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ALADI	Latin American Integration Association
ANH	National Hydrocarbon Agency
ANNP	National Navigation and Ports Administration
ATIT	Agreement on International Road Transport
BRI	Belt and Road Initiative
CAN	Andean Community of Nations
CEBAF	Binational Border Service Centers
DGMM	Directorate General of the Merchant Marine
DINAC	National Directorate for Civil Aeronautics
DINATRAN	National Transport Directorate
ECLAC	Economic Commission for Latin America and the Caribbean
ECI	Economic Complexity Index
FDI	Foreign Direct Investment
GDI	Gross Domestic Income
IADB	Inter-American Development Bank
ICA	Integrated Control Areas
ICM/CTD	International Cargo Manifest / Customs Transit Declaration
ICT	Information and Communication Technology
INE	National Statistics Institute
ITA	Information Technology Agreement
ITU	

Under Priority 4: Regional Integration and Cooperation, progress has been achieved on dimensions such as trade, investment and labor regulations in spite of

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

All of the goals contained in the 2030 Agenda are relevant to landlocked developing countries, yet it is

b. To reduce trade transaction costs and transport costs and improve international trade services through simplification

Transport Agreement. The technical inspection of vehicles and the issuance of s fall under the responsibility of the Traffic Operation Unit.

The planning of air transport infrastructure and air traffic control fall under the responsibility of the Administration of Airports and Air Navigation Auxiliary Services (AASANA), a decentralized public

airports, to the exception of the international airports located in the cities of Cochabamba, Santa Cruz and La Paz, which are managed by the company Service Aeropuertos Bolivianos SA (SABSA) Nacionalizada.

The MOPSV Institutional Strategic Plan 2016-2020 sets out the goal of building 4,806 km of roads by 2020 with the following list of priorities:

- Dual-carriage ways
- Bi-oceanic Corridor
- North - South Corridor
- West - North Corridor
- Jaime Mendoza diagonal artery
- Connecti

Construct, expand, and equip 12 national and tourist monitor international commitments made within the framework of the SDGs. The correlation between the SDGs and the NDP is partly a result of having been conceptualized and drafted during the same period.

sets forward three strategic axes: 1) Poverty reduction and social development, 2) . It also includes four cross cutting themes: 1) Equal opportunity, 2) Efficient and transparent public management, 3) Territorial planning and development, and 4) Environmental sustainability. The intersection between the three strategic axes and four cross-cutting themes produce a set of 12 objectives, summarized in the table below.

Table2: Strategic Framework of the National Development Plan

	Cross-cutting themes			
Strategic axes	Equal opportunity	Efficient and transparent public management	Territorial planning and development	Environmental Sustainability
Poverty reduction and social development	Equitable social development	Quality social services	Participative local development	Adequate and sustainable habitat
Inclusive economic development	Employment and social security	Competitiveness and innovation	Regionalization and productive diversification	Appreciation of environmental capital

Other plans are intimately linked to the PND 2030, notably the Transport Master international trade as it diversifies transport corridors for imports and exports, establishes better access to ports on the Atlantic and Pacific coasts, This section provides

a.2 World Customs Organization (WCO)

The World Customs Organization (WCO) is an independent intergovernmental body whose mission is to improve efficiency of customs administrations and has among its strategic objectives the promotion of international trade facilitation and security, and the simplification and harmonization of customs procedures to improve economic competitiveness.

Bolivia and Paraguay both participate in the Customs Cooperation Council which cooperates with the WTO in several spheres, such as the Information Technology Agreement (ITA), customs valuation, rules of origin, trade facilitation, and access to markets.

The Customs Cooperation Council is a forum to discuss ways to streamline customs procedures between landlocked and transit countries in order to reduce the disadvantages and costs landlocked countries bear as a result of not having seaports.

With the support of the WCO, the Authorised Economic Operator (AEO) programme has also been launched. The AEO implements new customs process approaches that facilitate international trade and ensure the security of the international trade logistics chain.

b) Regional agreements

b.1 Latin American Integration Association (ALADI)

The 1980 Treaty of Montevideo (TM80) signed on August 12, 1980, is the legal and regulatory framework of ALADI. Bolivia and Paraguay are original members of ALADI and signatories to TM80. Countries with the lowest relative economic development in the region (Bolivia, Ecuador, and Paraguay) enjoy preferential measures aimed at facilitating their integration, and offsetting some of the disadvantages that Bolivia and Paraguay specifically face as a result of their landlockedness. These preferential measures include special cooperation programs (business roundtables, pre-investment, financing, and technological support) and lists of products that are exempt of customs tariffs and trade restrictions, among others.

A broad range of topics are covered by the regional agreement and partial scope agreements signed under the framework of ALADI. They include such matters as tariff reduction and trade promotion; economic complementarity; agricultural trade; financial, tax, and customs cooperation; environmental preservation; health, scientific and technological cooperation; tourism promotion; and technical standards, among others

To support trade facilitation, ALADI seeks to identify cutoms procedures that can be simplified and harmonized, in accordance with the World Trade Organization (WTO) Agreement on Trade Facilitation, instruments of the World Customs Organization (WCO) and other relevant bodies. As for transport, the Agreement on International Road Transport (ATIT) was signed within the framework of the Montevideo Treaty. It serves as the legal framework that regulates the provision of road and rail transport

Chile, Paraguay, Peru and Uruguay).

b.2 MERCOSUR

MERCOSUR is a regional integration process initially established by Argentina, Brazil, Paraguay and Uruguay. Venezuela[10] and Bolivia are currently in the process of joining MERCOSUR[11], and Chile, Colombia, Ecuador, Guyana, Peru and Surinam are associated States.

ives is to create a common space that promotes trade and investment opportunities to foster the competitive integration of national economies into the international market. To this end, MERCOSUR has signed commercial, political, and cooperation agreements with nations and organizations that span across five continents. The four founding members of MERCOSUR have manifested their will to subscribe to the WTO Trade Facilitation Agreement (TFA) that came into force on February 22, 2017.

Like other MERCOSUR member countries, Paraguay subscribes to ATIT and applies its regulations. As a full member of the Andean Community of Nations (CAN), Bolivia, fully implements Decision 399 on the international transport of goods, Decision 617 regarding customs transit within Andean Community

Information Exchange. On the basis of decisión CMC 1/97, the Mercosur Customs Cooperation Agreement came into effect. Subsequently, information exchange through an online system was contemplated, and by means of decision CMC 26/06 gave rise to the Information Exchange of Customs Records (INDIRA) system which enables real time access to a database that helps effectively analyze risk while improving controls along the international logistics chain.

Mutual Recognition of Authorized Economic Operator of the State Parties a trade facilitation measure with the potential of having significant impact. Paraguay and Bolivia have already established Authorized Economic Operator systems within their respective domestic customs administration, and agreements with neighboring countries are in the process of being signed.

b.3 The Andean Community of Nations (CAN)

CAN is a regional integration body composed of various entities and institutions that conform the Andean Integration System. By integrating the Andean region, it aims to achieve integrated, balanced and autonomous development, with the view of further integrating the South American and Latin American regions. Member countries include Colombia, Ecuador, Peru and Bolivia, and associated countries include Argentina, Brazil, Paraguay, Uruguay and Chile, with Spain joining as an Observer.

Within CAN, t nt (TFA) is used as the frame of reference for trade facilitation matters. Its provisions aim to streamline the movement, release, and clearance of goods, including goods in transit. They aim to ensure effective cooperation among customs administrations and other customs authorities that work on trade facilitation issues and customs procedure compliance, further addressing matters of technical assistance and capacity building in these realms.

Relevant topics falling under the scope of CAN customs regulation include the following:

Community Customs Transit: Solidifies the free circulation of goods between member countries, enabling their transport from origin to destination without compulsory transshipments and unnecessary shipments at the border, ports or airports. Unified documentation, information exchange systems, and supplemental controls are used to achieve this.

Community customs transit are regulated by Decision 617 and modified by Decisions 636 and 787. The framework enables merchandise to travel between member countries by crossing one or more borders under the same operation, and further lifts applicable taxes.

Harmonization of Customs Procedures: Common rules help simplify and optimize business transactions, which is why the establishment of provisions for uniform customs procedures contribute to fostering international trade.

To this end, the Single Customs Document (DUA) was adopted following Decision 670 and its revisions. The aim of DUA is to harmonize customs procedures, unify the declaration of goods at customs, standardize data required to conduct trade operations, and streamline the data required from foreign trade operators throughout member countries.

CAN has adopted a series of community rules to facilitate and liberalize transport services under their various modalities. International road transport is regulated by Decision 398 (passengers) and 399 (cargo), both of which aim to ensure service efficiency, specify contract conditions and outline the responsibility of carriers and users. The International Transport of Goods by Road (TIMC) is an effective instrument to consolidate the subregional economic area. It is also a valuable integration tool that supports commercial exchanges, competitive expansion of the productive base, and the dynamization of foreign trade.

CAN and ALADI intend to further simplify procedures and stimulate land transport in South America, which is why they are conducting comparative analyses of current international regulations applicable to the sector. Alternatives that are currently under consideration include the signature of a regional standard, the harmonization of rules, and the reciprocal recognition and adherence of all CAN and ALADI countries to the Agreement on International road Transport (ATIT).

b.4 The River Transport Agreement for the Paraguay-Paraná Waterway (PPW)

National custom offices are autonomous entities in charge of overseeing foreign trade, collecting corresponding customs duties, and facilitating operations. In Bolivia, the agency is called National Customs, and in Paraguay, the National Customs Directorate. Both countries have district offices within their territory and at border crossing points where trade takes place.

Bolivian Customs currently use the Automated System for Customs Data (ASYCUDA++, or SIDUNEA++ for its Spanish acronym), which is also used in several other countries. In recent years, Bolivian Customs have been developing a new computer program called the Customs Modernization System (SUMA) which is currently used for exports and is in the process of being adopted for imports, with the full transition expected to be completed by the end of 2019.

In Paraguay the Fiscal Organization of Customs Levies (SOFIA)

This section analyzes the efforts and progress made by landlocked developing countries and transit countries in Latin America with regards to the VPoA objective of *reducing transport time and costs in the export and import process*. Progress in this sphere would suggest improvements in areas such as travel time along corridors, time spent on formalities and border crossings, and intermodal connectivity.

2.1.2.1 Logistics performance and trade facilitation

Figure1: Rating of LPI components by country

Source: LPI 2018, World Bank

The Ease of Doing Business Report provides a complementary picture to the LPI. The Ease of Doing Business is measured through a set of 12 indicators, and one of those metrics is *Trading Across Borders*, which measures the time and cost of importing or exporting a product. In 2018, Chile is the highest ranked country in South America, holding the 71st position among 190 economies. Between 2015 and 2018 Bolivia moved up from the 124th position to the 96th position, thus holding the second position in South America, and Paraguay moved from the 135th to the 127th position during the same time period.

Table 15 below presents cross-border formalities and red tape for Bolivia and Paraguay, both of which demonstrate overall improvements in the cost and time to export. As for imports, improvements have been made in the time to achieve documentary compliance, while times and costs for border compliance have remained largely unchanged.

The table also compares these figures with the average of Latin American and Caribbean countries, OECD countries, and best performers in 2018. While Bolivia and Paraguay score better than the average of Latin American countries for certain categories, in others they fare worse. The results of OECD countries and best performers also serve as

Table5: Trade facilitation indicators

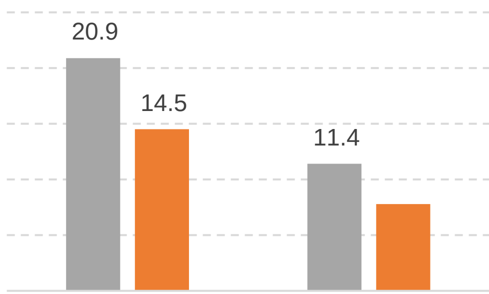
Indicators	Bolivia		Paraguay	
	Exports	Imports	Exports	Imports
Distance (kms)[1]	280	280	370	337
Domestic transport (hours)	6	6	144	6
Cost of domestic transport (USD[2])	750	750	1000	800
Speed of domestic transport (Km/h)	46.7	46.7	2.6	56.2
Cost of domestic transport (USD/km)	2.7	2.7	2.7	2.4
Customs	Tambo Quemado	Tambo Quemado	Puerto Pilar	Ciudad del Este

Indicators	Chile		Argentina		Brazil		Uruguay	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Distance (kms)								

Paraguay has also experienced marked reductions in the time required for exports to reach ports on the Atlantic by both inland water transport and road transport.

Paraguay and Bolivia both utilize the PPW and the same transshipment ports, thus persistent challenges imposed by water flows along the waterway, and the deterioration in loading and unloading services in transshipment ports affect both countries exports uniformly. Reductions in inland water transport logistic inefficiencies can therefore be associated primarily to changes in the domestic pre-boarding process. Between 2012 and 2016, the reduction in cost overruns was equivalent to 5.4% of total cost for Bolivia, and 7% for Paraguay. Private sector investments to improve the loading and unloading process in company silos and ports have yielded improvements in domestic pre-boarding.

Figure 2: Bolivia: Evolution of cost overruns due to inefficiencies (cost inefficiencies as % of total costs)



Source: Suárez, D. (2018)

Figure 3: Paraguay: Evolution of cost overruns due to inefficiencies (cost inefficiencies as % of total costs)

Source: Suárez, D. (2018)

Reductions in road transport logistic inefficiencies have also gained ground in Bolivia and Paraguay with reductions in cost overruns equivalent to 3.6% in Bolivia, and 19.7% in Paraguay. Much like inland water transport, improvements for road transport were also linked to changes the domestic pre-boarding process, specifically the loading and unloading process in company silos. Paraguay has also experienced a reduction in the time to export as a result of the agreement reached between the Customs Agencies of Paraguay and Brazil to implement overnight customs clearance at the Ciudad del Este Foz de Iguazú border crossing.

Bolivia has also made investments to improve the secondary road network. Limitations imposed by geographically unstable terrain along the Santa Cruz Cochabamba highway at El Sillar continue nevertheless to pose problems, particularly during the rainy season when transit can be cut for hours or days at a time. To achieve a lasting solution to these recurrent problems, construction work began in the second semester of 2018 and is expected to finish by March 2021.

Results demonstrate that significant progress has been achieved on specific VPoA objectives, notably: (a) Reduce travel time along corridors, with the aim of allowing transit cargo to move a distance of 300 to 400 kilometres every 24 hours; (b) Significantly reduce the time spent at land borders; (c) Significantly improve intermodal connectivity, with the aim of ensuring efficient transfers from rail to road and vice versa and from port to rail and/or road and vice versa.

Challenges to improve transit and facilitate trade along these export corridors persist [redacted] the port of Buenos Aires and ports located in the area of Rosario San Lorenzo in Argentina, and [redacted] ts of Nueva Palmira and Montevideo in Uruguay.

[redacted] atriotic Agenda 2025 and PNDS 2016-2020 have assigned public resources to the construction of [redacted] ort infrastructure as detailed in Table 8.

[redacted] Bolivia: Public investment in transport infrastructure (2013-2016)

Sillar is marked by geographically unstable terrain that is often impacted by mud and stone landslides and collapses during the rainy season, generating significant delays or even cutting off roads for several days. To overcome these problems and provide long term solutions, significant construction work is currently underway, including the construction of a two-way highway, two tunnels measuring 1,025 meters and 675 meters in length respectively, in addition to 28 bridges and 6km of contention walls. The budget for this investment is e

The portion of the work carried out by the Chinese enterprise Sinohydro Ltd. was launched in the second semester of 2018 and is planned to be concluded by March 2021.

Bolivia has two major water systems that are leveraged for transportation, the Amazon and the Plata river basins, in addition to a high-altitude lake shared with the Republic of Peru. In the central and northern region of the country, inland water transport is carried out on the Amazon river basin, and in the south east edge of the country, on the Plata river basin. The Amazon basin holds a longer network of navigable rivers on Bolivian territory (5,728 km) as compared to the Plata basin (56 km). The rivers of the Bolivian Amazon, traditionally used to transport Bolivian exports such as rubber and elastic rubber to the Atlantic Ocean through the Madera river and other tributaries of the Amazon river to Manaus, Brazil, continue to be a principal means of internal mobility for passengers, freight and the cabotage of merchandise. Despite its shorter length in Bolivian territory, and due to its integration with the Paraguay-Paraná Waterway (PPW),The Plata basin is the most important inland waterway for the transportation of freight destined for import and export.

The scale of inland water transport through the PPW has increased in recent years in large part due to the increase in soybean production in the department of Santa Cruz. The main exports to pass through the PPW are grains, and cement and iron ore, while the main imports include fuels (gasoline and diesel), iron bars and wire for construction, and barley malt. Along the PPW, ports have eme

The Andean Network is 2,274 kilometers long and crosses through the departments of La Paz, Oruro, Potosí, Chuquisaca, and Cochabamba, and connects to the railway networks of neighboring Argentina, Chile, and Peru. At present, however, only the railway network to Antofagasta, Chile, is operational, and its use is limited to the transport of mineral freight.

The Eastern Network is 1,424 kilometers long and connects the departments of Chuquisaca, Tarija and Santa Cruz. This network connects to the railway networks of neighboring Argentina and Brazil through two border crossings, one in Yacuiba in Argentina, and Puerto Suárez in Brazil. The Eastern network is responsible for the biggest share of export and import freight and is crucial for the transport of soybean derivatives and other products that transit through the PPW and make use of Bolivian ports in the Tamengo Canal to load and unload goods.

Table 11: Bolivia: Functional railway length by network (In kilometers)

	2014	2015	2016	2017
Eastern Network	1,834	1,834	1,834	1,834
Andean Network	1,244	1,244	1,244	1,244
Total	3,078	3,078	3,078	3,078

Source: National Statistics Institute of Bolivia (INE) - Red Ferroviaria Andina S.A. - Red Ferroviaria Oriental S.A.

Currently the construction of the Montero-Bulo segment to facilitate the transportation of urea and ammonia from their plants in Bulo, Cochabamba, to the local market of Santa Cruz, and the foreign markets of Brasil and Argentina will grow the length of the Eastern network by 150 kilometers. The extension of the network is expected to be completed by April, 2019[16]

Bolivia, alongside Brazil and Peru, has taken the lead in promoting the Bi-Oceanic Railway Corridor that would initially connect all three countries, from the port of Santos, Brazil, on the Atlantic coast, through Bolivia, and to the port of Ilo, Peru, on the Pacific coast. Paraguay has also joined the project and plans to build a feeder line connecting Puerto Carmelo Peralta, Paraguay, with Roboré, Bolivia.

The Bi-As, Brazil, on the Atlan41 /F6 /o p12(52 2( )-159(a44)4(c)8(c)24 0.00000910 612 79Fea0 6125(rt)a,)12i linkage and have estimated the investment to amount to 250 million dollars, no clear progress has been made towards the execution of this project.

Another constraint for railway transport has been the halt of operation of the C-15 feeder line that

segment north of the C-15 feeder line is approximately 80 kilometers long and would require the restoration of seven bridges for a total cost of 60 million dollars, 35 million which would be financed by FONPLATA, and 25 million by the Argentine Government. The Ministerial Resolution No. 1033/2018 of November 21, 2018 of the Ministry of Transport of Argentina, however, suspended the International Public Bidding process to rehabilitate the feeder line[17].

The PNDS 2016-2020 establishes the strategic importance of strengthening air transport to promote the economic and social development of intermediate cities, and to further massify transport and integrate remote regions. Since 2014, investments have been focused on the construction, maintenance and provision of equipment to national and international airports. A total of 245,418 square meters of platform and 160,201 square meters of buildings have been constructed between 2014 and 2017, as detailed in the table below:

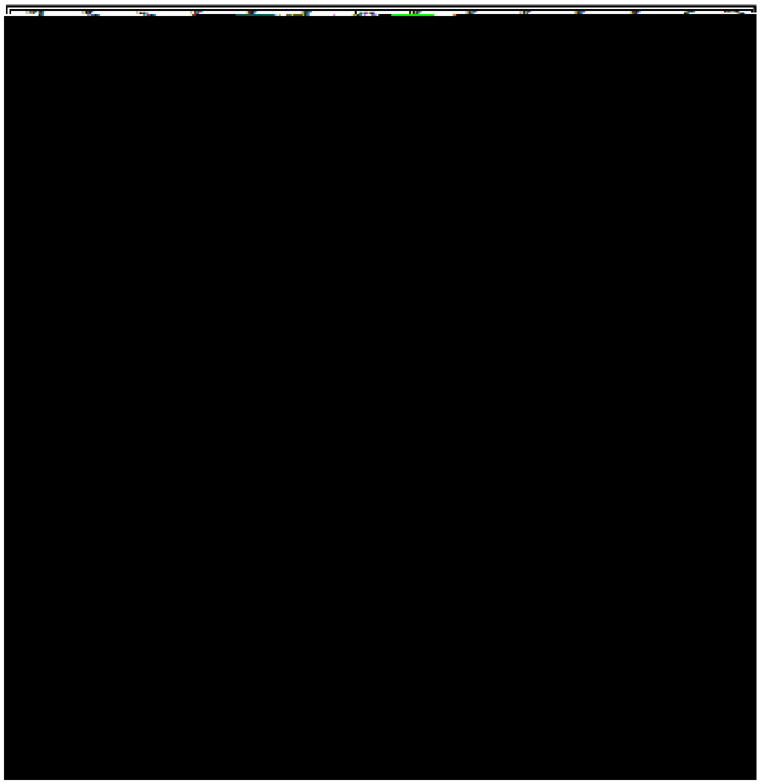
Table12: Bolivia: Airport infrastructure built and expanded (In square meters)

Description	Historical Endowment (1)	2014	2015	2016	2017	Total
Platform	194,671	142,764	76,694	25,960	0	440,089
Building	37,668	103,136	45,636	6,148	5,281	197,869

Bolivia is an important producer and exporter of petroleum, natural gas and derivatives. In addition to covering the needs of its internal market, Bolivia has developed a robust pipeline system (gas pipelines, oil pipelines, and multi-purpose pipelines) that covers two-thirds of the territory and seven out of the nine

kilometers of oil pipelines, 1,512.1 kilometers of multi-purpose pipelines, and 6,133 kilometers of gas pipelines of varying dimensions and capacity, as illustrated in Map 2:

Map 2: Bolivia: Gas pipeline network



Source: National Hydrocarbon Agency of Bolivia (ANH)
Note: The limits and names on this map do not imply official support or acceptance by the United Nations.

demand. The pipelines used to transport gas to Brazil are the Río Grande-Mutún pipeline measuring 557 kilometers, and the San José de Chiquitos-San Matías-Cuiabá pipeline measuring 360 kilometers. The pipelines used to transport gas to Argentina are the Río Grande-Yacuiba pipeline measuring 441 kilometers, and the Juana Azurdy Integration pipeline measuring 13 kilometers on Bolivian soil.

Bolivia also exports liquefied petrol gas (LPG) to Peru and Paraguay. These exports are currently being transported by tanker trucks, yet planning is under way to construct two pipelines, one towards each country. In the case of Paraguay, the pipeline is projected to transport up to 4 million cubic meters of LPG per day through the Bolivian and Paraguayan Chaco regions.

Gas and multi-use pipelines provide important national coverage for the distribution of liquid hydrocarbons throughout the country, with the exception of the departments of Beni and Pando located in the north of Bolivia, which is supplied through road and river tankers. In early 2016 the virtual pipeline system was inaugurated, which includes a liquefied natural gas plant, a fleet of cryogenic cisterns, a mobile regasification plant, and satellite regasification stations to supply areas of the country that conventional gas pipelines do not reach.

A natural gas purchase agreement was signed between YPFB and Petrobras in 1996 for a 20-year duration, from 1999 to 2019. This contract initially established the shipment of 16 million cubic meters per day of natural gas and was expanded following two addendums to reach the maximum contractual sales volume of 30.08 million cubic meters per day, currently in force. In 2006, a c612 792 re WorBca tpt75.5 Tm orBc2.46 tBcto

Paraguay has also focused on expanding its transport infrastructure with the objective of strengthening internal linkages and increasing connectivity with neighboring transit countries and markets overseas. rincipal means of connectivity are road and inland water transport which links the country with the ports of Paranaguá, Brazil, Buenos Aires and Rosario, Argentina, and Nueva Palmira and s set clear priorities to enhance infrastructure development in all sectors. The country has consequently been making public investments in transport infrastructure, as detailed in Table13 below:

Table13: Paraguay: Public

4.9 to 10.8 km /1,000 inhabitants, and paved roads from 0.83 to 0.98 km/ 1,000 inhabitants between 2013 and 2017, as outlined in table 15 below:

Table 15: Paraguay: Evolution of road density, 2013-2017 (In km/100 km2)

Description	2013	2017
Total km road	32,207	75,120
Total km paved road	5,474	6,783
km2 territory	406,752	406,752
Total inhabitants	6,559,027	6,953,646
km total/100 km2	7.9	18.5
km paved/100 km2	1.35	1.67
km total/1,000 inhab	4.9	10.8
km paved/1,000 inhab	0.83	0.98

Sources: Elaborated by the authors on the basis of data from the MOPC and the Directorate General of Statistics, Surveys and Census of Paraguay.

The development of paved roads in recent years has improved connectivity, even if the quality of the road surface is moderate. Road development is uneven and concentrated in certain parts of the territory where population density and economic activity require greater coverage and access levels. The road network is primarily unpaved, and rural feeder roads are generally open paths in the bush that are used to transport agricultural production from the farming fields to the storage silos. During the rainy season, these roads become impassable and result in cost increases and delays along the logistics chain.

During the harvest season (March through May), transport moves from the production areas of the east to the grain ports located on the banks of the Paraguay river in the west, creating significant congestion along roadways, posing danger to smaller vehicles and passenger vehicles, and further damaging road

Two hydroelectric power plants are located on the 850 kilometer stretch of the Paraná river in Paraguay: Yacyretá, located 225 kilometers from the mouth of the Paraguay river and which has a navigation lock, and Itaipú, located 700 kilometers from the mouth of the Paraguay river. The navigability of the Paraná river is restricted by the reservoir of the Binacional Itaipú dam, which does not have a continuous river corridor that would enable connectivity between the Tieté basin and the Alto Paraná. The navigation lock at the Binational dam of Yacyretá between Argentina and Paraguay faces the same problem, enabling the passage only of small containers.

Map 3: Paraguay Paraná Waterway

Source: ECLAC and FONPLATA (2018)
Note: The limits and names on this map do not imply official support or acceptance by the United Nations.

Paraguay has 51 privately-owned ports and three state-owned ports (Asunción, Encarnación y Pilar).
n Concepción and Villeta, and the

privately-owned ports have been built[20] as a result of the creation of incentives for private investment established by Law No. 419/1994 of December 8, 1994,[21] which authorizes and establishes the legal framework for the construction and operation of private ports. A marked rise in the construction of ports started in 2003 as a result of the rise in grain exports, particular
has expanded progressively, and in 2018 it possessed 2,294 units equipped for inland water transport, of

[20] Sourcao Tm 0 g 0 G [<0y, and in 20oh194<BIT8C5(n)1e P Ucå P VP%

which 171 were tugboats and 2,006 were barges.[22] The Paraguayan fleet also meets the regional inland water transport needs for Bolivian and Brazilian imports and exports.

One of the main problems of inland water transport along the Paraguay and Paraná relate to its navigation condition. Overcoming the lack of depth and deficient signalization in areas of the river would enable transport to occur year enable

Table16: Bolivia and Paraguay: Investment in economic and services infrastructure (2014-2016)

Description	2014	2015	2016

- The (South) Waterfront road. Construction of 7.9km of coastal highway and the construction of 5,000 housing units to relocate families.

include:

- The holistic rehabilitation and operation of the Paraguarí San Salvador and San Salvador Abaí railway segments; and

During the same year, President of the Plurinational State of Bolivia, Evo Morales, conducted an official to visit to China where he discussed the possibility improving infrastructure linkages and market access

a bi-oceanic railway corridor that crosses the South American continent and connects the Atlantic and Pacific coasts. With the idea of providing an alternative to current maritime shipping routes through the Panama Canal and around Cape Horn, such a corridor has the potential to improve connectivity for the economies of Bolivia, Paraguay, as well as Inland neighboring territory, with global trade networks by

Paraguay, Peru and Uruguay, along with railway and consulting firms, and the COSIPLAN-IIRSA Technical Coordination Committee gathered to discuss railway connectivity projects of which the Bi-Oceanic railway corridor remains one of the most prominent, particularly as a tool to engage and unleash the economic potential of landlocked developing countries and inland regions at the heart of South America which are currently prolific agricultural territory. While the railway is not stipulated to pass through Paraguay, discussions of integrating the country through a railway branch from Puerto Carmelo Peralta (Paraguay)

beneficiaries of the bi-oceanic railway. In addition, Paraguay aims to benefit from its participation in a complementary corridor, the Bi-Oceanic Roadway connecting the Atlantic and Pacific coasts through Brazil, Paraguay, Argentina, and Chile to markets beyond.

Infrastructure investment through the BRI and Chinese FDI holds great poten
economies to continue expanding their global trade presence and intensify trade with China. According

3.671 billion worth of Chinese goods, or an import partner share of 30.92%. The same year, Paraguayan exports to China amounted to US$27.6 million, a fivefold increase from the year 2000, representing an export partner share of 0.32%. also China with US$ 2.027 billion worth of goods being imported annually, representing 21.79% of Bolivian import shares. The same

the year 2000, representing an export partner share of 5.11% Beyond the opportunities of increasing its presence in the Chinese market, the railway corridor has the potential of further opening up the Pacific and intensifying trade with Asia-Pacific in general. Over the years countries between the two regions have are generally characterized by a high concentration of commodities. Bolivia and Paraguay both fit this

($US1.04B), P

Profiling: At this stage, background information is studied in order to assess the suitability and technical and economic feasibility of implementing the project idea.

Pre-Execution: This stage includes projects in the following phases: (i) Pre-feasibility: In this phase, the alternatives regarded as the most convenient at the profile stage are thoroughly examined. This analysis includes, among other elements, the factors that impact on the feasibility and on the investment return of such alternatives. (ii) Feasibility: The feasibility study must involve a detailed and accurate analysis of the alternative that was deemed feasible in the previous phase. This phase also includes the examination of all the aspects related to the physical works, the investment spending program, and project start-up and development. (iii) Investment: This phase includes two aspects: i) Financing, which involves all the actions, formalities and other activities aimed at securing the funds necessary to finance the investment; and ii) Engineering study, consisting of a series of detailed studies for the construction, erection and commissioning of the works.

Execution: It refers to the set of activities required for the physical construction of the project,

Table18: Degree of progress in project execution
(millions of dollars)

Given the magnitude and complexity of the complementary work required to advance viable projects in nds additional support and investments be made in the areas of research, capacity building and grants. Government counterparts further need support to structure financial transactions, negotiate contracts, communicate with stakeholders, extend markets and enact legal and regulatory reforms, among others.[39]

This section analyzes progress made in the fields of energy, and information and communications technologies (ICT) in Bolivia and Paraguay since the implementation of the VPoA. These areas are essential to ensuring efficiency in transport and transit systems and spurring economic and social structural transformation. To delve deeper in the matter, data from the Latin American Energy Organization

To measure progress in the development and implementation of an effective broadband and ICT policy, data produced by the United Nations International Telecommunications Union (ITU) along with studies Observatory for the Information Society in Latin America and the Caribbean (OSILAC) and the Regional Broadband Observatory (ORBA), were analyzed.

The 2017 ITU report highlights important gains in connectivity and utilization of ICTs throughout the past decade. The availability of communications, most notably mobile phones and more recently broadband, has expanded both the access and use of internet services. While progress has been achieved overall, a digital gap among regions and between different countries persists.

ITU has developed an ICT Development Index[40] (IDI) that compares the evolution of ICTs across countries and over time. In 2017, leading positions were held by Iceland, the Republic of Korea and Switzerland. In the Americas the leading positions were held by the United States and Canada, and in South America, the leading positions were held by Uruguay, Argentina, and Chile, with Bolivia and Paraguay occupying low ranks. Despite investment in technologies such as fiber optic, the expansion of broadband, internet use and smart communication equipment has been insufficient to maintain or increase their position in the IDI ranking.

Table 21: Bolivia and Paraguay: Evolution of ICT Development Index, 2013-2017

	2013	2015	2016	2017
Bolivia				
Regional ranking	25	26	27	26
World ranking	107	107	115	112
IDI Score	3,78	4,08	3,84	4,31
Paraguay				
Regional ranking	26	27	26	27

users per 100 people, Bolivia reaches a rate of 3.4 and Paraguay 4.1. Between 2013 and 2017, Bolivia more than doubled its number of subscribers and expanded the length of its fiber optic network from 3,500 km and three international linkages in 2013, to 18,000 km and nine international linkages by 2017.

Given limited fixed broadband services, mobile broadband services have experienced a sharp rise in subscribership reaching 55 subscribers per 100 people in Bolivia, and 46.5 subscribers per 100 people in Paraguay in 2017. While these figures a

Figure12: Mobile phone subscribers (per 100 people)

Source: Elaborated by the authors on the basis of data fr
https://www.itu.int/en/ITU-D/
Statistics/Pages/stat/default.aspx. Accessed on: 15/02/19

Figure13: Fixed-line pone subscribers (per 100 people)

Source: Elaborated by the authors on the basis of data fr
https://www.itu.int/en/ITU-D/
Statistics/Pages/stat/default.aspx. Accessed on: 15/02/19

In recent years, the governments of Bolivia and Paraguay have implemented a number of ICT-related policies on matters that include: digital signatures, broadband planning, free software development, digital terrestrial television, and electronic government. With rates of penetration on the rise and with continued public and private efforts to reduce service price, increase adoption rates, and continuously expand relevant infrastructure, Bolivia and Paraguay show great promise in their ability to leverage the potential of ICTs for development.

According to Rojas, E. and Poveda, L. (2018) internet access continued to expand in Latin America and the Caribbean, yet despite these advances,

Increasing -commerce, requires a four-pronged approach. First, the region must boost the regional digital market. To do so, necessary legal and technical conditions to facilitate the electronic exchange of trade-related information, the interoperability of digital regulations between countries, and the generation of greater confidence among consumers by improving cybersecurity and consumer protection must be achieved. Second, the digitization and simplification of trade finances must be encouraged, including the support for alternative financial providers. Third, customs and postal services must be modernized to meet the demands of new and expanding crossborder e-commerce. And fourth, the costs of crossborder financial transactions and payments must be reduced so that they become affordable.

According to Patiño J. and Rojas E. (2018) who reference private consulting firm estimates, the market for retail e-commerce has the potential to experience substantial growth in Latin America in the years to come given the massive potential of the market; retail e-commerce currently makes up approximately 3% of retail sales in the region, as compared to North America, and Asia and the Pacific where retail e-commerce represents approximately 8% and 12% of retail sales respectively. The proposal to move towards a digital economy regional block could help reduce barriers that hinder the exchange of online goods and services, thereby increasing quality and reducing costs.

To monitor the implementation of trade facilitation measures at the global level, and identify best practices and outstanding needs for training, technical, and financial assistance, the five Regional Commissions of the United Nations periodically carry out a study on Digital and Sustainable Trade Facilitation (previously called the Global Survey on Trade Facilitation and the Implementation of Paperless Trade) The analysis, which is carried out through a survey, examines nine main categories: General Trade Facilitation Measures, Paperless Trade Facilitation, Cross-Border Paperless Trade, Cooperation among Border Agencies, Transit Facilitation, Trade Facilitation and SMEs, Agricultural Trade Facilitation, Trade Facilitation and Women, and E-Commerce Facilitation. The 2015 and 2017 surveys have been completed and published, and the 2019 survey is currently in proces and surpassed the average of 21 participating countries implementation of these measures was low, at 25%.

Figure14: Bolivia: Main Exports (percentage of FOB value)

Source: Elaborated by the authors on the basis of data from the National Statistics Institute of Bolivia (INE)

which have largely maintained the same structure between 2011 and 2014. Imported capital goods are mostly to meet the needs of industry, transport, and to a lesser degree machinery and equipment for agriculture. Imported intermediate inputs are also destined for industry, fuels, construction and agriculture.

Figure15: Bolivia: Main imports by category (percentage of CIF value)

Source: Elaborated by the authors on the basis of data from the National Statistics Institute of Bolivia (INE)

MERCOSUR is the main market for Bolivian exports, holding on average a 34% share over the past three years, 95% of which correspond to natural gas exports to the Brazilian and Argentinian markets. This share, however, has been diminishing in recent years as other economic areas, such as Asia, have been gaining ground. With South Korea and Japan as main trading partners, Asia has held on average 25.3% of export shares in the past three years, concentrated primarily in mineral products. Andean Community countries represent on average 11.5% of Bolivian exports, mainly agro-industrial products, while North America and the European Union represent on average 11% of Bolivian exports, mainly of mineral products, chestnuts, and new and emerging goods such as quinoa and chia, among others.

Figure 16: Bolivia: Exports by Economic Zone (percentage of FOB value)

Source: Elaborated by the authors on the basis of data from the National Statistics Institute of Bolivia (INE)

20% of total export volumes respectively. Air transport comes in last position, transporting only 1% of total export volumes, mostly of gold and silver ingots, flowers and craft goods.

Figure 18: Bolivia: Imports by transport method (percentage of tons)

Source: Elaborated by the authors on the basis of data from the National Statistics Institute of Bolivia (INE)

international trade stood on average at 52% of GDP, with exports representing 23% of GDP and imports 29% of GDP. During this period, Paraguay had a negative trade balance of 2,279 million US dollars, amounting to 6.2% of GDP. The trade imbalance is partly a product of the substantial volume of re-exportation carried out by Paraguay with its neighboring countries.

Table 25: Paraguay, International Trade Indicators (2014-2018)

Figure19: Paraguay Primary Exports (percentage of FOB value)

Source: Elaborated by the authors on the basis of data from the Central Bank of Paraguay

The composition

MERCOSUR is the primary destination for Paraguayan exports. An increase in the export share to MERCOSUR countries occurred in 2014, and by 2018 this share represented 59% of total exports, which consist primarily in electric power, and soybeans and their derivatives. It is important to highlight that approximately 60% of soybean exports to MERCOSUR countries are considered goods in transit, transferred to grain barges and destined for re-export to the European Union (EU). Exports to Asia consist mostly in bovine meat and soybean grains, while exports to the EU consist in soybeans and their derivatives, bovine fats and leather.

Figure 21: Paraguay Exports by Economic Zone (percentage of FOB value)

Source: Elaborated by the authors on the basis of data from the Central Bank of Paraguay

Inland water transport is the main mode of transport used for exports (73%), followed by road (27%) and a small proportion by air. A total of 51 private river ports and three state ports (Asunción, Encarnación, and Pilar) form the backbone of inland water transport, a mode of transport which has undergone expansion in recent years with the completion of five newly constructed private ports launching operations between 2011 and 2018. Given the connection of the Paraguay and Paraná rivers with the Plata river that flows out the Atlantic Ocean through Buenos Aires and Montevideo, international trade is mostly carried out launchin19.9 129.74 Tm 0 g 35te

Table 26: Paraguay Main traded products by mode of transport and corridor

PRODUCT	EXP/IMP	SHIPMENT METHO	CORRIDOR		
			MODE	ORIGIN	DESTINATION
Soybean (unprocessed)	Export	Truck	Road	Ciudad del Este	Cascavel (Brazil)
Soybean (unprocessed)	Export	Barge	River-Maritime		

Figure 23: Paraguay: Exports by level of processing (percentage of FOB value)

Source: Elaborated by the authors on the basis of data from the Central Bank of Paraguay

Paraguay has also been gaining a foothold in the bovine meat market. With the help of public-private partnerships and the support of international organizations, Paraguay has improved animal health, meat quality, reproductive technologies, logistics and marketing. The production of wires and cables for the automotive sector has also gained ground, representing 1% of exports in 2014 and 3% by 2018. Other items include textiles and plastics, each representing 1% of exports.

The Economic Complexity Index (ECI) is a valuable tool to measure and compare the added value countries integrate into their exports[43]. ECI measures the relative knowledge intensity of an economy by considering the knowledge intensity of the products it exports. The index is calculated on the basis of two variables: 1) Diversity: measures the variety of products produced by a given country, and 2) Ubiquity: measures the number of countries that produced a specific product, in other words it quantifies the degree of specialization required to produce each product. Diversity is positively correlated with ECI: greater diversity means a higher

Figure

In 2017, 129 countries were ranked on the index, with Japan, Switzerland and Germany in the lead. In Latin America, the country leading the ranking is Mexico (21), in South America, Brazil (37), with Paraguay (86) and Bolivia (108) in the lower part of the ranking.

With regards to the index value itself, both Bolivia and Paraguay have negative values meaning they have low economic complexity built on a poorly diversified export basket composed primarily of goods that are exported by a wide variety of countries and that incorporate low levels of knowledge and technology. Between 2013 and 2017, the index values for both countries experienced a small rise despite maintaining themselves below zero.

The World Trade Organization (WTO) Trade Facilitation Agreement (TFA), which came into force on February 22, 2017, aims to reduce international trade costs by simplifying the circulation of merchandise across borders. As stipulated in the TFA, each country much establish a National Trade Facilitation Committee to promote internal coordination and implement its provisions.

Both Paraguay and Bolivia have ratified the TFA, the former on March 1st, 2016 through Law 5564 of January 25th, 2016, creating the National Trade Facilitation Committee by Decree No. 7102/17, and the latter on January 1st, 2018 through Law 998 of November 27th, 2017, currently in the process of forming its National Trade Facilitation Committee by Supreme Decree. Transit countries have also ratified the TFA: Brazil in March 2016, Uruguay in August 2016, Chile in November 2016, and Argentina in January 2018.

Bolivia has requested support from the World Bank Group to implement the TFA. The request has resulted in

been carried out to analyze priorities, key provisions, and the creation of the National Trade Facilitation Committee. These workshops were attended by representatives of the TWO, the World Customs Organization (WCO), and Bolivian public and private sector actors.

the transparency and availability of trade-related information to all stakeholders involved in trade processes, fortify mechanisms for public-private dialogue, and improve customs procedures to simplify, modernize and harmonize export, import and

re technical

assistance and a transition period to build capacity. Among these commitments are: the publication and

Exports are limited to a number of commodities, primarily raw materials and natural resources. In Bolivia these are natural gas, zinc concentrates, lead concentrates, soybeans and derivatives, silver, gold, tin, and chestnuts; and in Paraguay: soybeans and their derivatives, electric power, bovine meat, and grains.

The largest proportion of goods are exported to Mercosur countries (34% of Bolivian exports, and more than 50% of Paraguayan exports). In order of magnitude, the other main markets for exports are: Bolivia: Asia, North America, and CAN countries; and Paraguay: the European Union and Asia.

The multiplicity of regional trade agreements, some of which are bound in protectionism, have yielded results that fall short of the promise of true regional integration. According to simulations, an integrated Latin American market would have the potential to duplicate the intra-regional trade of intermediate goods and further help develop value chains in the region[44]. Gradual and pragmatic convergence towards a unified regional market built upon existing trade agreements is important given the nature of the world economy which is increasingly characterized by competition among large economic powers connected through comprehensive trade agreements. The current structure of the world market is making the

Bolivia Argentina: To provide continuity to the current energy contract that will expire in 2026, a Memorandum of Understanding was signed to launch negotiations for a new natural gas purchase-sale contract that will come into force in 2027. The agreement also establishes contractual amounts and pricing scheme for 2019-2020 with built-in seasonal varia and the National Port Services Administration-Bolivia stipulates the promotion of trade of Bolivian goods through the port of Ilo.

Agreement reached to carry out electric interconnection studies.

Enhancement of cooperation to foster development has been promoted

Amazon Area along the Integrated Peru *Plan de Integración para el Desarrollo del Sector Amazónico de la Zona de Integración Fronteriza Perú-*

This section examines variables to assess the structural economic transformation that has taken place between 2014 and 2018. This structural tra

shocks, and reduce the negative effects resulting from their geographical disadvantages.

Between 2014 and 2018, the GDP growth rates of Bolivia and Paraguay was higher than that of other Latin

average for Latin America was 0.5%.

During this time period, a global contraction in the demand for raw materials and a drop in their prices occurred, impacting hydrocarbons, mining, and agriculture, which effectively form the backbone of the productive sectors and the export base of the majority of Latin American countries, particularly Bolivia and Paraguay. Prices fluctuated during this time period, with slight price increases in the last two years, which have been accompanied by improvements in the production of agricultural outputs

Between 2010 and 2013, the Bolivian economy experienced a gradual and sizable GDP growth rate, reaching 6.8% in 2013. This growth rate started to decrease in 2014 given the drop in global demand and the prices of raw materials, which particularly impacted the mining, hydrocarbon, and agricultural sectors. Nevertheless, the average annual GDP growth rate between 2014 and 2018 held strong at 4.6%, with the domestic market playing a key role in maintaining the high growth rate through household demand and public investment, the latter which was financed by external funding, thus impacting the external public debt which amounted to 26.8% of GDP in 2014, and 33.8% of GDP in 2017. As a result of the drop in oil revenues, the fiscal deficit was 2.5% of GDP in 2014, reaching 5.8% of GDP by 2018.

Table 28: Bolivia: Main macroeconomic indicators

Figure 25: Bolivia: Economic activity as a share of GDP (percentage)

Source: Elaborated by the authors on the basis of data from CEPALSTAT

As illustrated in Table 29, the economy of Paraguay fluctuated between 2014 and 2018, although to a lesser extent than in the past decade during which macroeconomic variables varied significantly from one year to the next. The average annual growth rate was 4.3%, exceeding the Latin American average, with notable improvements in GDP per capita.

Table 29: Par29

Although the share of primary commodities, precious stones and nonmonetary gold in merchandise exports in Bolivia decreased from 96.1% (2014) to 94.8% (2017), and in Paraguay from 91% to 89.6 showing some improvement, the dependency on primary commodities still high compared to a world average of 28%. The share of manufactured goods in merchandise exports increased from 3.5% in 2014 to 4.6% in 2017 in Bolivia and in Paraguay it also increased from 9% to 10.3% in the same years. Although this shows some improvement, both countries continue to have lower manufactured goods in their exports when compared to world average of 69.2%. Enhanced value addition and diversification and fostering productive capacities through industrial development and greater use of modern technology technological growth is crucial to drive structural economic transformation.

Table 30: Bolivia and Paraguay: Structure of exports

Financial resources and cooperation are necessary to achieve VPoA priorities and the objectives laid out in the 2030 Agenda for Sustainable Development. The mobilization of these resources remains a central challenge in Latin America and the Caribbean and globally especially given the context and dynamics of regional and global growth marked by increasing financial risk and uncertainty which are not conducive to generating development financing, as described in the 2019 Financing for Sustainable Development Report developed by an interinstitutional working group within the United Nations.

According to this report, the financing landscape for development is experiencing a transformation. There is a growing participation of new actors and sources of funding to implement the 2030 Agenda, including philanthropy, non-governmental organizations (NGOs), climate funds, innovative financing mechanisms, and South-South cooperation. Private capital characterized by a diversified set of instruments also have emerged as an important source of financing for developing countries, as has the mobilization of national resources, the transfer of remittances, and the exchange of trade information, which are instrumental to achieving the aims of the VPoA.

The following section outlines in greater depth the diverse resources, mechanisms, and instruments available to Bolivia and Paraguay.

possible through internal and external debt, although in Bolivia the external debt grew in greater proportion and represented a greater share of GDP than in Paraguay.

Multilateral and bilateral institution cooperation agreements and loans, along with the issuance of sovereign bonds, represent important sources of external financing for the construction and reconstruction of transport infrastructure. Generally, resources are allocated for infrastructure construction and not earmarked for maintenance of this infrastructure. To counteract this tendency, arrangements are increasingly being made with financing institutions so that maintenance costs are built in to the project to cover a set amount of time after the completion of the project

The international community has been supporting landlocked developing countries through a number of

Paraguay

Source: Elaborated by the authors on the basis of Development AID, Statistics per region, Americas, 2018 Edition

2.7.2.2 Development support institutions

Countries throughout the region, and Bolivia and Paraguay in particular, receive financial support and technical assistance from a plethora of institutions whose objectives are to support economic and social development, including United Nations system entities, development banks, and other international and regional organizations. Improved coordination amongst the diverse programmes, projects and actions can contribute to advancing VPoA priorities.

However, in these countries as well as the rest of the region, is observed a fall in ODA flows since 1960, related to many countries in the region graduating to middle income status, although per capita income did not reflect the heterogeneity between and within countries in the region. Public and private flows corresponded to different incentives, meaning that private flows did not necessarily follow the rationale of the SDGs.

The financing for sustainable development architecture faces important future challenges

- Widening set of development objectives
- Regulatory/policy issues that arise from the growing importance of private financing
- B

2.7.2.3 South-South and triangular cooperation

South-South Cooperation and Triangular Cooperation are becoming increasingly relevant to support collaboration to achieve the Sustainable Development Goals. Cooperation can help create jobs, strengthen trade, improve infrastructure, transfer technology, reduce asymmetries, and promote regional integration to benefit all countries involved.

The Ibero-American Programme to Strengthen South-South Cooperation (PIFCSS) aims to fortify and provide dynamism to Horizontal South-South Cooperation in Ibero-America. Bolivia, through its Ministry of Development Planning, and Paraguay, through its Ministry of Foreign Affairs, participate in this programme, which publishes an annual report outlining the evolution of these cooperation mechanisms. Bolivia and Paraguay have historically been receivers of significant support, yet they have also begun to position themselves as offerors, as outlined in Table 32.

Table 31: Bilateral South-South Cooperation (number of projects and actions)

The United Nations Second High-Level Conference on South-South Cooperation was recently held in Buenos Aires (March 20-22, 2019) -South Cooperation in the

Conference produced a political statement calling for renewed commitment towards these investments, which was agreed upon by more than 160 countries.

The final document recognizes the importance of South-South cooperation in the implementation of the 2030 Agenda for Sustainable Development and its 17 objectives, notably the eradication of poverty in all its dimensions. The agreement shares a comprehensive vision of development which includes economic, social and environ TJ ET Q 5s1 Q 5nv v š \ áUS JE š YÅJEÄQHdY.-ñ ` ¤U Ä[ñ D4¡f ìà 1 E ‘. _ O r E.

One of the projects that is generating positive expectations involves the

Latin America and the Caribbean is a region that is particularly vulnerable to the effects of climate change. Given its geographical location, the territorial distribution of its population, and its dependency upon natural resources, changes in climatic patterns have already begun impacting the infrastructure and transport systems of the region, a course which is expected to intensify at a great economic cost in the near future.

According to international organizations, the severity of potential damages will largely depend on the vulnerability and resiliency of each country, and the measures taken in the short term to address these challenges. Vulnerability can be reduced through strategic investments in infrastructure that bolster the resiliency of systems, even when such infrastructure can be costly, as benefits will likely outweigh costs.

To face this reality, it has become necessary to innovate when conceiving projects and to create greater awareness about the benefits and opportunities that resilient and low emission infrastructure hold.

Given that infrastructure largely determines the patterns of production and consumption, chosing the adequate type of infrastructure and assessing how it is designed, operated and regulated significantly determines the subsequent quality of services, the expansion of economic activity, trade, and logistics, the delivery of basic services, and connectivity between communities and markets. This is why it has become essential for climatic scenarios to

Finding a balance between efficiency, resilience and sustainability in infrastructure is one of the main challenges for the future. Infrastructure investments in Latin America and the Caribbean should reconcile these three elements to transform the development process in the region in search of structural change and equality. The Sustainable Development Goals, and in the case of landlocked developing countries, the Vienna Programme of Action, present possible ways for this balance to be reached and for achievements to be evaluated.

In addition, considering the potential or real losses resulting from climate change-related disruptions, shocks, and stresses should be considered. This would help strengthen decision making towards investing in more robust infrastructure assets that would recover more quickly, further exposing how resilient infrastructure has the potential of generating increased efficiency, productivity and competitive advantages.

The use of disruptive technologies, such as blockchain, the Internet of Things, artificial intelligence, automation, and robotics is very new to the region, which is of concern given that these developments will cause profound changes in the entire logistics chain. It is therefore essential that logistics planning, as well as regional sectoral actors promptly incorporate these tools to boost productivity, create new opportunities for business, promote productive transformation, and increase regional competitiveness. Failure to do so would extend5(t)9(ellie)10(si Tf 10c4e)9(s)19(in)5( )19(the)19(entir)13(e)17(lo)-3(g)4(is)12(ti

The implementation of the Vienna Programme of Action (VPoA) in Landlocked Developing Countries (LLDCs) in Latin America has built on the progress achieved during its predecessor, the Almaty Programme of Action (APoA), by generating awareness surrounding the most pertinent development issues faced by Bolivia and Paraguay and placing emphasis on the coordination of assistance within the United Nations System and with the international community and on its more comprehensive priorty areas

During the period under analysis (2014-2018) both Bolivia and Paraguay have largely aligned their nati

15.16 billion (US$ 5.66 billion in profiling, and US$ 9.5 billion in pre-execution); and Paraguay would need US$ 14.02 billion (US$ 757 million in profiling, and US$13.27 billion in pre-execution.) The current political situation of IIRSA and its relationship with UNASUR is an important topic that need to be solved soon, in particular for the importance that IIRSA has for the coordination and financing of regional infrastructure.

Road conservation policies and programs must be adopted and complied with, particularly in rural areas. Measuring maximum weight per axis and requiring frequent and improved weighing stations, are among the necessary elements of an intelligent transport systems.

National budget restrictions alongside the absence of programs to finance road construction and maintenance remain the largest obstacles hindering the development of the road network.

2. Inland Water Transport: Inland water transport is critical to the development of countries in the region. In Paraguay, a strong network of ports and a growing merchant fleet dominated by private sector actors

sector is taking shape in the eastern part of the country, inland water transport along the Paraguay-Paraná Waterway (PPW) continues to gain importance as a way of transporting necessary inputs such as diesel, barley, construction materials and container cargo. This has led to the

execution.)

transport throughout South America. To this end, they are carrying out a comparative analysis of current international rules and protocols that regulate the sector. The outcome of these efforts aspires to give way to a set of harmonized regional regulations based on mutual recognition and the adhesion to the Agreement on International Road Transport (ATIT) for all CAN and ALADI member countries.

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Positive impacts that would be derived from structural economic transformation is important as it would improve social conditions and the quality of life in both countries, where levels of poverty and inequality

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