Bolivia

Independent regional climate change assessment

Key opportunities for climate ambition and implementation

- Climate change is heightening vulnerability in rural areas of Bolivia. It is essential for the government to set clear goals and collaborate with civil society for an integrated and sustainable management of the environment.
- It is important to note that nearly 95% of the energy consumed comes from fossil fuels, with the country heavily dependent on hydrocarbon export. Additionally, 71% of the installed power capacity comes from thermoelectric power plants operating on natural gas.
- The NDC actions show a dependence of up to 60% on international cooperation for achieving goals in the forestry sector and beyond. The document highlights that the management of external resources is crucial for the implementation of these objectives.

The people of Bolivia face significant vulnerability to climate change, with increasingly severe impacts on their daily lives. Rural communities, in particular, are affected by extreme climate events, such as prolonged droughts and flash floods, which threaten their food security and livelihoods. Additionally, climate variability affects key sectors like agriculture and livestock, reducing crop yields and livestock, further exacerbating food insecurity.

Climate Justice

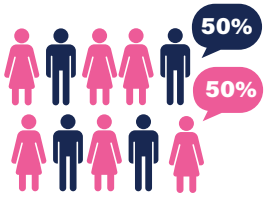
Climate policy instruments

In compliance with the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, the countries parties have developed normative instruments,
Institutional and budgetary arrangements to address the effects of climate change at the national level. The following is a list of some of the instruments that frame climate action at the domestic level:

NDC	1st NDC (2016), 1st Updated NDC (2022)
Target 2030 y 2050	The NDC does not indicate a reduction in numbers (neither in absolute values nor in percentage), it only indicates measures to be taken. It is argued that the calculations will be presented later to make the Biennial Transparency Report BTR.
BUR	Bolivia has not submitted any BUR yet.
LTS	Bolivia has not presented its Long Term Decarbonization Strategy yet.
NC	1st National Communication (2000), 2nd NC (2009), 3rd NC (2020)
NAP	Bolivia has not submitted its National Adaptation Plan yet.
Laws relevant to climate change	–Law No. 777 Integral State Planning System –Risk Management Law No. 602 –Law No. 305 on the Efficient and Rational Use of Energy –Law No. 71, Law on the Rights of Mother Earth. –Law Nº 300, Framework Law of Mother Earth and Integral Development for Living Well –Forestry Law No. 1700

Bolivia

Context



Population of
11.8 million
of inhabitants (2021)
Source: World Bank, 2022

42% of the population recognize themselves as belonging to or descending from **Indigenous Peoples.**
Source: ECLAC/CELADE 2007-2019).

Emissions per capita
10.3 tCO_2e/capita.
Source:(EDGAR, 2022; IPCC, 2022; World Bank, 2022).

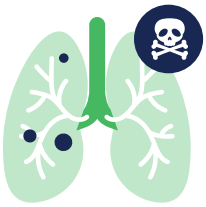
SOCIOECONOMIC

Bolivia

Regional average

Bolivia		Regional average
71.9%	**Inhabitants** in **urban areas** 2021 Source: World Bank, 2022	**81.2%**
0.69%	Index of **human development** 2021 Source: UNDP, 2022	**0.75%**
3,415 USD$	**GDP** per capita in 2021 Source: World Bank, 2022	**8,340USD$**
29%	**Poverty** 2022 Source: ECLAC, 2022	**32%**
0.42	**Gini index** income inequality in 2021 Source: ECLAC, 2022	**0.46**

HÁBITAT Y AMBIENTE



Deaths attributed to **air pollution**
33. 75 **23**
per **100,000** inhabitants
Source: IHME, 2022

Surface of
native forests
46,3% of Bolivia's total area.
(**1.098.580 km²** in 2020)
Source: World Bank, 2022

Bolivia

Adaptation and vulnerability

With the signing of the Paris Agreement, the parties committed to increase capacity to adapt to the adverse effects of climate change and build climate resilience, as well as to promote low-GHG development.

CONTEXT

The country's Nationally Determined Contribution (NDC) lacks a sufficient focus on adaptation. Instead, it emphasizes increasing agricultural production without considering climate risks, which could increase the vulnerability of these areas.

KEY OPPORTUNITIES

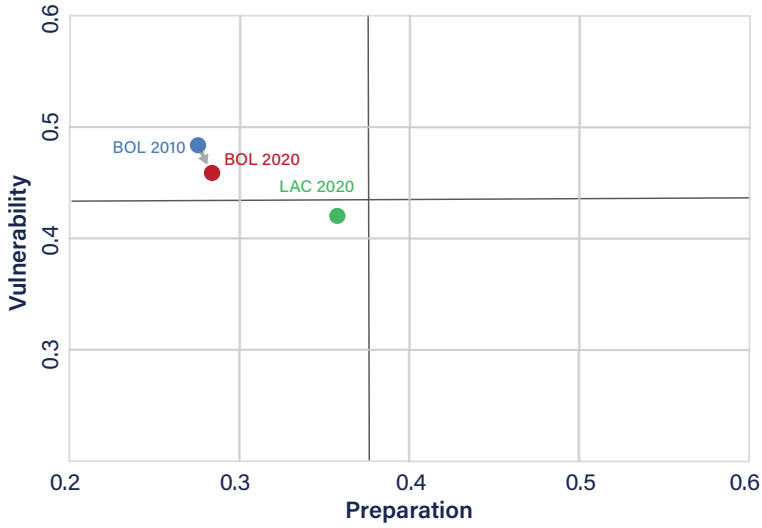
Bolivia must intensify the integration of robust adaptation strategies in its development policies, prioritizing increasing resilience climate change of the production systems.

3.1 Vulnerability and preparedness

According to the methodology developed by the University of Notre Dame (ND-GAIN Country Index[1]) to establish the degree of vulnerability of countries in relation to their level of preparedness, Bolivia shows a high level of vulnerability, while its level of preparedness is low and has not improved in the last 10 years (Figure 1).

The vertical axis shows the vulnerability score, and the horizontal axis shows the readiness score for the country. The dark blue dot represents the initial year 2010, the red dot the final year 2020.

Figure 1. Comparative resilience 2010-2020.



Source: Own elaboration based on ND-GAIN, 2023.

1 The ND-GAIN country index summarizes a country's vulnerability to climate change and other global challenges combined with its preparedness to improve resilience. It aims to help governments, businesses and communities better prioritize investments for a more efficient response to the immediate global challenges ahead. In this methodology, vulnerability measures a country's exposure, sensitivity and adaptive capacity to the negative effects of climate change, considering six life-supporting sectors: food, water, health, ecosystem services, human habitat and infrastructure. On the other hand, preparedness measures a country's capacity to leverage investments and convert them into adaptation actions, considering three components: economic preparedness, governance preparedness and social preparedness.

Figure 2. Examples of changes observed in Bolivia.

HEAT WAVES

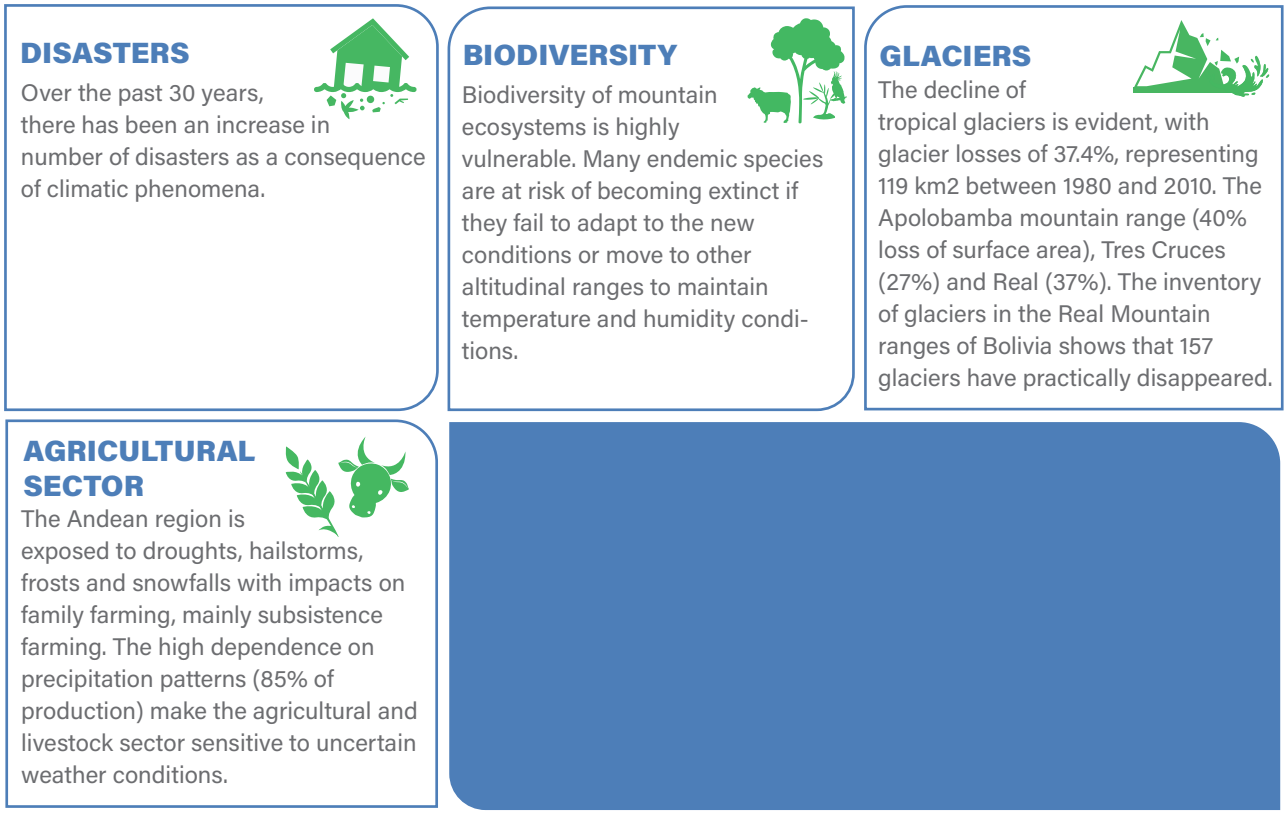
An additional 2.2 days of exposure to heat waves were recorded in the 2016-2020 period with respect to 1986-2005.

RAINFALL

Rainfall has increased by 10% to 15% since 1970 and flooding episodes are becoming increasingly recurrent in the lowlands, affecting mainly the northern and central region of the Bolivian Amazon.

Source: IPCC, 2022; Plurinational Climate Change Policy, 2016.

Figure 5. Projected impacts.



Source: 3CN, 2020.

3.2 Adaptation policies and measures

Measures of the Updated National from Contributions of the Plurinational State of Bolivia, period 2021-2030. It is not possible to analyze the level of implementation of these measures. The research report Civil Society Analysis of the Nationally Determined Commitments[2] conducted a first exercise for the analysis of the Nationally Determined Contribution (NDC). The report was updated in 2022 through an assessment exercise of the country's individual goals, reflecting on the gaps in their planning and implementation; however, there is insufficient information or monitoring instruments to indicate the level of implementation of the measures.

Table 1. Medidas de adaptación período 2021-2030

Sectors		Measure	Degree of implementation (identified priorities / initiatives / flagship projects)
	Agriculture & livestock / Food Sovereignty	In the agricultural sector, the "Pachamama" agricultural insurance is oriented to make food production sustainable as part of the transfer funds' allocation of agricultural risk assessment of the Disaster Risk Reduction Program-phase 3 (DRRP).	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.
		The Agricultural Disaster Risk Management Unit was created in coordination with the Vice-Ministry of Civil Defense and Cooperation, based on the experience of the DRRP and institutionalizing the "Pachagrama" tool for agro-meteorological monitoring focused on bio-indicator observation.	
		Water and Irrigation Program for Bolivia (PPOAP, Spanish acronym), contributes to achieve food sovereignty and reduce poverty in the selected sub-basin, generating sustainable productive systems aimed at increasing local producers and guaranteeing agricultural production.	
		Agricultural Risk Management Unit to plan preventive actions for possible adverse climatic events that may negatively affect agricultural production and food security in coordination with other Executive Branch agencies, such as departmental autonomous governments, municipalities, civil society organizations, farmer and producer organizations, and to develop responses to emergencies caused by natural disasters.	
		Territorial Economic Development with Inclusion Project (DETI II, Spanish acronym) - Empower, promote local productive development and adaptation to climate change of small agricultural and forestry producers in communities and indigenous peoples, through integrated support for agricultural, agroforestry and other non-agricultural productive initiatives, and institutional capacity building.	
		Rural partnership project Phase II-EMPODERAR, focuses on improving market access for poor rural producers in selected areas of the country, by fostering productive partnerships between small producers from organized rural communities and buyers. The project carried out the identification of environmental impacts and developed environmental monitoring and climate risk identification plans, which made it possible to identify measures to adapt to climate change.	
		Community Investment Project in Rural Areas, to fight against extreme poverty among small producers, particularly indigenous, in rural areas. Since late 2011, the project has transferred responsibility and resources to more than 150,000 rural inhabitants in 656 highly vulnerable communities (30 percent more than the target of 500 communities) and supported 769 subprojects to improve access to basic and productive infrastructure for rural households. - The project increased road access to more than 15,000 people and has extended and/or improved irrigation for more than 17,000 beneficiaries. At 2015, the government received additional funding from International Development Association (IDA), 60 million to broaden and deepen	

2 Fundación Jubileo Bolivia, 2023. Civil Society Analysis of the Nationally Determined Commitments Bolivia. Marcos Nordgren Ballivián.

	Agriculture & livestock / Food Sovereignty	the success of the project and reach some 200,000 additional beneficiaries. With the implementation of the projects, based on climate change, we were able to develop instruments to identify and assess potential environmental impacts and climate risks, establishing environmental mitigation measures and climate change adaptation measures. Program of relocation of families affected by adverse climate events (PROREPO, Spanish acronym). Relocate the families affected by the adverse climate events. Under the program, the families identified as affected were organized into 12 communities and each family was allocated a productive plot of 50 hectares. Additionally, the following activities were carried out: establishing basic conditions in the new settlements, including water, housing, electricity, communication, and other essential services, in coordination with and support from relevant entities. ACCESOS-ASAP Program, to increase the adaptive capacity of participating families to the effects of climate change.	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.
	Ecosystems biodiversity Forests	Conservation and Sustainable Use of Andean Land and Vertical Ecosystems Project (DGBAP, Spanish acronym). Promote biodiversity conservation and sustainable use of soils and water in the Andean Vertical Ecosystems through the organizational structures of the Ayllus, to strengthen the food security and long-term sustainability of the Ayllus of the Northern Potosí and southeastern Oruro. Have clarity on the potential migration of species as a useful theoretical basis for prioritizing adaptation actions. Landscape patterns should be considered to promote connectivity for species, communities and ecological processes as a key element in the conservation of nature and its adaptive capacity.	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.
	Water and sanitation	Promote water protection and conservation policies and strategies that guarantee equity in access. Consider productive territorial units with development potential and fundamental social capacities for health, education and sanitation sectors.	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.
	Water resources	Monitor water quality, watershed master plans and actions regarding the use of water within the framework of the National Watershed Plan, as well as natural disaster prevention programs. The national policy "Water for All" seeks to improve access to water, considering this a human right; it also has water sustainability and management components. It has national, regional and departmental plans, as well as programs in different sectors, with emphasis on irrigation. National Watershed Plan – Comprehensive Watershed Management (MIC, Spanish acronym) and Comprehensive Water Management (GIRH Spanish acronym) projects. Promotes strategic alliances for the implementation of the projects. The new GIPH and MIC modalities were developed based on the principles of social management, local participation, articulation and coordination of different uses of water and organization of users and stakeholders of a basin or sub-basin.	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.

	Water resources	National program of Risk with a focus on Watersheds (PPONAPEC), plans a social management of water irrigation with a watershed approach. It is aimed at improving the income of farming families through investments in community irrigation and water management with a watershed approach to expand irrigation coverage to crops and improve the efficiency of use and distribution.	At the time of publication of this profile, the degree of implementation of the 2021-2030 adaptation measures is unknown.
		Ibero-American Project on Adaptation to Climate Change in the water sector PIACCBID. Contribute to strengthening the adaptive capacity of rural communities to face the observed and anticipated impacts of climate change in the water sector, through replicable pilot measures and cost-effective adaptation. The pilot projects are related to water harvesting, small reservoirs, short-cutting, micro-irrigation and efficient use of water resources and soil and water conservation.	
		Mi Agua I, Mi Agua II, Mi Agua IIICAF Programs. Facilitate the adequate and timely construction of minor irrigation system works to increase agricultural production and employment generation, as well as strengthen the organizational and management capacity of users for the operation and maintenance of irrigation systems. It has been financed mainly by the CAF of the Development Bank of Latin America.	
		PPOAP-CAF: Water and Risk Program for Bolivia. Contribute to guarantee the country's food sovereignty and poverty reduction by increasing agricultural production and productivity and implementing the strategies defined in the National Risk Development Plan.	
		My Risk Program. To increase the income of the rural households benefited in a sustainable manner through an increase in irrigated agricultural land and improved efficiency in the use and distribution of water for agricultural and livestock purposes.	

The degree of implementation of adaptation measures in the different sectors needs to be reviewed in greater depth as the third NDC only provides information about de programs/projects of high risk, however, it does mention the results without typifying the program/project as shown in Table 2.

Table 2. Programs and Projects

Program and/or Project	Target	Results
Project for adaptation to the impact of accelerated glacier retreat in the tropical Andes.	Increase resilience to the impacts of glacier retreat in the Tropical Andes through the implementation of specific pilot adaptation activities that demonstrate the costs and benefits of adaptation.	The National Inventory of Glaciers, water bodies and wetlands were published. Two pilot projects are being implemented that will contribute to increase the resilience of the drinking water supply system for urban centers and improvement of water resource management in the Altiplano and Valles Altos micro-basin.

National Communications at the UNFCCC	**Identify the progress made by the Plurinational State of Bolivia in the theme of climate change and strengthen national capacities to systematize knowledge, information and dissemination on climate change in Bolivia.**	The Second National Communication has concluded.
Pilot Program for Climate Resilience (PPCP)	**Assist in the reduction of social, economic and environmental vulnerabilities to climate change, incorporating it into the planning, investment and public management process; and establishing a strategy for sectoral and territorial implementation of climate resilience.**	As of 2012, a grant agreement for 1,500,000 $USD has been signed for the implementation of the program.

Bolivia

Mitigation

With the signing of the Paris Agreement, the parties committed to keep the global average temperature increase well below 2°C above pre-industrial levels and to continue efforts to limit it to 1.5°C..

CONTEXT

Bolivia has low global greenhouse gas emissions but faces high vulnerability to climate change. Unlike the global pattern, the countries primary source of emissions are deforestation and agricultural and livestock activities.

KEY OPPORTUNITIES

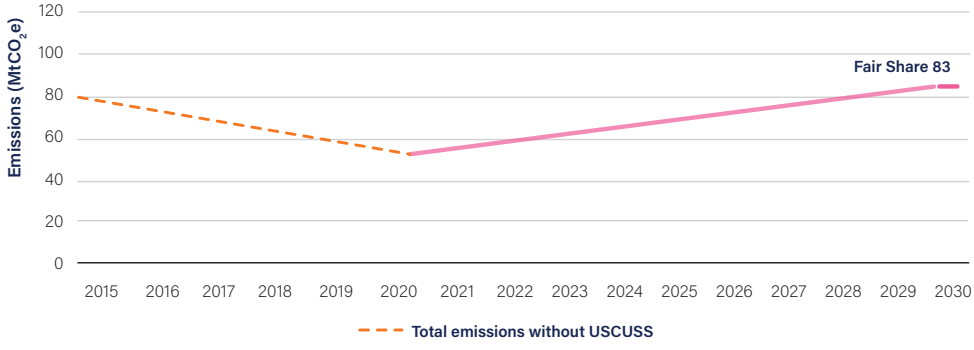
Despite low greenhouse gas (GHG) emissions, mitigation actions should focus on sectors such as agriculture, livestock and forestry. Moreover, the transition to renewable energies such as hydroelectric, solar, wind or geothermal is vital for a cleaner and more sustainable energy matrix.

4.1 Country contribution to emissions

Bolivia's last reported total annual emissions were 82.9 $MtCO_2$ e in 2008, and 102.9 $MtCO_2$ e if the land use sector (LULUCF) is not considered (Ministry of Environment and Water, 2020).

Bolivia does not indicate in its NDC a specific emissions reduction target, but only lists a series of measures that it will implement, arguing that the calculations will be presented after the Biennial Transparency Report (BTR). However, the (Fair Share)[3] for Bolivia to 2030 based on the Stockholm Environment Institute Calculator (SEI, 2023), indicates that emissions should remain in the order of 83 $MtCO_2$e (without considering LULUCF). (Figure 1) (EDGAR, 2022 FAO, 2022; NDC, 2021; SEI, 2023).

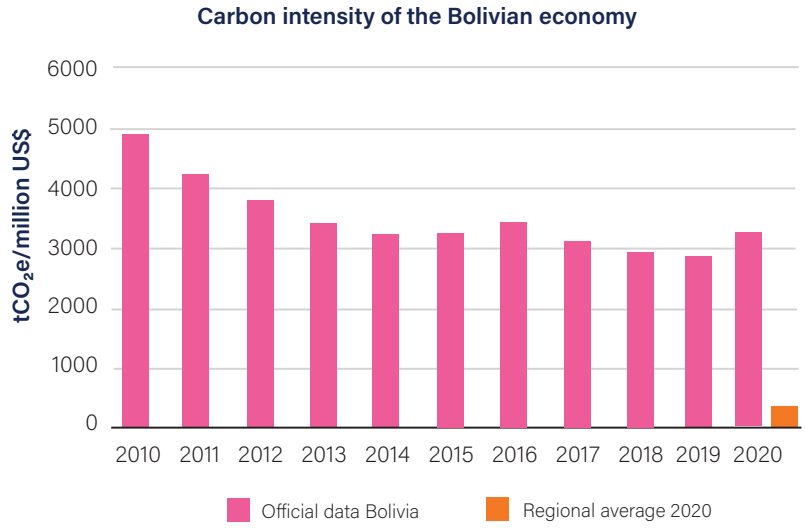
Figure 6. Bolivia's NDC target and fair share without LULUCF.



Source: Own elaboration based on EDGAR, 2022 FAO, 2022; NDC, 2021; SEI, 2023.

The emissions intensity of the Bolivian economy has decreased by 33% in the decade 2010-2020, reaching 3280 $ktCO_2$ e/million US$ (EDGAR, 2022; FAO, 2022; World Bank, 2022), but still remains well above the regional average for the same year 642 $ktCO_2e$/million US$ (EDGAR, 2022; IPCC, 2022; World Bank, 2022).

Figure 7. Carbon intensity of the economy (tCO_2 e / millionUS$).



Source: Own elaboration based on EDGAR, 2022; FAO, 2022; World Bank, 2022.

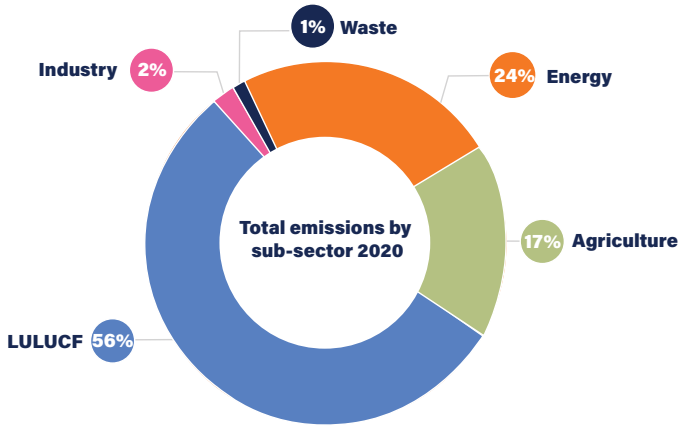
4.2 Emissions by sector

56% of the country's emissions come from the Agriculture, Forestry and other land use sectors, while the remaining 24% come from the Energy sector (EDGAR, 2022; FAO, 2022) (Figure 6).

Energy

Bolivia's reserves of fossil fuels (natural gas, oil and coal) represent 0.36% of the total reserves of Latin America and the Caribbean in terms of energy (OLADE, 2022; British Petroleum, 2022; Our World in Data, 2022).

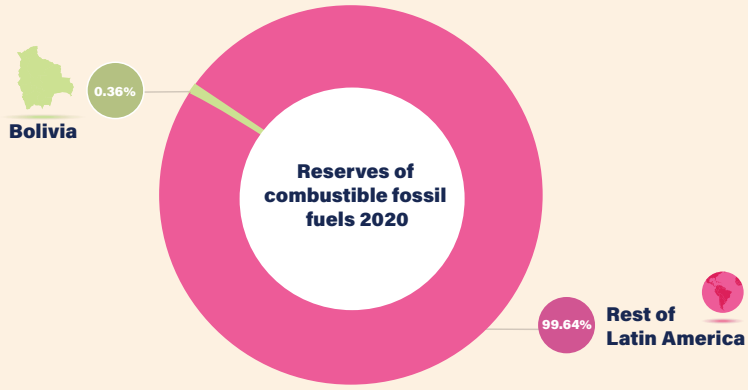
Figura 6. Total emissions by sector 2020.



Source: Own elaboration based on EDGAR, 2022; FAO, 2022.

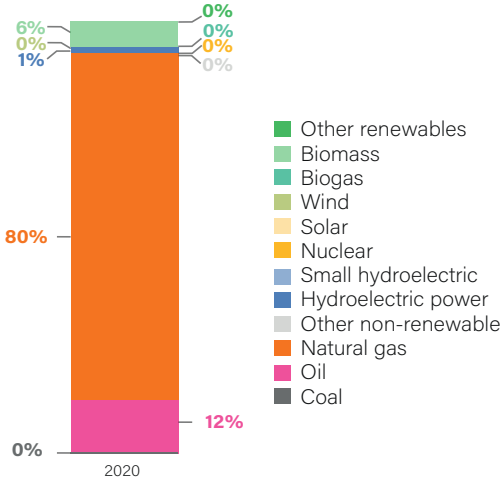
3 The Fair Share represents the fraction of emissions that each country should emit at most (in this case by 2030) in order not to exceed the 1.5°C average global temperature increase. There are various methodologies for calculating the fair share, the following is used here developed by the SEI, because it provides information for all Latin American and Caribbean countries. Considerations used for the calculation (SEI): Historical responsibility: since 1850, Mitigation pathway: 1.5°C standard (excl LULUCF), Capacity: $0 development threshold, 50% Responsibility - 50% Capacity.

Figura 7. Bolivia's fossil fuel reserves and its share of total LAC reserves.[4]



Source: Own elaboration based on OLADE, 2022; British Petroleum, 2022; Our World in Data, 2022.

Figure 8. 2020 primary energy matrix.

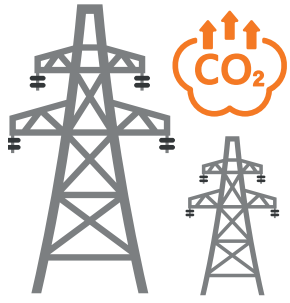


The primary energy matrix historically shows a strong dependence on fossil fuels (92% in 2020), which is above the regional average of 66% in 2021 (OLADE, 2022). In recent years, Bolivia has begun to gradually incorporate renewable energies (OLADE, 2022) (Figure 8).

Source: Own elaboration based on MHE, 2020. This matrix shows primary energy resources; in this sense, it should be considered that if the country imports secondary fuels, these will be reflected in the sector's emissions, but not in this primary energy matrix.

Figure 9. Bolivia's Carbon Intensity

The carbon intensity of the primary matrix has reached a maximum of 4.1 tCO_2 e/toe in 2020. (OLADE, 2022;



Bolivia issues

4.1

tCO_2e / toe

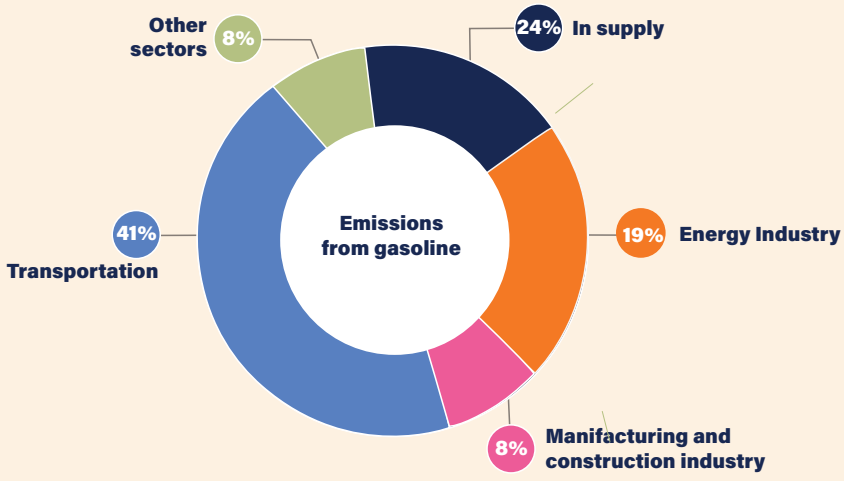
per unit of energy supply.

Source: Own elaboration based on EDGAR, 2022.

4 There is no official country information on emissions from the energy sector.

Emissions from the energy sector have increased by 44% in the last 11 years (EDGAR, 2022). Transportation is the subsector that contributes the most to the emissions of this sector with a 41% share in 2021 (EDGAR, 2022).

Figure 10. Energy sector emissions by subsector.



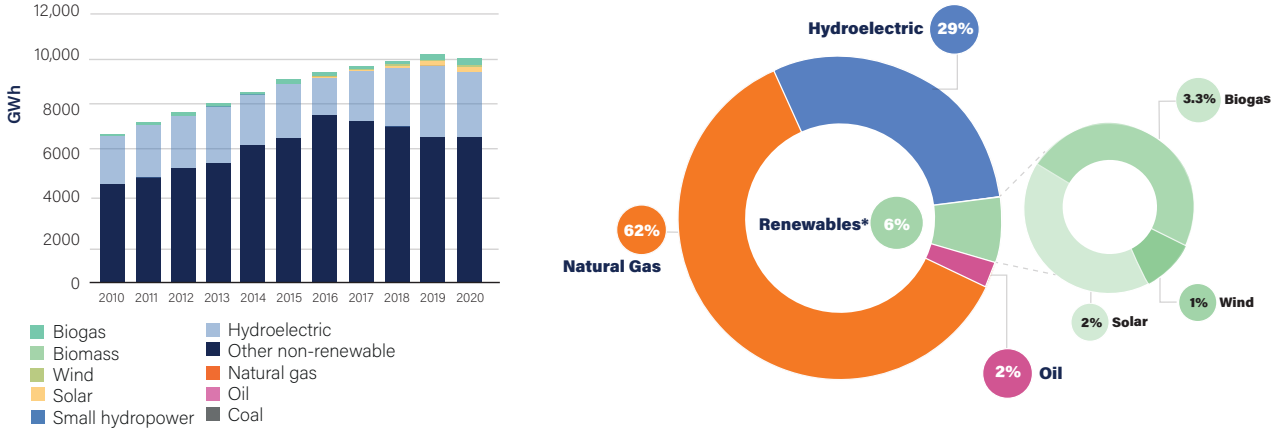
Source: Own elaboration based on EDGAR, 2022.

Power generation

For Bolivia, according to national data, the participation of renewable energies has shown a slight increase in the last decade from 2% in 2010 to 11% in 2020 (IRENA, 2022).

Within the 6% of electricity generation from renewable sources achieved in 2020, 3.3% was from biogas and another 2% from solar energy, with a smaller share of wind energy (IRENA, 2022).

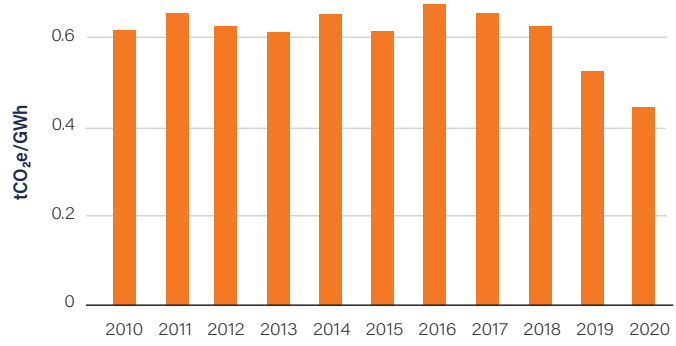
Figure 11. Electricity generation matrix from 2010 to 2020



Source: Own elaboration based on MHE, 2022; IRENA, 2022.

The emissions intensity of electricity generation has shown a decrease in the last 5 years (2016-2020) from 0.67 tCO_2e/ GWh to 0.44 tCO_2 e/GWh, a reduction of almost 35% (EDGAR, 2022; IRENA, 2022) (Fig.12).

Figure 12. Carbon intensity of electric power generation ($ktCO_2e$/GWh).

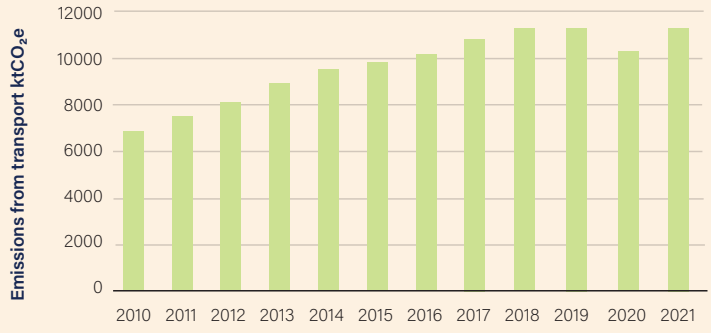


Source: Own elaboration based on EDGAR, 2022; IRENA, 2022.

Transportation

The emissions from the transportation sector has presented a 65% increase in the last decade (Edgar, 2022).

Figure 13. Transportation Emissions 2010-2021.

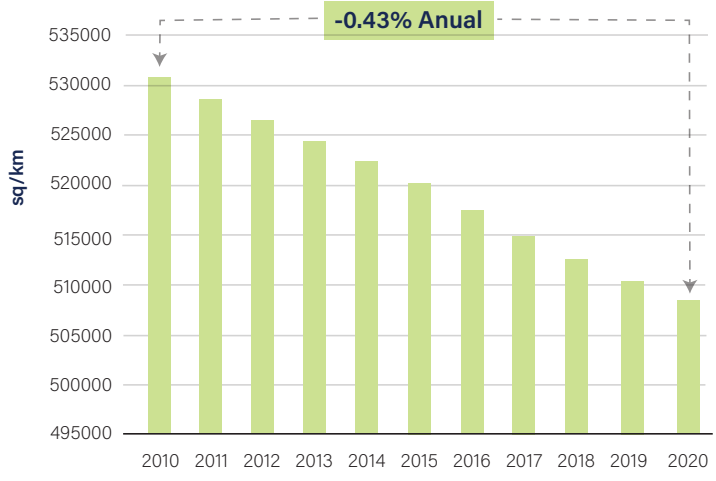


Fuente: Own elaboration based on EDGAR, 2022.

Agriculture, forestry and other land uses (AFOLU)

Forest lands in Bolivia have been experiencing a continuous loss in the last decade (2010-2020) at an average annual rate of 0.43% (Figure 32), above the regional rate of 0.3% (World Bank, 2022). This means 225 thousand hectares lost annually.

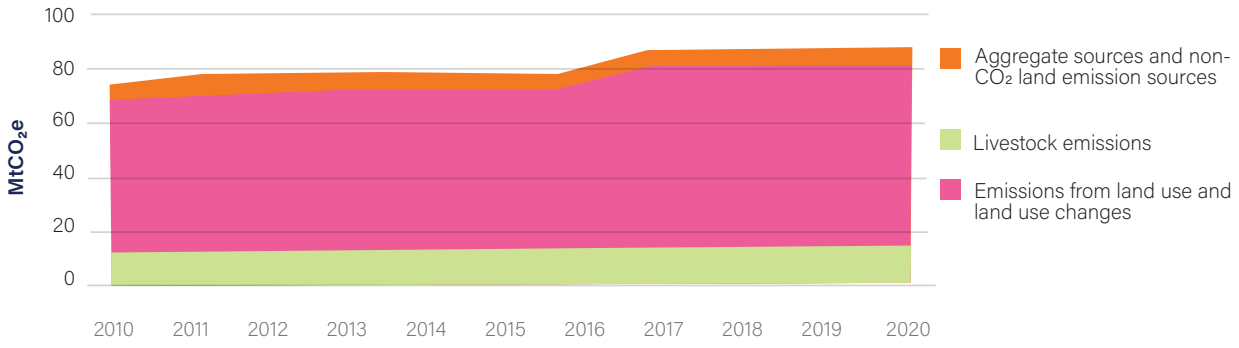
Figura 14. Area of native forests in Bolivia and average annual loss rates.



Source: Own elaboration based on World Bank, 2022.

Emissions from the Agriculture, Forestry and other land use sector remained steady in the early years of the last decade but have shown an increase in the last 5 years, driven by the Land use and land use change subsector (EDGAR, 2022; FAO, 2022).

Figure 15. LULUCF emissions by subsector.



Source: Own elaboration based on EDGAR, 2022; FAO, 2022.

4.3 Mitigation policies and measures

Table 3. Mitigation measures in the energy and transport sector

Sector	Measure	Degree of implementation (identified priorities / initiatives / flagship projects)
Transportation	To achieve an annual growth of 10% in the share of electric vehicles in the Bolivian public transportation fleet.	At the time of publication of this report, the degree of implementation of the mitigation measures is unknown.
Energy	Achieve Universal Access to electricity coverage at 100%	
	Distributed electric power (reaching 76.9GWh/ 37MW of installed capacity)	
	Increase by 42% the energy consumed from renewable energy-based power plants	
	Increase by 14% the energy consumed from power plants based on alternative energies	
	Achieve a 63% increase in the installed capacity of the interconnected electricity system with respect to the current value	
	To achieve the interconnection of 5 Isolated Systems to the SIN (National Interconnected System).	
	Increase the number of hybrid Isolated Systems, including renewable sources in their generation matrix.	
	Increase by more than 6% the replacement of the national public lighting inventory with LED technology.	
	Implement pilot projects for electric energy storage and management technologies.	

Source: Own elaboration based on NDC, 2021.

Table 4. AFOLU Sector Mitigation Measures (NDC, 2020)

Sector	Measure	Degree of implementation (identified priorities / initiatives / flagship projects)
 Agriculture	Increase production to 70% and yield to 60% on average of strategic crops at national level	
	15 billion investments in resilient infrastructure	
 Forests	Promote the integrated management and sustainable use of forests	
	Reduce overall deforestation to 80% and deforestation in protected areas to 100%.	
	60% reduction in the area affected by forest fires	

Bolivia

Financing

Under the Paris Agreement, the Parties committed that financial flows will be consistent with a scenario towards low GHG emissions and resilient climate development.

CONTEXT

Bolivia's Nationally Determined Contribution (NDC) update targets are highly dependent on external support, highlighting the scarcity of domestic funding and dependence on international resources. It is crucial to plan and cost urgent climate actions, ensuring adequate resources.

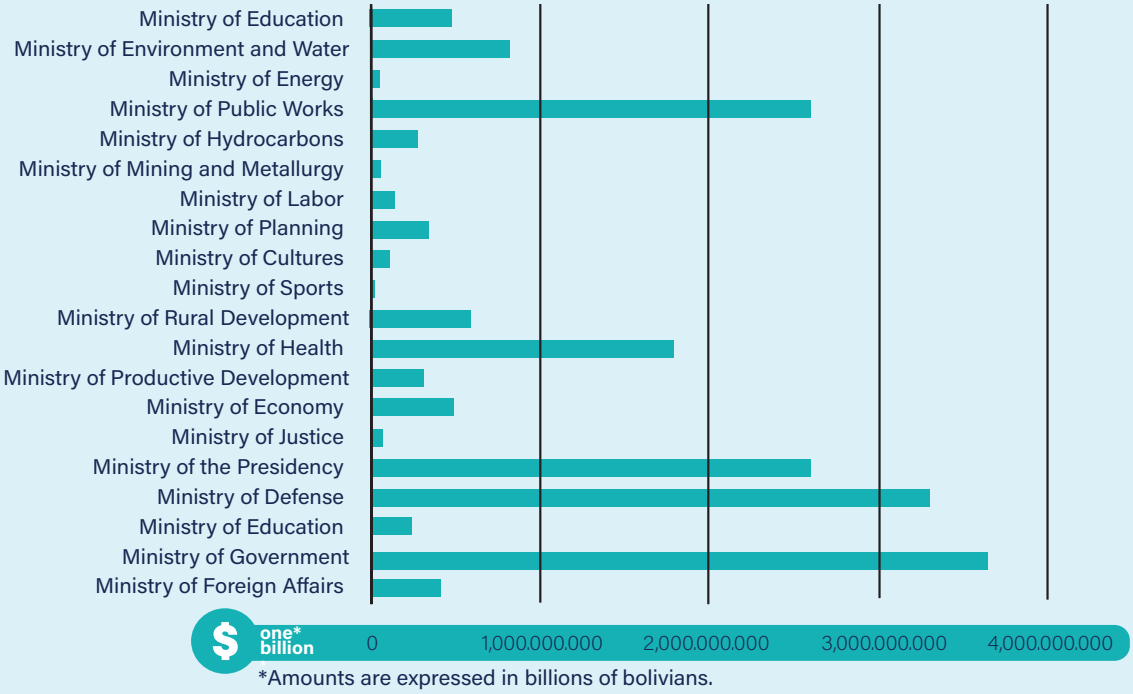
KEY OPPORTUNITIES

Resource planning and management is essential for Bolivia, given its limited domestic financing and dependence on external funds. A clear international climate finance strategy is required to ensure effective compliance with targets, avoiding possible failures or limitations.

5.1 The role of the public sector

The distribution of the central budget makes it possible to identify government priorities in the development planning of Latin American and Caribbean countries.

Figure 16. Budget allocation for strategic sectors in Bolivia.

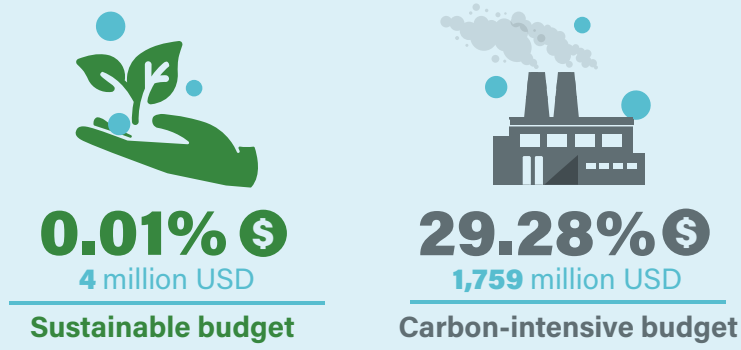


*Amounts are expressed in billions of bolivians.

Source: Own elaboration with information from GFLAC, 2021.

In 2019, the budget directed to hydrocarbons represented 29.28% of the General State Budget, a budget 2,928 times higher than the country's sustainable budget, comprised of labeled expenditures for climate change, energy efficiency, renewable energy and natural disasters.

Figure 17. Comparison of sustainable budget versus carbon-intensive budget.

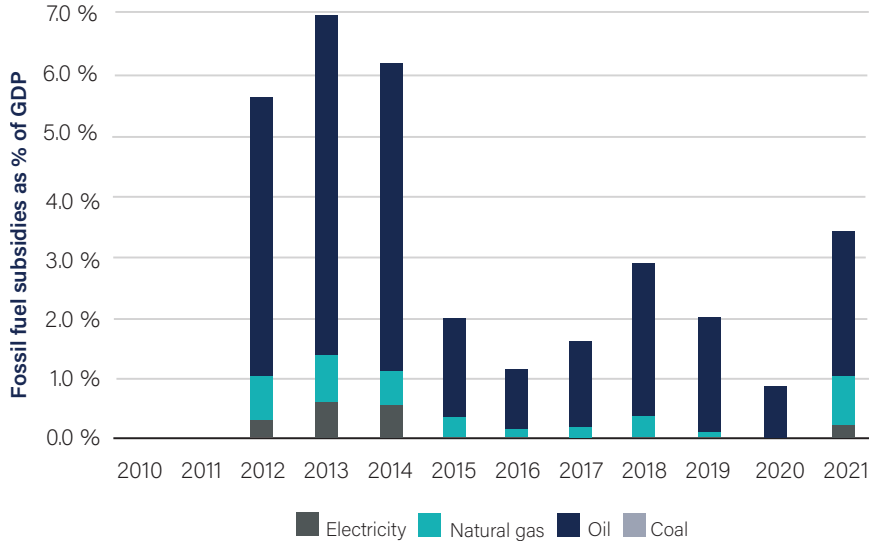


Source: Own elaboration with information from GFLAC, 2021.

Bolivia has not yet implemented any type of tax tool taxing carbon emissions from fossil fuels (Our World in Data, 2022).

Bolivia has maintained a policy of fossil fuel subsidies in the last decade, reaching a peak of almost 7% of GDP in 2013, and reaching almost 3.5% in 2021 (FossilFuelSubsidyTracker.org, 2022).

Figure 18. Fossil fuel subsidies as a percentage of GDP.



Source: Own elaboration based on FossilFuelSubsidyTracker.org, 2022.

5.2 International cooperation

Bolivia receives international cooperation for mitigation and adaptation projects from different international organizations. These resources include non-reimbursable support and loans.

Table 5. List of projects and amounts approved for Bolivia from different international cooperation agencies.

Agency / Institution	Scope of the project	Amount approved for the period 2016-2022 (Million US$)			Approved projects period 2016-2022			
		Non refundable	Loan	Co-financing	Mitigation	Adaptation	Others	Preparation
Green Climate Fund (GCF)	Only Bolivia	34.4	--	30.0	--	1	--	4
	Multiple countries	0.55	--	--	--	--	--	2
Global Environment Facility (GEF)	Only Bolivia	16.8	--	63.9	--	--	3	--
	Multiple countries	2.4	--	14.6	--	--	1	--
UN Climate Technology Centre and Network (CTCN)	Only Bolivia	--	--	--	--	3	--	--
	Multiple countries	--	--	--	--	--	1	--
Inter-American Development Bank (IDB)	Only Bolivia	--	2,261	--	11	25	5	--
	Multiple countries	--	--	--	--	--	--	--

Source: Own elaboration based on CTCN, 2022; IDB, 2022; GEF, 2022; GCF, 2022.

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References

Banco Interamericano de Desarrollo (BID) (2023). IDB'S OPEN DATA CATALOG. (disponible en https://data.iadb.org/DataCatalog/Dataset#)

Banco Mundial (2023). Open Data (disponible en https://data.worldbank.org/)

British Petroleum (2022). "bp Statistical Review of World Energy, 2022, 71 st Edition". (disponible en http://www.bp.com/statisticalreview)

CEIC(2022). CEIC Data Number of Registered Vehicles. (disponible en https://www.ceicdata.com/en/indicator/number-of-registered-vehicles)

Climate Changes Law of the World (2022). Climate Changes Law of the World Data base. (disponible en https://climate-laws.org/).

Comisión Económica para América Latina y el Caribe. Naciones Unidas (CEPAL) (2023). Base de datos y Publicaciones Estadísticas. (disponible en https://statistics.cepal.org/portal/cepalstat/index.html)

Convención Marco de las Naciones Unidas sobre el Cambio Climático (UNFCCC) (2022). Party-authored reports..(disponible en https://unfccc.int/reports)

United Nations Climate technology Centre and Network (CTCN) (2022). Active Technical Assistance. UN. (disponible en https://www.ctc-n.org/technical-assistance/data?page=5)

Centro Latinoamericano y Caribeño de Demografía (CELADE) (2010). Sistema de Indicadores Sociodemográficos de Poblaciones y Pueblos Indígenas. https://redatam.org/redbin/RpWebEngine.exe/Portal?BASE=SISPPI

Food and Agriculture Organization of the United Nations (FAO) (2022). FAOSTAT.(disponible en https://www.fao.org/faostat/en/#data/GT)

FossilFuelSubsidyTracker.org (2022). (disponible en https://fossilfuelsubsidytracker.org/wp-content/uploads/2022/12/FossilFuelSubsidiesTracker_CountryData.xlsx)

Green Climate Fund (GCF) (2023). Open Data Library. https://data.greenclimate.fund/public/data/projects

Global Environment Facility (GEF) (2023). https://www.thegef.org/projects-operations/database

Institute for Health Metrics and Evaluation (IHME) (2019). Global Burden of Disease (GBD) study, 2023. University of Washington. (disponible en https://vizhub.healthdata.org/gbd-results/)

International Renewable Energy Agency Statistics (IRENA) (2022).Renewable Energy Statistics 2022. (disponible en https://pxweb.irena.org/pxweb/en/IRENASTAT).

Ministerio de Hidrocarburos y Energías (2020) Balance Energético Nacional 2006-2020. (disponible en https://www.mhe.gob.bo/balance-energetico-nacional-2006-2020/)

Ministerio de Medio Ambiente y Agua de Bolivia (2020). Tercera Comunicación Nacional de Bolivia Ante la Convención Marco de las Naciones Unidas sobre Cambio Climático (disponible en https://unfccc.int/sites/default/files/resource/NC3%20Bolivia.pdf)

Ministerio de Medio Ambiente y Agua (2021). Contribución Nacionalmente Determinada del Estado Plurinacional de Bolivia. Autoridad Plurinacional de la Madre Tierra. (disponible en https://unfccc.int/sites/default/files/NDC/2022-06/CND%20Bolivia%202021-2030.pdf)

Notre Dame Global Adaptation Initiative Notre Dame Global Adaptation Initiative ND-GAIN (2023). The ND-GAIN Matrix.. University of Notre Dame.2023. (disponi(disponible en https://gain.nd.edu/our-work/country-index/matrix/)

Organización Latinoamericana de Energía (OLADE) (2023). Sistema de Información Energética de Latinoamérica y el Caribe.. (disponible en https://sielac.olade.org/)

Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO) (2021). Institute for Statistics (UIS).(disponible en http://data.uis.unesco.org/Index.aspx).

Ritchie,Hannah & Rosado, Pablo (2022). Which countries have put a price on carbon?. Published online at OurWorldInData.org. (disponible en'https://ourworldindata.org/carbon-pricing')

Stockholm Environment (SEI) (2023). Climate Equity Reference Calculator. (disponible en https://calculator.climateequityreference.org/).

United Nations Development Programme (UNDP) (2022). Human Development Report 2021-22: Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. New York.

World Integrated Trade Solution (WITS) (2020). Database (disponible en https://wits.worldbank.org/Default.aspx?lang=es)

Bolivia

Country profile
June 2024

This profile contributes to iGST's independent Regional Climate Change Assessment for Latin America and the Caribbean. Find the Regional Assessment and other country profiles at **iniciativaclimatica.org**

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Collaboration from: Bolivian Platform Against Climate Change

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