

Sustainable inland transport connectivity indicators

Plurinational State
of Bolivia, 2024

Mical Rodríguez Laconich



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List of abbreviations

ABC	: Bolivian Road Administration
AEO	: Authorized Economic Operator
ASP-B	: Administration for Port Services
BCP	: Border Crossing Point
CIH	: Intergovernmental Committee on the Paraguay-Paraná the Waterway
DNA	: National Customs Authority
ECLAC	: United Nations Economic Commission for Latin America and the Caribbean
EODB	: Ease of Doing Business
GDP	: Gross Domestic Product
GNI	: Gross National Income
HDI	: Human Development Index
IRI	: International Roughness Index
IWW	: Inland waterway transport
LPI	: Logistics Performance Index
LLDC	: Landlocked Developing Countries
MERCOSUR	: Mercado Común del Sur (Southern Common Market)
MIC/DTA	: International Cargo Manifest/Customs Transit Declaration
MOPSV	: Ministry of Public Works, Services and Housing
NCR	: National Connectivity Report
PTI	: Periodic Technical Inspections
RIBB	: Bolivian International Ship Registry
SENASAG	: National Service for Agricultural Health and Food Safety
SDGs	: Sustainable Development Goals
SITCIN	: Sustainable Inland Transport Connectivity Indicators
SUMA	: Unified System for Customs Modernization
SWOT	: Strengths, Weaknesses, Opportunities, Threats
UNECE	: United Nations Economic Commission for Europe
UNRSTF	: United Nations Road Safety Trust Fund

Abstract

The **Sustainable Inland Transport Connectivity Indicators (SITCIN)** evaluate the efficiency of transport systems and the alignment of legal frameworks with international legal instruments for transport and border-crossing facilitation. SITCIN enables countries to track their progress in areas such as the implementation of regional or international conventions on transport, harmonization of national rules with UN legal instruments, achievement of Sustainable Development Goals (SDGs), and the Vienna Programme of Action. This tool was developed as part of the United Nations Development Account (UNDA) project, titled “Sustainable transport connectivity and implementation of transport-related Sustainable Development Goals (SDGs) in selected landlocked and transit/bridging countries”. The project was led by the United Nations Economic Commission for Europe (UNECE) in collaboration with the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Economic and Social Commission for West Asia (ESCWA).

This report assesses 101 SITCIN indicators related to road and inland waterway transport in the Plurinational State of Bolivia, covering three of the six SITCIN chapters: (i) Border Crossing Facilitation, (ii) Transport Infrastructure and (iii) Safety and Security. The report provides a SWOT analysis for all covered chapters and, where applicable, outlines the legal Bolivia (Plurinational State of) must implement after ratifying the Accession Protocol to the Southern Common Market (MERCOSUR).

Introduction

Sustainable Inland Transport Connectivity Indicators (SITCIN) is a tool developed under the United Nations Development Account (UNDA) project “Sustainable transport connectivity and implementation of transport-related Sustainable Development Goals (SDGs) in selected landlocked and transit/bridging countries”. The project was managed by the United Nations Economic Commission for Europe (UNECE) in collaboration with the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Economic and Social Commission for West Asia (ESCWA).

SITCIN allows countries to report on their progress towards achieving the Agenda 2030, the Sustainable Development Goals (SDGs), and ultimately the Vienna Programme of Action. Through SITCIN, countries and their external partner organizations will be able to base their assessment of the effectiveness and efficiency of the transport systems and the level of compliance of national administrative and legal frameworks with United Nations (UN) legal instruments in the field of transport and border crossing facilitation providing a domestic and a cross-border perspective and improving competitiveness, safety, energy efficiency, and security. Furthermore, the countries will be able to measure the effectiveness of their efforts in implementing UN legal instruments towards the harmonization and standardization of rules and documentation, including through more effective implementation of international conventions on transport and transit and regional/bilateral agreements.

Hence, the overall aim of the project was to: (i) evaluate both the institutional and legal set-up as well as the regulatory and administrative environment related to border crossings, customs, and transit procedures, (ii) appraise the quality of the administrative framework (including consignment and transport documentation regimes) surrounding road and rail transport respectively, (iii) analyse the quality and effectiveness of transport and logistics infrastructure, (iv) determine the robustness of the road traffic management and road traffic infrastructure system, (v) assess the quality of the regulatory framework surrounding the transport of dangerous goods and perishable foodstuffs and finally, (vi) evaluate efforts aimed at reduction of greenhouse gases, age and maintenance of vehicle fleet and air and noise emissions. Landlocked developing countries (LLDCs) and non-LLDCs can voluntarily use SITCIN to assess and report their international transport connectivity. By conducting annual assessments, benchmarking and time-series data will be developed.

SITCIN consists of 215 indicators that measure the performance of railway, road, and inland waterway (IWW) transport modes. The scoring results are divided into six chapters:

- (i) Border Crossing Facilitation
- (ii) Transport Infrastructure
- (iii) Safety and Security
- (iv) Transport of Perishable Foodstuffs and Dangerous Goods
- (v) Intermodality
- (vi) Environment

This report assesses 101 indicators related to road and IWW transport in Bolivia (Plurinational State of) and covers three of the six chapters:

- (i) Border Crossing Facilitation
- (ii) Transport Infrastructure
- (iii) Safety and Security

In addition, in some indicators, this report describes the changes that the Plurinational State of Bolivia has to incorporate into its legal framework after ratifying the Accession Protocol to the Southern Common Market (MERCOSUR).¹ The Plurinational State of Bolivia officially joined MERCOSUR (an integration process between Argentina, Brazil, Paraguay, and Uruguay) following the enactment of Law 1567 on July 4, 2024.² Lastly, a complete assessment of all SITCIN indicators will be presented in the National Connectivity Report for Bolivia (Plurinational State of).

¹ This analysis was feasible because SITCIN indicators were previously evaluated in Paraguay which is a MERCOSUR member country. Paraguay's SITCIN indicators can be found in: Rodríguez Laconich, M. (2021). Informe Nacional de Conectividad-Paraguay 2020. Economic Commission for Latin America and the Caribbean (ECLAC). <https://www.cepal.org/es/publicaciones/47653-informe-nacional-conectividad-paraguay-2020>.

² <https://cancilleria.gob.bo/mre/2024/07/05/16383/>.

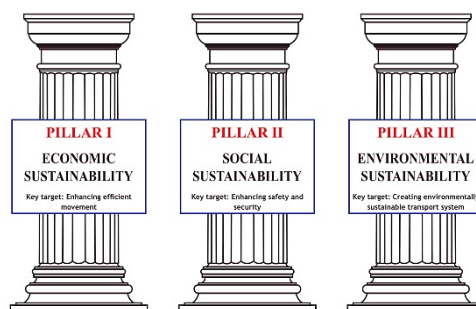
I. Sustainable Inland Transport Connectivity Indicators (SITCIN) methodology

This methodology section is a reproduction of the SITCIN methodology described in UNECE (2022) Sustainable Inland Transport Connectivity Indicators: Understanding the performance of road, rail, inland waterway, and inter-modal transport systems. As mentioned previously, the methodology was developed under the United Nations Development Account (UNDA) project, “Sustainable Transport Connectivity and Implementation of Transport-Related Sustainable Development Goals (SDGs) in Selected Landlocked and Transit/Bridging Countries”.

SITCIN indicators and sub-indicators are classified according to the following three modes of transport: Road Transport, Railway Transport, and Inland Waterways Transport. Furthermore, aiming to comply with the United Nations Sustainable Development Goals, indicators structured by transport modes are further divided into the three pillars of Sustainable development: Economic, Social, and Environmental sustainability. The indicators are structured to align with and enhance the key targets of each pillar: enhancing efficient movement, enhancing safety and security, and creating an environmentally sustainable transport system.

Pillar 1: Economic Sustainability - refers to practices that support long-term economic growth without negatively impacting other aspects of development. The key target for this dimension is “Enhancing efficient movement”. **Pillar 2: Social Sustainability** - refers to sustainable traffic and transport systems with lower social costs, such as fewer accidents and fewer traffic delays. The key target for this dimension is “Enhancing safety and security”. **Pillar 3: Environmental Sustainability** - refers to the reduction of greenhouse gas emissions, air pollutants, and noise emissions. The key target for this dimension is “Creating an environmentally sustainable transport system”.

Diagram 1
Pillars of sustainable development, marking, and numbering of SITCIN indicators



Source: UNECE (2022). Sustainable inland transport connectivity indicators: Understanding the performance of road, rail, inland waterway, and inter-modal transport systems.

Table 1
Number of SITCIN indicators per pillar and transport mode

Transport mode	Pillars			Total
	Economic	Social	Environmental	
Road	52	56	13	121
Rail	37	12	5	54
IWW	20	15	5	40
Total	109	83	23	215

Source: UNECE (2022). Sustainable inland transport connectivity indicators: Understanding the performance of road, rail, inland waterway, and inter-modal transport systems.

There are 39 indicators in total, and each of these 39 indicators contains several sub-indicators. The total number of sub-indicators is 215, out of these 121 are dedicated to road transport and logistics, 54 are related to railway transport, and 40 to IWW Transport. An overview of the structure and number of all indicators and sub-indicators is shown in table 2.

The indicators are scored in descending order on a scale of 10 to 0. On this scale, level 0 is assigned for the worst scenario, for instance when a specific regulation does not exist. Level 10 represents an ideal scenario. In some cases, a score less than 10 is given for the best scenario. In this case, additional points are available when for instance an additional measure is implemented to achieve the promoted objective.

Table 2
Structure and number of SITCIN sub-indicators

Mode	Pillar	Indicator	Number of sub-indicators
Road	Economic	Efficiency	11
		Time	5
		Cost	6
		Infrastructure	9
		Operations	6
Road	Economic	Intermodality/combined transport	4
		ICT and ITS solutions	11
	Social	Road traffic rules/behavior	18
		Road traffic infrastructure	5
		Vehicle regulations	5
		Perishable foodstuffs transport	5
		Dangerous goods transport (administrative)	19
		Dangerous goods transport (infrastructure)	4
	Environmental	Fleet	6
		Emission	6
		Infrastructure	1
Total sub-indicators for road transport			121
Rail	Economic	Efficiency	9
		Time	3
		Cost	3
		Infrastructure	4
		Operations	10
		Intermodality/combined transport	4
		ICT and ITS solutions	4
	Social	Rail traffic infrastructure	7
		Dangerous goods transport (administrative)	5
	Environmental	Fleet	3
		Emission	2
		Total sub-indicators for rail transport	
IWW	Economic	Efficiency	3
		Cost	5
		Infrastructure	4
		Operations	2
		Intermodality/combined transport	2
		ICT and ITS solutions	4
	Social	IWW traffic rules	2
		Vessels regulations	5
		Dangerous goods transport (administrative)	6
	Environmental	Dangerous goods transport (infrastructure)	2
		Fleet	2
Emission	3		
Total sub-indicators for IWW transport			40
Total indicators of SITCIN			215

Source: UNECE. (2022). Sustainable inland transport connectivity indicators: Understanding the performance of road, rail, inland waterway, and inter-modal transport systems.

II. Data collection process

SITCIN indicators require data collection from primary sources such as laws, official databases from governments or international organizations, and interviews with businesses or agencies that provide the services described in the indicators. The difficulties encountered during data collection were related to the absence of data or the lack of consolidated data. In some cases, data is available but scattered among different organizations.

The data that are used to compile SITCIN can be categorized as follows:

- Quantitative data, which is subdivided by
 - Discrete data, such as the number of accidents and the number of vehicles that are usually expressed in absolute terms or as ratios.
 - Continuous data, which is used to measure the length of infrastructure (in kilometers), goods transported (in tonnes), or waiting time at borders (in minutes).
- Qualitative data

In most cases qualitative data is used, which categorizes performance by very good to very poor—such as infrastructure condition—to produce an ordinal scale where the higher the value the better the performance.

III. Country information

This section provides an overview of road and inland waterway transport in the Plurinational State of Bolivia. The table below highlights key economic indicators to offer an outlook of the country's overall profile.

Table 3
Key economic indicators of the Plurinational State of Bolivia, 2024

GDP (current USD billion)	45
GDP per capita PPP (current international USD)	10 727
Population (million inhabitants)	12 388,571
Surface Area (sq. km)	1 098,580
Human Development Index	0.698
Trade (exports and imports as a percentage of GDP)	58.85

Source: United Nations Development Programme, (2024). Human development reports 2023-2024. <https://hdr.undp.org/content/human-development-report-2023-24>. World Development Indicators <https://databank.worldbank.org/source/world-development-indicators>.

A. Road transport in the Plurinational State of Bolivia

The Ministry of Public Works, Services, and Housing (MOPSV), is responsible for promoting and ensuring universal and equitable access to quality infrastructure and services in telecommunications, transportation, and housing for the Bolivian population. Transport policy is implemented by the Vice Ministry of Transport, through the Bolivian Highway Administration (ABC) and Vías Bolivia, implements transport policy. The Bolivian Highway Administration seeks national integration through planning and managing the Essential Road Network³ (Sanchez R.J & Perez G., 2019). Vías Bolivia is the institution

³ Essential roads are those that link departmental capitals, are connected to international highways that link the country with neighboring countries, link two or more highways that are part of the essential road network.

responsible for managing toll collection and vehicle weight and dimension control on the Essential Road Network of the Plurinational State of Bolivia, contributing to road conservation and maintenance.

As Table 4 shows, the road system is classified into the following three groups of roads: Essential Road Network, Departmental Road Network, and Municipal Network. The country's road network length is estimated at 202,037 km, of which only 16,236 km (8%) are managed by the Ministry of Public Works, Services and Housing (MOPSV). Around 185,800 km (91%) of the network is under the administration of local authorities. The following table shows the road network classification.

Table 4
National road network surface type and length (2014-2021(p))
(In kilometers)

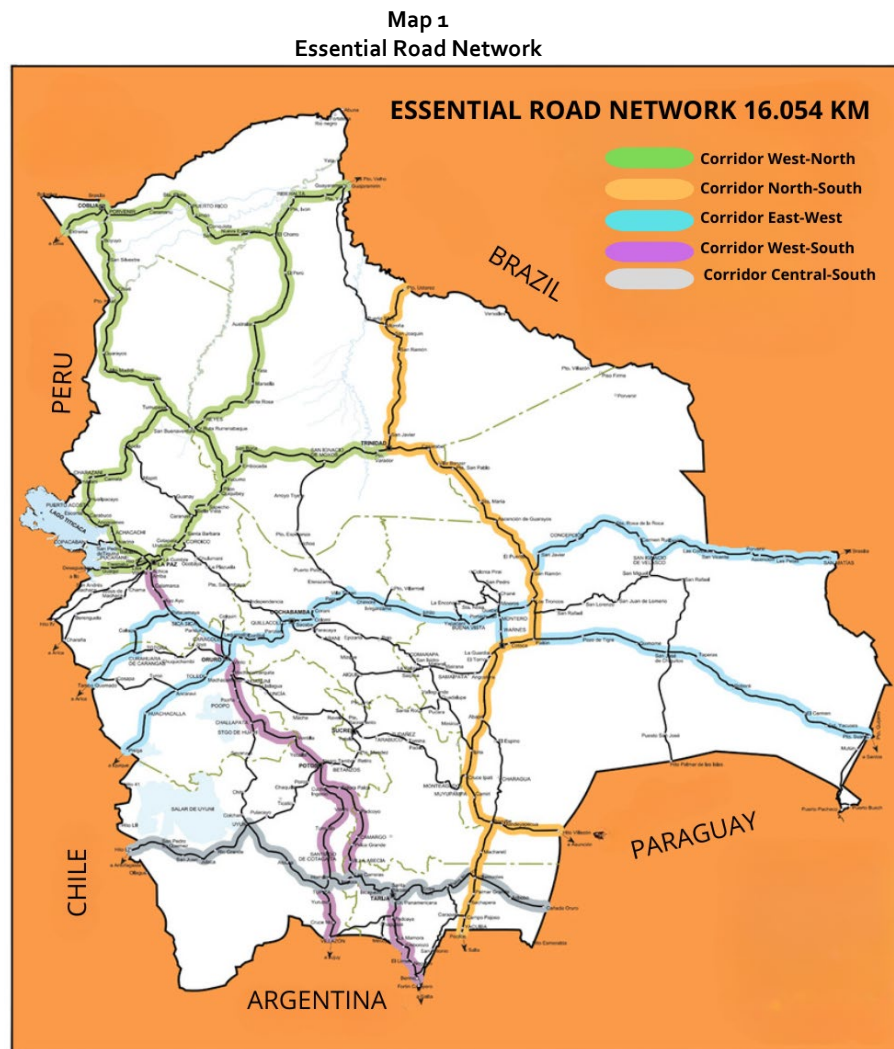
Description	2014	2015	2016	2017	2018	2019	2020	2021(p)
Total	86 855	89 441	89 397	152 455	184 726	192 396	194 949	202 037
Cobblestone	1 046	994	1 017	2 426	3 875	4 187	4 143	4 168
Under construction	2 583	2 747	3 460	5 287	4 036	2 883	2 657	2 350
Paved	7 134	7 756	7 950	16 689	27 688	30 199	31 653	31 080
Gravel	29 881	32 990	31 507	41 804	46 571	48 422	48 996	50 353
Dirt	45 605	44 349	44 318	84 581	100 977	105 578	106 477	113 068
Length new segments evaluated	606	606	1 146	1 669	1 578	1 128	1 022	1 018
Essential network	15 982	15 982	16 343	16 199	16 226	16 272	16 204	16 236
Departmental network	29 183	31 769	31 365	31 785	35 045	35 879	36 464	37 981
Municipal network	41 690	41 690	41 690	104 471	133 455	140 245	142 281	147 819

Source: Sánchez, R. J. (2023). Review of the implementation of the Vienna Programme of Action in the Latin America region. UN-OHRLLS. [Manuscript in preparation] p/ Preliminary.

Table 4 provides a detailed overview of the evolution of road infrastructure over eight years. The total length of the national road network increased from 86,855 kilometers in 2014 to 202,037 kilometers in 2021. The length of paved roads also grew significantly from 7,134 kilometers (8% of the road network) in 2014 to 33,809 kilometers (16% of the network) in 2021. Meanwhile, the length of dirt roads, which constituted a significant portion of the network in 2014, decreased in length from 45,604 kilometers to 39,108 kilometers. Overall, road quality in Bolivia (Plurinational State of) has improved during this period, contributing to enhance transport connectivity.

The next map shows the layout of the essential road network. This network consists of five main corridors: East–West, North–South, West–North, West–South, and Central–South.⁴ Detailed and updated maps of each corridor can be found on the following website: <https://www.viasbolivia.gob.bo/2016/11/01/mapas/>.

⁴ In Spanish: Corredor Este-Oeste, Norte-Sur, Oeste-Norte, Oeste-Sur, Central-Sur.



Source: The imagen was translated from Veizaga, J. M. (2018). Caminos y automóviles en Bolivia: Cambios, tendencias y correspondencias en el pasado reciente. *Revista Transporte y Territorio*.

1. Bi-oceanic road corridors in the Plurinational State of Bolivia

This section describes two key road corridors for the Plurinational State of Bolivia. The first is the bi-oceanic corridor, a 4.700 km route that connects Bolivia, Brazil, and Chile, linking the port of Santos (Brazil) with Matarani and Ilo (Peru), and Arica and Iquique (Chile).⁵ The Bolivian side of the bi-oceanic corridor has 1.561 km and forms part of the Essential Road Network.⁶ According to *Vías Bolivia*, 'The Bioceanic Corridor of Bolivia starts in Puerto Suárez and ends at the border with Chile and Peru. It serves Bolivia as an export route for agricultural products from the East and minerals from the West, including general merchandise destined for Atlantic markets via Corumbá (Brazil) and the La Plata Basin (Argentina, Paraguay, and Uruguay), entering the Paraguay-Paraná Waterway either through Brazilian territory or directly through the border.'⁷

⁵ <https://www.viasbolivia.gob.bo/2016/11/01/mapas/>.

⁶ <https://www.biobiochile.cl/noticias/2013/03/21/bolivia-concluyo-tramo-final-de-la-ruta-interoceanica-que-unira-el-atlantico-y-el-pacifico.shtml>.

⁷ <https://www.viasbolivia.gob.bo/2016/11/01/mapas/>.

Map 2
Bi-oceanic road corridor Bolivia (Plurinational State of)-Brazil-Chile



Source: Vías Bolivia. Available at <https://www.viasbolivia.gob.bo/2016/11/01/mapas/>. Accessed on 25 August 2024.

The second is the 'Capricorn Bioceanic Corridor' which is still under construction. This corridor will connect the ports of Sao Paulo and the ports of Antofagasta in Chile, passing through the North of Paraguay and Argentina.⁸ Paraguayan authorities have announced that the Plurinational State of Bolivia has entered an agreement to provide Bolivian producers with direct access to international markets via the Bioceanic Corridor. The strategic alliance was established between the departmental governments of Santa Cruz, Bolivia, and Alto Paraguay, Paraguay.⁹

Map 3
Capricorn bi-oceanic road corridor



Source: The image was translated and adapted from a presentation by Gilda Arréllaga, Ministry of Public Works and Communications, Republic of Paraguay, at the OHRLS Meeting, Ulaanbaatar, Mongolia, 29-30 October 2019. Title: 'Bioceanic Corridor Brazil-Paraguay-Argentina-Chile.'B. Inland waterway transport in the Plurinational State of Bolivia.

⁸ <https://mopc.gov.py/el-chaco-paraguay-sera-escenario-del-v-foro-del-corredor-bioceanico/>.

⁹ <https://mopc.gov.py/puente-de-la-bioceanica-avanza-con-la-inclusion-de-bolivia-hacia-la-integracion-regional/>.

The Vice Ministry of Defense and the Vice Ministry of Transport are responsible for managing IWW transport for both cargo and passengers. The specialized department under the Vice Ministry of Defense is the General Directorate of Maritime, Fluvial, Lacustrine and Merchant Navy while the specialized department at the Vice Ministry of Transport is the General Directorate of Land, Fluvial and Lacustrine Transport (Sanchez R.J & Perez G., 2019).

Another key institution for IWW transport is the Administration for Port Services (ASP-B). ASP-B is responsible for managing port services for the transit of goods to and from the Plurinational State of Bolivia at authorized ports abroad. These ports are Arica and Antofagasta in Chile, Matarani and Ilo in Peru, Nueva Palmira in Uruguay, Rosario in Argentina, Villeta in Paraguay, and Port Bush¹⁰ which is located along the Paraguay River in an area that was granted to the Plurinational State of Bolivia under the Treaty of Petrópolis signed with Brazil on November 17, 1903.¹¹ Map 5 shows the Bolivian Inland Waterways under the administration of the institutions mentioned above. According to the Logistics Capacity Assessment (LCA), a tool managed by the World Food Programme and Logistic Cluster, the Plurinational State of Bolivia has the following three hydrographic systems.¹²

- (i) Northern Basin or Amazon Basin: From east to west, mainly composed of the Madre de Dios, Orthon, Abuná, Beni, Yata, Mamoré, and Iténez or Guaporé rivers.
- (ii) Central or Lacustrine Basin: Formed by lakes Titicaca and Poopó, the Desaguadero River, and large salt flats such as Coipasa and Uyuni.
- (iii) Southern Basin or La Plata Basin: Mainly composed of the Paraguay, Pilcomayo, and Bermejo rivers.

In the CIA World Factbook, countries are ranked based on the estimated total length of their navigable rivers, canals, and other inland bodies of water. The Plurinational State of Bolivia ranks 15 with 10,000 km of inland waterways. Russia holds the top position with 102,00 km of IWW, followed by Brazil ranks second with 50,000 km, and Vietnam in third place with 47,130 km.¹³

The Plurinational State of Bolivia is also part of the Paraguay-Paraná Waterway, a 3,442 km long route that extends from Puerto Cáceres (Brazil) to Nueva Palmira. The waterway passes through through Puerto Busch (Bolivia), Asunción (Paraguay), and the ports along the Parana including Rosario, Zarate, Buenos Aires, Dock Sud and La Plata Argentina, up to the Recalada sea access.

The Plurinational State of Bolivia signed the Paraguay-Paraná Waterway Agreement in 1991 with Argentina, Brazil, Paraguay, and Uruguay. 'The agreement is one of the most important and extensive axes of political, economic, and social integration in South America. Its area of influence is approximately 5 million square kilometers and includes a population of about 70 million inhabitants' (Rodriguez Laconich, M. 2024). The Intergovernmental Committee on the Paraguay-Parana Waterway is responsible for formulating proposals and coordinating policies to facilitate navigation in the Waterway. According to the Bolivian Institute of Foreign Trade (2021), these were some of the main trends concerning Bolivian cargo movement through these Waterways: 'Cargo movement along the Paraguay-Paraná Waterway (HPP) tripled between 2011 and 2019, exceeding 2 million tons and nearly 1 billion dollars, before dropping to a third of that in 2020 due to the effects of the pandemic. Soybean cake and crude oil were the main products exported via the HPP in 2020, while imports were dominated by fuels such as gasoline and diesel. In 2020, Bolivia's (Plurinational State of) estimated international maritime cargo reached 4.6 million tons,

¹⁰ <https://www.aspb.gob.bo/index.php/quienes-somos/>.

¹¹ <https://www.aspb.gob.bo/index.php/puerto-busch/>.

¹² <https://lca.logcluster.org/es/bolivia-25-evaluacion-de-vias-navegables>.

¹³ <https://www.cia.gov/the-world-factbook/field/waterways/country-comparison/>.

Map 5
Paraná-Paraguay waterway system



Source: Schulz, C., Martin-Ortega, J., Rossotto Ioris, A. A., & Glenk, K. (2017). Applying a 'Value Landscapes Approach' to Conflicts in Water Governance: The Case of the Paraguay-Paraná Waterway. *Ecological Economics*, 138, 47–55.

IV. Key findings by group of indicators

A. Border crossing facilitation

This indicator is an aggregate of Efficiency, Time required at borders, Cost, Operations and ICT, and Intelligent Transport System Solutions indicators under the Economic Pillar of SITCIN, to measure the performance of border crossing facilitation.

Table 5
Border crossing facilitation indicators and findings

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-1: Efficiency			Points		
1-EC-1.1: Staff resources at road BCPs and inland clearance stations	Adequacy of the number of personnel at road BCPs and inland clearance stations to cope with the freight volumes involved. Staff categories include Customs, border guards/police, Health and Safety Executive, State Veterinary Office, State Plant Health Protection Agency, Public Health Agency, Food and Drug Administration, Service for Foreigners' Affairs, National Revenue Services, Vehicle and Operators Services Agency, and Department of Transport.	Some staff categories available 24/7 at more than 50% of considered BCPs and inland clearance stations: 8 points	8 points	Some staff categories are available 24/7.	https://www.aduana.gob.bo/aduana7/content/aduana-incrementar%C3%A1-nuevos-puntos-de-inspecci%C3%B3n-aduanero-en-bolivia
1-EC-1.2a: BCP infrastructure (Joint controls facilities)	Availability and opening hours of joint controls facilities at road BCPs open for international goods traffic. It concerns facilities for domestic controls as well as joint controls with the adjoining country. In terms of opening hours, Article 6 of the Annex 8 to the Harmonization Convention sets out 24 hours a day as a minimum requirement.	Facilities for either joint bilateral controls or domestic controls are available with limited opening hours (e.g., no night, weekend and holidays operation): 6 points	6 points	Opening hours vary. For example, joint control areas with Chile such as Tambo Quemado-Chungará and Pisiga-Colchane are open 24 hours a day but La Quiaca-Villazon, a joint control area shared with Argentina, is open from 8 am to 5 pm. It is important to note that the Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the Plurinational State of Bolivia will have to harmonize part of its regulations with the regional bloc and according to MERCOSUR's provision "GMC 77/99" integrated control areas (joint border controls) have to operate from 7 am to 7 pm.	https://aduananews.com/aduana-de-bolivia-operara-las-24-horas-del-dia-en-dos-pasos-pasos-fronterizos-con-chile/ https://www.aduana.gob.bo/aduana7/sites/default/files/SCGNNDTA/fax/19%20INSTRUCTIVO%20AN-PREDC-INST-0019%20Paso%20de%20mercanc%C3%ADas%20por%20el%20%C3%A1rea%20de%20Control%20Integrado%20la%20Quiaca%20-%20Villaz%C3%B3n.PDF https://cancilleria.gob.bo/mre/2024/07/05/16383/ GMC 77/99 http://www.cartillaciudadania.mercosur.int/oldAssets/uploads/RES_077-1999_ES_Horario%20Atenc_Ptos-Frontera_Acta%204_99.doc.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-1.2b: BCP infrastructure (off-lane control areas)	Availability and opening hours of off-lane control areas, for random cargo and vehicle checks, at road BCPs open for international goods traffic.	Not applicable	N/A	No data	No data
1-EC-1.2c: BCP infrastructure (parking and terminal facilities)	Availability of appropriate parking and terminal facilities at road BCPs open for international goods traffic.	Free basic parking facilities are available: 6 points	6 points	According to Article 72 of the Customs Law 'Under customs control, in any customs administration, short-term parking of an authorized means of transport or commercial transport unit is allowed without boarding or disembarking passengers or goods.'. Nevertheless, note that parking is short-term and infrastructure may be insufficient at some BCPs.	https://www.aduana.gob.bo/aduana7/lga-view
1-EC-1.3: Inland clearance and control procedures for import	The extent to which control procedures for import are undertaken at inland clearance stations away from the border so as to alleviate congestion and efficient movements at the BCPs. The control procedures are involving medico-sanitary inspection, veterinary inspection, phytosanitary inspection, controls of compliance with technical standards, quality controls, vehicle inspections, and weighing of vehicles. The adoption of customs risk management system will get additional points as risk management procedures expedite the clearance of goods.	<4 control procedures take place at inland clearance stations: 4 points	4 points	Weighting of vehicles takes place at inland stations established by Vias Bolivia. Furthermore, phytosanitary inspection managed by the National Service for Agricultural Health and Food Safety (SENASAG) also takes place at centers established by that institution. In addition, the Authorized Economic Operator (AEO) Programme allows an expedited movement of goods imported or exported at the border by companies that get the AEO certificate.	https://anapobolivia.org/images/publicacion_documentos/Presen-tacion%20VIAS%20BOLIVIA.pdf https://www.aduana.gob.bo/aduana7/sites/default/files/kcfinder/files/circulares/circular1372016.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-1.4: Availability of fast lanes for trucks carrying live animals and perishable foodstuffs	Availability of fast lanes/fast track treatment for trucks carrying live animals and perishable foodstuffs. As set out by the Harmonization Convention, priority should be given to live animals and perishable goods in order to minimize waiting times at BCPs.	Fast lanes/fast track treatment are available: 6 points	6 points	Fast-track treatment is available for companies under the Authorized Economic Operator (AEO) programme. These operators undergo a verification process and receive priority treatment upon admission to the programme.	https://www.aduana.gob.bo/aduana7/sites/default/files/kcfinder/files/FLUJOS%20NORMATIVA/CUADROS%20GUIA_opt.pdf
1-EC-1.5a: Coordination and delegation of controls among national border agencies	The extent to which national border agencies (such as Health and Safety Authorities, Treasury, and Food and Drug Administration) delegate their control activities to other border agencies such as Customs authorities, in accordance with a cooperation agreement or MoU. By implementing a delegation mechanism, duplication and overlapping activities, and conflicting instructions and requirements can be reduced.	Not applicable	N/A	No data	No data
1-EC-1.5b: Coordination and delegation of controls between agencies of neighboring countries	The extent to which border agencies from both sides of the BCP coordinate with each other or delegate the control procedures to each other at a designated single common border post/station, in accordance with a bilateral agreement or MoU). Implementing such a coordination and delegation mechanism will increase the border crossing efficiency.	A coordination and delegation mechanism is in place, where border agencies from both sides of the BCP at any time act/perform controls together or on each other's behalf: 8 points	8 points	The Plurinational State of Bolivia has signed agreements to establish and operate joint control areas. For instance, with Chile the joint control area Tambo Quemado-Chungará and Pisiga-Colchane are open 24/7 and La Quiaca-Villazon, a joint control area shared with Argentina, is open from 8 am to 5 pm. It is important to note that the Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the Plurinational State of Bolivia will have to harmonize part of its regulations with the regional bloc and according to MERCOSUR's provision "GMC 77/99" integrated control areas (joint border controls) have to operate from 7 am to 7 pm.	<p>https://aduananews.com/aduana-de-bolivia-operara-las-24-horas-del-dia-entodos-pasos-pasos-fronterizos-con-chile/</p> <p>https://www.aduana.gob.bo/aduana7/sites/default/files/SCGNNDTA/fax/19%20INSTRUCTIVO%20AN-PREDC-INST-0019%20Paso%20de%20mercanc%C3%ADas%20por%20el%20C3%A1rea%20de%20Control%20Integrado%20la%20Quiaca%20-%20Villaz%C3%B3n.PDF</p> <p>https://cancilleria.gob.bo/mre/2024/07/05/16383/GMC_77/99</p> <p>http://www.cartillaciudadania.mercosur.int/oldAssets/uploads/RES_077-1999_ES_Horario%20Atenc_Ptos-Frontera_Acta%204_99.doc.pdf</p> <p>Provision 20/09. Administrative regulation of Joint Control Areas (abrogation of provision GMC N° 03/95)</p> <p>http://www.sice.oas.org/trade/mrcsrs/resolutions/Res2009_s.pdf</p>

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-1.5c: Exchange of data and information among national border agencies	Degree of implementation of data and information exchange (including for risk management purposes) among national border agencies, so as to increase time efficiency and provide accurate information for statistic purposes.	Data and information (including for risk management purposes) are shared among different national border agencies at all times, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 10 points	10 points	The National Customs has completed the implementation of the Unified System for Customs Modernization (SUMA). The system interoperates with systems from other national and international entities, enabling connectivity with the Bolivian Single Window for Foreign Trade.	https://www.aduana.gob.bo/aduana7/content/bolivia-trabaja-en-la-creaci%C3%B3n-de-una-ventanilla-%C3%BAnica-de-comercio-exterior https://www.aduana.gob.bo/aduana7/content/aduana-nacional-comienzo-ciclo-de-implementaci%C3%B3n-del-suma
1-EC-1.5d: Exchange of data and information with foreign border agencies	Degree of implementation of data and information exchange (including for risk management purposes) with foreign border agencies, so as to increase time efficiency and provide accurate information for statistical purposes.	Data and information (including for risk management purposes) are mutually accepted among different border agencies at the international level, through the use of shared electronic databases and platforms and if applicable through face-to-face consultations: 10 points	10 points	The National Customs has completed the implementation of the Unified System for Customs Modernization (SUMA). The system interoperates with systems from other national and international entities, enabling connectivity with the Bolivian Single Window for Foreign Trade. It is important to note that the Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. MERCOSUR member countries use a system called INDIRA (Custom Records Information Sharing System) for information sharing. MERCOSUR's provision from 2008 (MERCOSUR/CMC/DEC. No 01/08) establishes technical characteristics for INDIRA.	https://www.aduana.gob.bo/aduana7/content/bolivia-trabaja-en-la-creaci%C3%B3n-de-una-ventanilla-%C3%BAnica-de-comercio-exterior https://www.aduana.gob.bo/aduana7/content/aduana-nacional-comienzo-ciclo-de-implementaci%C3%B3n-del-suma MERCOSUR/CMC/DEC. No 01/08 http://www.sice.oas.org/Trade/MRCSR/Decisions/dec0108s.pdf Provision 252/19
1-EC-1.6: Traffic separation for vehicles under cover of valid international customs transit documents	Degree of implementation of traffic separation in order to give priority to vehicles under cover of valid international/regional/sub-regional customs transit documents, such as TIR and temporary importation carnets, so as to decrease truck waiting times at BCPs.	Separation of traffic, in some cases (e.g. peak/off-peak hours and day or night shift), to give priority to vehicles under cover of customs transit documents: 5 points	5 points	In order to relieve traffic, the Plurinational State of Bolivia uses the Authorized Economic Operator (AEO) Programme. These operators undergo a verification process and receive priority treatment upon admission to the programme. Bolivia (Plurinational State of) also uses different channels (green, yellow, red) that determine import requirements.	https://www.aduana.gob.bo/aduana7/sites/default/files/kcfinder/files/FLUJOS%20NORMATIVA/CUADROS%20GUIA_opt.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-2: Time required at borders			Points		
1-EC-2.1a: Average border clearance time for transit TIR trucks (with physical inspection)	The average border clearance time (in minutes) needed by a transit TIR-truck, when physical inspections are involved. It is calculated by summing the clearance time of all inspected transit TIR-trucks divided by the number of inspected transit TIR-trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.	Not applicable. This is a verification indicator.	N/A	The Plurinational State of Bolivia is not a contracting party to the Transports Internationaux Routiers (TIR) Convention. The country adopted the Agreement on International Land Transport (ATIT), which links it with almost all the countries of South America. Furthermore, the Plurinational State Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay.) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the country will have to harmonize part of its regulations with the regional bloc. Currently, MERCOSUR'S Sub Working Group No. 5, MERCOSUR's Transport, works on the negotiation and adoption of common technical standards to be applied between the states. If the Plurinational State of Bolivia wishes to incorporate TIR to its current framework it could follow the steps of Argentina since Argentina adopted TIR in 2018 and in addition is part of ATIT and MERCOSUR.	https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-A-16&chapter=11&clang=_en http://servicios.infoleg.gob.ar/infoleginternet/anexos/310000-314999/312723/norma.htm
1-EC-2.1b: Average border clearance time for transit TIR trucks (without physical inspection)	The average border clearance time (in minutes) needed by a transit TIR-truck, when no physical inspections are involved. It is calculated by summing the clearance time of all surveyed transit TIR-trucks divided by the number of surveyed transit TIR-trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.	Not applicable. This is a verification indicator.	N/A	The Plurinational State of Bolivia is not a contracting party to the Transports Internationaux Routiers (TIR) Convention. The country adopted the Agreement on International Land Transport (ATIT), which links it with almost all the countries of South America. Furthermore, the Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay.) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the country will have to harmonize part of its regulations with the regional bloc. Currently, MERCOSUR'S Sub Working Group No. 5, MERCOSUR's Transport, works on the negotiation and adoption of common technical standards to be applied between the states. If Plurinational State of Bolivia wishes to incorporate TIR to its current framework it could follow the steps of Argentina since Argentina adopted TIR in 2018 and in addition is part of ATIT and MERCOSUR.is also a part of ATIT and MERCOSUR.	https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-A-16&chapter=11&clang=_en http://servicios.infoleg.gob.ar/infoleginternet/anexos/310000-314999/312723

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-2.2a: Average border clearance time for non-TIR transit trucks (with physical inspection)	The average border clearance time (in minutes) needed by a transit non-TIR truck, when physical inspections are involved. It is calculated by summing the clearance time of all inspected non-TIR transit trucks divided by the number of inspected non-TIR transit trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.	Not applicable. This is a verification indicator.	44 hours 46 minutes	A study on Clearance Time published by the Bolivian Customs Office in 2023 indicates that Joint Control Areas are more efficient than other Border Control Points. The average border clearance time at Joint Control Areas is 24 hours 35 minutes (the time from entering the border post in one territory to leaving it in the other country) while clearance time at other BCPs can take 44 hours 46 minutes or as much as 86 hours 45 min.	https://www.aduana.gob.bo/aduana7/sites/default/files/etdpdf/Estudio%20Tiempos%20de%20Despacho%202023_0.pdf
1-EC-2.2b: Average border clearance time for non-TIR transit trucks (without physical inspection)	The average border clearance time (in minutes) needed by a non-TIR transit truck, when no physical inspections are involved. It is calculated by summing the clearance time of all surveyed non-TIR transit trucks divided by the number of inspected non-TIR transit trucks. Time taken into consideration is the time from entering the border post in one territory to leaving it in the other country. The survey should capture the clearance time by time of day (peak and off-peak) and day of week.	Not applicable. This is a verification indicator.	No data available	No data available.	
1-EC-2.3: Average queuing time	The average queuing time (in minutes) for trucks at customs point of entry. Time taken into consideration starts when a truck joins the queue and ends when the truck reaches the customs booth. Average time is calculated by summing the queuing time of all surveyed trucks divided by the number of surveyed trucks. The survey should capture queuing time by time of day (peak and off-peak) and day of week.	Not applicable. This is a verification indicator.	10 hours and 8 minutes or 608 minutes	A study on Clearance Time published by the Bolivian Customs Office in 2023 indicates that the average queuing time (in minutes) for trucks at customs point of entry (The time when a truck joins the queue until it reaches the customs booth to start clearance procedures) is 10 hours and 8 minutes or 608 minutes.	https://www.aduana.gob.bo/aduana7/sites/default/files/etdpdf/Estudio%20Tiempos%20de%20Despacho%202023_0.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-3: Cost			Points		
1-EC-3.1a: Average customs clearance cost (exports)	The average customs clearance cost for exports. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges. Region can be defined as a group of countries that are engaged in economic cooperation that might cover sub-region and the adjoining countries of the sub-region.	Cost is more than 50% lower than the regional average: 10 points	10 points	According to the World Bank's doing business dataset (available until 2019), export costs in the Plurinational State of Bolivia are more than 50% lower than the regional average. Latin America's average cost for border compliance and documentary compliance is 616 USD while the average cost for border compliance and documentary compliance in the Plurinational State of Bolivia is 90 USD.	https://www.doingbusiness.org
1-EC-3.1b: Average customs clearance cost (imports)	The average customs clearance cost for imports. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges.	Cost is more than 50% lower than the regional average: 10 points	10 points	No statistics to calculate clearance cost per According to the World Bank's doing business dataset (available until 2019), export costs in the Plurinational State of Bolivia are more than 50% lower than the regional average. Latin America's average cost for border compliance and documentary compliance is 735 USD while the average cost for border compliance and documentary compliance in the Plurinational State of Bolivia is 345 USD.	https://www.doingbusiness.org
1-EC-3.1c: Average customs clearance cost (transit)	The average customs clearance cost for transit cargo. It concerns cost associated with compliance with customs regulations and border crossing procedures in the country relative to the average cost in the region. The involved costs are cost of carnets, loading/unloading of shipment at BCPs, and inspection charges.	Cost is more than 50% lower than the regional average: 10 points	10 points	There are no available statistics to directly calculate clearance costs for transit cargo. However, an estimation was made based on the following factors. First, the World Bank's Doing Business dataset includes an indicator called Border Compliance, which covers aspects such as the loading/unloading of shipments at border control points (BCPs) and inspection charges. Notably, Bolivia's (Plurinational State of) border compliance costs are more than 50% lower than the regional average. While the average cost in Latin America is \$516, Bolivia's (Plurinational State of) average cost stands at just \$65. Second, Bolivia (Plurinational State of) implemented temporary import regimes that allow certain goods destined for re-export to enter the country free of charge.	https://data.worldbank.org/indicator/CI.IMP.CSBC.CD https://www.aduana.gob.bo/aduana7/content/admisi%C3%B3n-temporal-para-su-reexportaci%C3%B3n-en-el-mismo-estado

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-3.2: Average road freight rate	Average road freight rate is defined as the average trucking fee per ton km applied in the country, relative to the average rate in the region.	Rate is less than 50% higher than the regional average: 2 points	2 points	The National Logistics Survey (2019), conducted by the Inter-American Development Bank (IDB), indicates that transportation and distribution costs account for 45.5% of the total logistics cost in the Plurinational State of Bolivia. These amounts are higher than the transportation costs in other countries in the region, such as Colombia, where transportation represents 35% of the logistics cost. Additionally, the logistics cost as a percentage of sales in Plurinational State of Bolivia reaches 18.1%, meaning that for every 100 Boliviano (Bs) in sales, a total of 18 Bs is spent on logistics processes. This cost is higher than the average in Latin America (14.7%), Paraguay (12.9%), and Colombia (13.5%).	https://www.la-razon.com/financiero/2021/05/23/el-transporte-terrestre-a-arica-es-el-mas-carro-de-la-region/
1-EC-3.3: Visa requirements for professional drivers	The extent to which the country requires visa for foreign professional drivers who wish to enter the country.	No visa required for nationals from the region: 10 points	10 points	The Plurinational State of Bolivia has signed many agreements to remove visa requirements. All of its neighbouring countries and other countries in the region belong to Group I, which means that nationals from those countries do not require visas.	https://bolivianembassy.co.uk/visa-grupos-1-2-3/
1-EC-3.4: Cost for foreign drivers	Average cost for foreign drivers wishing to enter the country, if allowed. The cost involved is the cost per entry, defined as the cost associated with visa, fees, insurance, and a temporary driving license and temporary taxes for vehicle registration, if applicable.	\$50 until < \$100: 8 points	8 points	Visas are not required for most countries at a regional level. The highest cost involved would be vehicle insurance. Insurance costs vary depending on the type of coverage.	https://bolivianembassy.co.uk/visa-grupos-1-2-3/
1-EC-5: Operations			Points		
1-EC-5.1: Access rights for transport operators from adjoining countries	The extent to which access is given to foreign transport operators to enter the country in terms of issuance of permit and quota restriction.	Not applicable	N/A	No data.	No data.
1-EC-5.2: Admission requirements for means of transport	Admission requirements for means of transport, incl. vehicles and containers, based on the UN Temporary Importation Conventions, Container Convention, TIR Convention and the WCO Istanbul Convention.	Application of regional regime equivalent to the applicable international conventions: 8 points	8 points	The Plurinational State of Bolivia is not part of the TIR Convention, Customs Convention on the Temporary Importation of Private Road Vehicles. The country adopted the Agreement on International Land Transport (ATIT), a regional agreement signed by Argentina, Bolivia, Brazil, Chile, Paraguay, Perú and Uruguay, that establishes admission requirements for means of transport.	ATIT agreement https://www.aduana.gov.py/uploads/archivos/8-ATIT.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-5.3: Driving permit recognition	Degree of recognition of driving permit based on the UN Conventions on Road Traffic and Harmonization Convention.	Recognition of International Driving Permit: 10 points	10 points	At the moment, the Plurinational State of Bolivia is not part of the UN Convention on Road Signs and Signals (1968). International driving permits are recognized in the country's Highway Code (Article 119). However, drivers are required to present their documents to the Bolivian Automobile Club first.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/ https://www.acbbolivia.com.bo/
1-EC-5.4: Vehicle insurance recognition	Degree of recognition of vehicle insurance for foreign vehicles.	Global or regional (Green Card or equivalent): 10 points	10 points	Green cards are recognized in Argentina, Bolivia (Plurinational State of), Brazil, Paraguay, Uruguay, and Chile.	https://www.tajy.com.py/seguros/carta-verde-azul
1-EC-5.5: Contract of carriage requirements	Level of harmonization of the contract of carriage requirements as per internationally and/or regionally agreed arrangements.	Regionally or subregionally harmonized: 8 points	8 points	The Plurinational State of Bolivia is not a contracting party of the Convention on the Contract for the International Carriage of Goods by Road (CMR). The country adopted the Agreement on International Land Transport (ATIT), a regional agreement signed by Argentina, Bolivia, Brazil, Chile, Paraguay, Perú and Uruguay. At a regional level, the country uses an instrument called International Cargo Manifest/Customs Transit Declaration (MIC/DTA).	https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-B-11&chapter=11&clang=_en https://www2.aladi.org/sitioAladi/facilitacionComercioTransporteATIT.html#:~:text=El%20ATIT%20fue%20suscriptor%20en,fecha%20algunos%20otros%20pa%C3%ADses%20miembros https://www2.aladi.org/sitioAladi/documentos/Atit/ActaXVIII.pdf
1-EC-5.6: Weight and vehicle dimension requirements	Degree of harmonization of the weight and vehicle dimension requirements with the internationally and/or regionally agreed standards, so as to avoid repetitive vehicle weighing procedures at BCPs.	Use of domestic standards: 4 points	4 points	Rules regarding weight and vehicle dimensions are governed by Law 441 on Vehicle Weight and Dimension Control. It is important to note that the Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the country will have to harmonize part of its regulations with the regional bloc. In MERCOSUR, vehicles certify their weight using a technical inspection certificate which is harmonized and recognized among member countries.	https://www.abc.gob.bo/wp-content/uploads/2018/07/Ley_441.pdf Provision 75/97 Mercosur on Technical inspection https://www.mercosur.int/documento/inspeccion-tecnica-vehicular-res-75-97/

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-7: ICT and Intelligent Transport System Solutions			Points		
1-EC-7.1: Implementation of interconnected e-solutions	Degree of implementation of interconnected e-solutions for customs and border procedures i.e. eTIR, eCMR, and e-Single Window system.	eTIR and or eCMR or equivalents and inter-agency e-Single Window are implemented: 10 points	10 points	The Plurinational State of Bolivia uses an instrument called Electronic International Cargo Manifest/Customs Transit Declaration (MIC/DTA). The Unified System for Customs Modernization (SUMA), is a web-based system that incorporates innovations such as the use of electronic/digital signatures, digitization of documentation, electronic notifications, and process automation, among others, which allows Foreign Trade Operators and the National Customs Office to carry out their operations in a digital environment. SUMA allows Bolivia to implement many elements of eTIR and eCMR. The Plurinational State of Bolivia also has an E-single Window for Foreign Trade.	https://www.aduana.gob.bo/infosuma/suma.php https://tfelearning.unctad.org/blog/karina-serrudo
1-EC-7.2: Application of advance electronic cargo information	Degree of application of advance electronic cargo information for pre-clearance purposes.	Full-fledged advance electronic cargo information system allowing for pre-clearance is applicable for selected cargo only, the majority is processed manually upon arrival: 4 points	4 points	The Plurinational State of Bolivia uses the Electronic International Cargo Manifest/Customs Transit Declaration (MIC/DTA). Companies under the Authorized Economic Operator (AEO) benefit from fast-track priority treatment.	https://www.youtube.com/watch?v=HBjDOPGUowQ https://www.aduana.gob.bo/aduana7/sites/default/files/kcfinder/files/FLUJOS%20NORMATIVA/CUADROS%20GUIA_opt.pdf
1-EC-7.3: Availability of detection equipment and inspection technologies	Availability of detection equipment, scanning and non-intrusive inspection technologies including scanners for cargo, technology for detection of chemical, biological, radiological and nuclear materials, and e-Seal.	Available at less than 50% of BCPs and inland clearance stations: 4 points	4 points	The Plurinational State of Bolivia Border Crossing Points have scanning and non-intrusive inspection technologies including scanners for cargo, although they are not available to the same extent at all BCPs and inland clearance stations.	https://www.aduana.gob.bo/aduana7/content/bolivia-refuerza-su-seguridad-internacional-con-10-esc%C3%A1neres-aduaneros-de-%C3%BAltima-tecnolog%C3%Ada https://www.apfdigital.com.ar/noticias/2023/10/19/408948-la-aduana-incorpora-nuevos-escañeros-en-las-fronteras-con-bolivia-chile-uruguay-y-paraguay#:~:text=En%20la%20frontera%20con%20Bolivia,el%20paso%20
1-EC-7.4: Application of intelligent transport systems at BCPs	Degree of application of intelligent transport systems at and around BCPs, such as traffic light management, automatic vehicle registration number recognition, and automatic container recognition.	Not applicable	N/A	No data.	No data.

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-7.5: Application of intelligent traffic management systems	Degree of application of intelligent traffic management systems along international roads leading to BCPs. It concerns providing information to approaching trucks on the traffic situation at BCPs, i.e., traffic occupancy, processing and queuing time, and providing early recommendations such as postponing entry to BCPs or deviate to other BCPs.	Systems are in place: 10 points	10 points	The Bolivian Road Administration (ABC) developed an application to monitor the condition and accessibility of the roads within the Fundamental Road Network. This tool is available to both transport operators and the general public. It can be accessed through the web platform or downloaded from the Play Store. The application also provides information on departmental boundaries, road types, and the locations of gas stations, checkpoints, and toll booths. Nevertheless, the platform could also provide information on traffic occupancy, processing and queuing time, and providing early recommendations such as postponing entry to BCPs or deviating to other BCPs.	https://transitabilidad.abc.gob.bo/mapa
1-EC-7.6: Application of ICT systems	Degree of application of information and communication support systems to the transport system in the country. The systems include: (i) Telecommunication Networks (TLC); (ii) Automatic identification systems (Automatic Equipment Identification (AEI)/ Automatic Vehicle Identification (AVI)); (iii) Systems for automatically locating vehicles (AVLS); (iv) Protocols for the electronic exchange of data (Electronic Data Interchange/EDI); (v) Cartographic databases and information systems providing geographical data (Geographic Information System/GIS); (vi) Systems for the collection of traffic data, including Weigh-In-Motion (WIM) and systems for the automatic classification of vehicles; (vii) Systems for counting the number of users of a public transport system (Automatic Passenger Counters/APC).	3-4 systems are in place: 6 points	6 points	(i) No data (ii) Yes. Radio-frequency identification (RFID) is used for Electronic Toll Collection (ETC) but not in all Toll Collection stations. RFID is an Automatic Vehicle Identification (AVI) mechanism. (iii) No (iv) Partly in place, the retail and distribution industry uses EDI. (v) Yes. The website transitabilidad.gob monitors the condition and accessibility of the roads within the Fundamental Road Network and geolocates gas stations, checkpoints, and toll booths. Some buses also have GIS devices. (vi) Yes. Giropes/Girwim and Sociedad Ibérica de Construcciones Eléctricas, S.A. have installed three complete weigh-in-motion stations for vehicle weight control in the areas of Caracollo, Taracollo, and Ocotavi. (vii) Partly in place, La Paz's Municipality has an Integrated Mass Transit System that provides the infrastructure to count the number of users of a public transport system. However, these systems are not in place throughout the country. There are 5 systems in place but since some of them are only partially implemented the final score for this indicator is '3-4 systems are in place: 6 points'.	https://www.viasbolivia.gob.bo/2016/11/01/mapas/ https://www.la-razon.com/sociedad/2013/01/30/comienzo-la-instalacion-de-dispositivos-gps-en-buses-2/ https://www.giropes.com/es/casos-de-exito/estaciones-de-pesaje-en-movimiento-para-carreteras-en-bolivia-59/ https://www.cainco.org.bo/empresadesarrollo/2022/02/10/cainco-destaca-valor-del-intercambio-electronico-de-datos-edi-para-ahorrar-recursos/ http://www.lapazbus.bo

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-7.7: Number of national trucks with track and trace device	Ratio of the number of national trucks equipped with track and trace devices to the total number of national trucks involved in international transport.	10% ≤ ratio < 30%: 2 points	2 points	Equipping national trucks with tracking and tracing devices is not mandatory. However, some companies opt to install these devices to enhance their fleet management systems. There are no official statistics available regarding the proportion of national trucks equipped with such devices compared to the total number of national trucks engaged in international transport. Given that the use of these devices is not compulsory, it is assumed that the ratio is relatively low.	National companies that provide track and trace devices: https://monnet.com.bo/rastreo-satelital-para-camiones-como-funciona
1-EC-7.8: Application of fleet management	Degree of application of fleet management systems whereby vehicles can be tracked from a Traffic Control Center using GPS navigation devices together with communication facilities and digital cartography.	Systems are in place: 10 points	10 points	Fleet management systems are in place but at the discretion of companies. The companies that choose to implement these systems manage their traffic control centers.	National companies that provide fleet management systems: https://monnet.com.bo/rastreo-satelital-para-camiones-como-funciona
1-EC-7.9: Application of roadside ITS	Degree of application of roadside ITS to increase efficiency and capability to act in terms of time and resource management. The roadside technology includes: (i) Traffic Control Centers (TCC); (ii) Traffic information centers; (iii) Video monitoring system for traffic; (iv) Variable Message Signs (VMS) to distribute information concerning particular events in a timely fashion; (v) Automatic Incident Detection (AID); (vi) Radio channels that both provide information to road users and are used for service communication purposes; (vii) Roadside equipment for speed enforcement.	3-4 systems are in place: 6 points	6 points	(i). No data. (ii). No data (iii). Yes, there is video monitoring in some places. (iv). No data. (v). No data (vi). Yes 7. Yes	https://unitel.bo/noticias/seguridad/santa-cruz-conductores-seran-monitoreados-por-300-cameras-y-los-infractores-recibiran-multas-NB11985800

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-7.10: Application of pre-trip traffic information systems	Degree of application of pre-trip traffic information systems to make international drivers aware of the traffic situation and travel conditions (so they can assess their travel options) through different types of media.	Through web-based platforms: 10 points	10 points	The Bolivian Road Administration (ABC) has an application to monitor the condition and accessibility of the roads within the Fundamental Road Network. This tool is available to both transport operators and the general public. It can be accessed through the web platform or downloaded from the Play Store. The application also provides information on departmental boundaries, road types, and the locations of gas stations, checkpoints, and toll booths.	https://transitabilidad.abc.gob.bo/mapa
1-EC-7.11: Application of Electronic Toll Collection (ETC) systems	Application of Electronic Toll Collection (ETC) technology. The score is given based on the highest ETC technology implemented in the country.	Automatic Number Plate Recognition (ANPR)/ Dedicated Short Range Communications (DSRC)/Radio-Frequency Identification (RFID): 4 points	4 points	The Plurinational State of Bolivia uses Radio-frequency Identification (RFID) as part of its Electronic Toll Collection (ETC) systems. At the moment, 60 out of 127 toll collection cabins use ETC. A map is available at: https://www.viasbolivia.gob.bo/2016/11/01/mapas/	https://www.tecsidel.com/press/tecsidel-en-bolivia/ https://www.viasbolivia.gob.bo/2022/08/31/vias-bolivia-implementara-telepeaje-en-la-paz-y-oruro-e-invital-al-sector-transporte-a-afiliarse-a-este-servicio/ https://www.la-razon.com/economia/2023/01/20/hasta-mediados-de-2023-vias-bolivia-implementara-el-telepeaje-en-cinco-retenes-del-pais/
Road transport total	Max score 310 points		219 points		
3-EC-1 Efficiency			Points		
3-EC-1.1: Waiting times at ports	The average waiting times at port, defined by the period from the latest time of acceptance of goods to the departure of vessels and from the arrival of vessels to the beginning of unloading of containers.	time > 2 hours: 0 point	0 points	The Port Services Administration of The Plurinational State of Bolivia (ASP-B) indicates that all cargo clearance through ports authorized by the Bolivian state is completed in an average time of less than 24 hours.	https://www.aspb.gob.bo/index.php/2020/08/27/asp-b-importaciones-bolivianas-se-despachan-en-un-tiempo-promedio-menor-a-las-24-horas/
3-EC-1.2: Waiting times at locks	The average waiting times at locks, defined by the period from the arrival of vessels at the locks area to the time when the vessels are allowed to enter the system.	Not applicable	Not applicable	There are no locks.	
3-EC-1.3: Nighttime operation	Whether the majority of inland waterways in the country allow for nighttime navigation.	allow for nighttime navigation: 10 points	10 points	Nighttime navigation is possible due to the advanced technology on ships that enables this capability. Nevertheless, a study by the World Bank highlights that signaling along sections of the Paraná-Paraguay Waterway is inadequate, which can complicate navigation at night.	https://documents1.worldbank.org/curated/en/899101468091487396/pdf/549000ESW0WHIT1a0Report010NewFinal.pdf

Indicator	Definition	Scoring	Score	Answer	Source
3-EC-2 Cost			Points		
3-EC-2.1: Port dues	The average inland port dues applied in the country relative to the average port dues in the region. It concerns a charge levied by the port to all ships entering the port till the time it leaves the port, and generally calculated on the gross registered tonnage of the ship as per the tonnage certificate issued for that ship.	Cost is less than 50% lower than the regional average: 7 points	7 points	These fees are deemed to be lower than the regional average because the Administration for Port Services offers unique advantages such as free storage for 60 days at the ports of Arica and Antofagasta, except for dangerous goods (IMO) for exports, and free storage for 365 days at Arica and Antofagasta, except for dangerous goods (IMO) for imports. Note the Administration for Port Services manages port services for the transit of goods to and from the Plurinational State of Bolivia, at authorized ports abroad.	https://www.aspb.gob.bo/index.php/quienes-somos/
3-EC-2.2: Tugboat service cost	The average tugboat service cost applied in inland navigation ports in the country relative to the average tugboat service cost in the region. The costs are normally calculated based on the size of the tugboat in addition to an hourly usage charge.	Not applicable	N/A	No data. The Administration for Port Services offers a tool to calculate the costs of some port services. However, tugboat service is not listed.	https://www.aspb.gob.bo/index.php/cportuario-2/
3-EC-2.3: Tonnage dues	The average tonnage dues applied in inland navigation ports in the country relative to the average tonnage dues in the region. This is a charge paid by the vessel operator to a port for the usage of the port.	Not applicable	N/A	No data. The Administration for Port Services offers a tool to calculate the costs of some port services. However, the costs are not based on tonnage. As a result, tonnage dues could not be calculated.	https://www.aspb.gob.bo/index.php/cportuario-2/
3-EC-2.4: Cargo dues	The average cargo dues applied in inland navigation ports in the country relative to the average cargo dues in the region. This concerns a fee levied by the port for using the port facilities for movement of the cargo.	Cost is less than 50% lower than the regional average: 7 points	7 points	According to the Administration for Port Services quoting system, movement of the cargo costs 66.29 USD per container. This is lower than other countries in the region such as Chile or Colombia in which movement of cargo per container costs more than 100 USD. ^a	https://www.marval.cl/documentos/seaport-esp/TarifasSPT.html https://www.puertodebarranquilla.com/wp-content/uploads/2021/12/TARIFAS-GENERALES-CARGA-SECA-CONTENEDORES-2022.pdf

Indicator	Definition	Scoring	Score	Answer	Source
3-EC-2.5: Lock service charges	The average lock service charges applied along the inland waterways in the country relative to the average similar charges in the region.	Not applicable	N/A	There are no locks.	
3-EC-4 Operations			Points		
3-EC-4.1: Harmonization of boat master's certificates	Level of harmonization of national boat master's certificates as per sub-regionally agreed arrangements.	Subregionally harmonized: 6 points	6 points	The requirements to be certified as a boat master are established by the Bolivian Naval Force (articles 87-88 of Decree 12684). There is specific regulation for navigation through the Paraná-Paraguay Waterways. According to the study Working Conditions in Inland Navigation in Latin America: 'The Additional Protocol on Navigation and Safety of the Agreement on Transport of Goods through Inland Waterways indicates that the certification of pilots for the Waterway must be granted by the competent authority of the signatory country. The signatory countries agree to establish uniform professional requirements for obtaining such certifications (Article 22). The Protocol sets out three requirements for granting piloting certification, which is the administrative act that provides the pilot with the enabling document to operate as such aboard the vessels of the Waterway and to proceed with their respective registration: (i) presentation of the pilot's certificate; (ii) having the required psychophysical fitness, which means holding a medical certification; and (iii) not having unfavorable criminal or professional background. It also stipulates that to maintain the certification, the pilot must prove not to have had periods of absence exceeding six months from piloting in the area for which they were certified, with recertification possible through an update examination before the competent authority (Article 27).	https://www.ribb.gob.bo/web/stock/decretos/DECRETO-SUPREMO-12684.pdf https://www.ilo.org/es/publications/las-condiciones-de-trabajo-en-lanavegacion-interior-en-americalatina-el https://prefectura naval.mil.py/wp-content/uploads/2024/08/Regla-12.pdf
3-EC-4.2: Contract of carriage requirements	Level of harmonization of the contract of carriage requirements as per internationally and/or regionally agreed arrangements.	Regionally harmonized: 8 points	8 points	Regionally harmonized following the rules in the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways.	https://digesto.aduana.gov.py/DNA/upload/950463379.pdf

Indicator	Definition	Scoring	Score	Answer	Source
3-EC-6: ICT and Intelligent Transport System Solutions			Points		
3-EC-6.1: Percentage of IWW equipped with RIS	Ratio of the length of inland waterways equipped with River Information Services (RIS) to the total length of IWW network.	Not applicable	N/A	No data	No data
3-EC-6.2: Application of RIS technological solutions	Degree of application of RIS technological solutions in the country, which include (i) VHF radio; (ii) Mobile data communication; (iii) Global Navigation Satellite Systems (GNSS); (iv) Internet; (v) Vessel tracking and tracing system; (vi) Ship reporting system.	Not applicable	N/A	No data	No data
3-EC-6.3: Percentage of IWW covered by Inland ECDIS standard	Ratio of the length of IWW of international importance that are covered by Inland ECDIS (Electronic Chart Display Information System) standard, to the total length of the international IWW in the country.	Not applicable	N/A	No data	No data
3-EC-6.4: Percentage of IWW equipped with AIS	Ratio of the length of inland waterways equipped with Automatic Identification System (AIS) to the total length of IWW network.	Not applicable	N/A	No data	No data
IWW transport total	Max score 56 points		38 points		
Chapter score	Max score 100 points		43 points		

Source: The author based on SITCIN's methodology.

^aNote: That providing a reliable estimate requires a dedicated study. Port tariffs can vary based on several factors, including whether the port is public or private, price caps set by central authorities, and other considerations.

B. Transport infrastructure

This indicator refers to the infrastructure indicator under the Economic pillar that assesses the availability and quality of routes leading to a cargo BCP and logistic facilities in the proximity of a BCP. Infrastructure indicators under the social pillar of SITCIN measure the availability, quality, and safety of transport infrastructure in the country.

Table 6
Transport: infrastructure indicators and findings

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-4: Infrastructure			Points		
1-EC-4.1: Percentage of international road network	Ratio of the total length of international roads to the total road network in the country. International roads concern international motorways, international express roads and international ordinary roads as defined by the AGR (UNECE), and international routes of regional, international and intraregional importance as defined by the Asian highway (UNESCAP), ECLAC, and M network (ESCWA).	Ratio \geq 4%: 10 points	10 points	According to the Institute of National Statistics (INE), in 2022, Bolivia's (Plurinational State of) total road network spanned 199,951 kilometers. Of this, 16,217 kilometers are designated as international road networks, classified as essential roads under the Transport Law (Law 165, Article 193). Therefore, international roads constitute approximately 8.1% of the country's total road network.	https://www.ine.gob.bo/index.php/estadisticas-economicas/transportes/longitud-de-caminos-introduccion/ https://www.bivica.org/files/ley_165.pdf
1-EC-4.2: Length of international road network per class	Ratio of the total length of class 3 international roads to the total international road network in the country. Class 3 is the lowest class of international roads as defined by the AGR. For the Arab states, this concerns the second-class roads of the M network. In other regions, the road classification might be different. This indicator is about the lowest class as per the classification of the international road network followed by the country.	Ratio < 20%: 10 points	10 points	According to Bolivia's (Plurinational State of) road classification determined by the Transport Law (Article 192 to 195) the lowest road classification that links different modes of transport is called 'provincial roads'. According to the Institute of National Statistics (INE), in 2022, Bolivia's (Plurinational State of) total road network spanned 199,951 kilometers. Of this, 35,727 kilometers are designated as provincial road networks. Therefore, provincial roads constitute approximately 18% of the country's total road network.	https://www.ine.gob.bo/index.php/estadisticas-economicas/transportes/longitud-de-caminos-introduccion/ https://www.bivica.org/files/ley_165.pdf
1-EC-4.3: Harmonization of road classes at BCP	The number of country's BCPs with harmonized road classes within 50 km of a BCP. When the roads on one side of a BCP are for instance class 1 roads, while the roads on the other side of the BCP are class 3 roads, this situation is unharmonized and creates a bottleneck.	Not applicable	N/A	No data	No data

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-4.4: Harmonization of BCP infrastructure	Level of harmonization of BCP infrastructure between the assessed country and the adjoining country. It concerns the harmonization of the following: (i) number of channels; (ii) number of parking lots; (iii) number of bays for inspections; (iv) height of monitoring gantries. If there is more than one BCP, the average score of all BCPs should be calculated. If there is more than one adjoining country, the average score should also be calculated.	Not applicable	N/A	No data	No data
1-EC-4.5: Length of international road network with design speeds of at least 100 km/h	Ratio of the total length of international roads with design speeds of at least 100 km/h to the total international road network in the country.	20% ≤ ratio < 40%: 4 points	4 points	According to a study published by the Universidad Mayor de San Andrés, 31.7% of essential roads—those serving as international routes—are paved. These roads are expected to support design speeds of at least 100 km/h.	https://repositorio.umsa.bo/xmlui/bitstream/handle/123456789/5082/T-1560.pdf?sequence=1&isAllowed=y
1-EC-4.6: Design standard and technical specifications of new international roads	The extent to which the construction of new international roads complies with the internationally and/or regionally agreed standards, in terms of parameters of design and dimensions, number and width of traffic lanes, geometric characteristics and other technical specifications, conditioned by its functions, its location (topography, land use, etc.) and the general technical and economic context.	In accordance with regionally agreed standards: 5 points	5 points	The Plurinational State of Bolivia has Technical Manuals for Road Design. These manuals were developed by APIA consulting for the Bolivian Road administration and financed by the Inter-American Development Bank. The project was called 'Elaboration and Updating of the Technical Manuals on Geometric Design, Design of Hydrology and Drainage Works, Traffic Control Devices and Traffic Control Devices of Geometric Design, Hydrology and Drainage Works Design, Traffic Control Devices and Soil and Materials Testing for Roads'. It is based on regional agreements and best practices from Chile, Colombia, the Central American Integration System and The Federal Highway Administration from the United States Department of Transportation.	https://www.abc.gob.bo/wp-content/uploads/2018/09/manual_de_dispositivo_de_control_de_transito.pdf
1-EC-4.7: Sufficiency of service facilities along international roads	The extent to which the provision of rest and service areas, the number of toll and border crossing control lanes are determined in terms of the volume of traffic anticipated.	Not applicable	N/A	No data	No data

Indicator	Definition	Scoring	Score	Answer	Source
1-EC-4.8: Provision of tunnel management systems	The extent to which traffic management systems and control center are provided for long tunnels (tunnels with lengths of over 500 meters) and tunnels with heavy traffic (higher than an annual daily average of 2000 vehicles per lane), as set out in AGR or similar agreements applied in the country.	The systems are covering more than 50% of long tunnels and tunnels with heavy traffic in the country: 7 points	7 points	The longest tunnels in The Plurinational State of Bolivia are San Rafael (1.374 mts), Incahuasi (1260 mts but still under construction), Falda de la Queñua. Tunnel construction considers traffic management. The San Rafael tunnel has speed limits, a prohibition on pedestrian and bicycle access, and traffic lights on both sides of the tunnel.	https://www.noticiasfides.com/economia/en-plazo-y-con-el-costo-acordado-se-entrego-el-tunel-san-rafael https://ahoraelpueblo.bo/index.php/nacional/economia/gobierno-reporta-avance-fisico-del-86-2-en-el-tunel-incahuasi
1-EC-4.9: Provision of safety equipment for tunnels	Ratio of the length of long tunnels and tunnels with heavy traffic, equipped with emergency exits and access for emergency services, and tunnel equipment (such as lighting devices and ventilation systems) as per AGR or similar agreements applied in the country, to the total length of long tunnels and tunnels with heavy traffic on the international road network.	$75\% \leq \text{ratio} < 90\%$: 8 points	8 points	The longest tunnels in The Plurinational State of Bolivia are San Rafael (1.374 mts), Incahuasi (1260 mts but still under construction), Falda de la Queñua. Tunnel construction considers safety requirements such as emergency exits and access for emergency services, lighting devices and ventilation systems.	https://www.noticiasfides.com/economia/en-plazo-y-con-el-costo-acordado-se-entrego-el-tunel-san-rafael https://ahoraelpueblo.bo/index.php/nacional/economia/gobierno-reporta-avance-fisico-del-86-2-en-el-tunel-incahuasi
1-SO-2: Road Traffic Infrastructure			Points		
1-SO-2.1: Length of dual carriageway international roads	Ratio of the total length of dual carriageway international roads to the total length of the international roads in the country.	Not Applicable	No data	No data	No data

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-2.2: Harmonization of international standards for road signs, signals, and marking	Harmonization of international standards for road signs, signals, and marking into the national legislations (e.g., Traffic Signs Regulations and Manual).	Not harmonized: 4 points	4 points	The Plurinational State of Bolivia has not signed the UN Convention on Road Signs and Signals (1968). However, the country has Technical Manuals for Road Design. Road signs, signals, and marking are covered in Volume 3 on 'Traffic Control Devices'. These manuals are based on regional agreements and best practices from Chile, Colombia, the Central American Integration System and The Federal Highway Administration from the United States Department of Transportation.	https://www.abc.gob.bo/wp-content/uploads/2018/09/manual_de_dispositivo_de_control_de_transito.pdf
1-SO-2.3: IRI rating	The IRI (International Roughness Index) rating for the total length of the international roads.	Fair: 6 points	6 points	There are no International Roughness Index (IRI) studies for international roads. However, according to a study published by the Universidad Mayor de San Andrés, only one-third of the Essential Road Network (international road network) is paved, and it does not receive adequate maintenance. The study also notes that investments to pave the Essential Road Network and extend the length of the entire road network have increased.	https://repositorio.umsa.bo/xmlui/bitstream/handle/123456789/5082/T-1560.pdf?sequence=1&isAllowed=y
1-SO-2.4: Number of secured parking lots for trucks at BCPs	The number of parking lots at secured parking area (in absolute number) as a percentage of the throughput of trucks in 24 hours.	Not applicable. This is a verification indicator.	No data available	No data available.	N/A
1-SO-2.5: Number of incidents of cargo theft	The number of cases of reported cargo theft per 100,000 trucks involved in trade (import and export) per year.	Not applicable. This is a verification indicator.	707 to 1178	Cargo theft is an important issue in The Plurinational State of Bolivia. Transport Unions stated that there are 3 to 5 cases of cargo theft per day. That is an average of 1,095 and 1,825 thefts per year. The Institute of National Statistics reports there are 154,871 trucks in the country. Therefore, the number of reported cargo thefts per 100,000 trucks is approximately 707.1 to 1,178.1.	https://www.la-razon.com/nacional/2023/07/23/robo-a-camiones-en-el-pais-azotal-transporte-pesado/

Indicator	Definition	Scoring	Score	Answer	Source
Road transport total	Max score 80 points		54 points		
3-EC-3 Infrastructure			Points		
3-EC-3.1: Percentage of IWW with international technical parameters	Ratio of the length of IWW of international importance (in Europe these are E waterways) that complies with the internationally/regionally agreed technical and operational parameters, to the total length of the IWW in the country. The target infrastructure parameters are set out in the "Inventory of Main Standards and Parameters of the E Waterway Network".	ratio < 20%: 0 point	0 points	<p>According to a study published by 'Universidad Mayor San Andrés', the total length of Bolivia's (Plurinational State of) IWW is 10.000 km and out of those 3700 km allow for IWW navigation.</p> <p>IWW navigation through Paraná-Paraguay Inland Waterways is properly regulated. The agreement is based on many internationally/regionally agreed technical and operational parameters such as the Maritime Code and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). The length of the Paraná-Paraguay Inland Waterways in The Plurinational State of Bolivia is 10.5 km.</p> <p>According to Logistics Cluster, an assessment tool led by the World Food Programme, IWW navigation in the Northeastern part of The Plurinational State of Bolivia is not comprehensively regulated.</p> <p>For this evaluation, we assume that the most comprehensive regulation that The Plurinational State of Bolivia has is the one linked to the Paraná-Paraguay Inland Waterways.</p> <p>Therefore, the ratio of IWW of international importance that complies with the internationally/regionally agreed technical and operational parameters to the total length of IWW in the country is 0.28%.</p>	<p>https://repositorio.umsa.bo/xmlui/bitstream/handle/123456789/5082/T-1560.pdf?sequence=1&isAllowed=y</p> <p>https://lca.logcluster.org/es/bolivia-25-evaluacion-de-vias-navegables</p> <p>https://www.cia.gov/the-world-factbook/field/waterways/country-comparison/</p> <p>http://www.cosiplan.org/proyectos/detalle_proyecto.aspx?h=1328</p>
3-EC-3.2: Cargo handling capacity of inland navigation ports	Ratio of cargo handling capacity of inland navigation ports of international importance (in Europe these are E ports) in the country to the minimum capacity set out in the international agreements. In AGN (the European Agreement on Main Inland Waterways of International Importance), this has been set at 0.5 million tonnes/year. The target parameters of ports are set out in the "Inventory of Main Standards and Parameters of the E Waterway Network".	ratio ≥ 80%: 10 points	10 points	The ratio of cargo handling capacity of inland navigation ports of international importance varies from 1.5 million tons to 5 million tons.	https://eldeber.com.bo/economia/los-puertos-del-canal-tamengo-aspiran-duplicar-el-flujo-de-carga_72624

Indicator	Definition	Scoring	Score	Answer	Source
3-EC-3.2: Cargo handling capacity of inland navigation ports	Ratio of cargo handling capacity of inland navigation ports of international importance (in Europe these are E ports) in the country to the minimum capacity set out in the international agreements. In AGN (the European Agreement on Main Inland Waterways of International Importance), this has been set at 0.5 million tonnes/year. The target parameters of ports are set out in the "Inventory of Main Standards and Parameters of the E Waterway Network".	ratio \geq 80%: 10 points	10 points	The ratio of cargo handling capacity of inland navigation ports of international importance varies from 1.5 million tons to 5 million tons.	https://eldeber.com.bo/economia/los-puertos-del-canal-tamengo-aspiran-duplicar-el-flujo-de-carga_72624
3-EC-3.3: Number of destination countries that can be reached by international IWW corridors and coastal routes	The total number of destination countries that can be reached by the international IWW corridors and coastal routes that passing through the country.	Not applicable. This is a verification indicator.	Three countries	Argentina (via the Paraná-Paraguay Inland Waterways) Brazil, and Paraguay.	
3-EC-3.4: Harmonization of national laws on IWW	Degree of harmonization of the AGN and other relevant international conventions and legal instruments in the national laws on IWW (e.g., Inland Waterway Navigation and Ports Legislation and Maritime Code).	Partially harmonized: 7 points	7 points	The Plurinational State of Bolivia is not part of the AGN (the European Agreement on Main Inland Waterways of International Importance) but has signed 13 international conventions, such as the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), the MAPOL and SOLAS Conventions. The full list can be found here: https://www.ribb.gob.bo/web/site/convenios	https://www.ribb.gob.bo/web/site/convenios
IWW transport total	Max score 30 points		17 points		
Chapter score	Max score 100 points		37 points		

Source: The author based on SITCIN's methodology.

C. Safety and security

The Road Traffic Rules/Behaviour indicators aim to measure the effectiveness of the provision of road signs and signals, road traffic rules, driver's driving times enforcement, etc., in reducing the number of road traffic accidents. The Vehicle Regulations indicators measure the effectiveness of harmonized vehicle and packing regulations in increasing traffic safety in both mode-specific and intermodal transport operations.

Table 7
Safety and security indicators and findings

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-1: Road Traffic Rules/Behavior			Points		
1-SO-1.1a: Harmonization of national laws on traffic rules	Degree of harmonization of the UN Convention on Road Signs and Signals (1968) in the national laws covering traffic rules for drivers and specific rules for professional drivers, such as National Highway Code and Road Traffic Regulations.	Not harmonized: 4 points	4 points	As of the present date, The Plurinational State of Bolivia has neither signed nor ratified the UN Convention on Road Signs and Signals (1968).	https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XI-B-20&chapter=11
1-SO-1.1b: Development of rules on traffic behavior	The existence of rules on traffic behavior concerning position on carriageway, maneuvering, overtaking, passing of traffic, change of directions, behavior at intersections and level-crossings, giving way and use of lamps.	Rules on traffic behavior are in place: 10 points	10 points	Rules on traffic behavior are set in the Bolivian Highway Code, law 3988.	http://www.silep.gob.bo/norma/3083/ley_actualizada https://www.lbc.bo/blog/codigo-de-transito-bolivia/
1-SO-1.1c: Effective rules on speed	The existence and effectiveness of rules on speed. The effectiveness of the rules can be assessed by analyzing the number of violations on speed limit (indicator 1-SO-1.1d) in the last five years, where a decreasing trend can represent effective rules.	Rules on speed are in place, but ineffective: 6 points	6 points	Rules on speed are set in the Bolivian Highway Code, law 3988 (articles 34 to 38). A study on speed limits published in 2023 by the Bolivian University 'Mayor de San Simon' shows that there is a high level of non-compliance related to road safety regulations and speed limits. Speeding is the second leading cause of traffic accidents in the Plurinational State of Bolivia.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/ http://ddigital.umss.edu.bo/bitstream/123456789/42699/1/Monografia%20Ojed a.pdf
1-SO-1.1d: Number of violations on speed limit	Ratio of the number of violations of exceeding the speed limit to the total number of recorded traffic violations on the (inter)national roads per year.	Not applicable. This is a verification indicator.	No data available. Refer to the answer column for more information	There are no statistics on the number of violations for exceeding the speed limit or statistics regarding traffic violations on international roads. Nevertheless, a study on speed limits published in 2023 by the Bolivian University 'Mayor de San Simon' indicates that speeding is the second leading cause of traffic accidents in the Plurinational State of Bolivia.	http://ddigital.umss.edu.bo/bitstream/123456789/42699/1/Monografia%20Ojeda.pdf
1-SO-1.1e: Effective rules on safety equipment	The existence and effectiveness of rules on the compulsory use of safety equipment: (i) safety belts; (ii) child restraint systems; and (iii) helmets. The effectiveness of the rules can be assessed by analyzing the number of violations on the use of safety equipment (indicator 1-SO-1.1f) in the last five years, where a decreasing trend can represent effective rules.	Rules on all three-safety equipment are in place, but ineffective: 8 points	8 points	The compulsory use of safety equipment is set in Bolivia's (Plurinational State of) Highway Code, law 3988, and its regulatory decrees. The use of helmets is set in Article 97. The use of safety belts and child restraint systems is the National Road Safety Plan.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-1.1f: Number of violations on the use of safety equipment	Ratio of the number of violations on the compulsory use of safety equipment (safety belts, child restraint systems, and helmets), total number of recorded traffic violations on the (inter)national roads per year.	Not applicable. This is a verification indicator.	No data available. Refer to the answer column for more information	There are no statistics on the number of violations on the compulsory use of safety equipment or statistics regarding traffic violations on international roads. Nevertheless, a study on speed limits published in 2023 by the Bolivian University 'Mayor de San Simon' indicates that careless driving, which includes violations of the compulsory use of safety equipment, is the leading cause of traffic accidents in the country.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/
1-SO-1.1g: Effective rules on cargo loading and carriage of passengers	The existence and effectiveness of rules to strictly regulate loading of vehicles and carriage of passengers and put in place specific regulations for cargo securing for road transport and for carriage of passengers by buses and coaches. The effectiveness of the rules can be assessed by analyzing the number of violations on cargo loading and carriage of passengers on the (inter)national roads in the last five years, where a decreasing trend can represent effective rules.	Rules are in place and effective: 10 points	10 points	The Bolivian Highway Code (law 3988), articles 244 to 265, regulates the carriage of passengers by buses and coaches. Specific regulations for cargo securing for road transport are established in articles 168 to 189 and articles 274 to 308. Regarding the effectiveness of the rules, the Road Safety Statistics Dossier 2017-2022 states that the number of road traffic accidents by buses decreased from 373 in 2017 to 278 and the number of traffic accidents by coaches decreased from 3.733 in 2017 to 2218 in 2022.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/ https://www.mingobierno.gob.bo/sites/default/files/2023-12/Dossier_Seguridad_vial.pdf
1-SO-1.1h: Number of vehicles stopped per year	Ratio of the number of cars and trucks that are stopped by the police per year to the total number of vehicles on the (inter)national roads per year.	Not applicable. This is a verification indicator.	No data available.	No data	No data
1-SO-1.1i: Application of special regulations for motorways and tunnels	The existence of special traffic regulations for motorways and/or tunnels, such as prohibition of standing and parking, prohibition of reversing or making a U-turn, and the obligation to have the lights of the vehicle on in tunnels.	Special regulations are in place: 10 points	10 points	There are special traffic regulations for motorways and tunnels in the Bolivian Highway Code. prohibition of standing and parking (articles 121 to 129). The prohibition for reversing and making a U-turn is set in Article 20 and is a general prohibition that can only be disregarded due to force majeure.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/
1-SO-1.1j: Effective rules on road users distractions	The existence and effectiveness of rules regarding distraction during driving due to use of infotainment systems, portable electronic devices or mobile phones. The effectiveness of the rules can be assessed by analyzing the number of violations of distracted driving (indicator 1-SO-1.1k) in the last five years, where a decreasing trend can represent effective rules.	Rules are in place, but ineffective: 6 points	6 points	The Bolivian Highway Code, article 381-43, establishes a fine for distracted driving and explicitly prohibits it for bus drivers (Article 254). Nevertheless, a study on speed limit published in 2023 by the Bolivian University 'Mayor de San Simon' indicates that careless driving is the leading cause of traffic accidents in the country.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/ http://ddigital.umss.edu.bo/bitstream/123456789/42699/1/Monografia%20Ojeda.pdf

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-1.1k: Number of violations of distracted-driving	Ratio of the number of violations of distracted driving to the total number of recorded traffic violations on the (inter)national roads per year.	Not applicable. This is a verification indicator.	No data available. Refer to the answer column for more information.	There are no statistics concerning the number of violations of distracted driving on international roads. Nevertheless, as mentioned in indicator 1-SO-1.1j, a study on speed limit published in 2023 by the Bolivian University 'Mayor de San Simon' indicates that careless driving is the leading cause of traffic accidents in the country.	http://ddigital.umss.edu.bo/bitstream/123456789/42699/1/Monografia%20Ojeda.pdf
1-SO-1.1l: Adequate regulations on training and examination for drivers	The existence of adequate system that sets out minimum requirements of curriculum and qualifications of professional driving establishments (Certificate of Professional Competence), requirements for obtaining a driving permit, including contents and procedure of both theoretical and practical exams, and requirements for training and certification for driving instructors and retraining for professional drivers.	Regulations are in place and fully cover the required elements: 10 points	10 points	Rules regarding driving permits are set in the Bolivian Highway Code articles 195 to 217 and fully cover the required elements. Article 436 defines the requirements for professional driving establishments which include submitting the curriculum and study plan as part of their application package.	https://www.lbc.bo/blog/codigo-de-transito-bolivia/
1-SO-1.2a: Number of vehicles with tachograph	Ratio of the number of commercial vehicles involved in international transport that are equipped with tachograph, to the total number of commercial vehicles involved in international transport in the country per year.	Ratio < 10%: 0 point	0 points	Equipping cargo trucks with tachographs is not mandatory. However, some companies opt to install these devices or GIS technology to enhance their fleet management systems. There are no official statistics available regarding the proportion of national trucks equipped with such devices compared to the total number of national trucks engaged in international transport. Given that the use of these devices is not compulsory, it is assumed that the ratio is relatively low.	National companies that these or equivalent devices: https://monnet.com.bo/rastreo-satelital-para-camiones-como-funciona
1-SO-1.2b: Number of vehicles with operational tachograph	Ratio of the number of vehicles involved in international transport that are equipped with operational tachographs (being used), to the total number of vehicles with tachographs involved in international transport in the country per year. The data might be collected from a survey by logging the number of trucks with operational tachographs at BCPs (in fact, the BCP police may enforce technical standards upon entry) or country's statistics on roadside inspection on driving and resting time rules.	Ratio < 10%: 0 point	0 points	Equipping cargo trucks with tachographs is not mandatory. However, some companies opt to install these devices or GIS technology to enhance their fleet management systems. There are no official statistics available regarding the proportion of national trucks equipped with such devices compared to the total number of national trucks engaged in international transport. Given that the use of these devices is not compulsory, it is assumed that the ratio is relatively low.	National companies that these or equivalent devices: https://monnet.com.bo/rastreo-satelital-para-camiones-como-funciona

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-1.3: Development of regulations on cargo securing	The existence and effectiveness of regulations on cargo securing that include the standards of safety of loads on vehicles, truck loading code, etc.	Regulations are in place: 10 points	10 points	Specific regulations for cargo securing for road transport are established in articles 168 to 189 and articles 274 to 308. Some of these rules include maximum load, the use of proper signalling and retro-reflective elements.	https://www.lbc.bo/blog/codi-go-de-transito-bolivia/
1-SO-1.4: Number of crashes due to violating the traffic rules	Number of crashes involving international traffic, due to violating the traffic rules per year.	Not applicable. This is a verification indicator.	No data available.	N/A	N/A
1-SO-1.5: Application of National Road Safety System	The extent to which a National Road Safety System (NRSS) is developed based on the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS), which comprises 5 pillars: (i) Road safety management; (ii) Safe user; (iii) Safe vehicle; (iv) Safe road; (v) Effective post-crash response.	Partially based on GFPARS/not covering all elements: 7 points	7 points	The Plurinational State of Bolivia Road Safety Plan 2021-2015 is built upon the following 3 pillars: (i). Prevention of road crashes, (ii). Modernisation and integration of control measures and (iii). Implementation of the constitutional framework for road safety. These pillars are partially aligned to the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS).	https://www.noticiasfides.com/nacional/seguridad/gobierno-no-alista-nuevo-plan-de-seguridad-vial-para-reducir-muertes-y-heridos-en-50-hasta-2030
1-SO-1.6: Application of Post-Crash Response	The extent to which Post-Crash Response standards and procedures are developed based on the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS), which comprises eight actions. (i) Introduce legal requirement for anyone to perform first-aid activities within his/her capacity, (ii) Introduce standards for post-crash professional emergency response, (iii) Introduce framework for rehabilitation programmes, (iv) Establish a link between liability insurance and financing of care for crash victims, and rehabilitation programmes (v) Enable multi-disciplinary crash rescue operation and investigation, (vi) Introduce a clear framework for crash investigation and data collection, (vii) Designate authorities responsible for implementation including enforcement of the existing standards as well as for their further development, as necessary, (viii) Assess effectiveness and completeness of standards (completeness of standards benchmarked against international regulatory framework)	No NRSS in place: 0 point	0 points	No post-crash response standards and procedures in place: 0 point	https://www.noticiasfides.com/nacional/seguridad/gobierno-no-alista-nuevo-plan-de-seguridad-vial-para-reducir-muertes-y-heridos-en-50-hasta-2030

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-3: Vehicle Regulations			Points		
1-SO-3.1: Harmonization of vehicle regulations	Number of national vehicle regulations applied for new vehicles, which are developed in harmony with international agreements such as the UN agreements on vehicle regulations.	number < 40: 2 points	2 points	The Plurinational State of Bolivia is not part of the Agreement concerning the adoption of harmonized technical United Nations Regulations for wheeled vehicles. However, it has national rules regarding this type of provision such as the Regulation for the Issuance of Prior Authorizations for New Motor Vehicles. It is important to note that The Plurinational State of Bolivia officially joined MERCOSUR (an Integrated Treaty, between Argentina, Brazil, Paraguay, Uruguay) following the enactment of Law 1567 on July 4, 2024, which ratified the Accession Protocol to the Southern Common Market. This means that the country will have to harmonize part of its regulations with the regional bloc. The MERCOSUR sub-working group no. 5, in charge of regulating transport, drafts these rules considering international agreements. As a result, several rules match those of UN agreements. It is worthwhile noting that the last provision on technical inspection was drafted in 1997. Therefore, the MERCOSUR sub-working group no. 5 is currently revising and updating the document (For instance, the original document does not indicate if new vehicles have to go under technical inspection).	https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtidsg_no=XI-B-16&chapter=11&clang=_en https://www.lexivox.org/norms/BO-RE-RM-450-2017.html Informe Nacional de Conectividad-Paraguay 2020 https://www.cepal.org/es/publicaciones/47653-informe-nacional-conectividad-paraguay-2020 https://www.mercosur.int/documento/inspeccion-tecnica-vehicular-res-75-97/
1-SO-3.2: Application of periodic technical inspections	Degree of application of periodic technical inspections (PTIs) of vehicles.	PTIs are enforced and applied with an increasing frequency to ageing vehicles: 8 points	8 points	The Periodic Technical Inspection of Vehicles (PTI) was established in 2011 by the General Transport Law No. 165 (articles 218 to 224) and in Article 29 of the Bolivian Highway Code. There are enforcement mechanisms in place but it is not applied with increasing frequency to ageing vehicles.	https://www.defensoria.gob.bo/uploads/files/ley-n%C2%BA-165-general-de-transporte.pdf https://www.ruat.gob.bo/vehiculos/consultadeudainfraccionitv/InicioBusquedaVehiculoRecPolicia.jsf
1-SO-3.3: Vehicle registration documentation	Degree of recognition of vehicle registration documentation applied in the country.	Use of internationally recognized registration certificate: 10 points	10 points	International vehicle registration documents are recognized in the country. Vehicles and people that enter the country for tourism should follow the procedures established by Resolution no. rd 01-007-15 of 09-04-2015 'Approving the procedure for the entry and exit of private vehicles for tourism use and repealing rd 01-023-05 of 20/07/2005'. Vehicles destined for cargo should comply with the Regulation of the General Customs Law and the Regulation for the Management of Shipping Documents, Cargo Manifests, and Customs Transit, approved by RD 01-013-21 of 31/05/2021. According to Article 119 of the Bolivian Highway Code, international driving licenses are recognized but drivers are required to present their documents to the Bolivian Automobile Club first.	https://www.aduana.gob.bo/aduana7/content/procedimiento-para-el-ingreso-y-salida-de-veh%C3%ADculos-de-uso-privado-para-turismo#3.%20Ingreso%20y%20salida%20de%20vehiculos%20(nacionales%20o%20extranjeros) https://www.lbc.bo/blog/codigo-de-transito-bolivia/ https://www.acbbolivia.com.bo/ https://www.aduana.gob.bo/aduana7/content/r%C3%A9gimen-de-tr%C3%A1nsito-aduanero-0

Indicator	Definition	Scoring	Score	Answer	Source
1-SO-3.4: Number of accidents due to technical failure	The number of accidents, where primary cause is technical failure, per km driven.	Not applicable. This is a verification indicator.	2.7	A study on speed limits published in 2023 by the Bolivian University 'Mayor de San Simon' indicates that 2.8% of car accidents in 2022 were caused by technical failure.	http://ddigital.umss.edu.bo/bitstream/123456789/42699/1/Monografia%20Ojeda.pdf
1-SO-3.5: Number of accredited technical inspection centers	The number of accredited technical inspection centers per million vehicles.	Not applicable. This is a verification indicator.	63	In 2024, there were 119 fixed points and 30 mobile points for approximately 2.346.407 vehicles. Therefore, there are 63 technical inspection centers per million vehicles.	The number of vehicles was obtained from https://www.mingobierno.gob.bo/sites/default/files/2023-12/Dossier_Seguridad_vial.pdf and the number of technical inspection centers from the following link: https://www.la-razon.com/ciudades/2024/08/15/empieza-la-inspeccion-tecnica-vehicular-donde-y-como-sera/
3-SO-1.1: Application of internationally harmonized navigation rules	Degree of application of internationally harmonized navigation rules (in Europe, these concern the European Code for Inland Waterways/CEVNI) on the country's international waterways.	Partially harmonized: 7 points	7 points	The Plurinational State of Bolivia has signed 13 international conventions regarding navigation rules, such as the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), the MAPOL and SOLAS Conventions. The full list can be found here: https://www.ribb.gob.bo/web/site/convenios .	https://www.ribb.gob.bo/web/site/convenios
Road transport total	Max score 160 points		101 points		
3-SO-1 Traffic Rules			Points		
3-SO-1.2: Navigation-related accidents	Number of navigation-related accidents per year. These concern the accidents that occur due to insufficient navigational infrastructure, such as navigational aids (cardinal marks, lateral marks and buoy etc.) and other signs & markings along waterway routes for both night and day navigation.	Not applicable. This is a verification indicator.	No data	No data	
3-SO-2 Vessels Regulations			Points		
3-SO-2.1: Harmonization of registration of inland navigation vessels	Degree of harmonization of internationally/regionally agreed provisions on the registration of inland navigation vessels, in the national laws and legislations.	Globally harmonized: 10 points	10 points	The rules of state registration of ships are set in provision N° 12684 published by the Bolivian International Ship Registry. Article 47 states that 'For maritime navigation, the respective regulations will comply with the provisions of the ratified international conventions'. The Plurinational State of Bolivia has signed 13 international conventions regarding navigation rules, such as the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), the MAPOL and SOLAS Conventions. Find the full list at: https://www.ribb.gob.bo/web/site/convenios .	https://www.ribb.gob.bo/web/stock/decretos/DECRETO-SUPREMO-12684.pdf https://www.ribb.gob.bo/web/site/convenios

Indicator	Definition	Scoring	Score	Answer	Source
3-SO-2.2: Acceptance of harmonized mandatory vessel certificates	Degree of acceptance of harmonized mandatory vessel related certificates (such as vessel certificate vessel and measurement certificate).	Regionally harmonized: 8 points	8 points	Regionally harmonized following the rules in the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways (Chapter II). Note that the Paraná-Paraguay Waterways represent only a portion of IWW in the Plurinational State of Bolivia.	https://digesto.aduana.gov.py/DNA/upload/950463379.pdf
3-SO-2.3: Number of vessels equipped with AIS	Ratio of the number of vessels involved in international transport that are equipped with Automatic Identification System (AIS), to the total number of vessels involved in international transport in the country per year.	Not applicable	N/A	No data	No data
3-SO-2.4: Application of provisions for safety clearance, freeboard and draught marks	Degree of harmonization of internationally/regionally agreed provisions for safety clearance, freeboard and draught marks for inland navigation vessels, in the national laws and legislations.	Regionally harmonized: 8 points	8 points	Regionally harmonized following the rules in the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways (Title IV, Chapter I). Note that the Paraná-Paraguay Waterways represent only a portion of IWW in the Plurinational State of Bolivia.	https://digesto.aduana.gov.py/DNA/upload/950463379.pdf
3-SO-2.5: Application of provisions for passenger vessels	Degree of harmonization of internationally/regionally agreed provisions for passenger vessels in the national laws and legislations.	Not recognizing international/regional provisions or no national law applied: 0 point	0 points	In 2022, the Telecommunications and Transport Regulation and Oversight Authority (ATT) granted the first authorization for passenger water transport to the Nicolás Suarez River Transport Association of the city of Guayaramerín, Beni, which met all technical and legal requirements. Given that the first authorization was granted in 2022, passenger water transport is still in its early stages of development and there is an opportunity to work towards harmonizing these regulations with internationally, regionally or bilaterally agreed provisions.	https://www.att.gob.bo/la-att-otorga-la-primera-autorizacion-para-operadores-de-transporte-acuatico-de-pasajeros
IWW transport total	Max score 50 points		33 points		
Chapter score	Max score 100 points		64 points		

Source: The author based on SITCIN's methodology.

V. Score per chapter

The following tables provides the scores of different modes of transport from chapter 1, 2 and 3. More information concerning the scoring and weighting process can be found at UNECE (2022) Sustainable Inland Transport Connectivity Indicators: Understanding the performance of road, rail, inland waterway, and inter-modal transport systems.

Table 8
Score summary

NCR chapters	Max score	Score	Progress (Percentages)
1. Border crossing facilitation	100 points	43 points	43
Road	310 points	219 points	71
IWW	56 points	38 points	68
2. Infrastructure	100 points	37 points	37
Road	80 points	54 points	68
IWW	30 points	17 points	57
3. Safety and security	100 points	64 points	64
Road	160 points	101 points	63
IWW	50 points	33 points	66

Source: The author based on SITCIN's methodology.

VI. SWOT analysis

The SWOT (strength, weakness, opportunity, threat) analysis is developed based on the indicators grouping used in the previous chapter, as presented in the following tables:

Table 9
Border crossing facilitation SWOT

Strength	Weakness
<p>Road transport</p> <ul style="list-style-type: none"> • The Plurinational State of Bolivia signed agreements with Argentina and Chile to establish joint control areas that operate 24/7 (refer to indicator 1-EC-1.2a). • The Plurinational State of Bolivia implements many measures to improve the efficiency of BCPs. The country has set joint control areas with neighboring countries (Refer to indicator 1-EC-1.5b). The country also implemented a programme called Authorized Economic Operator meant to alleviate congestion at BCPs (refer to indicator 1-EC-1.4.). Another measures that alleviate congestion is weighting of vehicles that takes place at inland stations established by Vias Bolivia. Furthermore, phytosanitary inspection managed by the National Service for Agricultural Health and Food Safety (SENASAG) takes place at stations established by the institution. (Refer to indicator 1-EC-1.3). The Customs Office carries out and publishes robust studies on clearance time (Refer to indicator 1-EC-2.2a) • The costs of exports and imports are lower than the regional average (Refer to indicators 1-EC-3.1a and 1-EC-3.1b). • The Bolivian Road Administration (ABC) developed an application to monitor the condition and accessibility of the roads within the Fundamental Road Network https://transitabilidad.abc.gob.bo/mapa(Refer to indicator 1-EC-7.10). 	<p>Road transport</p> <ul style="list-style-type: none"> • Not all BCPs operate 24 hours a day. • Despite of the efforts to increase efficiency and alleviate congestion, waiting times are still high (24 hours at Joint Control Areas and 44 to 86 hours at other BCPs). • Road freight in the Plurinational State of Bolivia is above the regional average. It accounts for 45.5% of the total logistics cost while the average in Latin America is 14.7% (refer to indicator 1-EC-3.2). • Although the website https://transitabilidad.abc.gob.bo/mapa provides pre-trip traffic information to make international drivers aware of the traffic situation and travel conditions, the system does not have information that could be useful for commercial drivers, such as on traffic occupancy, processing and queuing time, and providing early recommendations such as postponing entry to BCPs or deviate to other BCPs. • Commercial vehicles are not required to use track and trace devices or fleet management systems. However, some companies choose to acquire these devices to enhance their operations.

Strength	Weakness
<ul style="list-style-type: none"> • Giropes/Girwim and Sociedad Ibérica de Construcciones Eléctricas have installed three weigh-in-motion stations for vehicle weight control in the areas of Caracollo, Taracollo, and Ocotavi (Refer to indicator 1-EC-7.6). • Radio-frequency identification (RFID) is being implemented for Electronic Toll Collection (ETC). (Refer to indicator 1-EC-7.11). • International driving permits are recognized in the country (Refer to indicator 1-SO-3.3). The Plurinational State of Bolivia also recognizes vehicle insurance for foreign vehicles through the green card system (Refer to indicator 1-EC-5.4). • The Unified System for Customs Modernization (SUMA) implemented by the Customs Office serves as an inter-agency e-solution and allows national and international agencies to connect to the Bolivian Single Window for Foreign Trade (refer to indicator 1-EC-1.5c). <p>IWW transport</p> <ul style="list-style-type: none"> • The Plurinational State of Bolivia has rules to be certified as a boat master Harmonization and there regionally agreed requirements on the Additional Protocol on Navigation and Safety of the Agreement on Transport of Goods through Inland Waterways (refer to indicator 3-EC-4.1) 	<ul style="list-style-type: none"> • The Plurinational State of Bolivia is not part of the UN Convention on Road Signs and Signals (1968). Therefore, there is no recognition of driving permit based on this Convention. <p>IWW transport</p> <ul style="list-style-type: none"> • There is no publicly available data regarding IWW transport technology such as River Information System technological solutions (i) VHF radio; (ii) Mobile data communication; (iii) Global Navigation Satellite Systems (GNSS); (iv) Internet; (v) Vessel tracking and tracing system; (vi) Ship reporting system), Electronic Chart Display Information System or Automatic Identification System (AIS).
Opportunity	Threat
<p>Road transport</p> <ul style="list-style-type: none"> • Bolivia's (Plurinational State of) accession to MERCOSUR will give the country an opportunity to revise and improve aspects related to joint control areas and opening hours. • The Customs Office could accompany its studies on clearance time with concrete policy proposals to improve efficiency. • The Plurinational State of Bolivia can partner with international organizations to elaborate assessments of logistics costs similar to the 'Studies on Mediterranean: Foreign Trade Transport of Bolivia and Paraguay' previously published by ALADI's Unit of Economic Promotion.^a • The website https://transitabilidad.abc.gob.bo/mapa is a suitable platform to incorporate data regarding traffic occupancy, processing and queuing time at BCPs, as well as providing early recommendations such as postponing entry to BCPs or deviating to other BCPs. • The Plurinational State of Bolivia can consider adopting the UN Convention on Road Signs and Signals (1968). <p>IWW transport</p> <ul style="list-style-type: none"> • The Bolivian International Ship Registry is in charge of navigation safety and protection. They could publish navigation-related reports similar to the Dossier of Traffic Safety Statistics drafted by the Bolivian Observatory of Citizen Security and the Fight Against Drugs and include information concerning the use of River Information System technological solutions, Electronic Chart Display Information System or Automatic Identification System (AIS). 	<p>Road transport</p> <ul style="list-style-type: none"> • Expanding the number of Border Control Points (BCPs) or extending their operating hours requires significant investment. In 2022, the Plurinational State of Bolivia increased the number of BCPs from 18 to 26, but this expansion was achieved by reducing salaries.^b • Some of the measures require big investments. There are high costs associated with implementing intelligent transport systems as well as detection equipment, scanning and non-intrusive inspection technologies including scanners for cargo. <p>IWW transport</p> <ul style="list-style-type: none"> • The Registry may not have sufficient resources or expertise to produce these types of reports.

Source: The author based on Border Crossing Facilitation indicators' results.

^a https://www2.aladi.org/biblioteca/Publicaciones/ALADI/Secretaria_General/PMDER/1985/PMDER_115_1985_BO_PY.pdf.

^b <https://www.aduana.gob.bo/aduana7/content/aduana-incrementar%C3%A1-nuevos-puntos-de-inspecci%C3%B3n-aduanero-en-bolivia>.

Table 10
Transport infrastructure SWOT

Strength	Weakness
<p>Road transport</p> <ul style="list-style-type: none"> The overall length of the national road network has increased from 86,855 kilometers in 2014 to 202,037 kilometers in 2021. The length of paved roads also grew from 7,134 kilometers (8% of the road network) in 2014 to 33,809 kilometers (16% of the network) in 2021. There are provisions covering road signs, signals, and markings in Technical Manuals for Road Design. These manuals are based on regional agreements and best practices. <p>IWW transport</p> <ul style="list-style-type: none"> There is a noteworthy framework pertaining to navigation rules. Particularly the ones that follow the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways which in turn uses the Maritime Code and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). 	<p>Road transport</p> <ul style="list-style-type: none"> Even though the length of paved roads has increased, only 31.7% of roads classified as essential are paved and the national road network remains predominantly composed of dirt roads. In addition, the country does not have International Roughness Index (IRI) studies to assess the quality of roads. National legislation covering road signs, signals, and marking is not harmonized with international standards such as the UN Convention on Road Signs and Signals (1968). The number of reported cargo theft cases is high (refer to indicator 1-SO-2.5:). <p>IWW transport</p> <ul style="list-style-type: none"> According to Logistics Cluster, an assessment tool led by the World Food Programme, IWW navigation in the Northeastern part of the Plurinational State of Bolivia is not comprehensively regulated (refer to indicator 3-EC-3.1).
Opportunity	Threat
<p>Road transport</p> <ul style="list-style-type: none"> IRI studies can help the Plurinational State of Bolivia to plan the construction, and maintenance of new roads. The Technical Manuals for Road Design can be improved by harmonizing them with international standards such as the UN conventions of traffic such as the UN Convention on Road Signs and Signals (1968). The Plurinational State of Bolivia can implement a plan to prevent cargo theft. <p>IWW transport</p> <ul style="list-style-type: none"> The Plurinational State of Bolivia can harmonize navigation rules for all of IWW with the technical parameters established by the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways. 	<p>Road transport</p> <ul style="list-style-type: none"> Significant resources are needed to close the road infrastructure gap and implement International Roughness Index (IRI) studies. The country may not have strong incentives to harmonize its rules with the UN Convention on Road Signs and Signals (1968) since it already has operational Technical Manuals for Road Design. <p>IWW transport</p> <ul style="list-style-type: none"> A significant amount of stakeholder enjoyment is needed to harmonize navigation rules.

Source: The author based on Transport Infrastructure indicators' results.

Table 11
Safety and security SWOT

Strength	Weakness
<p>Road transport</p> <ul style="list-style-type: none"> • The Bolivian Highway Code sets rules for obtaining driving permits, and requirements for institutions that seek to train drivers. • Rules on transit safety are comprehensive and solid (i.e.: there are rules on cargo securing, distracted driving, use of safety equipment, and speed limits) • The country developed a Road Safety National Plan (indicator 1-SO-1.5) partially aligned to the UNRSTF Global Framework Plan of Action for Road Safety (GFPARS). • Periodic technical inspections (PTI) were established in 2011 by the General Transport Law No. 165. • The Bolivian Observatory of Citizen Security and the Fight Against Drugs publishes a Dossier of Traffic Safety Statistics with useful information for developing traffic safety policies in the country. <p>IWW transport</p> <ul style="list-style-type: none"> • Navigation rules are harmonized with global or regional standards. The Plurinational State of Bolivia has signed 13 international conventions regarding navigation rules; most of them are related to safety and security (to see the full list refer to indicator 3-SO-1.1). • The Plurinational State of Bolivia recently issued its first authorization for passenger water transport which expands mobility options for users (for more information refer to indicator 3-SO-2.5). 	<p>Road transport</p> <ul style="list-style-type: none"> • Traffic rules for drivers and specific rules for professional drivers are not harmonized with the UN Convention on Road Signs and Signals (1968). • The level of non-compliance related to road safety regulations is high. • The Road Safety National Plan can take into account the pillars from the UNRSTF Global Framework Plan of Action for Road Safety: (i) Road safety management; (ii) Safe user; (iii) Safe vehicle; (iv) Safe Road; (v) Effective post-crash response. As well as post-crash response actions: (i) Introduce legal requirements for anyone to perform first-aid activities within his/her capacity, (ii) Introduce standards for post-crash professional emergency response, (iii) Introduce a framework for rehabilitation programmes, (iv) Establish a link between liability insurance and financing of care for crash victims, and rehabilitation programmes (v) Enable multi-disciplinary crash rescue operation and investigation, (vi) Introduce a clear framework for crash investigation and data collection, (vii) Designate authorities responsible for implementation including enforcement of the existing standards as well as for their further development, as necessary, (viii) Assess effectiveness and completeness of standards (completeness of standards benchmarked against international regulatory framework). • Provisions related to PTI can be improved. There are complaints claiming non-compliance and the sale of vehicle technical inspection certificates at low prices on social media platforms.^a • The Dossier of Traffic Safety Statistics published by the Bolivian Observatory of Citizen Security and the Fight Against Drugs Commercial does not include information concerning the safety devices used by commercial vehicles such as tachographs or equivalent technology. The use of these devices is not mandatory in the country. <p>IWW transport</p> <ul style="list-style-type: none"> • There is no publicly available data concerning the number of navigation-related accidents and their causes (i.e., insufficient infrastructure or signs and marking along waterway routes), or the use of equipment that can enhance safe navigation such as Automatic Identification System (AIS). • The authorization of passenger vessels is in its initial stages and can be improved.

Opportunity	Threat
<p data-bbox="228 249 383 270">Road transport</p> <ul data-bbox="228 273 862 667" style="list-style-type: none"> <li data-bbox="228 273 862 342">• The Plurinational State of Bolivia could assess if its Highway Code can be improved by harmonizing national laws with the UN Convention on Road Signs and Signals (1968). <li data-bbox="228 344 862 390">• The Plurinational State of Bolivia can improve the enforcement of transit rules and implement other methods to improve compliance. <li data-bbox="228 392 862 527">• PTI provisions can be improved by considering delegating inspections to a specialized institution, considering increasing the frequency of inspections to ageing vehicles, adopting MERCOSUR's provision 75/97 on periodic technical inspection (PTI), and establishing the mutual recognition of national rules pertaining PTI among MERCOSUR'S member countries. <li data-bbox="228 529 862 667">• The Dossier of Traffic Safety Statistics published by the Bolivian Observatory of Citizen Security and the Fight Against Drugs Commercial can include information concerning the safety devices used by commercial vehicles such as tachographs or equivalent technology. The Plurinational State of Bolivia can consider incentivizing the use of tachographs. <p data-bbox="228 690 375 711">IWW transport</p> <ul data-bbox="228 714 862 846" style="list-style-type: none"> <li data-bbox="228 714 862 804">• Bolivian International Ship Registry is in charge of navigation safety and protection. They could publish navigation-related reports similar to the Dossier of Traffic Safety Statistics drafted by the Bolivian Observatory of Citizen Security and the Fight Against Drugs. <li data-bbox="228 806 862 846">• Rules on passenger vessels can be enhanced by harmonizing them with regional or international standards. 	<p data-bbox="894 249 1040 270">Road transport</p> <ul data-bbox="894 273 1437 527" style="list-style-type: none"> <li data-bbox="894 273 1437 390">• The current version of the Bolivian Highway Code is comprehensive (as reflected by the different indicators in the Safety and Security chapter). Therefore, the country may not have strong incentives to harmonize its rules with the UN Convention on Road Signs and Signals (1968). <li data-bbox="894 392 1437 438">• Lack of resources or resistance from users can hinder enforcement efforts. <li data-bbox="894 441 1437 487">• Significant changes to the current rules concerning PTI may be needed to implement changes. <li data-bbox="894 489 1437 527">• Equipping trucks with tachographs requires investments that stakeholders may not be willing to make. <p data-bbox="894 571 1036 592">IWW transport</p> <ul data-bbox="894 594 1437 711" style="list-style-type: none"> <li data-bbox="894 594 1437 640">• The Registry may not have sufficient resources or expertise to produce these types of reports. <li data-bbox="894 642 1437 711">• The current scale of passenger transport may be insufficient to prompt immediate attention to these regulations.

Source: The author based on Safety and Security indicators' results.

^a <https://www.bda-lawfirm.com/articulos/inspeccion-tecnica-vehicular-un-procedimiento-desnaturalizado-2/>.

VII. Conclusions

The Sustainable Inland Transport Connectivity Indicators were designed to provide an evidence-based transport policy framework that can promote sustainable transport at the national, regional, and international levels while fostering the implementation of transport-related SDGs. This report assesses 101 indicators related to road and IWW transport in the Plurinational State of Bolivia across the following three SITCIN chapters: (i) Border Crossing Facilitation, (ii) Transport Infrastructure, and (iii) Safety, and Security.

Furthermore, this report outlines the changes that the Plurinational State of Bolivia must incorporate into its legal framework after ratifying the Accession Protocol to the Southern Common Market (MERCOSUR). The Plurinational State of Bolivia officially became a member of MERCOSUR - an Integrated Treaty, between Argentina, Brazil, Paraguay, and Uruguay- following the enactment of Law 1567 on July 4, 2024.

Across all chapters, the Plurinational State of Bolivia scored higher in Safety and Security for both road and IWW transport. This is largely due to the robust road safety legislation provided by the Bolivian Highway Code, Law 3988 and the establishment of Periodic technical inspections (PTI) in 2011 by the General Transport Law No. 165. Nevertheless, it is important to note that there is still work to do on enforcement and compliance. Regarding IWW transport, the country has signed key international conventions such as the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) as well as the MAPOL and SOLAS Conventions (indicator 3-SO-2.2). Besides, Bolivia (Plurinational State of) is part of the Agreement on Transport of Goods through Paraná-Paraguay Inland Waterways which provides safety guidelines for clearance, freeboard, and draught marks for inland navigation vessels (indicator 3-SO-2.4).

In terms of transport infrastructure, the national road network has increased steadily, expanding from 86,855 kilometers in 2014 to 202,037 kilometers in 2021. The length of paved roads increased significantly from 7,134 kilometers (8% of the road network) in 2014 to 33,809 kilometers (16% of the network) in 2021, while the length of dirt roads decreased from 45,604 kilometers to 39,108 kilometers. Despite the above improvements, only 31.7% of roads classified as essential are paved, meaning that

the national road network remains mostly composed of dirt roads. The condition of infrastructure likely contributes to the high freight costs in Bolivia (Plurinational State of), where road freight is above the regional average. It accounts for 45.5% of the total logistics cost while the average in Latin America is 14.7% (refer to indicator 1-EC-3.2).

In terms of Border Crossing Facilitation, the country scored moderately well. It is worth highlighting that the Bolivian Road Administration (ABC) has implemented pre-trip traffic information systems, such as the website and mobile application 'Transitabilidad', which monitor the condition and accessibility of roads within the Fundamental Road Network (indicator 1-EC-7.10). Although, as previously mentioned in this report, the website could be enhanced with the inclusion of relevant information for commercial drivers, such as on traffic occupancy, processing, and queuing time, at BCPs, and provide early recommendations such as postponing entry to or deviating to other BCPs. Finally, the implementation of the Authorized Economic Operator (AEO) program and the Unified System for Customs Modernization (SUMA, an inter-agency e-solution) implemented by the Customs Office are key steps towards improving efficiency at Border Crossing Points (BCP). However, waiting times at BCPs remain long, ranging from 24 to 86 hours depending on the entry point. While this is not part of SITCIN indicators, it is worth mentioning that the Customs Office carries out and publishes statistical studies on clearance time (indicator 1-EC-2.2a), which are extremely important tools for informing public policy.

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