



# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

---

Concept Stage | Date Prepared/Updated: 08-Jun-2018 | Report No: PIDISDSC23684



**BASIC INFORMATION**

**A. Basic Project Data**

Country Bolivia	Project ID P165861	Parent Project ID (if any)	Project Name Bolivia Urban Resilience (P165861)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Dec 14, 2018	Estimated Board Date Feb 26, 2019	Practice Area (Lead) Social, Urban, Rural and Resilience Global Practice
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Development Planning	Implementing Agency Ministry of Public Works	

**Proposed Development Objective(s)**

Enhance urban management, improve living conditions in low income areas, and increase resilience to natural hazards in selected sites of the La Paz and Santa Cruz Metropolitan Areas.

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	150.00
<b>Total Financing</b>	150.00
<b>of which IBRD/IDA</b>	150.00
<b>Financing Gap</b>	0.00

**DETAILS**

**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	150.00
--	--------

Environmental Assessment Category  
B - Partial Assessment

Concept Review Decision  
Track II-The review did authorize the preparation to continue



Other Decision (as needed)

## B. Introduction and Context

### 1. Country Context

**Bolivia made important economic and social progress during the commodity boom.** In 2015, the population of Bolivia stood at approximately 11 million - 67 percent of which lived in urban areas. Boosted by gas and mining exports and rapidly increasing public investment, economic growth averaged at roughly 5 percent per year between 2004 and 2014. High economic growth, high commodity prices, and a dynamic domestic demand increased the average income from US\$1,007 in 2000 to US\$3,095 in 2015.<sup>1</sup> Rapid economic growth was especially pronounced for the bottom 40 percent of the population, who saw their incomes increase more rapidly than the non-poor population. As a result, the national poverty rate declined from 63 percent in 2002 to 39 percent in 2014; and extreme poverty saw an even faster decline from almost 39 percent in 2002 to 17 percent in 2014.

**Although macroeconomic buffers have helped to cushion the effect of lower commodity prices on economic growth, sizable macroeconomic imbalances have emerged and the new external context may jeopardize the trend of poverty reduction.** While poverty levels in rural areas kept falling from 2014 to 2015, urban poverty has slowly been on the rise.<sup>2</sup> The urban poor in Bolivia correspond to about 1/3 of the total poor, while the majority are concentrated in rural areas. High dependence on commodity exports renders the economy vulnerable to downturns in export prices or international demand for such exports. In this context, the Gross Domestic Product (GDP) growth has decreased from a peak of 6.8 percent in 2013 to 4.3 percent in 2016 although the Government of Bolivia (GoB) tried to expand domestic demand, export prices and expansionary policies have resulted in sizable current account and fiscal deficits, which reached 5.5 and 6.6 percent of GDP in 2016 respectively. These new patterns could constrain the reduction of poverty and extreme poverty.

**Bolivia is highly vulnerable to the impacts of climate change and natural disasters.** The retreat of glaciers, more frequent and intense extreme weather events,<sup>3</sup> such as floods in the lowlands in 2013, and the drought in 2016 have severe impacts on the welfare of Bolivia's population and its economy. In November 2016, the Government declared a state of emergency for 7 of the country's 9 departments – with 51 percent of the country's municipalities affected by drought. Climate change models predict increased intra-annual variability in precipitation and an increase by approximately 12 days in the maximum number of consecutive dry days, increasing the risk of drought.<sup>4</sup> More than 20 percent of Bolivia's population lives in areas at risk to three or more hazards and 21 percent of its GDP is generated in such areas, making Bolivia the country with the 32<sup>nd</sup> highest economic risk exposure to multiple hazards in the world, according to the Natural Disaster Hotspot Study.<sup>5</sup>

**The poor and the most vulnerable communities are disproportionately affected by impacts of natural disasters.** Estimates for 89 countries find that if all the natural disasters could be prevented next year, the number of people in extreme poverty—those living on less than \$1.90 a day—would fall by 26 million (World Bank, 2017). Exposure to natural hazards can undermine sustained economic growth and social progress and the poor have less means to cope with the impacts.

**Although Bolivia's urbanization process started relatively late, the country has been rapidly approaching the urbanization levels of other Latin American countries.** Between 1950 and 2012, its urban population grew at an annual rate of 3.7%, almost five times as

<sup>1</sup> Atlas method.

<sup>2</sup> Fundación Jubileo. 2017. Deuda Social en Bolivia – una aproximación desde los indicadores de pobreza, salud, educación y empleo.

<sup>3</sup> Between 2002 and 2012, the country faced 10,503 natural disasters (including 3,967 floods and 1,472 droughts) affecting more than 1.1 million households.

<sup>4</sup> Climate and Disaster Risk Screening Report for Rural Water and Energy Access Project in Bolivia.

<sup>5</sup> World Bank. 2005. "Natural Disaster Hotspots: A Global Risk Analysis (Table 7.2)." Disaster Risk Management Series No.5. Washington, DC: World Bank.



fast as population growth in rural areas. While in 1990 just over half of the population lived in cities, by 2012 two thirds of Bolivians had settled in urban areas. According to United Nations' estimates, nearly 75% of the population will be urban by 2025 (UN, 2012). This trend has created new challenges both for national and local governments in small, medium and large cities.

**Now that more than 7 million people live in urban areas, cities will have a central role in contributing to the national agenda of poverty reduction and risk mitigation in Bolivia.** Due to the rapid pace of the urbanization process, there is an urgent need to implement policy actions to achieve the benefits offered by cities, such as agglomeration effects and productivity, while avoiding the potential negative costs of urbanization, such as pollution, congestion, or the rapid growth of informal settlements where many families live at risk of natural disasters. This can be achieved by bundling good practices in infrastructure planning, delivery and maintenance with focus on high quality public services.

**A key factor to building urban resilience in Bolivia will be strengthening national and local government capacity.** The decentralization process is relatively recent in Bolivia, which has generated the institutional challenge of coordination between various levels of government. It also has highlighted the need to build the technical and financial capacity of local governments to assume their roles and responsibilities for territorial planning and urban management, since most of the competencies related to urban development fall within the realm of local governments; from land use planning, the provision of basic services, to disaster risk management and local economic development.

## 2. Sectoral and Institutional Context

**In Bolivia, urban population growth is happening across all city types, with the fastest growth in the suburban areas of large cities.**

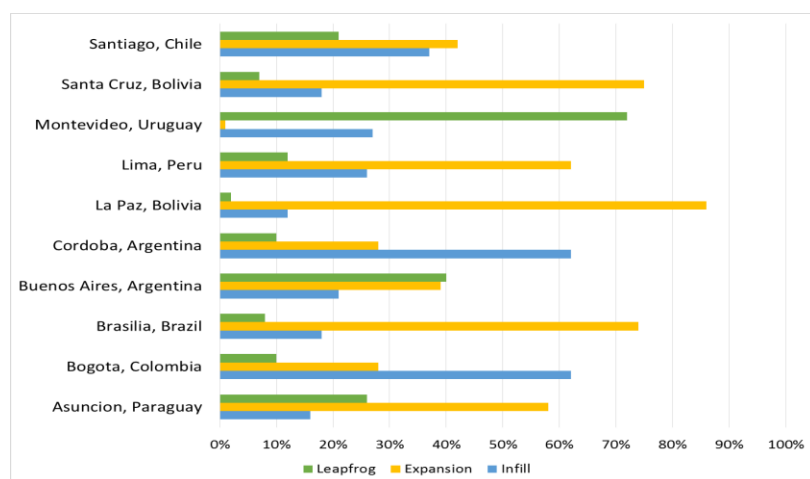
In terms of population growth, the four largest cities (La Paz, El Alto, Cochabamba and Santa Cruz) with populations of over 500,000 people are growing steadily in size: between 2001 and 2012, the population in these cities increased by more than 600,000, and explained 41% of all the increase in population in urban areas. In addition, rapid urban growth is happening in the intermediate and small cities as well, particularly those that are in the metropolitan areas of the four largest cities. This rapid growth often exacerbates common challenges such as exposure to natural hazards, urban mobility, access to health and education services, among others.

**The urbanization process has gone hand in hand with the concentration of population in the “Eje Nacional” (Central Axis of the country).** Today, 71% of the population lives in the central axis<sup>6</sup> which consists of the metropolitan regions of La Paz-El Alto, Cochabamba and Santa Cruz. The La Paz Metropolitan Area (LMA) is home to 1.8 million people, encompasses 8 municipalities (La Paz, El Alto, Palca, Mecapaca, Achocalla, Viacha, Laja, Pucarani), and generates 22% of the national GDP. Due to geographic limitations, the municipality of La Paz is not experiencing significant population growth, except for informal settlements expanding into the steep slopes surrounding the city. In contrast, the municipality of El Alto, located in the Altiplano, has vast reserves of available land and has grown exponentially. Once a fraction of the population size of the municipality of La Paz, the municipality of El Alto surpassed its neighbor in terms of its population in 2012. The municipality of Santa Cruz is located in the tropical flatlands. As the economic hub of the country, the city comprises six municipalities (Santa Cruz de la Sierra, Cotoca, La Guardia, El Torno, Warnes and Porongo). The Department of Santa Cruz contributes 27.7% to the overall GDP of Bolivia, most of which can be attributed to the Santa Cruz Metropolitan Area (SCMA) which is home to about 1.4 million people.

**Figure 1 - Urban expansion patterns in selected cities (circa 1985-2010)<sup>7</sup>**

<sup>6</sup> UNDP, 2015, Informe Nacional Sobre Desarrollo Humano en Bolivia: El Nuevo Rostro de Bolivia - Transformación Social y Metropolitización

<sup>7</sup> Inostroza, L., Baur, R., and Csaplovics, E., 2010. “Urban Sprawl and Fragmentation in Latin America: A Comparison with European Cities. The Myth of the Diffuse Latin American City.”LILP. Note: paper refers to infill, axial and isolated growth



Like many South American countries, the Government of Bolivia, both at national and sub-national level, struggles to plan for urban growth. Low-density, often informal settlements sprawl beyond municipal borders, challenging the capacities of small municipalities. In Bolivia the growth of low-density settlements in the outskirts of both Santa Cruz and La Paz/El Alto is particularly high for regional standards (see Figure 1). This results in lack of basic services and precarious living conditions, rendering it difficult to harness economies of scale; these areas are often exposed to natural hazards. For example, in 2012, coverage of public sewerage networks in the LMA increased in the municipality of La Paz from 73% to 92%, Viacha’s coverage decreased from 40% in

2001 to 30% in 2012, while El Alto’s coverage increased from 40% to 63% of the population. There is an urgent need for increased coordination between the municipalities and across levels of governance to address issues at the metropolitan level.

**Disaster risks and climate change are causing increasing negative impacts on infrastructure and service delivery, especially for the most vulnerable in the La Paz and Santa Cruz Metropolitan Areas.** In 2016, the GOB declared a state of emergency due to the worst drought the country had experienced in the last 25 years, affecting 7 of the largest cities – including La Paz and El Alto. The Inkachaka, Ajunkota and Hampaturi dams supply drinking water to more than 30% of the population of the municipality of La Paz; however, the Inkachaka dam was only working at 5% of its capacity as of November 2016, and the Ajunkota was only operating at 1%<sup>8</sup>. The city’s water supply was cut off in several neighborhoods, and access to water was not fully restored until January 2017 when the rainy season started. In 2017 and 2018, alternating heavy rain falls caused landslides, particularly affecting the self-built, informal settlements on the steep slopes in La Paz. Santa Cruz is also affected on a regular basis by flooding; in January 2018, areas of the city were inundated due to rainfall of over 7 inches in a 24-hour period. This profile clearly presents the Government of Bolivia with a great challenge, as future projections point to increased disaster impacts, while the urban population and exposure to natural hazards will continue to increase.

**Aware of the challenges and opportunities facing urbanization in Bolivia, the government is taking steps to develop the required policy tools.** The national government, through the Plan for Economic and Social Development 2016-2020 (PDES) and the National Urban Development Vision set out under Habitat III, recognizes that the urbanization process is advancing rapidly and that the government must act to ensure sustainability. It is committed to putting the topic of sustainable and resilient cities at the forefront of the national agenda and is in the process of developing a comprehensive Urban Program including a National Urban Strategy for Sustainable Cities with the following three pillars: (i) reforms of the current legal framework, (ii) creation of a national action plan for the implementation of the strategy, and (iii) creation of urban management capacity at national, regional and local levels.

**In addition, the government is planning to integrate the concept of urban resilience as a key element of its urban strategy to ensure Bolivia’s cities are better equipped to respond to and recover from shocks and stressors.** Urban resilience can be defined as a city or urban area that despite disturbances - for example, earthquakes, floods or drought – can maintain or quickly return to the regular provision of services and functions and adapt in a manner appropriate to address medium to long-term changes. Beyond natural hazards, the concept of urban resilience may consider socio-economic factors that can cause shocks, including economic crises, and failures in the provision of basic services such as water and sanitation, electricity, among others. In addition, urban resilience includes not only short-term impacts, but also stress factors that affect the provision of services, such as climate change and poverty and inequality. Resilient cities display the following features:

- **Robust** – city planning and investments are made based on knowledge of potential impacts and stress factors;

<sup>8</sup> <https://www.theguardian.com/global-development-professionals-network/gallery/2017/may/05/bolivia-historic-drought-water-in-pictures>



- **Coordinated** – city agencies work together to facilitate the exchange of information and to plan in a collaborative and strategic way for the provision of services and investments;
- **Inclusive** - recognizing the impacts and stress factors that especially affect the most vulnerable and poor;

**Given that the urban resilience agenda is very broad, this project will limit its support to both (a) technical assistance to enhance the government’s capacity to improve coordination among sectors and build resilience in cities over the long term; and, (b) selected pilot resilience infrastructure projects in the LMA.** In La Paz, several neighborhoods located in areas such as Pura Pura, Llojeta-Alpacoma and the Ladera Oeste are in hazard prone areas and are growing rapidly. They require infrastructure improvements as well as non-structural measures to reduce vulnerability to flooding and landslides. In El Alto, areas along the Rio Seco, a water body that is suffering from pollution and environmental degradation, requires a coordinated response. Target areas in Districts 4 and 5, which are the primary districts the Rio Seco flows through, require support to (a) improve living conditions, reduce pollution, provide buffer areas for flooding and for groundwater replenishment to mitigate water scarcity in times of drought; and, (b) improve access to infrastructure in areas along the river. The Rio Seco flows from the Cordillera mountains through the core of El Alto and ultimately into Lake Titicaca. In the city center, the Avenida Costanera<sup>9</sup> runs along the river, connecting two major transport axes which cross the river in the north and south of El Alto. The river is used as an informal dump site and sewage conduit, causing the runoff to become extremely toxic during the rainy season, polluting the communities around it when it overflows, and ultimately impacting Lake Titicaca, which is the termination point of the river.

**While the Project was initially focused on the LMA, the government has recently expressed its interest in expanding Project activities to include the Santa Cruz Metropolitan Area.** The government is currently working with the Santa Cruz Regional Government and the municipalities to determine potential resiliency structural and non-structural investments that would be eligible for financing under this Project. Those investments would follow a framework approach which would prioritize sub-projects that are rated as category B for safeguards, adhere to readiness standards adopted for the LMA projects, and contribute to poverty and disaster risk reduction in urban areas.

**Given its integrated, multi-sectoral approach, this Project involves various government agencies as well as local governments.** Government agencies at the national level would include the Ministry of Public Works and its Viceministry of Housing and Urban Development; responsible for urban planning and housing, and the Ministry of Water and Environment with its Vice-Ministry of Drinking Water and Sanitation (VAPSB) responsible for water and wastewater policies. The active role of municipalities in the LMA and the SCMA is paramount for the success of this Project and will be an opportunity to enhance the capacity of local governments so they are better equipped to manage the roles and responsibilities per the decentralization process in Bolivia.

**The World Bank has been supporting the government of Bolivia in tackling the challenges of urbanization and reducing disaster risks through the implementation of an urban infrastructure project in the central axis and the development of sectoral studies, which will inform Project preparation and implementation.** Over the past years, the Bank has engaged with the Government using different financing instruments and technical assistance. In terms of lending, the Bank has supported the Government with lending and additional financing in the amount of US\$54 million on urban infrastructure in three large cities: El Alto, La Paz and Santa Cruz since 2007 (Urban Infrastructure Project, P083979), which resulted among other results in more 5,548 houses with new sanitary connections in La Paz, 5,220 households who have obtained property rights and 1600m<sup>2</sup> of new recreational area built. The lessons learned of this project indicate that it is crucial to involve the community in project development and to strengthen capacity on local government level for implementation or engage the national government. The Bank also implemented a Disaster Risk Management DPO (P150751) in the amount of US\$197 million to promote changes in the DRM Policy Framework in the country. The main policy actions supported by the DRM DPO include: (i) strengthening disaster risk reduction and adaptation to climate change; (ii) strengthening institutional coordination for emergency response and management, and (iii) reducing the fiscal impact and improving the capacity of Bolivia to respond financially to natural disasters. Since 2012 the Bank has provided Technical Assistance to analyze the urban development process in Bolivia and the relationships between poverty and DRM, to assess the challenges and opportunities

---

<sup>9</sup> The Urban Infrastructure Project (P083979) financed the paving of this road. This new project plans to complement these works with upgrading for multimodal transport and public space.



faced by intermediate cities, as well as to create city level profiles for La Paz, Sucre, Trinidad and Cobija. Finally, there are relevant experiences in Bolivia to promote sewerage household connectivity which will be applied in this project alongside with experiences gained through other Bank projects, such as the 'Creating Sanitation Markets in Peru Project' (P132031) to engage the private sector.

#### Relationship to CPF

The Project will support the World Bank's Twin Goals of reducing poverty and shared prosperity by increasing resilience in urban areas and decreasing the impact of shocks and stressors, especially on the urban poor. It will also equip the government with legal instruments and practical tools to guide strategic and sustainable development of cities, which are paramount to the country's socio-economic development. The Country Partnership Framework 2016-2020 focuses on four objectives falling into two pillars: (1) promote broad-based and inclusive growth, and (2) support environmental and fiscal sustainability, and resilience to climate change and economic shocks. With the goal to strengthen the government's capacity to design and implement an urban agenda that aims at sustainable and resilient development of cities and the implementation of pilot projects that will include enhancing service provision especially for the most vulnerable and poorest, the proposed engagement is in line with and contributes to both Pillars, particularly to the following objectives:

- Objective 2 (Pillar 1) - Increase Access to Selected Quality Basic Services for the Poorest Rural and Urban Communities; and
- Objective 4 (Pillar 2) - Strengthen Capacity to Manage Climate Change, and Reduce Vulnerability to Natural Disasters.

#### C. Proposed Development Objective(s)

Enhance urban management, improve living conditions in low income areas, and increase resilience to natural hazards in selected sites of the La Paz and Santa Cruz Metropolitan Areas.

#### Key Results (From PCN)

- a) Number of people benefitting from improved living conditions<sup>10</sup>, of which are female (percentage) (corporate results indicator);
- b) Integration of the concept of urban resilience into the national urban policy framework;
- c) Number of households benefiting from flood protection infrastructure and/or slope stabilization infrastructure in Project areas (disaggregated by metropolitan area);
- e) Number of cities with improved livability, sustainability and/or management (corporate results indicator);

#### E. Concept Description

**The Government of Bolivia is requesting financial support from the Bank to invest in institutional strengthening and targeted interventions in the LMA and in the SCMA that promote urban resilience and will support the goals of the national urban agenda currently under development.** The government plans to prioritize investments that are: (i) relatively easy to implement, (ii) have an integrated approach across sectors, (iii) improve quality of life and access to public services and infrastructure in low income, underserved areas, and (iv) build resilience to disaster risks. In the future, the government plans to replicate these interventions and scale up the program to include the Cochabamba Metropolitan Area so challenges across the whole of *Eje Nacional* are addressed.

**The Project will follow the Maximizing Finance for Development (MFD) approach by crowding in resources of other development partners when possible and developing the foundations for private sector participation.** The World Bank and the Ministry of

---

<sup>10</sup> Measured by increased sanitation coverage, urban mobility accessibility, reduced exposure / vulnerability to natural hazards and access to public space.





Development Planning plan to collaborate with Switzerland's Secretariat for Economic Affairs (SECO) in the form of Technical Assistance and Project co-financing. The Global Facility for Disaster Reduction and Recovery provided grant funds to prepare pre-feasibility studies and preliminary designs for select investments in the municipalities of La Paz and El Alto and to provide training in innovative financial solutions for city resiliency through the World Bank's Cities Resilience Program (CRP). During project preparation the team will assess the possibility of supporting the municipality of El Alto in drafting an urban regulation to encourage urban development, housing and urban renewal by the private sector.

**There are two cross cutting themes that will apply to Project design: gender and citizen engagement.** The Project will seek to integrate issues of gender and citizen engagement by building on previous experience from the Urban Infrastructure Project, and specifically the *Barrios de Verdad* program, to determine strategies to enhance citizen engagement and women's participation in the Project. For example, the development of the urban observatory could include indicators and data disaggregated by gender to inform urban management and resilience in each of the metropolitan areas. In addition, the team will review options to leverage technology to increase citizen participation in Project areas, building on the *Barrio Digital*<sup>11</sup> pilot. Finally, the Project will seek to engage community members in the maintenance of the improved infrastructure financed under the Project.

The proposed Project consists of four components:

#### **Component 1: Resilient Infrastructure Investments in the La Paz Metropolitan Area (US\$90 million)**

Component 1 would provide financing for resilient infrastructure investments to reduce disaster risks and improve living conditions in critical areas of the LMA. The preliminary set of investments includes:

- a) **El Alto: Resilient infrastructure along the Rio Seco:** This sub-component would finance construction of a climate resilient park, which includes improvements in non-motorized mobility, sanitation, and social engagement, in Districts 4 and 5.
  - **Climate resilient park:** This component would finance the design and construction of a linear park along the Rio Seco that would provide permeable buffer areas for flooding and groundwater replenishment to decrease the risk of water scarcity during droughts. This park would link key public facilities owned by the national government and the municipality through public space – e.g. the *teleferico*, the bus terminal, the university, and the new El Alto municipal building. This sub-component would provide beneficiaries with better access to social infrastructure (such as playgrounds), urban gardens, green and recreational space. Technical assistance will be provided to small businesses that operate in areas adjacent to the river to improve their processes and working conditions to reduce the environmental degradation of the Rio Seco. Given the potential of the properties to increase in value, aspects of land value capture may also be considered through the World Bank's Cities Resilience Program (CRP) once the upgrading is completed.
  - **Mobility,** the Project would finance the re-design and upgrading of mobility solutions in the climate resilient park project area. This project area would improve the connectivity of two transport intersections (Av. Costanera/Av. San Pablo II and Av. Costanera/RN 54), where two main avenues cross the Rio Seco by constructing sidewalks and bike lanes, road paving, and upgrading of these two intersections for improved safety of pedestrians and cyclists. The Project would also support the updating and scaling up of El Alto Mobility plan (PROMUT)<sup>12</sup> to incorporate the construction of the Rio Seco climate resilient park as one of its premises. The final set of sub-projects will be finalized during Project preparation.
  - **Sanitation Improvements:** Given there are several efforts focused on water and sanitation underway by other development partners in the municipality of El Alto<sup>13</sup>, the Project's investments in sanitation infrastructure will be limited

<sup>11</sup> A Web-platform compatible with the *Barrios de Verdad* program. The tool allows community members to interact with La Paz Municipality by exchanging data and requesting services.

<sup>12</sup> The Bank originally helped to develop and finance this plan through the Urban Infrastructure Project.

<sup>13</sup> Projects in the water and sanitation sector in the project area:

- Grant by WB to increase sewage network coverage (US\$2 million)





to addressing critical gaps in Project areas. The Project would finance the expansion of the wastewater collection networks in Districts 4 and 5 which may include, inter alia, primary and secondary sewerage networks, gaps in trunk interceptors, pumping stations and household connections. Another intervention that will be explored during preparation are separate connections for wastewater and rainwater in households that currently have cross connections.

- Finally, the Project would finance **community activities** and **capacity building for the municipality** to build awareness for environmental protection, urban resilience and maintenance of public spaces in the Project area, the need for proper disposal of solid waste (e.g. in trash cans), proper asset management of the climate resilient park, and environmental education. The community will be involved in the design of the park to ensure their ownership and support for maintaining the space.
  
- b) **Community-based Resilient infrastructure and public space improvements in La Paz.** This sub-component will finance selected resilient infrastructure to reduce communities' vulnerability to natural hazards and improve living conditions in urban areas of La Paz, such as: paving of roads and sidewalks, expansion of the storm drainage system, creation of recreational and green space and community centers, small-scale slope stabilization works (e.g. retaining walls), and improved access to water and sanitation connections. The districts of Alpacoma Llojeta, Pura Pura and Ladera Oeste have initially been prioritized as they are located adjacent to the municipalities of El Alto and Achocalla and are built on slopes where landslides can occur. They also have higher levels of poverty and lower levels of service provision as compared to other parts of the city, since these communities are in urban expansion areas that have been growing rapidly over the last ten years. The interventions will be designed based on community participation. The Project would also improve connectivity of these areas with other parts of the city and mobility resilience by providing paved access to the neighborhoods. The component would include community engagement and participation measures to ensure citizens participate in the decision-making process for upgrading infrastructure and to promote both risk awareness and preparedness in the event of a natural disaster and to promote ownership of the investments.

**Component 2: Resilient Infrastructure Improvements in Santa Cruz (US\$40 million).** This component is in the process of being defined jointly between the national government, the municipality of Santa Cruz and the regional government of Santa Cruz. During preliminary discussions, potential investments identified include: (a) the design and construction of a flood plain park along the River Pirai to maintain the public space that floods periodically free of encroachments in dangerous areas; (b) investments in storm drainage in key districts in the eastern part of the city that are constantly inundated during heavy rainstorms; and (c) urban mobility investments. As previously mentioned, investments would follow a framework approach which would prioritize sub-projects that are rated as category B for safeguards, adhere to readiness standards, and contribute to poverty reduction and disaster risk reduction in urban areas.

**Component 3: Institutional strengthening and development of an integrated urban development strategy (US\$10 million).** This component would finance technical support for: (a) the development of an integrated urban development policy, (b) the integration of the resilience concept into the policy framework; and, (c) coordination among key stakeholders at national, metropolitan and municipal level.

Activities under this component at the national level would include support to integrate the concept of resilience in the government's national urban policy, the creation of an urban observatory to capture municipal-level data on service provision, hazard risks, demographics, among others, starting with the municipalities in the LMA and SCMA. Capacity building for national government counterparts to incorporate a multi-sectoral approach in structural interventions will also be developed.

- 
- Drainage masterplan by AECID (Spanish Development Cooperation Agency), IADB
  - Sanitation of Lake Titicaca: Waste water treatment plant, including connection of households, by IADB and AFD (French Development Cooperation Agency) and a now closed WB IPF
  - Project to improve fresh water provision from the glacier to the city by IADB
  - National Strategy: Completed, preparation funded by multiple stakeholders: AECID, IDB, WB, EU and CAF



At the metropolitan and municipal level, the component would finance tools for analysis, diagnostics, and training activities in four categories: (i) development of information and data systems, including geospatial data, territorial planning at the municipal level to determine areas for future growth or where development should be limited due to natural hazards or environmental protection, and asset management systems, (ii) training programs on instruments of land value capture, (iii) building regulations review/reform; and, (iv) emergency preparedness and response protocols and plans. The component will also consider municipal finance/PFM as it relates to city level investment in resilient and implementation of integrated urban development policy. Further, technical assistance and pre-feasibility studies in the Cochabamba Metropolitan Area may also be financed to identify future investments for the expansion of the program.

**Component 4: Project Management (US\$8 million).** This component would finance the establishment of the Project management unit (PMU), responsible for carrying out procurement, financial management, knowledge management, social and environmental safeguards, and monitoring the Project results. This component would also finance the creation of Project Coordination Units (PCUs) in each of the main municipalities (La Paz, El Alto and Santa Cruz).

**Component 5: Contingent Emergency Response Component (CERC) (US\$2 million).** This component would support carrying out of emergency recovery and reconstruction subprojects under an agreed action plan of activities, which is designed as a mechanism to implement the recipient's response to an emergency. The component would allow rapid re-categorization and reallocation of project financing from other components to partially cover emergency response and recovery costs associated with the occurrence of natural disasters. Funds would be used for emergency works (removal of rubble, etc.), purchase of emergency supplies, and fuel. It would only be triggered in the event of a natural disaster, either national or localized in scope; the specific triggering mechanisms will be discussed during project preparation. This component could also be used to channel additional disaster response funds, should they become available.

## 2. Overall Risk and Explanation

The main challenges facing the Project include the following: (i) Political: There is substantial political risk with regards to the coordination between national and local levels of government involved in the Project; (ii) Technical: This risk is rated substantial as the design and delivery of integrated infrastructure solutions are complex and require considerable data availability, innovation, and solutions that are acceptable to local communities; (iii) Implementation: this risk is rated as substantial due to coordination issues both across municipalities as well as with the national government; and (iv) Fiduciary: This risk is rated as substantial and to be confirmed depending on the final implementation arrangements to be established. The necessary arrangements for fiduciary management would need to be set up at the national and local levels to ensure adequate implementation. This preliminary risk rating will be revisited after completion of the capacity assessment by the Financial Management and Procurement team. Risk mitigation measures for each of these challenges will be developed during Project preparation and confirmed at appraisal.

## SAFEGUARDS

### A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will be implemented within the cities of El Alto, La Paz, and Santa Cruz, each of them with different physical characteristics. The city of El Alto is in a high plateau (over 4000 meters above sea level (m.a.s.l.) next to a major Andean mountain chain. The mountains nearby drain several creeks and rivers through the city, the main one being the Rio Seco (Dry river), running over a mild slope, along where the proposed intervention will be located.

The city of La Paz is located next to El Alto, but in a completely different topography, and a different water basin, of



mostly steep slopes with small creeks and large rivers running and forming a complex maze of natural uneven terrain and human-made structures. The city center lays in the central portion where the slopes are mild. The urban area of the city has grown out and upwards, climbing up the hill of mostly stable terrain, including the western slope where project interventions are located.

The city of Santa Cruz lays on the flat portions of the foothills of the Eastern Andes mountain chain over a large area below 400 m.a.s.l. The topography of the city is mostly flat over a tropical environment with several manmade and natural drainage waterways running across where water flows and also sinks to recharge large aquifers underneath. The Piraí River runs right next to the city and carries large quantities of water during the rainy season.

The La Paz Metropolitan Area (LMA) is growing the most rapidly in terms of population and urban expansion in the smaller, peripheral municipalities as well as in El Alto, while La Paz is densifying. The LMA is home to about 1.79 million people according to the 2012 National Census, encompasses 8 municipalities and generates 22% of the national GDP. Due to geographic limitations, the municipality of La Paz is not experiencing significant population growth, except for informal settlements expanding into the steep slopes surrounding the city. In contrast, the municipality of El Alto, has vast reserves of available land and thus has been growing exponentially. The Santa Cruz Metropolitan Area (SCMA) is home to 1.75 million people according to the 2012 National Census, and encompasses 6 municipalities. Among the three metropolitan areas, the highest population growth occurs in El Alto. The population density in El Alto is 136.80 inhabitants per ha, while La Paz city has 75.43 and Santa Cruz de la Sierra has 32.99 inhabitants per ha.

## **B. Borrower's Institutional Capacity for Safeguard Policies**

The preparation of the program will be led by the Ministry of Public Works (MPW) and its Vice Ministry of Housing and Urban Development (VMVU), with support from the Ministry of Development Planning. The MPW has extensive experience in managing external financing and has implemented projects with funds from the IADB for the National Urban Cadaster Project working in 13 municipalities, as well several major interdepartmental roads the with multilateral donor resources, such as IDB, CAF and WB (e.g. rural roads), and has satisfactorily met its safeguard requirements. Also, the country has a vast legal framework regulating management of territories, attributions of the different entities in case of emergencies and the role of the Government's Directorate on Human Settlements.

For the implementation of the Project, the MPW would establish a Program Management Unit that would report to the Viceminister of Housing and Urban Development. This PMU would coordinate activities between national government actors, and coordinate the Project with the participating municipalities. It is envisaged that the PMU would implement all procurement, financial management and safeguards, as well as monitor Project progress and results. In addition, Project Coordination Units (PCUs) would be established in each of the municipalities, and the division of responsibilities between them and the national PMU will be determined during preparation and confirmed at appraisal. The Bank has utilized decentralized implementation units in all three municipalities under the Urban Infrastructure Project (P083979), which allowed for enhanced ownership and sustainability.

Nevertheless, during project preparation, the institutional capacity for implementation of environmental and social safeguards at government and municipalities levels according to World Bank policies will be evaluated and specific recommendations will be provided before Project Appraisal.

## **C. Environmental and Social Safeguards Specialists on the Team**

Juan Carlos Enriquez Uria, Environmental Safeguards Specialist



Ximena Rosio Herbas Ramirez, Environmental Safeguards Specialist  
Angela Maria Caballero Espinoza, Social Safeguards Specialist

**D. Policies that might apply**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The Environmental Assessment Policy is triggered because civil works from the subprojects of Component 1 and 2 may create negative environmental effects. Component 1 would finance: a) measures to improve access to resilient infrastructure and improve living conditions along 8 km of the Rio Seco, such as investments in public space, non-motorized mobility, sanitation, and social engagement in Districts 4 and 5; b) resilient infrastructure to reduce communities' vulnerability to natural hazards and improve living conditions in urban areas of La Paz. The districts of Alpacoma Llojeta, Pura Pura and Ladera Oeste have initially been prioritized as they are located adjacent to the municipalities of El Alto and Achocalla and are built on slopes where landslides can occur. Component 2 is in the process of being defined jointly between the national government, the municipality of Santa Cruz and the regional government of Santa Cruz. Some of the potential investments identified include: (a) the design and construction of a flood plain park along the River Pirai to maintain the public space that floods periodically free of encroachments in dangerous areas; (b) investments in storm drainage in key districts in the eastern part of the city that are constantly inundated during heavy rainstorms; and (c) urban mobility investments. Therefore the activities of these components are expected to be medium to small works with known environmental impacts that can be readily mitigated with standard construction and environmental mitigation measures, occupational health and safety prevention measures and monitoring procedures. An ESMF (Environmental and Social Management Framework) will be prepared to set out the principles, rules, guidelines and procedures to assess the environmental and social impacts of future individual subprojects once they have been defined with sufficient detail to be specifically evaluated, the ESMF will also provide guidance for conducting Environmental Assessments of individual</p>



subprojects and the preparation of Environmental Management Plans.

The ESMF will also include a section with clear safeguards guidelines for Component 5, Contingent Emergency Response investments and works including types of activities, responsibilities for screening and environmental/social management, and for preparation of any safeguards instruments prior to works as pertinent under and consistent with operations policy OP 10.00, paragraph 12.

The ESMF will also set out guidelines for component 3, institutional strengthening and development of an integrated urban development strategy to take into account relevant environmental and social aspects in a manner that reflects the principles of Bank safeguards

Environmental Assessments (EAs) with specific environmental management plans (EMPs), will be prepared for specific interventions with sufficient detail information and final project designs.

During the construction phase of investment in highly urbanized areas, key negative environmental impacts may include: (a) removal of topsoil and changes in terrain and topography; (b) contamination by solid or liquid wastes during construction works ; (c) generation of dust, combustion gases, noise and vibrations; (d) inconveniences caused by urban and traffic congestion in highly urbanized areas ; (e) disturbance to daily socio-economic activities (f) alteration of urban landscape; (g) erosion and land slide risks; (h) health and safety issues for the workers; (j) others.

The proposed investments design and construction will follow environmental guidelines as established in national legislation and in the General WBG EHS guidelines and the specific guidelines for the water and sanitation sector, and relevant sections of the EHS Guidelines for Toll Roads.

Performance Standards for Private Sector Activities OP/BP 4.03

No

The operation doesn't apply to private sector activities.

Natural Habitats OP/BP 4.04

TBD

No significant impacts on natural habitats are expected and no significant conversion or degradation of critical or natural habitats will occur. Nevertheless,



		the policy is triggered as TBD given that the decision has not yet been made as to whether flood management works along the River Pirai in Santa Cruz would affect this ecologically sensitive area.
Forests OP/BP 4.36	No	The project will be implemented in urban areas, and it doesn't include any reforestation activities in the upper river basin of the Rio Seco. No impacts on the health and quality of forests are expected.
Pest Management OP 4.09	No	The project is not expected to support the procurement of pesticides and therefore the policy is not triggered.
Physical Cultural Resources OP/BP 4.11	Yes	The project does not expect to find physical cultural resources but given the nature of civil works, including excavation, this policy is triggered on a precautionary basis. The ESMF will include clear procedures for assessing locations for physical cultural resources aspects and how to manage chance finds in accordance with WB policy and national legislation.
Indigenous Peoples OP/BP 4.10	No	<p>The project beneficiaries in the metropolitan areas of La Paz, El Alto and Santa Cruz de la Sierra do not qualify as Indigenous Peoples as defined in the OP/BP 4.10 Indigenous Peoples, because: (i) beneficiaries do not appeal to ethnic self-identification as a marker of pertinence to a particular group in the proposed project area; (ii) they do not have collective attachment to ancestral territories and there are no evidences of traditional customs linked to land and territory where the proposed project will be implemented; (iii) they do not have other specific economic, political, social, and cultural organizational traits, as opposed to those that belong to the regional society, and (iv) even though in domestic contexts in the cities of El Alto, La Paz or Santa Cruz de la Sierra, people still use Aymara, Quechua or Guarani indigenous language, it is not used as an element of group cohesion. Therefore, consistent with this analysis, the OP/BP 4.10 has not been triggered for the beneficiaries of the project.</p> <p>However, considering that various social groups are included in the project area, a Social Assessment (SA) with gender and interculturality approach will be developed by the borrower. Consultation processes during project preparation will be undertaken to ensure the beneficiaries contributions to the projects design considering gender and generational bases, identify strategies of participatory planning, citizen</p>



engagement and GRM to be implemented during the project cycle.

The Social Assessment (SA) will be included in the Social Management Framework (SMF) document, which is part of the ESMF. The SMF (including the SA) will be presented as a separate document.

This safeguard will be triggered to ensure proper care is taken to avoid, minimize or mitigate involuntary resettlements. The number of permanent and/or temporary physical affectations on land and economic assets has not yet been identified; however, the scope of the physical and economic affectations in La Paz and El Alto has been verified in situ. Permanent physical affectations in La Paz and El Alto subprojects will include perimeter walls, access to houses, and the replacement of household water or energy connections. Permanent or temporary replacement of small economic activities, such as kiosks and small stores, will also be needed. Temporary replacement of public transport routes and "ferias" in the most populated areas are also likely to be needed.

For Santa Cruz subprojects, the potential scope of resettlement and the types of potential physical and/or economic affectations along the Pirai river and other areas where subprojects might be located are still not known given neither the subprojects nor the areas have been clearly identified; however, it is expected that scope of resettlement will be defined before Appraisal.

Under this context, the borrower will prepare the Resettlement Action Plan (RAP) for the subproject 'Ampliación Sistema de Alcantarillado Sanitario por Bombeo D4 - Ciudad de El Alto' which has a final design. Also, the borrower will prepare a Resettlement Policy Framework (RPF) since the designs of the rest of the subprojects in La Paz, El Alto and Santa Cruz are still to be finalized. The (RPF) for La Paz, El Alto and Santa Cruz will define methodologies for all types of possible physical impacts on land, assets and economic/productive activities.

Other RAPs for investments under Component 1 and 2 will be prepared during the implementation of the project considering permanent and/or nonpermanent physical impacts on assets and economic activities.

The RAP for the 'Ampliación Sistema de Alcantarillado

Involuntary Resettlement OP/BP 4.12

Yes





Sanitario por Bombeo D4 - Ciudad de El Alto' project and the RPF will be prepared and published before Appraisal.

Safety of Dams OP/BP 4.37

No

This policy is not triggered given the project will not support the construction or rehabilitation of dams nor will it support other investments which rely on the services of existing dams.

Projects on International Waterways OP/BP 7.50

Yes

This policy is triggered as the activities of the Project would involve rivers that are considered international waterways under OP 7.50. A determination of whether a notification is required will be made prior to project appraisal.

Projects in Disputed Areas OP/BP 7.60

No

This policy is not triggered as project activities will not be conducted in disputed areas.

**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Nov 01, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

An Environmental and Social Management Framework (ESMF) will be prepared as the individual subprojects have not been defined with sufficient detail to be specifically evaluated. The ESMF will include a section with clear safeguards guidelines for emergency investments. Also, the ESMF will be developed taking into consideration lessons learned from environmental and social safeguard instruments in previous Bank projects implemented in Bolivia and the relevant sectors.

Environmental Assessments (EAs) with specific environmental management plans (EMPs), will be prepared for specific interventions with sufficient detail information and final project designs.

The Social Safeguard instruments for the project include: a) The Social Management Framework (SMF) which is part of the ESMF and that will be presented as a separate document that will also include the Social Assessment (SA); b)The Resettlement Policy Framework (RPF) and c) The Resettlement Action Plans (RAPs) for projects with final designs (if known before Appraisal).

All of these instruments will be disclosed before Appraisal.



## CONTACT POINT

### World Bank

Zoe Elena Trohanis, Frederico Ferreira Fonseca Pedroso  
Senior Urban Development Specialist

### Borrower/Client/Recipient

Ministry of Development Planning  
Mariana Prado  
Minister  
despacho.min@planificacion.gob.bo

### Implementing Agencies

Ministry of Public Works  
Milton Claros  
Minister  
mtejeda@oopp.gob.bo

Javier Delgadillo  
Viceminister of Housing and Urban Development  
javier.delgadillo@oopp.gob.bo

## FOR MORE INFORMATION CONTACT

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

## APPROVAL

Task Team Leader(s):	Zoe Elena Trohanis, Frederico Ferreira Fonseca Pedroso
----------------------	--

### Approved By

Safeguards Advisor:	Noreen Beg	13-Jun-2018
---------------------	------------	-------------



Practice Manager/Manager:	Tiguist Fisseha	13-Jun-2018
Country Director:	Boris Enrique Utria	21-Jun-2018

---