industries	Others Agric.	LULUCF <sup>3</sup>	
CO <sub>2</sub>	2,270	2,242	1,696	1,375	457	38,617	46,657
CH <sub>4</sub>				89	489	76	654
N <sub>2</sub> O				0.20	1.94	0.38	2.53
CO	154		154	15	57	478	858

*Source:* MDSP-PNCC, 2000 with own arrangements

From table 1 it can be observed that land-use changes, agriculture and forestry are responsible for more than 80% of Bolivia's GHG emissions, particularly of CO<sub>2</sub>. Most of such land-use change has to do with deforestation of tropical forests in the lowlands for commercial cropping and colonization purposes (On average more than 100.000 ha are deforested every year, MDSMA 1997.) Also from table 1 it can be seen that energy is rather a small contributor when compared to LULUCF or to other countries with higher per capita income. Finally it can be concluded that Bolivia as a country is a minor contributor to global warming if we consider for instance that the USA alone annually emits nearly 5,000 million tons of CO<sub>2</sub> and Germany about 1,012 million tons. It is estimated that Bolivia represents 0.003 % of global emissions of CO<sub>2</sub>.

Changes in the composition of the GDP may be influencing total emissions. The service sector (including transport) has slightly increased (though the total GDP has contracted in the last two years), while the shares of mining and the agricultural sector have fallen. This gives a small net increase in emissions.

<sup>2</sup> Although no updates of these figures have been done it is estimated that they have slightly increased with the increase in energy consumption and the expansion of agricultural lands (about 5% more). MDSP

<sup>3</sup> In terms of CO<sub>2</sub> 32, 987 Gg come from conversion of forestlands and rangelands; the rest (5,629 Gg) are produced by changes in the existence of Biomass in forests and woods. The uptake from abandonment of agricultural lands is 4, 537 Gg.

### **3.2 The Policy and regulatory framework for carbon emissions**

The legal and regulatory framework for GHG in Bolivia is rather weak. There are few legal instruments that regulate emission and furthermore they are hardly enforced. The Environment law (law 1333) barely deals with these issues and most of the regulation on pollution control is found in the by-laws (*reglamentos*) of the Environmental law. There are some decrees related to Climate Change but they mainly refer to institutional arrangements.

### **3.3 The Bolivian forest and its potential as a carbon sink or source**

In view of the large area of the country that is covered with forests (about 50%), and, given that most of Bolivian emissions arise from LULUCF activities, after Kyoto, forest projects were seen as a potentially important source of revenues, either from activities sequestering carbon (plantations, reduced impact logging, etc), or from avoiding deforestation (avoided emissions). Therefore, the Bolivian government has launched a series of initiatives to exploit the possibilities that the flexible mechanisms may offer.

The PNCC (2000) has estimated that the mitigation potential per year that Bolivia could offer is around 50 million tons of carbon (tC) and has given a potential value of about 500 million USD per year<sup>4</sup> mainly through LULUCF activities (equivalent to almost 50% of total current export value). This optimistic scenario has constituted the main incentive for an increased enthusiasm for participating in the UNFCCC and for lobbying for ratification of the Kyoto Protocol, which would include forests in the CDM. Furthermore it has led public and private actors to formulate a series of projects and to lobby for their financing. This assessment has constituted a major driving force to participate dynamically in the UNFCCC.

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<sup>4</sup> This figure could be misleading; it depends on the sink value of carbon and the management costs.

## 4. Participation of Bolivia in the UNFCCC and in the Conferences of the Parties COPS

### 4.1 Brief history of its involvement

Since the beginnings of the UNFCCC, Bolivia has been one of its enthusiastic members and has been keen on signing its main agreements. It signed the Convention on global climate at the UNCED of Rio de Janeiro in June 1992 and it ratified this in July 1994, by a national law. Similarly, the Kyoto protocol of 1997 was ratified by the Law of the Republic in July 1999, and the ratification was deposited at the Convention Secretariat in November 1999.

The government of Bolivia has actively participated in all of the Conferences of the Parties<sup>5</sup> (COP) committing itself to the global agreements being reached. Table 2 depicts the main issues of concern that Bolivia has dealt with in each of the conventions and the type of participation.

**Table 2 :Key Issues dealt and the participation of Bolivia in each one of Conferences of the parties.**

COP	ISSUES/ACTIVITIES	PARTICIPATION OF BOLIVIA
COP-1995-Berlin	Need for new commitments after 2000 and to draft a protocol or other legal instrument	Bolivia commits to prepare the National Communication and to conduct studies to estimate its emissions.
COP-2 1996 Geneva	Need to accelerate talks and endorsed the second assessment report of IPCC. Commitment to submit national communications	Bolivia forms part of the G-77 + China asking for larger commitments from developed nations
COP-3 1997 Kyoto	Adoption of the Kyoto Protocol, a legally binding agreement to reduce emissions by more than 5% by 2008-2012. To help parties to reduce emissions the protocol includes three mechanisms: the CDM, a trading regime, and joint implementation.	The new government of Bolivia attends, with new actors. A small delegation including the Vice-minister of environment. Supports inclusion of forests in the CDM. Bolivia actively participates in G-77
COP-4 1998-Buenos Aires	Adoption of a two-year plan to finalize the details of the Protocol. Set a COP-6 deadline for the Mechanisms	A larger Bolivian team actively coordinates with GRILA to include forests in CDM, particularly conservation of forests.
COP-5 1999 Bonn	A transition COP which set the basis for the final drafting of the COP-6	As in COP-4 Bolivia supports the G-77 and GRILA positions on CDM. Bolivia strengthens its delegation with a larger number. It proposes activities of LULUCF.
COP-6 The Hague	A detailed analysis is presented in the main text.	

<sup>5</sup> The Conference of the Parties is the supreme body of the CC convention and includes the majority of the world's states. The COP promotes the implementation of the convention and reviews the obligations of the parties.

## **4.2 Participation in the UNFCCC subsidiary bodies and related conventions**

Besides the active role of Bolivia in all COPs, delegates have attended most of the SBSTA (Subsidiary Body for Scientific and Technological Advice) and SBI (Subsidiary Body for Implementation) meetings. It has attended like-minded country group meetings and is active in the UN Commission on Sustainable Development, the Conferences of the Convention on Biological Diversity (CBD) and of the Convention to Combat Desertification as well as RAMSAR and the forest Forum. In other words, in spite of its limited technical and diplomatic human resources, Bolivia tries to maintain an active performance in most environmental fora.

## **4.3 Bolivia and the Conference of the Parties in 2000**

Given the importance of the interests at stake in the COP-6, of The Hague, here we will focus and provide a detailed analysis of the way in which Bolivia participated in it. COP-6 was supposed to agree on the definitive CDM and on the reduction targets that would have led to the ratification of the Kyoto Protocol. Therefore, most countries went well prepared to the negotiations because the outcomes could have represented important constraints on their economic growth or have implied high technological transformation costs. We will first describe how negotiations took place from the preparation to the aftermath, the reactions, and how Bolivia “played its cards”.

Most activities of the PNCC can be considered as preparation either for the COP or to meet commitments within the UNFCCC (formulating the national communication, conducting baseline studies, preparing the national strategy for abatement, etc). The process of actions specifically for COP starts with a proposal drafted by the PNCC, which is first discussed and agreed with the Vice-minister of Environment. The Ministry then presented the position to the CICC, which, after the work of committees, approves it as the country position. Usually there is not much conflict within the CICC and final agreements do reflect the consensus of all members. The national position and negotiation strategies are taken by the CICC designed members (mainly members of the PNCC) to the subsidiary bodies of the UNFCCC (the Subsidiary Body for Scientific and Technological Advice – SBSTA, and the Subsidiary Body for Implementation – SBI) or the ad hoc groups where the lobbying takes place at the international level. In parallel Bolivian representatives attend regional meetings with like-minded countries or countries with the same interests.

## **5. The National Strategy and the Key Issues to Negotiate: Capturing the Opportunities of the CDM**

### **5.1 The overall strategy**

The Bolivian government prepared a national strategy to implement the UNFCCC, which constitutes the basic policy framework for planning and implementation within the national territory. The strategy document tries to combine UNFCCC objectives with national policy general objectives and sets an institutional mission for the implementing bodies. The strategy is based on four declared objectives in the economic, social and environmental spheres, namely:

- To promote clean development by replacing current GHG polluting technologies in agriculture, forestry and factories with more efficient ones that can effectively reduce emissions without jeopardizing economic development.
- To conserve natural environments, particularly forests.
- To increase the effectiveness of energy use in order to reduce the risks of not having enough in the near future.
- To improve the understanding of environmental changes in order to generate an effective capacity to react.

These objectives involve, among other things, the development of a national capacity for production and technological change in the different sectors of the economy. This strategy stresses the need to reduce human vulnerability to climatic changes through adaptation (infrastructure, technologies, food security, health services, risk management and improved organizations). In addition, the national strategy gives high priority to educational processes (formal and informal) as a means to prepare Bolivian society for the challenge of climate change. Proposed activities here range from creating public awareness; developing a critical mass of technicians, bureaucrats and scientists; training of decision makers and a capacity for social mobilization. Last but not least the National Strategy on CC promotes the formation of alliances with different actors of the Bolivian society at different levels of representation (National, Departmental and Municipal).

Little progress has been made so far in implementation (except paper work) mainly because of the high costs of technological conversion, practices rooted in tradition (burning of grass lands), and the scarce availability of alternative practices (e.g. slash and burn agriculture). Nevertheless this strategy is also a negotiating card, so that its implementation will be dependant on the resources which Bolivia can obtain from the CCC mechanisms.

## **5.2 The Bolivian position after Kyoto and its negotiation strategy: The inclusion of forests in the CDM**

The Kyoto Protocol establishes that net changes in deforestation, reforestation and afforestation could be included in the emission inventories of Annex 1 countries. Article 12 of the protocol recognizes sinks (although forest management and conservation are not specifically mentioned) and provides for credit for CERs which could be traded between Annex-1 and non-annex 1 countries.

This concept of CER has been a key force driving Bolivia to promote investments and to formulate projects that will fit in the CDM framework. Since Kyoto, several actions have been taken internally to capture the benefits of the flexible mechanisms (most of them with foreign aid). The first step taken was to design the institutional framework and to develop a strategy, which could promote CER projects: the PRONIC and the study for a National strategy for the participation of Bolivia in the CDM were both clear outcomes of this initiative.

The National strategy constitutes a basic tool to support the negotiating position of Bolivia. It assesses the demand for LULUCF projects, the market and possible price scenarios, and concludes that Bolivia should demand the inclusion of forests in the CDM together with unilateral financing for such projects. This strategy includes a short list of project profiles that could attract funds for its implementation: i.e. agro forestry projects, low impact logging, protection of national parks against logging or conversion, natural regeneration and reforestation projects. In addition it promotes clean energy projects that can substitute for fossil fuels, particularly small hydroelectric plants and photovoltaic panels. In the framework of the above-described national strategy, the Bolivian government prepared a national position paper based on the inclusion of forests as sinks in the CDM, a position that was to be defended in the COP-6.

## **5.3 Manner of negotiation and capacity of Bolivia in UNFCCC**

Here we present the details of Bolivian participation in COP-6. Bearing in mind that the main objective of the Bolivian strategy was to derive benefits from the CDM, most of its negotiating machinery was geared to prepare for it and to lobby with the right parties or actors.

The process started with a series of workshops in the country aimed at creating awareness of the issues and the possible benefits amid the preparation of the inventories and the national communication. FAO, the Swiss and the Dutch government sponsored these seminars. Among these, a substantive event was the Latin American meeting on Forests and their role in Climate Change held in Santa Cruz in August 2000 (FAO-IDB sponsored) where the state of art in LULUCF projects in Latin America was reviewed.

Following these brain-storming events, the national consultative group was formed and consultants were hired to prepare proposals to draw the national strategy for the implementation of the CDM. Most of the initiatives were coordinated and supported by the PNCC under the supervision of the Vice-minister of Environment. The team of consultants was responsible for

preparing the drafts and submitting them to an ad-hoc inter-institutional committee made up of NGOs, the Ministry of Sustainable Development and key donors.

As the national position and the strategy were being clarified the Inter-institutional Committee for Climate Change (CICC) began to play a larger role, providing comments to drafts and guidance on future actions. This committee gave the final approval on the position and the way to negotiate in COP-6. Donors played an important role in supporting the national position, as it did not clash significantly with their own (or perhaps because they did not expect Bolivia to have a large impact on the final outcome). But, for whatever reason, donor support for the delegation was important in what Bolivia achieved in COP-6.

A small team of four plus the Minister of Sustainable Development were nominated to attend the Conference of The Hague. The team was composed of a principal negotiator (the advisor to the Minister), a representative of the Ministry of Foreign Relations (a senior civil servant with a vast experience in international environmental negotiations), the head of the National CC programme and the head of the consultants team which had prepared the strategy to implement the CDM in Bolivia. There was also limited support from the Embassy in the Netherlands. Because of the small size of the team, the members had to concentrate on those sessions where their presence was essential and /or work with groups of countries with similar positions or other developing countries.

#### **5.4 Coordination with coalitions or other like-minded groups**

The Bolivian objective was to obtain larger support or a transfer of funds from developed countries to face the cost of adaptation and for the inclusion of forests projects (LULUCF) in the CDM. Therefore, it has searched for countries with the same interests, particularly in Latin America.

Close contacts had been established with other Latin American countries holding similar positions (especially Colombia, Costa Rica, Uruguay and Mexico) and a joint strategy was agreed to ensure that the COP-6 could open a market for the Certified Emission Reduction under the CDM. In these pre- COP-6 negotiations, the Bolivian delegation played an important role and provided leadership. (In terms of including forests in the CDM, Bolivia has held a radically different position from Brazil, the big neighbour, but this matter has not affected bilateral relations in other matters.)

In the negotiations, Bolivia acted within two groups of countries: the Latin American Interest Group (GRILA) and the G77+ China.

**GRILA.** Bolivia has been instrumental in promoting the formation of the GRILA (Latin American Initiative Group). This group is an offspring of the Latin American Group (GRULA) which excludes Brazil, Peru and Argentina, the largest countries in Latin America, that have a different position on carbon sinks. It is composed of countries which are interested in deriving benefits from the CDM particularly: Ecuador, Costa Rica, Honduras, Colombia, Chile, Uruguay

and Guatemala. This group was created after Kyoto and meets during the COPs to negotiate a unified position with Annex 1 countries. They all support the inclusion of forests in the CDM.

Bolivia has hosted a meeting of the GRILA and has provided an aggressive leadership on the issue of including LULUCF (and conservation of forests) in the CDM. However, during COP-6 the differences inside GRILA began to crop out and at the moment this group is hardly working. Since The Hague Conference Bolivia has maintained “working” relations with only Costa Rica and Mexico.

**G77 + China.** Being a developing country, Bolivia participates in the G77 + China. Bolivia has endorsed its equity and redistributive justice position, defending the right of its members to emit to develop (Richards 2001). Although Bolivia did not support its position on carbon sinks<sup>6</sup> it formed part of the meetings and lobbied inside it for the inclusion of forest in the CDM. Because of the heterogeneity of the positions within G77 (e.g. OPEC countries asking for compensation for damage to their economies or Brazil not supporting inclusion of forests in CDM), Bolivia identifies itself and commits larger efforts to smaller coalitions of countries which are more in lines with its interests.

The close relationship between Bolivia’s position and that of the USA, is seen by the government as a strategic alliance. It established a close relationship with the USA negotiators because of the similarities of approach to emissions trading. Civil society, particularly the NGOs, see it as a form of dependence. Undoubtedly the large international environmental NGOs influence the positions of civil society and the local NGOs.

Little contact or strategic arrangement were made with other delegations from developing countries.

## 5.5 Results of the conference

The lack of an agreement among Annex –1 countries and the tensions that were generated on the CDM international emissions trading systems (and the proposal to include forests as sinks) led to a collapse of the COP-6 and to the suspension of talks. This outcome can be considered a serious set back not just for the Bolivian delegation that came back empty handed but to many delegations from developing countries which had had high expectations from this conference. In spite of the major efforts that the Bolivian delegation made in preparing for and participating in the conference, little was achieved. This reflected in the first instance the daunting difficulties of setting a global Climate Change regime but also the small influence of developing countries. They were unable to achieve their goals in these fora when they clashed with industrialized countries’ interests.

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<sup>6</sup> G77+China influenced by the large developing countries supports a position against carbon sinks particularly of having forest conservation as a sink.

## **5.6 Reactions in the country after the conference**

Although there was general disappointment with the news that came out of The Hague conference for all the actors involved in preparing and attending the COP-6, the overall enthusiasm was not lost and actions are still taking place under the belief that CDM emissions trade will take place and that LULUCF projects will be allowed under it. The PNCC is still working on brushing out the strategy for CDM implementation and on preparing projects that can suit the flexible mechanisms of the Kyoto Protocol. Other parts of the CC institutional framework have been less active and most of the members' organizations of the CC committees are in a position of wait and see before they resume the impetus they had when preparing for COP-6. Some of these organizations are also working to get agreements outside the UNFCCC although they are conscious that the market for CERS will be determined by what happens within the COP.

## 6 Negotiating Capacity in COP-6

### 6.1 Resources and techniques

Substantial research has been conducted in Bolivia on GHG emissions and on the likely effects of CC (see list of references) mostly by the PNCC with the support of foreign aid. In many cases it has been performed through sub-contracting local Universities or research centers in order to enhance national capacity in these matters. However, little has been done in terms of strategic studies on negotiations themselves. One of the few exceptions is the study on “Negotiations and Climate Change: Global and local Dynamics” Sarner *et al.* 2001.

To assess negotiating capacity, it should first be born in mind that the achievement of some desired objectives are outside the scope of what can be achieved by a small country with few resources which must be allocated among various international organizations/fora. Secondly, bearing in mind that Bolivia’s objective is to gain funds, dealing with bilateral donors could be more cost effective in terms of obtaining funds for environmental projects. Thirdly, although the government may attach high importance to climate change effects, it faces other urgent needs that require more immediate attention. Global environmental problems are likely to be seen as a source of funds to tap, and mainly the responsibility of developed countries. In the light of this, developing nations tend to allocate small amounts of their own funds to global fora. Most funds to prepare, meet the commitments, participate and negotiate come as part of foreign aid programmes.

In most COPs the Bolivian delegation has been represented by a team of: a chief negotiator, a diplomat, the technical staff of the PNCC and a high ranking authority from the Ministry of Sustainable Development (the Minister or the Vice-minister). Although the negotiating component of the team has been small it has managed to make important breakthroughs and to prove some leadership in the group of countries holding similar positions. This to a great extent has been the result of high motivation and the use of certain negotiating techniques that can be summarised as:

- Thorough review and study of the documents to gain the right political insight, and study of the agendas at stake.
- Being open to talk to all parties and interests groups, even if they have totally different positions.
- Intensive lobbying with key actors (e.g. searching for the right persons to talk to and addressing them in the right moment and in the right form).
- Maintaining the initiative by systematically proposing position documents in the right circumstances (Jauregui, 2001 pers.com).
- Keeping close contact with chairmen and meetings secretaries.

In addition to such techniques, the Bolivian delegation concentrated on certain issues, trying to focus attention on its position.

## **6.2 Training in climate change negotiations**

As an effort to build up the negotiating capacity of the Bolivian delegations to UNFCCC and to be aware of the possibilities of CDM and emissions trading, the World Bank, PNUD and the Swiss Government launched a CC negotiations project (National Strategy Studies known as NSS) to assist in the many issues of the CDM. This project has generated a strategy and a training course on negotiating skills in the CC arena (held in February-March 2001). The course aimed at ensuring inter-ministerial cohesion on a national policy and strengthening negotiating effectiveness in the multilateral and bilateral talks on the Kyoto mechanism. The contents of the course were: negotiation techniques, identification of policy conflicts, distributive bargains approach, integrative bargains, negotiation simulations, negotiation planning to ensure that CC-CDM negotiators would gather data, prioritisation of issues, and preparing negotiation strategies. It is expected that the participants in this course and the other components of the NSS project would be put to work in COP-6 Bis.

## **7. Political and Economic Implications of the Results of Negotiations: Impact on Poverty Alleviation**

Although the CDM of the Kyoto Protocol has not yet been put into practice, and in particular the issue of how to include forests as sinks has not been defined, and thus there are no bench marks to measure the impact, it is possible (a) to assess what has so far been achieved, and (b) to speculate on the likely benefits of the outcomes of the UNFCCC for Bolivia.

In the first instance, as a result of the negotiations and its overall participation in UNFCCC, Bolivia has been able to call the attention of the international community to its efforts and needs. This in turn has been translated into an increased flow of funds for carbon-related projects (see list of projects). The eyes of potential partners for CER trade have been directed to the potential that the country might offer once the market is open.

So far little or none of the funds allocated for CDM-type projects in Bolivia has reached the poor and they have not been targeted as such. One of the few examples is Noel Kempf Mercado National Park (one of the first projects of this type world wide) where there is a component oriented to support the people living in the surroundings of the park in their development efforts (MDSP 2000). Other projects are more geared to provide services (mainly electricity); here the impact on the poor is less clear.

Nevertheless, the most likely impact of CC policies and of action implemented in the framework of the Kyoto Protocol should come from mitigation of the effects of CC, particularly on agriculture. Most poor in Bolivia live in the rural areas (Morales 2000) and their livelihood is highly dependent on rain fed agriculture in areas which are drought stricken. As mentioned, Bolivia has been ranked as a vulnerable country for CC effects and, as always, the poor are the most vulnerable of all.

Moving on to other likely benefits of the outcomes of the UNFCCC and the ratification of the Kyoto Protocol for the Bolivian poor, agreement on the CER is most likely to benefit the forestry sector. Among those involved in forestry, the indigenous communities and the small farmers of the lowlands have an important share of forest lands. However, if there is not a policy framework and specific action directed to them, it will be difficult for them to capture the potential benefits of CDM projects. Up to now there is not a clear position on how these potential benefits are going to be distributed among the different stakeholders. There are only some ideas on how they could be taxed and the possibilities of a small fee for the state to cover its transaction costs (MDSP 2001, EEN p.31). However, no decision has been taken on the likely distribution of such income nor on to what extent it will reach the poor.

It must be stressed that the CDM-CER market will be a competitive one with the largest developing countries taking the lion's share leaving little for the small countries, therefore if these last are to derive an important share they must act quickly and show competitive advantages. For this, one method is to go about is to form strategic alliances with potential buyers and negotiate trade with them in the framework of Bilateral agreements or the preferential

markets of trade agreements, say EU-Andean Community or WTO. This could be done if part of the benefits can be earmarked for the poor.

## 8 Discussion

### 8.1 Assessing the techniques

Considering its limited resources, Bolivia has made impressive progress in terms of complying with UNFCCC commitments; it has prepared adequately for the CDM-CER market and it has performed well in the negotiations within the COPs. It has been able to develop a clear agenda in a consultative manner, to search for allies and form alliances with other countries with similar interests and to pursue specific objectives. Because of these achievements, it has already managed to attract funds for five CDM like projects and has prepared itself to enter the CDM-CER market once this becomes operational.

In summary, the main way Bolivia has participated in the UNFCCC and the characteristics of its participation can be singled out as follows.

- A thorough preparation inside the country for COP meetings, which included a process of consultation, conducting technical studies, careful reading of documents to be discussed and contacting potential allies.
  - As with most developing countries a small delegation<sup>7</sup> attended the COP with the disadvantage of not being able to attend most side meetings.
  - Because of small size of the delegations few areas of expertise could be covered in the areas of negotiation and experts in international law.
  - In almost all delegations government civil servants have predominated with little intervention by the private or the NGO sector.
  - Although Bolivia has worked within the framework of the G77/China and GRULA/GRILA countries it has been able to demonstrate an individual position when appropriate or to back other positions, as it did in the case of the umbrella group on the CER market.
  - Most responsibility has been laid on one or two key negotiators with other members working as technical back up.
  - In spite of being a small country, Bolivia has been able to keep the initiative and to provide some leadership in the GRILA.
  - Displaying the progress made in accomplishing commitments constituted an important negotiating tool (conducting inventories, national communication, legal framework, etc).
  - Pointing out the vulnerability of the country to CC was another tool.
  - Bolivia made use of all the scope of the procedures of the UN system.

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<sup>7</sup> The delegations are small in relation to those of other larger countries and the expected benefits, but for a developing country with limited resources to attend all the negotiations represented a major effort. This size of delegation is all the country can afford.

## **8.2 Effectiveness and negotiation techniques used by the Bolivian participants**

The collapse of COP-6 may overshadow the success or failure of the participation not just of the Bolivian delegation but also of all parties. However, there are some indicators that can show the impact of a small delegation like the Bolivian on the overall results and the net gains for the country. Among other indicators we can mention are:

- Some of the original ideas of the delegation are reflected in the final documents. This shows how its participation influenced the decision making process.
- A number of projects received attention from multi and bilateral donors, capturing funds for CC mitigation. There are now five projects being financed under the framework of the principles of the Kyoto Protocol.
- Other countries supported the Bolivian position, e.g. USA.

On these three indicators, Bolivia did manage to make a mark in the COPs. In other words we can conclude that in spite of the limitations of the delegation and the shortage of funds available the country has managed to display a remarkable performance in technical matters and negotiations skills.

## **8.3 Constraints on more effective participation by developing country delegates**

These achievements do not imply that there is no room for greater efficiency and efficacy in the Bolivian representation in the UNFCCC. The main barriers identified by the Ministry of Sustainable Development itself (from interviews) to more effective participation are: cultural barriers (not being used to the codes of international negotiations); language barriers (not all delegates are sufficiently fluent in English to hold intensive negotiations); having to attend other important and urgent commitments; dependence on foreign aid for preparations and attendance (this might create a conflict of interests because of the possibility of being influenced by the donor's policy); lack of negotiation skills, more widely interpreted; lack of institutional continuity of the negotiating teams; the difficulty of differentiating strategic (global and CC related) objectives and tactical positions (national and fund raising), for example, a focus on fund raising and projects may divert attention from the overall goals of the convention. Bolivia had to work within highly heterogeneous country groups that often do not reflect the individual positions or negotiating strategy of the country (e.g. G77/China). There was lack of information on the opponents' positions.

All these constraints, in one way or another, reflect the situation of a poor country with limited human and financial resources but that is eager to make a change by trying to maximize the capturing of opportunities that the UNFCCC and the Kyoto Protocol may offer.

#### **8.4 Assessment of efficiency and efficacy of negotiations for economic development and poverty alleviation**

Taking into account that there are limits to what developing countries can obtain/gain from multilateral agreements, particularly in view of the lack of resources that these countries can invest on them, and the huge interests at stake, we can infer that Bolivia has pursued an efficient strategy in search of potential benefits for its development. In other words, in the Bolivian case, the investments and efforts displayed have paid off. What still remains to be clarified is how these gains can be used for the improving the livelihoods of the poor. Unless specific policies are designed and the right mechanisms are put in place it will be unlikely that the poor will derive large benefits given the large mass of Bolivian poor. The large sums needed annually to alleviate poverty are much greater than any sum that could be obtained through the CDM mechanism. The poor are more likely to feel an impact from the implementation of the convention itself and from reducing the effects on climate change on agricultural production and its yearly toll of damage.

From analyzing the Bolivian experience some Best Practice lessons can be drawn: a high level of commitment by government officials involved; a clear and well defined agenda; ability to draw external support; the need to have a large number of skillful negotiators in addition to scientists; the need for negotiation skills; the need to have a broad base of social actors actively involved in all the process; the need to develop expertise in the different fields that this type of negotiation demands; the importance of building up leadership with like-minded countries and conducting wise lobbying with potential partners.

#### **8.5 Policy changes leading to better practice and how donors could help to improve the national capacity**

During the last decade, Bolivia has developed a sound policy and legal framework on environmental matters. It has also created a Ministry of Sustainable development, which is one of the five most important ministries, and has promoted different ways to deal with environmentally related issues at departmental and municipal level. Rather than promoting new policies of new regulation, what is needed is greater capacity for enforcement of existing policies. This means, on the one hand, allocating larger resources to implementation and, on the other, making a more efficient use of existing resources by improving in-country coordination, gaining a larger degree of civil servant stability, getting the priorities right and pursuing long term goals. Better practice could be achieved with greater coherence in implementing existing environmental policies.

To assist in this, the donors could orient their resources towards improving the efficiency of enforcement and policy implementation activities. More specifically they could offer more courses on negotiation skills and support/coach larger delegations in order to increase the experience (learning by doing) for a critical mass of MEA negotiators from different Ministries and the private sector.

Furthermore, the country's great need to develop the scientific knowledge of how to deal with GHG emissions and related problems, including adapting to CC. It should enlarge its information management capacity to operate effectively in the CDM-CER markets.

Last but not least a synergy could be found in current MEA negotiations with appropriate links to the negotiations in trade agreements such as the WTO. Both CC and trade agreements require improved negotiating skills; they deal with related issues: the MEA deal with markets either for CER or bio-trade and WTO is increasingly giving attention to environmental regulation and green trade (Konz 2000). There is a need to understand these relationships more clearly and to develop the capacity of developing countries to participate and save much needed human and financial resources.

## **8.6 Further research implications**

The following areas have been identified either by the persons interviewed or by the author as the ones where further research would be most needed:

- Negotiation approaches and adapting negotiation theories for developing countries. That is, to analyze approaches used by different countries under different circumstances and develop models adapted to the capacities of the country.
- Political processes hampering implementation of MEA in poor countries (civil servant instability, corruption, other short-term political priorities, lack of counterpart funds, etc).
- Scientific evidence on CC and the development of markets for CER. The likely scenarios of CC for different types of producers.
- Distributional issues of the potential benefits to be derived from CDM among social actors within the country with special emphasis on more vulnerable groups, e.g. how much can be obtained and how can the sum be concentrated on the poor.
- Trade and environment relationships searching for complementarities. How to obtain larger gains from trade by introducing environmental regulations or how to "sell" environmental goods.

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## **Annex 1: List of persons formally interviewed**

<b>Neisa Roca</b>	Vice-Minister of Environment, Natural Resources and Forestry. Ministry of Sustainable Development
<b>Oscar Paz Rada</b>	Head of the National Climate Change Programme. MSDP
<b>Javier Hanna</b>	Main author of the National Strategy for CDM trade and a member of Bolivian CCP. MSDP
<b>Guisela Ulloa</b>	FAO consultant working on CC and forest issues.
<b>Arturo Mosocoso</b>	Biodiversity consultant of the Dutch Embassy. Forestry service
<b>Sergio Jauregui</b>	Bolivia's main negotiator in COPs. Advisor to the Minister of Sustainable Development in CC.
<b>Erwin Ortiz</b>	Diplomatic member in the Bolivian team to COPs. Ministry of Foreign Relations.
<b>Jairo Escobar</b>	Sustainable Development Advisor in the Bolivian office of UNDP. Expert in CC.

**Several others were informally interviewed in The Hague. 13-22 Nov. 2000.**

## **Annex 2: The Participation of Bolivia in Trade Negotiations**

Characteristics of the bolivian trade and export potential

Bolivia's external trade policy

Acp trade preferences

ISSUES

Andean community

Mercosur

Trade tariffs

Uruguay round-GATT

WTO

Green issues