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Improvement of Transit Systems in Latin America[1]

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CONTENTS

1. ECONOMIC SCENARIO IN LANDLOCKED COUNTRIES OF SOUTH AMERICA

During the regional meeting of transit countries without a seaboard held in Asuncíon, Paraguay, from 12 to 13 March 2003, reference was made to the "chicken and egg" dilemma affecting them: is their poverty the cause or the effect of their isolation? No analysis of this problem can be made without first addressing the current economic scenario in Bolivia and Paraguay.

1.1. Bolivia

The Republic of Bolivia lies in the centre of the South American continent, with no access to the sea (this was ceded to Chile in the war of 1879). It has an area of 1 098 581 sq. km. and a population of 8.2 million.

Having suffered political instability for virtually its whole existence as a state, Bolivia has now enjoyed over twenty years of democracy, with its governments elected by popular vote.

After several years of recovery, the Bolivian economy is now in decline owing to the deterioration of the developed economies, which has triggered a general crisis leading to a reduction in demand and a slump in the international prices of raw materials. This has affected Bolivia's incipient export sector.

The situation has been made worse by adverse climatic conditions and the resulting financial problems, which have caused demand to shrink in every area of production.

Without a 32.6 per cent increase in petroleum and natural gas production, 9.9 per cent growth in telecommunications due to additional traffic, and a modest improvement in farming, the economic downturn would have been worse this year.

In order to avoid further decline, the Government's economic policy has attempted, somewhat tardily, to mitigate the impact on aggregate demand by means of a record level of public investment (US$ 638 million), including emergency employment programmes and help for local government. Also, attempts have been made to inject more liquidity into the economy, to reduce the cost of the Central Bank's (BCB) resources through open market operations, and to preserve the purchasing power of currency through low inflation of 0.92 per cent.

In the financial sphere, the debts of the productive and consumer sectors have been rescheduled, financial bodies have been strengthened and living expenses have been

refunded. Exchange policy has sought to avoid a reduction in the competitiveness of exports by introducing a nominal devaluation of the exchange rate.

The population's low purchasing power is the glaring consequence of the negative difference between salary increases and inflation, and wage-earners have had to accept salary decreases in order to avoid redundancies in private enterprise. The latter has been in permanent crisis owing to the deterioration in the country's productive apparatus, which is unable to cope with the threat posed by smuggling. This has hampered customs reforms, and in recent years has flooded the market with goods that compete with Bolivia's nascent industrial sector.

The previous government had forecast an upturn for 2000 based on increased exports of natural gas to Brazil and sizeable investment in the San Cristóbal project (an enormous deposit of silver and zinc). Unfortunately, the projects and major public investment included in the budget for that year as products of decentralization and the strengthening of local municipalities failed to materialize in 2001, and the government elected in August 2002 was unable to alter the course of events.

One problem has been lack of work, since a country with a very limited saving capacity is scarcely able to divert for public investment any of the funding that only just meets public employment needs.

As a consequence of the recurring economic emergencies, strikes, roadblocks and social unrest have hampered the Government's efforts to undertake medium and long-term policies, reducing its role to that of a fire brigade attempting to put out fires that can break out anywhere and at any time.

In 1996 the national deficit was equivalent to 2 per cent of GDP - the lowest in the past twenty years. At the request of the IMF, the then government launched a pension reform which so drained TGN funds that the deficit had increased to 8.6 per cent by 2003. When, in response to IMF demands, the Government sought to lower this deficit by introducing a new system of income tax, the country experienced a police revolt, urban blockades and disturbances, and assaults on public and commercial premises. In La Paz, over 30 people were killed and 300 wounded in what was virtually a revolution that almost toppled the democratically elected government.

1.2. Paraguay

Paraguay lies in the centre of South America, connected to the Atlantic by the rivers Paraguay and Paranà. However, it is considered to be a landlocked country, as it has no sovereignty over the stretches of river linking it to the ocean.

Paraguay has an area of 406 750 sq. km. and a population of 5 884 491 (as at July 2002). It is bounded by Argentina, Brazil and Bolivia.

The plains and forests to the east of the River Paraguay have a temperate climate, while the Gran Chaco region covering 60% of Paraguayan territory is hot and arid.

In the east, 20% of the land is fertile and cultivable, comprising fields, pastureland, lakes and woods. In this prosperous area there is stockbreeding and extensive exploitation of cotton, soya, rice, tobacco, sugar, Paraguayan tea (maté), wood, vegetable oils, coffee, tung oil, meat products and many fruit varieties.

Including the wood, this area accounts for around 25 per cent of gross product, occupies some 45 per cent of the labour force and provides most national exports. Meat-packing and the production of vegetable-oil, flour, beer, textiles, cement and consumer goods comprise the remainder of the Bolivian economy.

Bolivia's natural resources (wood, iron, manganese and limestone) are scarce, which explains the heavy dependence on farming and the large debt incurred in building the Itaipu dam. Disastrous weather and the low prices of agricultural exports meant that the economy was weak in the 1980s, although subsequently the climatic conditions eased to allow the beginnings of an upturn. However, by the end of 2000 the harvests of main export products had been lower than expected, and the construction sector was languishing because of failure to carry out planned road improvement works.

Paraguay's dependence on farming is balanced by its hydroelectric resources, which have generated substantial profits for the nation. 99.85 per cent of national electricity production derives from its development of water resources. Paraguay has a half share of the Itaipu dam (Brazil has the other half), Yacíreta is shared with Argentina, and the whole Acaray complex is Paraguayan owned. Without using all its available capacity, in 2000 Paraguay produced 53 056 billion Kwh, using 1.95 billion Kwh itself and exporting 47 392 billion Kwh. Despite the remaining available capacity, the income from this resource has been reduced owing to the financial constraints affecting Paraguay's neighbours.

Paraguay is heavily reliant on its Mercosur partners for external trade, with 64 per cent of exports in 2000 going to Brazil (39%), Uruguay (14%) and Argentina (11%). Moreover, 53.7% of its imports come from Argentina (25.4%), Brazil (24.5%) and Uruguay (3.8%). The economic situations of Brazil primarily, and also of Argentina, have seriously affected Paraguay's balance of payments, which regressed from a surplus of $104.4 million in 1999 to a deficit of $264.5 million in 2000.

The re-exports which stimulated the economy and triggered rapid trade growth in Ciudad del Este have now come to an end as a result of the Brazilian Government's restrictions on tourism.

The overall situation has brought a decline in all the economic indicators, the balance of income has worsened owing to increased interest payments on national foreign debt, less interest is being received from investments in international reserves, less duty is paid on

the profits of multinationals, and less income-tax comes from the Paraguayans working on the jointly owned hydroelectricity projects.

The guaraní has depreciated constantly, from 2 177.9 per dollar in January 1997 to 6 750 in January 2003 (Since 1998, the exchange rate has been determined through State-controlled flotation).

Paraguay has a market economy based broadly on an informal sector that trades imported goods in the streets, particularly in border towns. The formal economy grew at an annual rate of 3 per cent from 1995 to 1997, but then fell into decline. Unemployment has increased, while real income per head is the same as during the 1980s.

2. INTERNATIONAL AGREEMENTS FACILITATING TRANSIT TO BOLIVIA AND PARAGUAY

2.1. Bolivia

After Bolivia lost the war with Chile, in October 1904 the two countries signed a treaty on peace, friendship and trade. The treaty granted Chile permanent possession of Bolivia's coastline. In compensation, Chile undertook to build a railway from the port of Arica to La Paz, and granted Bolivia " in perpetuity, the most extensive and unrestricted right of commercial transit across its territory to its Pacific ports". The treaty also allowed Bolivia to maintain customs offices in Arica and Antofagasta, and in other ports to be decided subsequently.

Under an agreement signed in 1912, the rights of free transit across Bolivia were specified, traffic was regulated and greater authority was granted to the Bolivian customs authorities in Chilean ports.

Following the Chaco war, in which attempts were made to restrict the passage of provisions for Bolivia through Chilean ports, Bolivian transit rights had to be strengthened by the Convention of 16 August 1937, which specifically guaranteed full and free transit for any type of merchandise at any time.

This convention also stipulated the procedures for the receipt, handling and subsequent transportation of goods, introducing slight variations to the measures in use hitherto.

Similar agreements signed with the other neighbouring countries granted Bolivia free transit across their territories, without imposing a compensation requirement.

Under the Integrated Transport System (SIT) introduced in 1975, changes were made to the procedures used at Arica and Antofagasta. The system allows Bolivia to administer exclusively the automatic transfer of goods from vessels for transportation, without the intervention of customs agents or the need for shipping details.

In the commercial sphere, in 1993 Bolivia and Chile signed Complementary Economic Agreement No. 2, which replaced the former agreement. Bolivia is currently seeking equal treatment, as it has always lost out seriously compared with the other country. The exports of the two countries under the agreement show this: in 1997 Chile's exports were $228 million compared with Bolivia's $62 million. Since then, the figures have been $250/36 million (1998), $193/22 million (1999), $165/30 million (2000) and $143/25 million (2001). Negotiations are under way on a free trade agreement that will enable Bolivian products to gain immediate entry to the Chilean market, with the latter's products doing likewise within five years.

2.2. European Union Generalized System of Preferences

This was applied for the first time in July 1975, in compliance with the basic principles of the Generalized System of Preferences (GSP).

The European Community's scheme of preferences has been renewed periodically by means of a general review.

The tariff advantages granted to developing countries by the EU's GSP scheme cover all chapters of the harmonized system, with the exception of chapter 93 (arms).

Preferences may be withdrawn if the recipient countries fail to comply with the provisions of article 9 (slavery, exports of products made in prisons, drug trafficking, money laundering, unfair trade practices, and fraud in respect of Certificate of Origin Form A).

Bolivia exports minerals, coffee and Brazil nuts to the European Union. Its trade balance with the EU is positive in respect of the United Kingdom, Belgium and Greece, and negative with all the other members.

2.3. Andean Community

On 26 May 1969, Bolivia, Colombia, Ecuador, Peru and Venezuela signed the Cartagena Agreement, thereby establishing the Andean Group. Subsequent political changes led to the creation of the Andean Community and the Andean Integration System, involving a total population of 111 million.

The reforms to the system went beyond integration and also departed from purely commercial and economic considerations. From 1 August 1997, the Andean Community commenced operations; its Secretary-General, the chief executive, is based in Lima, Peru.

The Community's main objective is gradually to convert regional integration into a common Latin American market, bringing improved living standards to the Community's inhabitants.

2.3. ATPA

Bolivia also signed a GSP agreement with the United States (the Andean Trade Preference Act), on the basis of the Andean Treaty, so that it now receives preferential treatment from the United States, the European Union and Japan. Bolivia can export certain items to the United States free of taxes or at reduced tariffs.

On the expiry of the GSP agreement, the United States concluded the ATPADEA agreement with the Andean countries. This extends some ATPA provisions and accords favourable treatment for measures designed to tackle drug trafficking.

2.4. Paraguay

In 1943, Paraguay and Argentina signed the first treaty under which Argentina ceded free zones in the ports of Buenos Aires and Rosario.

In 1944 the Paraguayan Government signed a similar treaty with Brazil establishing a free zone in the port of Concepción, followed by another in the port of Paranagua in 1956, which was updated in 1961 (specification of handling procedures for goods in transit). The latter permitted Paraguay to appoint one or more officials to represent the recipients of goods. The goods are subject to port tariffs and to the payment of customs service taxes.

Paraguay has signed similar agreements with bordering countries, including that of 25 March 1976 with Uruguay concerning the use of grain silos, a transit warehouse and a free zone at Nueva Palmira.

On 12 November 1976, Paraguay's navigation and ports authority took possession of a free zone in the port of Montevideo, for the purpose of storing and distributing Paraguayan imports and exports.

On 29 November 1979, an agreement with Argentina gave Paraguay the use of a wharf at the port of Rosario (province of Santa Fe) for the receipt of duty-free imports and exports. Paraguay also succeeded in appointing a customs representative for the free zone in order to control the flow of merchandise and administer the customs requirements of the Argentine authorities.

Paraguay's successful negotiations with its neighbours have led to the establishment of the National Navigation and Ports Authority (ANNP), which administers all the national warehouses and free zones at Río Grande do Sul, Paranagua, Santos, Buenos Aires, Rosario, Montevideo, Nueva Palmira and Antofagasta.

3. REGIONAL INTEGRATION AGREEMENTS COMMON TO BOTH COUNTRIES

3.1. LAIA

The Latin American Integration Association (LAIA) is an intergovernmental body which, like its predecessor ALALC founded in 1960, promotes regional integration as a means of achieving economic and social development, with the final objective of establishing a common market. The Treaty of Montevideo of 1980 provides the overall legal and regulatory framework. It was signed on 12 August 1980 by Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

Under LAIA, Bolivia and Paraguay have signed bilateral agreements with other South American countries to reduce or eliminate tariffs on a limited list of products.

3.2. Treaty of the River Plate Basin

At an extraordinary conference held in Brasilia from 22 to 23 April 1969, Argentina, Bolivia, Brazil, Paraguay and Uruguay agreed to coordinate their efforts in promoting the harmonious development of the River Plate Basin and of the territories directly affected by it.

The objectives were to identify areas of common interest, conduct studies, carry out programmes, install infrastructures and draw up operational agreements or appropriate legislation for pursuing further initiatives involving assistance and facilities in matters of navigation, road, rail and air links, electricity supplies and communications, and regional industrial links.

3.2.1. FONPLATA

The Financial Fund for the Development of the River Plate Basin (FONPLATA) was established under the provisions of the River Plate Basin Treaty for the development and integration of the subregion, and has been in operation since 1976. It funds studies, projects, programmes and works with the aim of ensuring the harmonious development and physical integration of the basin and its zone of influence.

3.2.2. The Hidrovía Project

Under the auspices of the River Plate Basin Treaty, on 26 June 1996 at Las Leñas, Argentina, Bolivia, Brazil, Paraguay and Uruguay signed an agreement concerning navigation on the rivers Paraguay and Paraná. The agreement establishes the principles

governing matters such as free navigation, equal treatment, free transit and reciprocity, load restrictions, regulations for shipowners, transport and trade arrangements, and navigation and port services. An Intergovernmental Hidrovía Committee (CIH) was set up. Following the approval of its statutes and internal regulations, this body became the political instrument and the Treaty Committee its technical body.

3.3 Mercosur

The Southern Common Market (Mercosur) was created in Asunción in 1991 and came into effect on November 29 that year. The Ouro Preto Protocol of December 1994 established 1 January 1995 as the deadline for implementing a common external tariff (AEC).

In December 1996, Bolivia and Chile jointly signed an associate member agreement with the Mercosur countries.

Together the Mercosur countries (Argentina, Brazil, Paraguay and Uruguay) form a market of 320 million people, and their combined gross national income amounts to 885 million dollars. This market potential represents a considerable challenge to the economies of Bolivia and Paraguay, which must create favourable conditions for industrial growth and promote investment by Mercosur countries, while strengthening the productive sector so that exports to other countries are maintained or increased.

3.4. Free Trade Area of the Americas (FTAA)

The efforts to unite the economies of the Western Hemisphere under a single free trade agreement began at the Americas Summit in Miami in 1994. Formal negotiations began at the second summit held in Santiago de Chile in April 1998, and are continuing. The public in both Paraguay and Bolivia is strongly against this initiative.

3.5. Benefits

Bolivia has achieved a favourable balance of payments with the Andean Pact countries. The customs privileges granted to Bolivia under the agreement have provided it with a market for its non-traditional exports.

This result has been achieved after the countries concerned allowed Bolivia exceptional treatment in two respects: firstly, by accepting its customs tariffs of 10% and a common external tariff of 5%, and secondly by removing all internal trade barriers.

In 2000, Bolivian exports amounted to 1 305 million dollars. Agriculture was the strongest performer, with 6.86 per cent growth and total exports of 462 million dollars. The Andean Community continues to be Bolivia's main export market, with 382 million dollars. Mercosur came next with 353 million, followed by Switzerland (211 million), NAFTA (194 million) and the EU (94.5 million).

Through Mercosur, Bolivia had hoped to increase its gas exports to Brazil. However, this process began only in late 2000, and the marketing of gas in Brazil has been very slow to develop.

In order to reduce its trading deficit, Bolivia requested some commercial flexibility at Florianopolis in respect of textiles, shoes, medicines and various farm products. Although Brazil has been more open than the other countries, no agreement has been signed.

The anticipated benefits are the emergence of a common market by 2005, the liberalization of services, and the liberalization of frontier operations leading to free circulation of people and capital.

On the basis of the economic ties with the Andean Community, a common policy agenda is being established which will enable the member states to act together and submit a single agreed agenda to the FTAA negotiations.

Another benefit for Bolivia and Paraguay has been the modernization of its transport procedures and regulations. Important resolutions have been approved in areas such as multimodal transport, the harmonization of road transport regulations between the Southern Cone and the Andean Pact, joint air transport policies and marine transport standards. These have been complemented by conferences of Latin American transport ministers, which have led to many improvements affecting road safety standards, communications and trading facilities.

3.6. Unresolved problems

The parties apply safety clauses on imports of the goods protected by treaty, but the criteria are not always sufficiently clear or strict, and the time limits are vague (maximum two years).

Safety measures are not always applied fairly, i.e. unfair practices do not have to exist in order for them to be applied. Only one branch of national production needs to be affected by the import of an item for harm to be done to the mainly agricultural exports of Bolivia and Paraguay.

Although updated standards have become a part of national legislation, operators still do not implement them owing to lack of training. This is a major problem in both countries.

Many laws and regulations lie undisturbed on the shelves of ministries, which fail to publish them, disseminate knowledge or produce instruction manuals.

The regulations are technical and complicated by nature, and their intended public, such as motorists, workers at frontier posts and police officers, are poorly educated and therefore apply them with little knowledge or understanding.

4. DESCRIPTION OF BOLIVIA'S INFRASTRUCTURE

4.1. Railways

The railway era in Bolivia dates from the construction of the Antofogasta-Uyuni-Pulacayo section between 1877 and 1889. This was extended to Oruro in 1892, Viacha in 1913 and La Paz in 1917.

In 1903 the stretch between Guaqui and La Paz was opened, and subsequently extended via Lake Titicaca to Mollendo in Peru.

The Arica-La Paz railway opened in 1913. It was built in accordance with the peace treaty signed by Bolivia and Chile in 1904, as compensation for Bolivia's loss of access to the Pacific Ocean.

In 1903, the Uyuni-Atocha branch was built and subsequently extended by the Villazon-Atocha section.

The Bolivian rail network under foreign ownership owed its development to an economy based on mineral exports and was a profitable concern that acted as an instrument of national integration. After nationalization, those main objectives were lost and the railways became a tool used by successive governments to reward their supporters with work. As a result, the railway sections turned into bottlenecks in terms of national development.

In 1964 the National Railway Company (ENFE) was set up to manage the facilities of the Antofagasta (Chile) and Bolivia Railway Co. railway, and the Bolivian Railway Co. and Peruvian Corporation branch. ENFE took over ageing rolling stock whose wooden carriages were of limited capacity and whose wheels were worn out.

In 1967, ENFE took control of the recently opened section from Santa Cruz to Quijarro and built an eastern section linking Santa Cruz with the ports of Santos, in Brazil, and Rosario and Buenos Aires in Argentina. A year later the International Development Agency (IDA) and the International Bank for Reconstruction and Development (IBRD) funded an equipment overhaul.

During the 1970s, foreign technicians and consultants improved ENFE's financial, commercial and operational arms. However, its continuing habit of granting political favours damaged its efficiency and profit-making capacity.

In 1973 the Guaqui-La Paz section was transferred to ENFE.

From 1980 to 1985, ENFE completely overhauled its rolling stock and locomotives and re-equipped its workshops. Unfortunately, the programme did not include track maintenance, and as a result ENFE operated at a loss for several years, accumulating debts to the tune of 70 million dollars.

In 1987, ENFE gained control of the line between Uncia and Machacamarca belonging to the State mineral company COMIBOL, which was undergoing privatization. The Government took over ENFE's debt, at the same time decreeing transport subsidies of 60 per cent on soya and minerals and 30 per cent on wheat, with the aim of making those exports competitive and maintaining the price of bread.

In 1990, on the recommendation of the World Bank, ENFE began setting efficiency targets, rewarding compliance through tax rebates, and cut its staff from 7 200 to 3 900.

Using new loans amounting to over 80 million dollars, ENFE launched a programme of track modernization and equipment renewal, with the result that its carrying capacity increased from 23 184 tonnes in 1965 to 66 053 tonnes in 1994.

The expansion was triggered by the need to transport soya (300 000 tonnes in that year). However, the ENFE administration failed to meet even half that demand owing to lack of locomotives. Agreements signed with the Brazilian Railway enabled trains to operate from Santa Cruz to Quijarro following the harvest.

In 1994, the Government placed ENFE on its list of state enterprises for capitalization. In March 1996, as a result of investors' disinterest, the administration and capital resources were transferred as a 40-year concession to two Chilean groups. The first of these was Cruz Blanca, the main shareholder in Pacific Railways, concerned with the Antofagasta Bolivia railway, and the second the Lucsik group; these took control of the western rail network at a cost of 13.2 million dollars and the eastern section for 25.8 million dollars. Two railway companies were formed: "Ferrocarril del Oriente" or FCO SAM, which runs the eastern section, and "Ferrocarril Andino", or FCA SAM, which runs the western section; these are the current railway operators in Bolivia.

4.1.1. Eastern section

FCO SAM is responsible for the sections from Santa Cruz to the Brazilian frontier, from Santa Cruz to the frontier with Argentina, and from Santa Cruz to Montero.

During the early years of capitalization, FCO SAM received 25.8 million dollars of investment to bring its infrastructure up to international standards. Transit can now be effected in safety at an average 25 km/h.

FCO SAM has installed an information system to replace the speakers that had fallen into disuse along most of the line. Traffic is now controlled from an office in Santa Cruz.

FCO SAM has renewed or replaced wagons and purchased flatcars and tankers. This year it has 463 staff, 28 locomotives including 6 recently acquired, and 750 warehouses. In 2000 it filled 30 000 wagons with over 1 million tonnes of goods and carried some 500 000 passengers. The improved equipment has enabled it to fit out multiple traction trains that can make 8 or 9 journeys per day.

Some 50-55 per cent of its cargo is soya and its by-products (Santa Cruz to Quijarro), 10 per cent is wheat (Argentina to Santa Cruz), 10 per cent is diesel fuel (from Argentina), and the remaining 25 per cent comprises cement (from Quijarro to Santa Cruz), diesel fuel (from Aguirre port to Santa Cruz) and general cargo and containers moving back and forth from Aguirre to Santa Cruz. Container traffic is not great, as there are no Bolivian concerns loading at the Atlantic ports.

Overall, FCO SAM is not increasing its capacity in step with the increasing soya harvests, which is a great disadvantage for the producers. The price of soya rises when it is winter in the Northern Hemisphere, which is exactly the time when the harvest is ready in the Southern Hemisphere. The ideal solution would be to deliver to the ports at that time, but most of the harvest remains in storage in Bolivia, eventually reaching the ports when the prices are coming down.

The producers have built mills and plants in Santa Cruz to process the soya into flour and oil. These can export throughout the year, thus providing the railway with cargo during the year outside harvests.

The producers are not satisfied with this situation, although the railway company claims that they must take a share of the blame, since the port has insufficient storage facilities for all the soya and the existing barge fleet can handle only 60 000 tonnes per week.

As a part of its peak distribution strategy, FCO SAM offers its largest clients contracts that offer reduced tariffs according to volume transported at the beginning and end of the season, instead of doing so at times of greatest demand. For the first time, ENFE has also incorporated incentives and penalties into its contracts, for both parties, in order to ensure efficient use of equipment and transport capacity.

In 2000, Cruz Blanca sold some of its shares in FCO SAM to the Genesee and Wyoming Railroad Co., which is American and Canadian owned. This has been well received by users, since the company is experienced in railway management and is introducing sound administrative practices to its section of the railway.

The line in question handles the greatest demand and passes through the largest soya-producing region, extending as far as Puerto Suàrez on the Brazilian border. The line carries around 88 per cent of goods and 80 per cent of passengers. The remainder is carried by a line running to Yacuiba and Argentina.

A delay of five or six days occurs when soya is transferred at the end of the week to the Brazilian railway at Corumba for further shipment to the port of Paranagua. The reason is the timetabling differences between customs and the railway on the Brazilian side.

There are serious security problems caused by smugglers, who take over wagons at Quijarro, load them with merchandise and then stop the trains before they arrive at the customs posts in Santa Cruz. The police and customs have tried to stop this practice, but the smugglers mount blockades that paralyze traffic, and often create disruption that seriously affects passengers and the railway.

4.1.2. Western section

SAM operates the stretches from Viacha to Charaña (Chilean frontier), Viacha to Oruro, Río Mulato, Uyuni and Villazon (Argentine frontier), Uyuni to Ollague (Chilean frontier), Viacha to Guaqui and Río Mulato to Potosí.

The Luksic Group has adopted a pragmatic approach to the Andean railway by giving priority to its profitable stretches carrying minerals and other goods from the Andean regions to the ports.

During the years 1996-99, between 500 000 and 600 000 tonnes were carried. Owing to the unavailability of the northern section linking Arica to Bolivia, this level fell in 2001 to 367 000 tonnes, but then rose to 401 000 tonnes by 2002. FCA SAM expects this recovery to be maintained.

The new head of FCA SAM has broken with the company's traditional reticent stance by announcing in a newspaper that it has made an average annual profit of 14 million dollars since its first year. The indicators of efficiency are promising: diesel fuel consumption fell from 12.6 litres per km in 1997 to 7.2 litres in 2002, derailments from 596 in 1997 to only 59 in 2002, and overall time lost from 1500 hours (437 incidents) in 1996 to 750 hours (337 incidents) in 2002.

By contrast with the time when ENFE had 7 200 staff, the Andean railway employed 604 in 1997 and 399 in 2000, and its only debt is the 2.5 million dollars owed to KWF. The company is contributing between 1.5 and 2 million dollars annually to the Bolivian budget, in the form of taxes, interest and dividends.

Having undertaken to invest 13.5 million dollars in five years, the company has invested around 25 million in three years; its agenda for the coming years is described below.

Firstly, the overhaul of the Oruro-Cochabamba section, which was costing ENFE between 1 and 1.5 million dollars per year to maintain, will now cost between 400 000 and 500 000 dollars per year. In October all the track material, which lies in a riverbed, is collected up, and then put back when the rainy season ends. A bridge would cost 40 million dollars, which cannot be justified unless 2 million tonnes of goods are transported to produce an income of 60 million dollars. At all events, the route will open in April.

FCA SAM and the Government have a common interest in tackling the Cochabamba-Santa Cruz section, but the project depends on several political and economic factors, as well as bilateral agreements with Brazil (the company is proposing to negotiate on the price of gas in return for being able to send part of its soya to the Pacific, or alternatively to initiate multimodal operations to transport soya from the east to the Pacific ports).

Implementation of the proposed opencast silver and zinc extraction project at San Cristóbal, 18 km from the railway at Potosí, would require a new stretch of line costing 30 million dollars. No decision will be taken until the project begins.

The company has plans to carry passengers, despite the fact that road transport is quicker and cheaper. Two trains with passenger facilities will be run along stretches of particular interest to tourists: "The Wara Wara" and the "Southern Express".

Most of the public, unaware of the above information, is against capitalisation of ENFE in favour of Chilean companies. It is argued that in this way Chile will maintain a stranglehold on one of Bolivia's main development tools, thus preventing its proper use and holding back the country. The continuing campaign and the distortion of information can only act as a disincentive to the administrators.

4.1.3. Advantages and drawbacks of the rail network as a transit corridor

Through its connections with the railways of neighbouring countries, the Bolivian rail network provides access to the ports of Matarani in Peru, Arica and Antofagasta in Chile, Rosario and Buenos Aires in Argentina, San Pablo and Santos in Brazil, Aguirre at Quijarro, Bolivia, and Corumba on the Brazilian frontier.

These arrangements are governed by agreements between the Bolivian and other rail companies.

The 1.43 m gauge railway from Puno to Matarani, on Peruvian territory, is currently run as a concession by Perurail.

The Antofagasta Bolivia Railway Co. (FCAB) operates the metric gauge section from Avaroa to Antofagasta.

The Arica La Paz Railway Co. (FCALP) operates the metric gauge section from Charaña to Arica.

The General Belgrano Railway Co. (FCGB) operates the metric gauge freight line from Villazon to Buenos Aires.

The same company operates the metric gauge stretch from Yacuiba to Buenos Aires.

In 2002, all the Brazilian railways were brought together under one company called Ferrovias Brasil. This should help improve the traffic on the metric gauge section from Corumba to Santos.

These interconnections potentially guarantee Bolivia permanent links with abroad. Unfortunately, problems affecting the other countries' networks have temporarily interrupted the normal passage of its goods across certain frontiers.

Over the past ten years, the Peruvian rail company ENAFER has lost large amounts of freight for a number of reasons, and its operations on the Matarani-Puno line have been taken over by FCA SAM and handed over as a concession to Perurail.

The existence of the metalled road from Viacha to Desaguadero with direct links across a 200m bridge to the Matarani road make the alternative rail route from Puno to Matarani expensive, and the latter also involves a journey by lake.

The stretch from Villazon to Buenos Aires is out of service owing to maintenance problems.

The Chilean company FCALP has been experiencing many problems with its line from Arica to Visviri (a remarkable feat of engineering for its time, rising from sea level to a height of 4 000 m over a distance of 200 km). The 43 km stretch from Central to Puquios, which has a 6 % gradient, was formerly traversed by a rack and pinion locomotive. Now the train is split into sections at Central and a few wagons at a time are taken up by two powerful diesel locomotives coupled together.

To improve efficiency, around half of the track has to be replaced, something which in recent times the Chilean Government has failed to do. In 1997, after several years of neglect, the Chilean State leased its stretch for 25 years to a consortium controlled by Bolivian entrepreneurs - the same group that collaborates with FCA SAM. The consortium is now responsible for transport from Visviri.

The new management of the Chilean stretch inherited 7 locomotives, 250 wagons in poor condition, a number of flatcars and a dilapidated infrastructure. A total of 5 million dollars was invested in saving the infrastructure, reconditioning the equipment and developing a more aggressive marketing approach. As a result, tonnage increased by 100 per cent to 185 000 metric tonnes in 1998, increasing further to 275 000 metric tonnes in 1999. In 2000 the total fell to 215 000 metric tonnes owing to an accident in July which caused a 60-day interruption in service.

FCALP has again become able to compete with road transport. At rates of 10 dollars per tonne downline and 12 dollars per tonne upline, 750 dollars per 20-foot container and only 1 050 dollars per 40-foot container, the company now handles 40 per cent of all imports and exports through the port of Arica. The freight comprises 25% minerals, 35% soya and 5% wheat, with the remainder being containers.

In February 2001 torrential rains fell on the Altiplano, and the resulting flood in the direction of the coast swept away three bridges at 15, 41 and 112 km, as well as 32 km of track. FCALP was unable to function for 18 months. Having resumed operations in 2002, it is now beginning to achieve the previous levels.

By privatising ENFE, the Bolivian Government's aim was to install sound management that could attract interest in linking the eastern and western sections, in order to send farming produce to the Pacific ports. This is a subject that has been discussed fruitlessly since the 1950s.

In 1950, two short stretches of a possible connection to Sucre were built, but in 1977 a financial study carried out by Sondo Técnica for the Brazilian Government recommended a connection from Santa Cruz to Aiquile via Mataral.

In 1981, Bolivia's Integral Transport Study estimated the cost to be 675 million dollars (approximately 1.25 billion dollars at current prices).

In 1990, Geipot laid plans for the first part of the engineering work, on the basis of a feasibility study involving the transportation of 3 million tonnes of industrial products per year, but with little significance attached to agricultural produce.

In June 1994, the Canadian concern Canac International Inc. completed a study justifying the construction of a railway to carry 5 million tonnes of soya per year from Santa Cruz and Brazil's Mato Grosso region to the Pacific Ocean.

This volume of transportation would require specially equipped wagons, hauled by heavier locomotives on specially built track weighing 57 kg per metre. Although this is possible using new techniques, the heaviest equipment and wagons would not be supported by the older stretches of line, especially between La Paz and Arica.

No account was taken of the Pacific ports' limited capacity to handle cereals or, worse, the fact that the soya seasons last only five months.

The companies are on the way to realizing their plans to increase productivity and profitability, and for the moment the Government does not need to invest in these areas.

It will, however, have to assist administrations in solving the border problems that have been mentioned, and monitor their operations more carefully so as to ensure that a fair contribution is paid to the State and to the capitalization funds.

4.2. Roads

Bolivia has the continent's most impoverished road network. The many reasons for this include the scattered nature of its population, a depressed economy until recently dependent on mining and whose products were carried by rail, and the difficult terrain.

However, one of the most important causes has been maladministration by the National Highways Department (SNC).

Since 1996, there have been four designated corridors linking t Bolivia's roads with the Pacific ports and neighbouring countries. In the framework of its "Plan Bolivia" the Government inaugurated in August 2002 has redrawn these corridors to reflect its concept of axes of integration (see paragraph on IIRSA). A study has been made which identifies the sections for which funding for pre-investment, investment and maintenance is assured, the sections which are in operation and the sections for which funding is still needed.

4.2.1. East-West corridor and branches

Puerto Suárez - Santa Cruz - Cochabamba - Patacamaya - Tambo - Quemado axis

Total length 1 518 km, total investment without funding 151.09 million dollars, total investment with funding 238.33 million dollars.

San Matías - Guabira - Cochabamba - Oruro - Pisiga axis

Total length 1 507 km, total investment without funding 293.05 million dollars, total investment with funding 72.78 million dollars.

Overall totals

Length 3 025 km, 305.16 million investment without funding, 755.25 million dollars investment with funding.

4.2.2. Víctor Paz Estensoro highway and branches

Guayaramerin - Riberalta - El Choro - Australia - Rurrenabaque - Yucumo - Quiquibey - Caranavi Santa Bárbara - Cotapata - La Paz - Ceja del Alto - Senkata - Calamarca - Cruce Luribay - San Pedro Oruro - Pazña - Challapata - Villcapujio - Ventilla - Tarapaya - Potosí - Cuchuingenio - Camargo - El Puente - Iscayachi - Santa Bárbara - Tarija - Padcaya - La Mamora - La Mamora 10 km - Bermejo.

Total 2 107 km, total investment without funding 170.88 million dollars, total investment with funding 481 million dollars.

4.2.3. Southern corridor

Estación Avaroa - San Cristóbal - Tupiza - Hornillos - El Puente - Cruce Panamericana - Puerta del Chaco - Abra del Condor - Canaletas - Entre Ríos - Palos Blancos - Villamontes - Hito BRD.

Total length 746 km, total investment without funding 40.11 million dollars, total investment with funding 332.8 million dollars.

The main highway, whose Santa Cruz - Cochabamba - Oruro section belongs to the east-west corridor and whose Oruro - La Paz section belongs to the Victor Paz Estensoro highway, lies at the heart of 70 per cent of national economic activity. The road is not metalled along all of its length and is not open all the year owing to the geological instabilities affecting a stretch called El Sillar.
From 1987 to 1997 the government sought to expand the road infrastructure by allocating an average 30 per cent of annual public spending to transport, of which 83 per cent was spent on roads. The following government used these funds for new construction work and neglected the existing stretches. The result was a 40 per cent increase in the area of metalled road, together with a deterioration in the older roads to 1987 levels. This was a clear sign that the main problem was the Ministry of Transport's management of the road network.

In 1998, to address this situation, the Ministry for Economic Development proposed guaranteed funding both for road-building and for routine maintenance. The reality contrasted with the theory, and the old endemic problems of corruption and maintenance mismanagement re-emerged.

Fraudulent contracts are the main reason for the construction of bad roads. To cite a recent example, the contract for resurfacing the 151km stretch between Chimore and Yapacani was awarded at a cost of 57.3 million dollars. However, the company was paid 87 million, the supervisor received 13 million and 9 million went on asphalt that had not been provided for. At 109 million dollars, the final cost was more than double the original.

The National Highways Department (SNC) accepted delivery of the road, and one week after the opening it discovered subsidence, holes, distortion, landslips, blocked drains, three bridges with serious defects and countless other minor faults.

One of the conditions set by the World Bank for the release of additional funds for construction and maintenance is the overhaul of the SNC as an institution, following the precedent set in overhauling the customs service.

During the last government's term of office it was not possible to appoint a head of the SNC, as covetous politicians disputed control. When the current government finally appointed a director of highways, the parties that make up the coalition held up the SNC's reorganization by arguing over its operations. Their interest is clear: the department will handle over 2.1 billion dollars in the coming years under this government.

4.3. River transport

Titicaca is the deepest navigable lake in the world. Belonging to Bolivia and Peru and lying north of the Altiplano, since 1903 it has carried imports and exports on an irregular basis between the ports of Guaqui and Chaguaya in Bolivia and Puno in Peru.

The Amazon river basin in the north of South America covers parts of Brazil, Colombia, Peru and Venezuela, as well as almost 68 per cent of Bolivian territory. By using its main navigable rivers it is possible to link Brazil, Bolivia and Peru.

River transport was very important at the height of the rubber trade, especially the legendary trade route from Manaos in Brazil to Iquitos on the Peruvian coast, which linked the rivers Beni, Madre de Dios and Orthon.

The rivers Ichilo, Mamore and Itenes link Villaroel port in Cochabamba with Socrates Vargas port in Guayamerin, on the Brazilian border.

Only 5 000 km of Bolivia's 10 000 km of rivers is navigable; as the rivers are not in densely populated regions they are poorly developed, with no major facilities for loading and unloading.

The port of Villaroel on the river Ichilo is the only river port in Cochabamba province. It was opened in 1994 to facilitate the loading of goods bound for the northern towns and the unloading of chestnuts, farming produce and livestock. There is a concrete wharf, covered storage, an operations area with five-tonne crane, and an 80-tonne weighing platform.

A more important means of transporting cargo by waterway is being developed along the rivers of the River Plate Basin under the auspices of the Hidrovia project.

For Bolivia, Hidrovia offers an outlet to the Atlantic Ocean that will lift some of the restrictions affecting its external trade. Few Bolivian governments have favoured an alternative outlet to the Atlantic, and some even blocked the work of the visionary entrepreneur and pioneer, Joaquín Aguirre Lavayen, who single-handedly built a port on the Tamengo canal near the Brazilian border.

The discovery of iron deposits near Puerto Suárez and the increasing production of soya proved this exceptional man right.

Thanks to skilful negotiation with the World Bank and the relationships forged with multinationals such as Cargill and Williams SA, the port that in 1989 was barely more than a pontoon is now being developed into a fully equipped river port.

Now called Central Aguirre SA (CPA SA), the port can provide facilities for transferring goods from port to storage or to a free zone platform, shipping goods to third-party

countries, transferring goods among end-users, importing goods into Bolivia, transhipping goods, and so on. New investment will enable it to complete a 33 000 tonne silo and a 2 500 tonne oil tank in 2004. The following figures show how it has developed.

1991 Exports 101 000 tonnes, imports 62 000 tonnes;
2000 Exports 300 000 tonnes, imports 36 804 tonnes;
2001 Exports 438 514 tonnes, imports 110 692 tonnes;
2002 Exports 191 521 tonnes, imports 41 135 tonnes.

The fall-off in 2002 is due to the fact that Ladario signed a more profitable trading contract. This has now been overcome, and Puerto Aguirre will once again handle its shipments this year.

The advantages for Bolivian exporters are proximity and the lower cost of placing their cargo "on board" and of obtaining the bill of lading that allows them to cover the credit notes issued for exported merchandise by the banks.

The disadvantage is the limited carrying capacity of the railway during the harvest period. Once the road from Puerto Suárez to Santa Cruz is finished, this port will be the main exit point for exports of Bolivian farming produce.

The main operational limitations of Puerto Aguirre are, firstly, the use of general cargo stores for soya, which must be unloaded manually. Naturally, FCO SAM cannot permit itself the luxury of keeping hopper wagons that would return from port empty, so the situation will continue. Secondly, owing to the lack of a tug for moving loaded and empty barges the port depends on tugs that move barges from the Brazilian side. These service not only the three jetties at Puerto Aguirre (bulks, oil and diesel fuel) but also Gravetal and Ladario.

A lurking threat to Central Aguirre SA is the unpredictable climate. Owing to the cycles of drought, there is the fear that low water levels will prevent the port from operating fully in some years. In addition, although Bolivia has dredged the canal on its side, Brazil has failed to do so, since a Brazilian judge has ruled that this cannot be done from the relevant place on the Brazilian border, called Faro Baduino, on ecological grounds. This restricts the entry of barges into the port, with the result that it is cheaper to transfer cargo to Ladario for shipment to the Hidrovia.

4.4. Air transport

For a landlocked country, air transport is clearly an important resource. Moreover, the Viru-Viru international airport at Santa Cruz is well placed to serve as a cargo and passenger hub for the whole of South America, a factor that has not been exploited for the following reasons.

Lloyd Aéreo Boliviano (LAB), the national carrier, is the world's third oldest airline. Founded in 1925 and nationalized in 1941, the company was capitalized by Aerolíneas VASP in 1996 and returned to private Bolivian hands in 2000. Having started out 77 years ago flying Junkers monoplanes with two crew and four passengers, the company entered the jet age in 1968 with a Boeing 727-100, which is still in service. In 1980 it joined IATA. It has known highs and lows during its spells in State hands. In 1992, competition from other airlines on its most profitable route to Miami, and from a national airline in its domestic market, led to a loss of 11.7 million dollars. In 1993 the deficit worsened to 12.5 million dollars.

This shows that it was not ready to compete in a global market. With its deficient management and high dependence on the Miami route, it became the first Bolivian State enterprise to be capitalized. At the end of 1995, at a sparsely attended international auction, the Brazilian company VASP took over the airline.

After a series of problems arising from mismanagement by this company, which cannibalized planes and even sold LAB's spare parts, fixed assets and shares abroad, bankruptcy was narrowly avoided and the company was sold to Bolivian private interests at the end of 2001.

The new company has begun by changing its board of directors, paying the debts of the previous owners, repairing and maintaining its fleet, half of which was grounded, and replacing ageing aircraft (two wide-bodied aircraft have been acquired). It has restored routes on the basis of profitability and is seeking to improve relations with the trades unions, which waged a tireless campaign against the Brazilian management, setting themselves up as the guardians of LAB's possessions and accusing the managers of acting against the airline's interests, although according to others the unions were a part of the problem.

The new owners are seeking to establish clear chains of command and a hierarchy and to restore suppliers' confidence through payment rescheduling, and are considering future alliances. They have reestablished relations with the banks, are attempting to wipe out their debts, and are negotiating a reduction in jet fuel tariffs with the Government, as well as a series of measures designed to make the company competitive in a world becoming ever more difficult for airlines.

Two other airlines, Aero Sur and Transportes Aéreos Militares (TAM) compete with LAB in the domestic market. Aero Sur was founded in 1992, and is partly Bolivian and partly foreign owned. It flies to destinations not served by LAB as well as towns where it is direct competition with the national carrier. Aero Sur is using aggressive marketing to extend its services and acquire new aircraft.

4.5 Frontier posts and port warehouses

In 1969 the Autonomous Customs Warehouse Authority (AADAA) was set up as an economically independent state institution, with the task of administering Bolivia's

customs warehouses. It receives, stores and protects imports and exports, and collaborates with the customs service on their classification, inspection and clearance.

In October 1969, the AADAA added the function of administering the arrangements at foreign ports of transit, and by agreement with Chile and Bolivia it introduced the Integrated Transport System (SIT) at Arica in 1975 and at Antofagasta in 1978. This system is regarded as the most successful of the efforts to streamline and simplify the procedures used at ports of transit.

The SIT is basically a set of procedures carefully designed to handle the documentation associated with the unloading, temporary storage, loading onto terrestrial transport and clearance of goods in transit from and to Bolivia. All these operations are systematically planned and carried out.

Since 1980, the AADAA has had internal and external problems, despite its successful beginnings, mainly because of ruling party politics. Trained staff were dismissed and replaced by political appointees. This prevented the organization's efficient functioning, as the people in question were unqualified and unscrupulous, and operated in many key positions in the warehouses and ports. Port charges were inflated, and the organization's documentary operations and operating procedures were falsified and neglected to the point that it was soon unable to meet the expectations of the parties involved in the system.

With the reorganization of customs in 1992 the AADAA's customs warehouses were privatized, but it retained its functions at the ports of transit (under the Constitution this power could not be delegated to private interests). In 1996 the Bolivian Port Services Authority (ASP-B) was formed, and the AADAA was finally disbanded in March 1997.

The ASP-B is controlled by the Ministry for Economic Development, has legal personality and inherits the capital resources of the AADAA, and is the Bolivian Government's officially accredited customs agent at the ports handling cargo in transit to and from Bolivia.

Although its constitution gives chambers of trade and industry the power to appoint staff at every level and to supervise its institutional activities, the ASP-B retains its political core and is perpetuating the bad examples set by its predecessor. Most of its customers are unhappy with its prices and delays. Under the protection of special decrees, a large percentage of imports is escaping ASP-B control (the Internet provides shipowners with ample instructions in how to make savings on ASP-B's charges), and importers have sent their cargo to other ports where ASP-B has no influence (in 2002 Bolivia "bought" 300 million dollars of merchandise imported through the free port at Iquique). Although the flow is decreasing, contraband is entering the country and causing damage to its economy.

Sales from the Iquique Free Zone (ZOFRI) for January-December, 1991-2001 (in millions of dollars)

Destination	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bol. & Par.	722.7	812.4	733.5	983.5	1091.5	1044.3	1147.4	1218.0	930.3	768.4	728.1
Iq. region	267.7	265.3	292.6	295.7	333.0	413.8	566.0	461.6	351.2	344.6	329.0
Rem of country	281.4	361.7	391.1	389.2	412.4	372.5	363.8	335.6	304.7	336.8	295.0
Total	1271.8	1439.4	1417.2	1668.4	1836.9	1830.6	2077.2	2015.2	1586.2	1449.8	1352.0

The main complaint of the authorities at the port of Arica is that the ASP-B's practices have made that port inefficient.

In an effort to improve traffic, the activities of ASP-B, Chilean Customs and Bolivian Customs have been brought together under the Sidunea system in a single office at the port of Arica.

4.6 Oil and gas pipelines

Until 1997, the system of pipelines operated by the State oil company, YPFB, formed a network almost 3 800 km long that carried crude and refined oil. There were also 900 km of pipes connected to the port of Arica, for oil, and to Argentina, for oil and gas exports.

The Andean Development Corporation (CAF) approved a soft loan of 38 million dollars to YPBF, of which 26 million was earmarked for a 247 km gas pipeline from Carrasco to Valle Hermoso. The final cost was 42 million dollars, and it has not been used since its inauguration in 2000. This is only one example of a project built under regional pressure without careful examination of the economic implications.

The capitalization of YPBF led to the formation of various private companies; the transport arm, consisting of 2 500 km of oil pipelines for liquids, passed to Transredes SA.

In May 1997, with financial assistance from Petrobas (Brazil), Enron (USA) and others, Transredes began work, at a cost of 2 billion dollars, on South America's largest ever joint oil project, the construction of a natural gas pipeline capable of carrying 30 million cubic metres. The 3 000 km pipeline began commercial operation in April 2000.

Unfortunately, its capacity will soon be surpassed, and work has begun on other gas pipelines. Petrobras wants to operate a new gas pipeline because its capitalization contract with Transredes gives it the sole right to implement an approved tariff (which subsidizes transportation to remote parts of the country, so that its cost is the same

everywhere). The other multinationals currently using the gas consider the tariff to be too high.

Another ongoing project is the overhaul of the Yacuiba-Río Grande (YABOG) gas pipeline, which has been carrying gas to Argentina for over 30 years. At the moment the gas is flowing in the opposite direction, since the large natural gas reserves recently found in the south of the country must be carried to the Río Grande plant, for export to Brazil.

The current 24 in. gas pipeline will be widened to increase capacity, using a system of "loops", or tube sections running parallel to the pipeline. These will be fitted in sections according to growth in demand, so that capacity is increased gradually. Ultimately, a 36 in. parallel pipeline will be installed, approximately 440 km long, which will use the installed compression stations and benefit from the right of way of the YABOG, without the need to make a new breach.

4.7. Electrical power

Bolivia produced 3 723.4 GW of electricity in 2001. Following capitalization, the generating companies alone have invested in the sector, lowering tariffs to the benefit of the consumer. Guarachi has invested 64 million dollars, COBEE has invested in the construction of a new hydroelectricity plant in the Zongo valley, and Bolivian Hydroelectricity recently pooled its electricity production through the Interconnected National System (SIN).

The SIN brings together most of the country's generating, transmission and distribution facilities. However, failure to expand its transmission network means that the entire eastern region and part of the Altiplano has to depend on small cooperatives.

It is hoped that the Electricity Inspectorate will grant approval for a bidding process to construct three transmission lines that would bring power to the southern towns and the San Cristóbal Mine.

4.8. Communications

On 22 December 1965, ENTEL SA was founded with the aim of "bringing telecommunications in all their forms to the whole national territory". Soon afterwards, ENTEL became a decentralized public sector company, supervised and funded by the Ministry of Transport, Communications and Civil Aviation.

In 1995, ENTEL once again became a limited mixed liability company to enable it to form links with private enterprise. Its situation was not inconsistent with that of the other state enterprises that were converted into main employers, holding back their productivity, profits and efficiency.

This situation made it impossible for public enterprises to have resources and incorporate the modern technology needed to become competitive. Moreover, a trade union movement interested only in conquest left the then government no alternative but to privatize or close such concerns. Capitalization, unlike privatization in which the investor buys all a firm's assets immediately, involves injecting a new amount of capital which at least doubles the existing assets and creating a new enterprise in which the State holds 50 per cent of the shares as the property of the people.

On 27 November 1995, ETI - STET INTERNATIONAL paid 610 million dollars for half of ENTEL's shares. This is the largest investment in telecommunications in Bolivia's history, making ENTEL a leader in the South American market.

At the time of its capitalization, ENTEL signed five concessionary contracts:

1.A national and international telephone network throughout the whole territory for 40 years, with six years exclusivity from 1995;
2. Local telephones for 40 years throughout the national territory from 2001 and for a period of exclusivity, in the areas not assigned to cooperatives;
3. Band B mobile cellular phones throughout the national territory for 20 years;
4. Public telephones for 40 years in urban and rural areas;
5. Cable television for 40 years, with preferential terms in line with plans and programmes.

ENTEL is contractually obliged to install 5 000 public telephones throughout the national territory, introduce a telephone service to 1 099 rural centres with a population larger than 350, interconnect the central offices of other operators, prepare agreements for the payment of the interconnection costs; pay the adjustment fee (1%), submit a half-yearly progress report to the Telecommunications Inspectorate and introduce separate accounting for the mobile telephone service.

ENTEL currently operates fixed local and long-distance national and international telephones and all value-added services under the name "Entel 10", which is its identifier as a long-distance carrier. It operates cellphones under the name "Entel Mobile", and to cater for its largest clients it controls a company called DATACOM.

ENTEL has completed its planned optical fibre extension, having laid 3 200 km at a cost of 50 million dollars since 2000 to link the main towns of La Paz, Cochabamba and Santa Cruz. Connections hace been completed between Oruro, Santa Cruz and Yacuiba, to Peru and Chile, and to Pocitos in Argentina. Once the connection with Brazil has been completed, Bolivia will be the first South American country to have all its cities connected to an optical fibre network.

Following deregulation in 2002, ENTEL no longer held the monopoly and the country's communications market was opened up to competition between 20 communications companies, some of them private and some cooperatives. In 2002 the communications sector's contribution to GDP grew by 9.9 per cent.

The main beneficiary of deregulation has been the public, which now enjoys a great variety of options and prices in personal and business communications and cable services.

4.8.1. Use of the Internet

The use that institutions are making of the Internet merits a special chapter. This technical advance, offering institutions huge potential for making known and promoting its objectives and achievements, has been greeted with enthusiasm by most private and state institutions, many of which have hired "experts" to build them websites.

However, on visiting these websites (if the server is still operating) it is obvious, with a few exceptions, that their initial formula remains unchanged, and that no staff have been assigned to update them; this has led to a degree of disappointment.

Some web pages have been created with decorative zeal, and are filled with photographs, graphics and resources more appropriate to a Powerpoint presentation. Their slowness makes one disinclined to revisit them, they contain pompous entries featuring photographs and speeches by the minister, director or manager who was in charge when they were created, and in general they serve little practical purpose.

This is a resource which needs to be harnessed into a tool that, for example, could be used to expedite an institution's procedures by producing forms, instructions or manuals and maintaining up-to-date statistics, rather than endless "pages under construction". The infamous instruction "contact us" should lead to staff trained to respond promptly to the messages and enquiries submitted.

5. RESTRICTIONS DERIVING FROM INFRASTRUCTURE

Bolivia has no specialized silos or warehouses for its imported wheat or for the minerals it exports through Chilean ports.

Its frontier customs posts leave much to be desired and lack appropriate facilities, such as the weighing machines and equipment needed to unload vehicles that exceed the weight limits.

Bolivia's roads are falling into disrepair owing to poor design and construction, storms that wreak havoc for hundreds of kilometres during the rainy season, overloaded vehicles, and authorities that are incapable of enforcing the Cargoes Act. In addition, lucrative profits are made by those who win the incorrectly drawn-up toll collection contracts.

Consultations are being held to establish better parameters for the bidding process associated with toll collection contracts, through linkage to the Cargoes Act. This would

work by making toll agencies responsible for maintaining the roads, collecting tolls and ensuring compliance with the Cargoes Act.

A social factor that compounds the problem is t discontent among farmers and coca leaf growers, who destroy the asphalt road surface during their frequent demonstrations and blockades. They use this practice to reinforce their demands (paradoxically, one of their complaints is that the government is failing to maintain the roads).

All these factors show that the roads are by far the most serious problem affecting not only international trade in Bolivia but also the exchange of domestic products; they constitute one of the greatest challenges to national development.

6. INTANGIBLE OBSTACLES TO TRANSIT

Absence of a Transport Act. Bolivia remains the only country in Latin America with no Transport Act. In 1998, the government engaged a group of consultants to draw up such a law. After two years, the bill was ready for approval, but was rejected by Congress in April 2001 because no consultations had been held at the drafting stage. The main objection raised by the transport authorities and some carriers was that the Inspector of Transport would become both judge and involved party in any matters concerning transport.

Since that attempt, the bill has remained on hold and nothing more has been done to draft a new one, while the Transport Inspectorate, which was set up to monitor all means of transport, blames its own failure to act on the absence of legislation. In this way the Inspector of Transport, who earns more than the President of the Republic, has achieved little more than unsuccessfully try to impose the use of safety belts and prevent taxis from taking a fifth passenger.

The Inspectorate's only success has been the introduction of compulsory safety devices in transport vehicles (SOAT), which has been enforced, not without dificulty, for one year.

Non-compliance with agreements at frontier posts. In general, the international agreements signed by the foreign ministry, which are valid and supported politically in Bolivia, Paraguay and the countries that grant them transit, are constantly hampered or breached by the activities of the staff engaged in physical checking at the frontiers.

The head of an immigration, customs, plant health or weighing office can ignore treaties completely and focus on the most detailed aspect of the regulations enforceable by the service to which he belongs.

This petty corruption involving illegal and undocumented payments is found among frontier staff at all levels. It is simple for officials to turn the regulations to their advantage, and if no payment is made they can deliberately delay operations or apply any measure to the letter, thus making any border crossing a challenge.

Naturally, these officials also take great pains to report and exaggerate any incident that might constitute a transgression, so as to prevent any facilitation, dilution or replacement of procedures. There have been cases in which computer equipment intended to simplify certain procedures was boycotted because it might reveal existing corruption.

Another problem is drug trafficking; if the staff are not properly trained, everything that passes through must be subjected to lengthy inspection.

Finally, piecemeal smuggling [contrabando hormiga] is in a certain way protected by frontier agreements and has generated economic structures that often have the support of the communal and civic authorities, which defend the way of life of the towns that live off such trafficking. This poses a threat to transit and keeps customs staff busy preventing attempts to evade their patrols.

However, not everything is smuggled in this manner. In addition there are sophisticated smuggling concerns with no fear of the customs services, which they confront with weapons, often defeating them. One customs guard snatched recently was still missing at the time this paper was written.

Recent surveys conducted by the national chamber of trade found that in the past decade smugglers have found the means to bring foreign goods worth some 6 billion dollars into Bolivia.

The process of privatizing the customs service has taken a number of wrong turns with respect to both the handling of agencies and the customs service's own policy on delegating its power. A great deal of freedom has been allowed, and it has come to the point where the concessions do virtually all the work of the customs service.

The new Customs Act treats smuggling as an offence punishable by imprisonment, and persons found committing such a crime are dealt with by the ordinary courts. On many occasions judges have released the culprits, thus demonstrating that the corruption has merely moved on to another institution and that the new act is not backed by all the instruments it needs to be effective.

7. PROGRAMMES THAT HAVE ATTENUATED BOTH CONCERNS

7.1 Creation of a strengthened customs institution

Modernization of the customs service required the approval of an organizational law on customs. Lack of political will delayed the process for over four years, but approval was finally granted under Supreme Decree 25.870 of 12 August 2000.

Since its inception, the customs service has been waging an unequal battle against the established practices that have made politicians and all kinds of criminals rich.

The first director of customs was elected by a two-thirds majority of Congress (the post is currently vacant) and given the task of implementing the new laws.

Important steps have been taken in the early stages, as shown below.

The customs service is self-sufficient: its director is elected and its budget is independent.

Staff are selected by open competition (for the first time in the republic's history, 100% of the professional and technical staff were selected and engaged through specialized agencies).

A technical inspection unit (UTISA) has been set up.

A new office has been set up to protect professional ethics in the service.

A police body (COA) has been set up which is specialized in customs matters (officials were recruited, selected and trained by a North American company).

The SIDUNEA computerized system, developed by UNCTAD, has been installed.

In 2001 and 2002, all customs regulations and procedures were computerized.

A number of customs agencies in Bolivia use the complete SIDUNEA++ package:

Agencies at La Paz (domestic, El Alto airport and the free zone).
Agencies at Desaguadero, Cochabamba (domestic, airport, free zone), Sucre (domestic), Tambo, Quemado, Yacuiba and Santa Cruz (domestic, Viru-Viru airport, Winners free zone, Warnes free zone).

The external agencies at Arica and Matarani deal only with transit.

In addition, the following agencies deal only with clearance for export:

a) Arroyo Concepción (Braxilian frontier, Puerto Suárez);
b) Suárez Arana (Puerto Suárez);
c) Puerto Aguirre free zone (Puerto Suárez).

Customers are responding well to the ease of use and procedural improvements. The customs service has encountered very few problems with acceptance, and the customers are now insistent that the system be made available. Also, and especially for exports and carriers, there are public access centres where customers can carried out the required operations.

The Sidunea project also maintains training and support centres that help minimize the constraints placed on the customs service by shortages of resources.

Public access centres for exports (SIVEX) are being used to facilitate the handling of export documents.

The public access centres assist carriers by recording International Cargo Manifest/Customs Transit Declaration (MIC/DTA) forms electronically. They also facilitate transits by recording information in advance, thus reducing the involvement of customs officials and simplifying the transit authorization process.

Control of transits is much more efficient, as it is known which items fail to keep to the schedule and which arrived on time.

Moreover, the customs service now receives timely and reliable information. All the customs agencies using SIDUNEA are connected online to a single server at a central office.

However, it is a matter of concern that little has been done with regard to import duties (classification, valuation, control and taxation). As a result, there has been little increase in the sums collected.

7.2. Sectoral regulation system (SIRESE)

SIRESE is an autonomous institution set up in 1994 to regulate, monitor and supervise activities in the transport, telecommunications, electricity, hydrocarbons and water industries, with a view to ensuring: 1) that they are efficient, contribute to national economic development and provide Bolivians with access to their services, and 2) that the interests of users, companies and other regulatory bodies, regardless of legal personality, position or organization, and the interests of the State, receive equal and effective protection under the law, and that the State enforces the regulations in strict accordance with the law.

SIRESE was established to ensure that the capitalized concerns, such as ENFE, LAB and ENTEL, operate correctly, thus preventing monopolistic tendencies from harming the interests of customers, participating agencies or the State.

SIRESE is intended to function like an ombudsman, compiling, processing and resolving problems that arise in the daily operations of the enterprises that are highly important to foreign trade.

However, its leadership has been unsatisfactory. As a result, although in the beginning the capitalized companies' dividends and profits were promising, a gradual decline has set in and minimal profits or even losses have been reported, completely discrediting privatization in the framework of the capitalization programme carried out by the government of Sánchez de Losada.

8. DESCRIPTION OF PARAGUAY'S INFRASTRUCTURE

8.1. Railways

Paraguay's centenary main railway named after President Carlos Antonio López (FCPCAL) runs for 441 km over track of 1.435 mm gauge, linking the frontier with Asunción. It has been idle since 1995, when the artificial lake created by the Yacyreta dam flooded a stretch of line. Just the few kilometres between the station at Encarnación and the border with Argentina are used for taking soya to the General Urquiza railway for transportation to the port of Buenos Aires. The main railway has a complicated history, having first been a state concern before being acquired by British interests. In 1961 it was taken back by the state. The British company which had operated the railway in Paraguay for 100 years must have been very satisfied to rid itself of a business in full decline. Since 1961 the Paraguayan Government has invested nothing in the system.

At the start of the 1990s thoughts turned again to privatization, and RENFE, a subsidiary of the Spanish national railway with links to Argentina, negotiated for the acquisition of the FCPCAL.

The General Urquiza railway also wanted to buy the stretch from Villarica to Encarnación, as it was interested in transporting soya to Buenos Aires. None of the negotiations bore fruit, and the enterprise is still in the hands of the Paraguayan Government. The line is in precarious condition and the average age of the locomotives is 80. It seems that the high cost of modernization and the competition from the Hidrovia project make this an unattractive investment proposition. A few years ago, a Brazilian company called Megacorp expressed interest in capitalizing the railway to form part of an integrated transport system in the continental cone.

The privatization of several state enterprises in Paraguay, including FCPCAL, has been suspended for a number of reasons.

8.2 Roads

Since the establishment of Mercosur in January 1995, traffic between Paraguay and its neighbours has increased. The transport of goods for export has risen by 10 per cent, and it was estimated that vehicle numbers would double by 2000. In addition, 80 per cent of national cargo is carried by road. It is thus essential for Paraguay to build and maintain roads to support trade.

The efforts to build a sound road network have been continuous. In 1965, it extended for 6 398 km, and is now four times that length. In 2001, metalled roads accounted for 3 067 km out of a total length of 25 901 km.

Paraguay has two-lane roads with a width of 6.5 m. Owing to congestion, more than three lanes have to be built on some stretches.

According to DINATRANS, the highways authority, Paraguay's road network now consists of:

3 224 km of metalled road, 216 km of gravelled road and 52 363 km of dirt track, making a total of 55 875 km.

Six corridors are significant from the viewpoint of goods in transit.

1. Asunción - Encarnación; 2. Asunción - Ciudad del Este;

3. Coronel Oviedo North (P.J. Caballero); 4. Coronel Oviedo South (Villarica - Itapua);

5. TransChaco corridor; 6. Encarnación - Ciudad del Este.

Almost all these corridors are metalled and of acceptable design, except for the section of Route 1 from Caazapa to Empalme (Coronel Bogado), which is a dirt track. Although plans are in hand for its improvement, no funding has been available since 2000.

The following road improvement and maintenance projects have been carried out to date.

The 12.5 km Asunción ring road, with a two-lane access road to the city, funded by the World Bank. The project, costing 38 million dollars, began in February 1997 and was supposed to take 36 months. There have been long delays.

An access road north of Asunción following Route 3. This project comprises 16 km of concrete structures and metalled roadway. Although it was supposed to last 24 months, the project began in 1997 and is still incomplete in 2003.

A four-lane, 60 km motorway extension giving access to Asunción was completed in 2001 at a cost of 33 million dollars.

The relevant authorities agree that the road network is inadequate for the country's transport needs. There are problems caused by excess loads and design faults, and some sections are disintegrating and causing congestion, especially in the larger population centres. The authorities are aware of the situation and are carrying out maintenance work on a limited budget, but the construction of new stretches has been held up for nearly two years.

8.3 River transport

The rivers Paraguay and Parana provide Paraguay with 3 100 km of navigable waterway.

Navigation along these rivers is characterized by depth and signalling restrictions, dredging, and the use of signal buoys operated by the national navigation and ports authority (ANNP) through its river navigation department.

On 15 October 1957, Law No. 476 established the rivers and seas navigation code. The law is a set of regulations concerning rights and obligations with respect to vessels, documentation, crews, passengers and owners. The law's provisions apply to vessels flying the national flag.

According to the 2002 data, Paraguay's merchant marine comprised:

Fourteen cargo vessels of 34 623 grt and 36 821 dwt, one chemical tanker, 3 petroleum carriers and 3 roll on - roll off vessels (this includes foreign-owned vessels registered under the Paraguayan flag).

In 1971, by Law No. 295, the Republic of Paraguay established a cargo reserve of 50 per cent for both the river and the marine fleets. The 50% quota is compulsory for countries not belonging to the Latin American Free-trade Association (ALALC), and is valid only in waters under Paraguayan jurisdiction.

This law lays down the conditions that a vessel must fulfil in order to fly the national flag.

8.4. Frontier posts and port warehouses

The management and operation of all Paraguayan ports is controlled by an autonomous body called the National Navigation and Ports Authority (ANNP) established by Law No. 1066 of 23 August 1965. It answers to the Ministry of Public Works and Communications, the Ministry of Finance and the Comptroller General's Office.

In addition to operating the ports, ANNP maintains the country's waterways in navigable condition for river and sea vessels throughout the year.

The national port system covers ports managed and operated by ANNP and also private wharves whose operations it authorizes and supervises. These terminals and wharves, located along the rivers Paraguay and Parana, are part of the Hidrovia, which carries a part of Paraguay's exports.

Two private ports in the Asunción region, Caa Cupemi and Paksa, are competing successfully with the state port at Asunción. They have earned a good reputation for being safer and more reliable, as their operations are not subject to the problems that the unions pose at the state ports.

State ports on the River Paraguay

Main

1. Asunción; 2. Concepción; 3. Villeta; 4. Pilar.

Secondary

1. Antequera; 2. Alberdi; 3. Sajonia; 4. Bahia Negra; 5. Ita Enramada; 6. Puerto Pabla; 7. Ita Pita Punta; 8. Remanso Castillo; 9.Villa Hayes; 10. Valle mi.

State ports on the River Paraná

Main

1. Saltos del Guayra; 2. Presidente Franco.

Secondary

1. Ayolas; 2. Ita Piru

8.5. Air transport

Air transport plays a marginal role in the Paraguayan economy, carrying less than one per cent of all cargo.

Air transport is thus only important in terms of passengers. This traffic is increasing.

In 2001 there were 899 landing strips.

Eleven of these were metalled runways, including three over 3 047 metres in length, four between 1 524m and 2 437 m, and four between 914m and 1 523m.

The remaining 888 non-metalled landing strips included 28 between 1 524m and 2 437m, 332 between 914m and 1 523m, and 528 shorter than 914m.

The one international airport, called **Silvio Pettirossi**, lies 14.5 km from Asunción. It is a Class A, Category 1 airport with a total area of 850 ha.

Maximum aircraft size handled: Boeing 747.
Runway of concrete/asphalt construction; length 3 354 m, width 46 m.
Two additional unsurfaced runways.
ICAO Cat. 7 fire safety standards.
Metalled approach area, loading area of approx. 1200 sq m.
Two-lane ramp service, width 23 m.
Four aircraft parking spaces equipped with air bridges allowing passengers direct access to the terminal.
Four-storey terminal building. Capacity in 1970 was 7 500 sq m, later expanded to 9 000 sq. m.

Cargo facilities: Three refrigerated rooms with equipment.
Flight facilities: Philips ILS radar, VOR/DME radio navigation aid, s/AIP lighting.

There are 47 other airports in the country capable of handling domestic air traffic and air operations.
The airport at Ciudad del Este has international airport status. Five others are equipped to receive jets: Concepción, Vallemi, Pilar, Ayolas and Mariscal Estigarribia. Over 1 000 private strips can handle light aircraft.

Although there is still unused cargo capacity, the tonnage transported has declined in the past decade, owing to lack of political resolve and the poor performance of LAPSA, the national carrier. The latter has been privatized twice, firstly by Ecuador's SAETA and recently by the Brazilian TAM.

8.6. Electrical power

Paraguay has 8 250 MW of electricity to sell from the surplus generated along the international rivers at the frontiers with Brazil and Argentina. The hydroelectricity plants built jointly with those countries are: the Itaypu dam, half of whose 18 generators belong to Brazil with Paraguay's portion being 6 300 MW; Yacireta, which is half owned by Argentina and has 20 generators, with Paraguay having 1 750 MW available to sell.

The Paraguayan-built Acaray plant produces 200 MW.

The advantage for Paraguay is that it has not had to maintain a distribution network to sell its energy on its Brazilian and Argentine markets. Six companies manage the sales and distribution.

The national body responsible for energy production and distribution is ANDE.

8.7. Communications

Communications in Paraguay are run by a state monopoly called ANTEL.

The main communications centre is Asunción, which has an adequate microwave communications system, 78 300 telephones, 40 AM/FM radio stations, five TV stations, seven short-wave stations and an INTELSAT satellite station facing the Atlantic Ocean.

There are plans to privatize ANTEL, but no progress has been made for two years.

8.8. Services for transit loading at ports, frontiers and dry stores

In December 1943, the presidents of Paraguay and Argentina signed an initial treaty by which Argentina undertook to create free zones in the ports of Buenos Aires and Rosario. All the facilities are maintained by ANNP.

At the port of **Buenos Aires**, Argentina granted 150 sq m of wharf and priority use of the adjoining area. Paraguay maintains a storehouse for its exports and imports which lies at the entrance of the south channel adjacent to the port of Matadero. This situation provides access to the La Plata motorway and the Ezeiza airport road, as well as South Dock and General Paz Avenue, and thence the international road leading to Paraguay.

The free zone at Rosario has the highly specialized equipment required for handling bulk goods brought in by sea-going barges and ships.

At the port of Paranagua, on the Atlantic Ocean in the Brazilian state of Paraná, 96 km from the state capital of Curitiba, Paraguay maintains a 4 000 sq m storehouse for imports and exports.

On 29 July 1994, this was augmented by a 9 000 sq m container store equipped with modern facilities for handling 1 500 containers.

The port at the entrance to the Hidrovia waterway, Nueva Palmira, has an area of 670 ha up to 16 m deep; there is also a T-shaped wharf offering depths up to 9 m.

Other facilities include conveyor belts able to move 600 tonnes per hour, a set of silos of 83 000 capacity, a cold store, warehouses and yards for depositing containers.

At the port of Santos, the terminal managed by ANNP handles container imports and transit, and bulk soya exports.

It can also handle luxury goods in containers, including electronics, liqueurs and perfumes, as well as refrigerated goods and bulk soya exports in containers. There are no sheds for storage or equipment.

The port of **Río Grande do Sul Brasil**, situated on the Atlantic coast in southern Brazil, operates as a free port for Paraguay, which uses it to export large quantities of soya and its by-products in bulk.

This port is connected by rail and metalled road to the terminal and port at Encarnación in Paraguay, whose facilities are used for loading.

The port of **Montevideo** lies at the mouth of the Hidrovia, sheltered from winds and storms, with a moderate swell and high tides - ideal conditions for continuous operation. The port is linked to Argentina, Brazil, Bolivia and Paraguay, with an international airport 18 km away.

9. RESTRICTIONS DERIVING FROM INFRASTRUCTURE

Apart from its inoperative railway, Paraguay is not affected by any serious infrastructural problems. It has better roads than Bolivia (most are metalled and connect with the neighbouring countries, except for Bolivia - a 250 km road across the Chaco is at the planning stage) and its assets include a river transport fleet, ports on the Hidrovia, acceptable airports, loading and unloading equipment at free zones in transit ports, and adequate storage capacity both at those ports and within the country.

Problems have been experienced with weighing equipment and other facilities at border posts. Both countries are experiencing dredging and signalling problems affecting navigation on the Hidrovia.

10. INTANGIBLE OBSTACLES TO TRANSIT

ECLAC (Economic Commission for Latin America and the Caribbean) has recorded delays of between 4 and 14 hours at border crossings. These create a sizeable increase in transport charges, as the carriers base their calculations on man-hours and the round-trip cycles completed by a lorry. Allowing for the existing facilities and the equipment introduced for the transport, a journey should last a standard day on almost all stretches, but these delays mean that two crews have to be assigned in order to comply with the employment and health regulations.

Obsolete practices such as customs escorts for certain loads, limitations on convoy size, compulsory and unnecessary tasks, cargo reserves and, in certain cases, unnecessary regulation, also have a negative effect on the transit of both countries through the delays and additional costs they impose.

11. PROGRAMMES THAT HAVE ATTENUATED BOTH CONCERNS

Joint customs posts at the frontiers, such as that at Pocitos maintained by Paraguay and Argentina, could help to solve many of the problems that occur by halving waiting times and by preventing corruption, facilitating single payments of the tolls and other charges for which drivers have to bring cash, smoothing the operations of both customs services through the computerization of customs data, preventing the fraud that occurs in connection with goods entry and exit documents, reducing the cost of building and maintaining these facilities, and so on.

Computerized customs systems are valuable tools that are already being used by all the agencies concerned, saving on time and paperwork and improving control. Unfortunately, there are no agreements or programmes aimed at achieving more transparent and straightforward exchanges of information between the two countries' systems.

12. ONGOING SOLUTIONS

During the meetings of South American ministers of transport, communications and energy held in December 2000, after discussions on the advisability of investing in transport-related projects, the Technical Coordination Committee (CCT) formulated an "Action plan for an integrated regional infrastructure in South America".

The action plan was supported by the IDB, the Andean Development Corporation (CAF) and FONPLATA. The plan was approved in December 2000 at the Montevideo meeting and is being implemented.

The plan recognizes that regional infrastructure has a special significance in South America, but that this fact must not be isolated or treated separately. The renewal of infrastructure must include customs systems and procedures, telecommunications, information technology, market logistics (freight, insurance, storage fees, authorization procedures) and be conducive to sustainable development.

The plan also recognizes the value of the activities carried out in connection with the multilateral technical teams on ocean corridors, the River Plate Basin Treaty, the Amazon Cooperation Treaty, LAIA, ECLA, the Intergovernmental Hydrovia Committee, the Latin American Railway Association (ALAF), the Latin American Energy Organization (OLADE), the Regional Electricity Integration Committee (CIER) and the secretariats of the Andean Community of Nations. The IDB, the Andean Development Corporation and FONPLATA have also provided valuable financial support.

The action plan identifies the following new basic activities:

1. To devise a more integral vision of the infrastructure which is line with the actual potential for funding and investment;
2. To formulate projects within the framework of strategic plans and in accordance with identified regional axes of integration and development;
3. To modernize and update the national regulatory systems and institutions that will control the use of the infrastructure;
4. To harmonize policies, plans, regulatory frameworks and institutions among the states;
5. To evaluate the environmental and social aspects of the projects;
6. To improve the quality of life and prospects of the populations living in the axes of regional development;
7. To incorporate participatory and advisory mechanisms;
8. To develop new regional mechanisms for project planning, implementation and management;
9. To structure financial schemes that are suited to the specific risks associated with each project.

Implementation of the plan will be geared to:

a) avoiding the creation of new institutions, so as to make best use of the existing national, regional and multilateral institutions' human and financial resources, and establishing schemes that pool their efforts and resources to best effect;
b) obtaining maximum political commitment so as to encourage close and permanent involvement in the decision-making process, as well as consistent follow-up;
c) ensuring the participation of all South American governments, and thus decisions by consensus;
d) facilitating the taking of decisions by those governments through a process of adaptable and flexible interaction between them and the regional and multilateral institutions that advise them;
e) setting a timetable of work in advance.

The plan has established three levels of implementation mechanism:

An executive steering committee (CDE);
A technical coordination committee (CCT);
Executive technical teams (GTE).

13. AREAS OF PRIORITY

In Bolivia:

Drafting and approval of a Transport Act;
Completing the reorganization of the National Highways Department (SNC);
Introduction of bi-national frontier customs posts;
Relaunching of the Sirese Act;
Training for officials of all the institutions involved in transit and transport;
Following the institutional changes which have occurred in Chile and Bolivia, a review of the Integrated Transport System is necessary, and the manner in which the ASP-B (Bolivian Port Services Authority) currently operates is not conducive to the transit of imports and exports.

In Paraguay:

Reorganization of the customs service;
Extending the Argentine-Paraguayan agreement on integrated customs to all Paraguayan border posts;
Training for officials of all the institutions involved in transit and transport.

14. COST OF CERTAIN SOLUTIONS

Plan Bolivia: road infrastructure

With funding: 760 430 million dollars; without funding: 1 409 030 million dollars.

Extension of SIDUNEA Project to cover all Bolivian customs agencies (the project ends in May and will perhaps be extended for two or three months to cover pending activities). The computer component of the whole customs reform programme is budgeted at approximately 9 million dollars, of which 2 million are for electrification, 2 million for telecommunications, 2 million for computer equipment and the rest for the PRISMA project, which will adapt SIDUNEA to national standards and establish the technological infrastructure to enable the system to operate nationally. The latter also includes the UNCTAD budget of 779 135 dollars.

Compared with the cost of Paraguay's system, Bolivia has done good business by resorting to a system developed and maintained by the United Nations, which is preparing a new version, SIDUNEA WORLD, that incorporates all the advances made from the use of SIDUNEA ++.

Bolivian-Paraguayan trade facilitation project

2 million dollars (see Annex 3).

Failing sections of infrastructure being offered as concessions by Paraguay

480 million dollars.

Six sections are being considered as concessions and their cost implications evaluated: Coronel Oviedo to Tacuara, Tacuara to Yby Yau, Concepción to Pedro Juan Caballero, Puente Remanso to km 54, Hernandarias to Junta Carumbey, and Carumbey to Salto de Guaira.

Annex 1

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BOLIVIA	Min. of External Rels. and Culture	www.rree.gov.bo
BOLIVIA	Ministry for Sustainable Devt. and Planning	www.rds.org.bo
BOLIVIA	Vice-ministry of Transport, Communicacions and Civil Aviation (under construction)	
BOLIVIA	Vice-ministry for Energy and Hydrocarbons	www.energia.gov.bo
BOLIVIA	Santa Cruz Chamber of Exports	www.cadex.org
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PARAGUAY	National Navigation and Ports Authority	www.annp.gov.py
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	Free Trade Area of the Americas	www.alca-ftaa.org
	Genesee & Wyoming GWI	www.GWI.com

ANNEX NO. 2

DETAILS OF INSTITUTIONS AND OF PERSONS INTERVIEWED

ASUNCION-PARAGUAY

10-14 March 2003

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

   Santiago de Chile; Tel: 56 2 208 50 51; Fax: 56 2 208 02 52

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   Sergio Amarillo
   Head, Dept. of International Affairs
   Jorge Benitez
   Deputy

3. Customs Office

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   SOFIA Head of Information
   Robert Enciso Burgos
   SOFIA Sub-administrator

4. Paraguayan Centre for Customs Agents

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   Tel: 595 21 441 829

   Victor Macchi Ferreira
   President

5. Centre for River and Marine Shipowners

Palma 751, Ier Piso, Edificio Union Club
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Roberto Luraschi
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6. National Navigation and Ports Authority

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BOLIVIA

5-30 March 2003

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Romulo Alvarez
Director-General of Transport

3. SERMAT S.A. (Inti Raymi Group)

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Arturo Zurita Castellon
Superintendent, International Transport

4. Santa Cruz Chamber of Exports

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Rafael Quintela Echazu
Dept. of Logistics and Transport

5. Central Aguirre S.A.

Hugo Dalence
Puerto Aguirre port

6. Customs Office

UNCTAD Sidunea project

Jaime Mendoza
Chief technical adviser

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Annex 3

Draft project document

Project involving the governments of Bolivia and Paraguay

Title: Regional transport facilitation project

No.: BOL-PAR/…/…/…/…

Duration: 36 months

Starting date: January 2004

Sector: International Trade and Transport

Implementing agency: United Nations Conference on Trade and Development (UNCTAD)

UNCTAD inputs: $ US …….

Contribution by governments: $ US …….

Brief project description

Implementation of a regional trade facilitation project for Bolivia and Paraguay to assist them in taking parallel measures to expedite the assimilation of their transport and communications infrastructures into regional axes of integration linking them with the rest of the continent.

The project will improve the performance and utilization of regional transport facilities, producing economies and a more efficient service for Bolivia and Paraguay.

The information capacity and knowledge of international standards of the institutions involved in transport systems will be strengthened through short, medium and long-term training strategies.

The problems and constraints affecting regional transit systems will be identified and analyzed, and measures to address them proposed.

Harmonization of the various systems in use will lead to more efficient application of the relevant information technologies.

The regional transport project will operate in close coordination with the executive technical teams of IIRSA in Bolivia and Paraguay, as a source of advice on necessary technical matters. The teams will thus have the latest information available about progress and the international standards applicable in each field, and will be able to take well-founded decisions to achieve their aim of drawing up plans for cooperation that make optimal use of efforts and resources.

	Signature	Date	Name and title
For the governments			
For UNCTAD			

A. BACKGROUND

1. Strategy of governments in the region

The Latin American Regional Preparatory Meeting of Landlocked and Transit Developing Countries held in Asunción, Paraguay, from 12 to 13 March 2003 prepared the ground for the International Ministerial Conference of Landlocked and Transit Developing Countries and Representatives of Donor Countries and Financial and Development Institutions on Transport Cooperation. Following these deliberations, the governments examined all aspects of transit and agreed on a programme of action.

With regard to assistance from international organizations for helping solve the many existing problems, chapter (ix) of the governments' programme specifically noted the importance of "urging the Economic Commission for Latin America and the Caribbean (ECLAC), UNCTAD, the Latin American Integration Association (LAIA) and the World Customs Organization (WCO) to give priority to technical assistance requests aimed at complementing the national and regional efforts to strengthen the efficient use of existing transit facilities, including the application of information technologies and the simplification and harmonization of procedures and documents".

In chapter two they agreed to "Endorse strongly the validity and strategic importance of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) as a viable tool for multisectoral integration, emphasizing the relevance of its plan of action based on axes of integration and development intended to serve the physical infrastructural requirements of the region's landlocked and transit developing countries".

The above-mentioned IIRSA action plan is a serious and interesting attempt to tackle the region's most acute problem: the development of its infrastructure. The plan is supported by the Inter-American Development Bank (IDB), the Andean Development Corporation (CAF) and the Financial Fund for Developing the River Plate Basin (FONPLATA).

The plan, approved in December 2000, recognizes that "the renewal of infrastructure must include customs systems and procedures, market logistics (freight, insurance, storage fees, authorization procedures) and also guarantee sustainable development".

The plan acknowledges that "the activities carried out in the past in connection with the multilateral technical teams on ocean corridors, the River Plate Basin Treaty, the Amazon Cooperation Treaty, LAIA, ECLAC, the Intergovernmental Hydrovia Committee, the Latin American Railway Association (ALAF), the Latin American Energy Organization (OLADI), the Regional Electricity Integration Committee (CIER) and the secretariats of the Andean Community of Nations, the IDB, the Andean Development Corporation and FONPLATA have provided essential background support".

2. Previous or ongoing assistance

The assistance provided in the previously mentioned areas by the United Nations, its organizations in Latin America and other aid-giving institutions has accurately targeted specific transit problems, as shown by the attached list of programmes.

B. JUSTIFICATION

In Africa, UNCTAD has tackled the problems of landlocked countries systematically, through multidisciplinary regional projects that have been instrumental in advising governments on the negotiation of bilateral agreements, transport companies on international transport regulations, integration bodies on the formulation of regional agreements and best practices in trade facilitation, chambers of commerce on the preparation of strategies for negotiating with transport operators, and end-users on how to interpret and apply standards and regulations.

UNCTAD has been a pioneer in many fields: trade facilitation work; the universalization of United Nations key documents, including publication of a single edition containing the forms used in all transport, customs and trade transactions; the standardization of data for the Electronic Data Interchange (EDI) and the development of the Internet; the provision of technical advice and assistance for customs, including the introduction of the trade facilitation concept and of advanced customs technical aids such as SIDUNEA; the computerized tracking of train movements in Southern Africa (TRACKER programme); and the development of the ACCIS satellite-aided programme for railways.

Having played an instrumental role in projects that helped simplify and streamline port authority operations, UNCTAD possesses a complete range of trade facilitation tools. It could continue placing these promptly at the Latin American governments' disposal or, on the basis of IIRSA's integrated approach to infrastructure, it could propose a regional transport project as an additional multidisciplinary resource. Rather than have to readapt in response to every request and specialized activity, this would install technical teams in the region ready to collaborate and advise on issues as they arose.

The landlocked countries need to control all aspects of transport, and to achieve this they must have qualified officials working in their transport institutions. They need to keep up to date with the latest developments in their field and to use equipment that optimizes their and their institutions' performance. An important step would be to ensure that the bodies constituting the different links in the chain concentrate their efforts to produce a continuous flow of merchandise.

In order to achieve this objective, and to ensure that Bolivia and Paraguay use their position at the centre of the continent to assist integration, rather than hamper it as is now the case, they must make genuinely good use of trade facilitation and eliminate the physical barriers and intangible obstacles that plague their infrastructures, so as to attract the flow of cargo and investment needed to create the inter-oceanic corridors they both desire.

1. Problems

In the private study conducted by UNCTAD as part of its preparations for the Latin American Regional Preparatory Meeting of Landlocked and Transit Developing Countries, the following aspects of the two countries concerned were identified as requiring urgent attention:

With regard to trade facilitation agreements, it was found that the mindset of the operators has not been affected by the fact that Bolivia and Paraguay have incorporated the relevant agreements and standards into their national laws. Guidance is therefore required on the best way of taking this material out of ministry archives and incorporating it into the manuals and instructions used by the operators responsible for implementing it.

With regard to railways, those of Bolivia are in the hands of concessionaries whose technical and administrative methods are designed to make best use of them. What is needed is assistance for users in negotiating sound transport agreements and advice for the government, especially the Transport Inspectorate, on using international auditing practices to assess correct compliance by the concessions, so that both the service and the country benefit.

Solutions must be found for the bureaucratic obstacles and frontier problems being encountered by the railway authorities, in order to help companies and the government negotiate bilateral agreements.

Paraguay is considering the concession of its railway, which is inoperative and requires expert assessment of its strengths and weaknesses before it becomes a viable proposition.

Both countries have an impoverished system of frontier customs posts, whose lack of facilities discourages qualified staff. Paradoxically, and all to the advantage of the prevailing corruption, these posts are dominated by unscrupulous staff. Both aspects must be resolved by installing suitable professional staff and giving them appropriate facilities.

The ideal solution would be to introduce integrated frontier centres. This calls for expert advice on document processing, improved inspection procedures, and the drafting of instruction manuals and training programmes for frontier staff.

Small businesses, cooperatives and syndicates functioning as international transport operators must improve their performance through the use of information technology and the introduction of good business practices.

The road and transit authorities require assistance to ensure more widespread application of standards, plan and implement measures, draw up transport legislation, perform audits at frontier crossing-points and toll posts, and bring into effect laws such as the Cargoes Act. They also need advice on distributing information and mounting campaigns on

matters such as transit safety, seat belts, handling in difficult conditions and pedestrian conduct.

Concerning river transport, the port authorities, especially Bolivian, require expert advice, and the governments must be helped to implement measures that will increase the usefulness of the port services.

As to air transport, it is important to work with the airport and customs authorities on improving the handling of air-freight, and with the freight companies on how to coordinate their itineraries and integrate their services to the clients' best advantage.

With regard to warehousing, free zones and port administration, UNCTAD can pass on to administrators its experience of the standards relating to areas such as the handling and receiving of cargo, transport unloading and clearance, packages and their handling, the interpretation and organization of documentary formalities, the use of computerized storage programs and the processing of manifests.

Both countries have successfully used different computerized customs packages, SIDUNEA in Bolivia and SOFIA in Paraguay, while each of their neighbours uses other systems. One advantage is that all the countries in the south of the continent make compulsory use of the International Cargo Manifest/Customs Transit Declaration (ICM/CTD), and it is possible that they could share the data from these documents on one of the computerized systems. This would not present a technical problem, but agreements would have to be signed between the customs services.

Finally, but no less important, both countries lack professional manpower in the field of transport. The existing higher education system does not offer options that would help fill the gap, because of the changes that have occurred in this field. There is a particular need for transport economists, specialists in logistics and transport systems, engineers with knowledge of transport infrastructure and means of transport, and customs technical staff.

2. Situation on completion of the project

The project will help to improve perceptions of trade facilitation as a key factor in the growth of goods transport in two of South America's least developed countries.

Both countries will use their transport and transit facilities more effectively, lower their costs and enjoy better levels of service.

Both countries will have come to agreement with their neighbours on rapid and effective border checking procedures and joint border posts, and there will be clear, mutually agreed procedural manuals that comply with international agreements.

Bolivia's and Paraguay's electronic systems will include communication protocols and be compatible with neighbouring countries' customs systems, so that data capture and

transmission between them will be more effective, enabling duly documented procedures to be incorporated into the computerization projects of both customs services.

Greater rigour will be used in enforcing the existing legal provisions and in checking at warehouses and stores, frontier posts, toll points and weighing stations.

Facilitation committees will operate in both countries; together with the IIRSA executive technical teams, these will help to maintain and update each country's regulations, standards and laws relating to trade.

The universities will establish courses and specialized options to meet the needs of the professionals working in transport and trade facilitation.

3. Project strategy

The project will establish a plan of work with the national authorities, in order to coordinate their activities on the assessed requirements with the meetings of the institutions and IIRSA working groups in each country.

The project will establish a flexible and constructive relationship with the institutions in each country concerned with external trade, discovering more about their national legislation and internal standards and analyzing them in the light of international agreements with a view to proposing changes where necessary.

Where legislative, normative or regulatory changes are required, consensus will be sought with the parties on the best way to ensure their acceptance and introduction.

An active campaign will be mounted to make known the aims of the institutions concerned with transport and transit, with a view to maximizing participation.

Seminars and workshops on each speciality will be held with the help of experts from the field concerned. These will lead to the drafting of manuals and instructions which, once accepted and brought into force, will be used for group training exercises.

The chief technical advisor and two international experts will be based in one country, and two experts in the other, for a period of 18 months. At the end of this period they will change places, with the chief technical advisor making frequent visits to the other country to coordinate the work of the resident experts and the national experts who have been engaged. Both teams will work interactively through a website that will show their progress and results and also contain the discussions on the issues held by the various facilitation groups and committees that are formed. The project will require its participants to devote their best efforts to gaining the institutions' acceptance and support, with a view to achieving its aims.

C. DEVELOPMENT OBJECTIVES

The project's long-term objectives are:

To contribute to the establishment of a free-flowing transport system that imposes a minimum of formalities at every stage.

To reduce the administrative and operational costs of transportation by means of simplified procedures that facilitate greater efficiency and better deployment of human resources.

To contribute to the improved utilization of the existing infrastructures through the streamlining of procedures in both countries.

To enable both Bolivia and Paraguay to introduce regional initiatives for facilitating trade and to develop modern transport systems, such as multimodal transport, that enable them to contribute to regional integration in the framework of the existing regional and international bilateral agreements.

D. IMMEDIATE OBJECTIVES; OUTCOMES; ACTIVITIES

Objective 1. The national standards adopted as a result of a country's international commitments will be assimilated and put into practice at the established control posts.

This objective will be regarded as fulfilled once the following outcomes are verified:

1.1. Outcome 1. A tangible reduction in the waiting time at every control post.

The following activities will be carried out in order to achieve this outcome:

1.1.1. Bringing of each service's procedures into line with the terms of the existing agreements;
1.1.2. Development of procedures according to each service's needs;
1.1.3. Drafting and publication of manuals and instructions for each procedure;
1.1.4. Group training to produce instructors for control post officials;
1.1.5. Training of those officials by their instructors.

1.2. Outcome 2. Minimizing the problems associated with the transfer of cargo from trains at the frontiers.

The following activities will be carried out:

1.2.1. Analysis of transfer operations and of other problems experienced at the frontiers, and proposals concerning bilateral agreements;
1.2.2. Taking of the steps necessary to approve the latter;
1.2.3. Documentation.

1.3. Outcome 3. Integrated frontier centres established at the Bolivian and Paraguayan frontiers with the countries effecting transit.

The following activities will be carried out:

1.3.1. Evidence of successful instances of integrated frontier services will be collected, with all the pros and cons, and used as a basis for discussion;
1.3.2. Seminars and workshops will be held in order to spread the concept among the organizations involved with this service;
1.3.3. The IIRSA's instruments and meetings will be deployed in financing the fitting-out of these centres;
1.3.4. Manuals and instructions will be produced, using the same methods as for Outcome 1.1.

Objective 2. A national facilitation committee operating in each country to implement, review and ensure the continuity of the project work until its completion.

2.1. Outcome 1. Introduction of facilitation committees within the institutions and services involved in transport to help them with problem-solving.

The following activities will be carried out:

2.1.1. Each institution will work to disseminate national and international standards, and seminars and workshops will be held in order to draw up manuals and instructions and plan campaigns. Those who distinguish themselves during this work will form the facilitation committee.

2.1.2. Coordination meetings will be held between committees in order to achieve consensus on joint work and, ultimately, to launch a national committee that will act as an umbrella and give continuity to the national facilitation effort.

Objective 3. The national information systems exchange information automatically and in a transparent manner. In parallel, information technology tools are installed to enable the transport services and institutions to interact and exchange information to facilitate their physical operations. A website to enable the facilitation committees to detect and try to solve any possible conflicts that arise.

3.1. Outcome 1. Systems installed at Bolivian and Paraguayan customs offices receive and supply on-line information about their transit operations with counterparts in neighbouring countries.

The following activities will be carried out:

3.1.1. Strengthening of the information exchange capacity of the region's customs services; provision of the computing expertise needed to harmonize their systems.
3.1.2. Advice for customs services on drawing up international agreements for the exchange of information, through programmes that make the currently used computer programs compatible.
3.1.3. Collaboration with customs services on programmes to incorporate trade facilitation into their work.
3.1.4. Collaboration on training programmes and on campaigns to enhance exchange capacities.

Objective 4. Greater rigour in enforcing the existing laws and in controlling warehouses and stores, frontier posts, toll points and weighing stations.

4.1. Outcome 1. Transport companies, cooperatives and syndicates respect international standards and promote their practice and wider introduction.

The following activities will be carried out:

4.1.1. Strengthening of small transport companies through instruction and information on road transport developments, international standards and regional and global rules of conduct.
4.1.2. Assistance for small transport companies in installing information and training equipment that will enhance service supply and demand.
4.1.3. Training for operators on international standards and performance-enhancing methods.
4.1.4. Working with the institutions responsible for the implementation of national transit laws on the best methods of bringing together individual actors and achieving the desired objectives.
4.1.5. Collaboration with the two parties in order to achieve a consensus based on in-depth discussion of the issues.

4.2. Outcome 2. Storage companies and sites responsible for transfer and clearance act in strict compliance with standards and minimize the delays affecting the receipt and clearance of international and transit cargo.

The following activities will be carried out:

4.2.1. Strengthening of storage companies and the institutions responsible for frontier checking, weighing etc., by enhancing their understanding of cargo handling and logistical systems.
4.2.2. Training in modern methods of receiving, checking, handling, storing and dispatching cargo.

4.2.3. Training in the appropriate use of computers and information technology, not only to fulfil fiscal requirements but also to achieve an efficient flow of goods, unaffected by delays.

Objective 5. Several universities and technical institutes offering courses and specialized options in the transport field.

5.1. Outcome 1. The universities and technical institutes will introduce courses and specialized postgraduate options intended to produce future executive staff for transport-related fields.

The following activities will be carried out:

5.1.1. An inventory will be made of the transport-related courses most needed in Bolivia and Paraguay.
5.1.2. Information will be compiled on the availability of resources in developing countries and the educational institutions that provide them.
5.1.3. Using this database, work will be done with the education authorities of each country to design courses and train professionals in the shortest time possible.

E. INPUTS

National inputs

The governments of Bolivia and Paraguay will provide the project experts with the office space and logistical support needed to ensure the project's smooth operation.

Each will also appoint and place at the project's disposal a national counterpart team made up of four officials drawn from the fields of transport, international trade, customs and foreign relations, who will participate jointly in the project until its completion.

International inputs

UNDP

International financial inputs will be coordinated by UNDP on the following cost-sharing basis:

- UNDP US$
- Bolivian Government US$
- Paraguayan Government US$
- Other international organizations US$

The contributions of UNDP, ……., and the governments are intended to cover the budget shown in Section J of this project document, in respect of the following components:

International experts:

11.01 **Chief technical advisor** He/she will lead the project for 36 months, coordinating its actions with the national bodies, preparing progress reports and carrying out the following technical assistance activities:

- Organization of work, action plan, schedule, definition of responsibilities;
- Coordinating the timetable of project activities and technical assistance provision with the IIRSA's technical coordination committee, the executive technical teams and the head of the inter-oceanic arm;
- Participation in the training courses and seminars for public and private sector officials;
- Revision, correction and approval for publication of instruction manuals and terms of reference developed during the project.

11.02. **Expert in information systems** for 36 months, to perform the following technical assistance activities:

- Design and commissioning of information exchange circuits between the systems used by the customs services of Bolivia, Paraguay and neighbouring countries;
- Software installation and participation in trials;
- Involvement in in-service training, from trial stage to approval;
- Participation in workshops and seminars aimed at senior officials and the public and private sectors;
- Preparation of technical, administrative, procedural and customer information manuals;
- Design of systems to strengthen the work of carriers, warehouses and stores in connection with customs and transit arrangements;
- Advising institutions, businesses and end-users on how to create, use and maintain websites, organizing seminars on how to make best use of the Internet at all levels of transport;
- The expert must be a systems engineer, with proven experience of software design. Customs experience would be an advantage.

11.03 **Trade facilitation expert** for 36 months, to carry out the following activities:

- Preparation of descriptions and flow diagrams of the existing Bolivian and Paraguayan transport procedures, with reference to their legal basis, conventions, agreements, working systems, etc;
- Identification of the deficiencies and constraints affecting the current procedures which make the flow of goods more expensive and less efficient;
- Preparation of recommendations on a case by case basis, in close consultation with the relevant agencies, the chief technical advisor and, as necessary, the technical divisions of UNCTAD;

- Preparation of individual programmes for implementing the above-mentioned recommendations, including a training programme. These will be submitted in consultation with the governments;
- At the request of the governments, assisting in the programmes' implementation by preparing documentation and manuals, instructions and such legal guidelines as may be necessary;
- Performing other functions that may be assigned by the chief technical advisor in conformity with the project's scale and functions;
- The expert must be a graduate in economics, law or administration, with wide experience and knowledge of trade facilitation, transit, transport and documentation procedures and trade regulations. He/she must also be very familiar with the issues affecting landlocked countries.

11.04 **Expert in multimodal transport**, for 36 months, to perform the following activities:

- Preparation of an inventory of the shortcomings and constraints affecting road, rail and river transport in Bolivia and Paraguay, as outlined in this study;
- Preparation of individual technical studies for each transport operator, identifying the bottlenecks hampering the road transport companies, cooperatives and syndicates, and the rail and river carriers; recommendations on the problems identified, with possible solutions;
- In close consultation with companies, formulation of programmes for implementing improvements and training programmes;
- Organization of seminars on multimodal transport; raising of national operators' awareness of the advantages and disadvantages of becoming multimodal operators;
- Organization of seminars on the prevailing standards in the Latin American Cone for international transport companies, cooperatives and syndicates;
- Writing procedural and instruction manuals to train businessmen, leaders and end-users;
- Advising the transit authorities on the best methods for putting regulations into practice, and on staff training;
- The expert must be a graduate in economics, law or business administration, with wide knowledge and experience of multimodal transport, trade facilitation, transit, transport and documentation procedures and the relevant regulations. He/she must also have solid experience of multimodal transport companies. Familiarity with the issues affecting landlocked countries will be an advantage.

11.05 **Expert on road transport**, for 36 months, to perform the following technical assistance activities:

- Compiling a detailed inventory of international transit routes, including all restrictions and delays attributable to searches, licence checks, technical inspections, infrastructure, equipment failings, driver errors, documentation, payments, etc;

- On the basis of the inventory, preparing recommendations for the services and institutions responsible for delays, with suggestions on how to eliminate, correct or alleviate the problems;
- Preparation and execution of a programme to strengthen small transport concerns;
- Preparation of manuals for businessmen, driver identity cards and advice for end-users;
- Using these materials, holding courses for instructors, who will then hold seminars and workshops to disseminate their knowledge and thus improve the small international transport operators' understanding of the relevant regulations and standards;
- Preparation of manuals and instructions designed to strengthen the small concerns' ability to manage, to make strategic alliances, and to perform accounting, resulting in improved competitiveness;
- Introduction of information tools to cooperatives and syndicates, thus improving both the quantitative and qualitative aspects of their services;
- The expert must be a graduate in transport economics or business administration, with wide practical experience and knowledge of road transport, transit, transport and documentation procedures and the relevant regulations. He/she must also have solid experience of transport companies. Familiarity with the issues affecting landlocked countries will be an advantage.

Logistical support

13.01 Salaries will be paid by two secretariats, one in Bolivia and one in Paraguay, throughout the 36 months of the project.

National experts

Provision will be made to engage national experts on the basis of short 1 or 2 month contracts throughout the project, in order to collaborate with the international experts in implementing programmes and in training instructors.

Travel

15.01 The costs of travel and subsistence for the experts in each country, and also the chief technical advisor's travel costs as project coordinator, are covered under this budget item.

16.01 The Geneva-based officer responsible for Latin America will undertake travel for the purposes of coordinating and supervising project activities.

Training

32.01 As part of the project, training courses and workshops will be held on the various disciplines of trade facilitation, as well as seminars and training for the instructors concerned with the operations and procedures needed for effective transit control.

This heading covers the costs of the travel, subsistence, organization and supporting material relating to training seminars, workshops and courses.

Equipment

41.01 The budget allocated for equipment covers the items most necessary to the functioning of the project.

42. 01 The project will fund the acquisition of three PCs operating as a network, together with printers, photocopiers and scanners for each office in Bolivia and Paraguay and the basic software for handling the production of documents and reports.

42.02 Provision is made for the acquisition of filing cabinets and other office essentials.

Miscellaneous

51.00 This heading covers the insurance and maintenance costs for the equipment which is acquired.

53.01 This heading covers the costs of correspondence and communication, the reproduction and distribution of technical and progress reports, etc.

UNCTAD inputs

UNCTAD, as the implementing agency, will recruit the experts and supervise their work.

UNCTAD will provide the experts with the necessary substantive technical support, and also such studies, reports, technical documentation and secretarial support as they require throughout their work.

The chief technical advisor will keep UNCTAD informed about the work under his supervision and the progress of the project. Advisers' reports will be distributed to UNDP. Once approved by UNCTAD and UNDP, they will be submitted to the government officials concerned.

F. PROJECT CONTROL AND EVALUATION

The project will be subject to tripartite reviews (joint evaluations carried out by the governmental counterparts, UNCTAD and UNDP) at least every 12 months.

The chief technical advisor will prepare and submit to the participants in the evaluation a progress report on the project.

At the end of the project's implementation period, the chief technical advisor will prepare the final report for evaluation and authorization by the implementing agency some four months before the final tripartite evaluation meeting.

G. LEGAL CONTEXT

This project document shall be the instrument referred to in the attached additional provisions to the project document.

For the purposes of the additional provisions to the project document, the implementing body in the host country shall mean the Government cooperation agency described in the additional provisions.

The project shall be subject to budgetary revisions. The following types of revision may be performed on the signature of the UNDP resident representative, provided the said representative has assurances from the other signatories to the project document that they do not object to the proposed changes:

a) Revisions to any document annexed or added to the project document (except for the model legal text for countries that have not signed the model basic agreement; this text may not be altered and its acceptance is a basic prerequisite for receiving assistance from UNDP);
b) Revisions that do not imply significant changes to a project's immediate objectives, outcomes or activities, but which may arise because of a redistribution of agreed inputs or an increase in costs caused by inflation;
c) Compulsory annual revisions intended to stagger the delivery of agreed project inputs, increase experts' or other expenses in line with inflation or allow an organization a margin of flexibility in its spending.

H. PROJECT BUDGET

(see next page)

J.

	REGIONAL TRANSPORT FACILITATION PROJECT: BOLIVIA-PARAGUAY							
	Total budget	Totals	2004		2005		2006	
			Mths	US$	Mths	US$	Mths	US$
10.00	**Project staff**							
11.00	**International experts**							
11.01	Project head	360 000	12	120 000	12	120 000	12	120 000
11.02	Info systems expert	252 000	12	84 000	12	84 000	12	84 000
11.03	Trade facilitation expert	252 000	12	84 000	12	84 000	12	84 000
11.04	Multimodal transport expert	252 000	12	84 000	12	84 000	12	84 000
11.05	Road transport expert	252 000	12	84 000	12	84 000	12	84 000
13.00	**Admin. assistance**							
13.01	Secretariat in Bolivia	10 800	12	3 600	12	3 600	12	3 600
13.02	Secretariat in Paraguay	10 800	12	3 600	12	3 600	12	3 600
15.00	Travel and missions							
15.01	Travel	32 000	40	16 000	20	8 000	20	8 000
16.01	UNCTAD missions	45 000		15 000		15 000		15 000
17.00	National experts							
17.01	National advisers	357 000	30	105 000	36	126 000	36	126 000
19.99	**COMPONENT TOTAL**							
30.00	Training							
31.00	Group training	120 000		40 000		40 000		40 000
39.99	Component total	1943600		639 200		652 200		652 200
40.00	Equipment							
41.00	Computing material							
42.01	Computing eqpt.	9 000		9 000		0		0
42.02	Office eqpt.	6 000		2 000		2 000		2 000
49.99	**COMPONENT TOTAL**	15 000		11 000		2 000		2 000
50.00	Miscellaneous							
51.00	Eqpt maintenance	3 600		1 200		1 200		1 200
51.01	Operating costs	22 800		7 600		7 600		7 600
53.00	Various	15 000		5 000		5 000		5 000
59.99	**COMPONENT TOTAL**	41 400		13 800		13 800		13 800
99.00	**PROJECT TOTAL**	2 million		664 000		668 000		668 000