



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Brazil	LATIN AMERICA AND CARIBBEAN	P174619	
Project Name	Reducing flood risks and improving living conditions in Ribeirao Isidoro Basin, Belo Horizonte		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	2/22/2021	5/28/2021
Borrower(s)	Implementing Agency(ies)		
Municipality of Belo Horizonte	Municipal Secretariat of Works and Infrastructure (SMOBI)		

Proposed Development Objective

To reduce flood risks and improve the living conditions of vulnerable people in selected areas of Ribeirão Isidoro basin in the Borrower’s territory.

Financing (in USD Million)	Amount
Total Project Cost	168.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The Project follows a multipurpose approach that combines innovations in flood risk reduction interventions and urban upgrading in the Ribeirão Isidoro basin tailored to the specific needs and characteristics of the Nado and Vilarinho basins and the Izidora region. On the one hand, the Nado and Vilarinho watersheds present challenges in finding sufficient space to detain, retain and discharge increasing amounts of rain in already consolidated and densely occupied areas. On the other hand, in the downstream Izidora region, the challenge is to address the critical needs of



a vulnerable population that suffers from higher levels of deprivation within the city, while assuring that urban water management and environmental preservation features are fully integrated into the new urban expansion and settlement areas.

The proposed Project focuses on:

- (i) enhancing flood protection in selected areas of the Nado and Vilarinho basins, thus benefiting approximately 278,300 people;
- (ii) containing the advance of informal urban sprawl over environmentally sensitive areas; reducing populations living in areas with geological and/or geotechnical risks and environmentally protected areas; and improving the precarious living conditions that prevail among the approximately 12,500 vulnerable inhabitants of the four selected settlements; and
- (iii) strengthening the institutional capacity of the Borrower in the following areas: (a) urban planning instruments to balance urban expansion and environmental protection; (b) innovative strategies for the operation, maintenance and management of parks and environmentally protected areas; (c) alternative mechanisms for co-financing affordable housing; (d) sustainable construction methods and technologies, including nature-based solutions and renewable energies, for the provision of climate-smart urban infrastructure, public spaces, and residential and public buildings; (e) integrated urban water management and disaster risk management; and (f) citizens' engagement and participatory processes.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The city of Belo Horizonte (capital city of the state of Minas Gerais) has a population of 2.5 million inhabitants, and has experienced an unplanned urban sprawl process, marked by socio-spatial segregation, with the consequent occupation of areas most vulnerable to natural risks by the lower-income population.

Considering the World Bank indicators of poverty and extreme poverty (per capita household income up to US\$ 5.50 and US\$ 1.90), 12.55% of the population of Belo Horizonte are poor and 3.23% are extremely poor (2019).

Considering the Brazilian poverty line (per capita monthly income up to BRL 178.00), 48.96 % of the population would be poor if they are not benefitted by the country's cash transfer programs.

It is also a very unequal city. In 2019, the bottom 20 earned only 3.07% of all the income generated in the city. Gender gaps are relevant in the city. The gender gap has been reversed in education: the ratio of women and men in regular education reaches 106.62 women per group of one hundred men and among the population 15 to 24 years old there are only 83 women per group of 100 men with less than 9 years of schooling. However women spend more hours per week in unpaid domestic and personal care activities than men (22.13 versus 11.14 weekly hours, respectively) and earn only 84.44% of the average male income. The rate of sexual violence against teenage women is almost four times than teenage men.

Race (measured through self-ascribed skin color) is also a main drive of inequality and exclusion. Among those who declared themselves as white, black, and mixed-race (called "pardos" in Brazil) people, there are 42.6%, 49.7% and 51.3% who live with incomes up to BRL 178,00. The homicide rate among Afro-Descendant (black and pardo) young men is 159% larger than among white ones. The combination of gender and race is still more deleterious for Afro-Descendant women. The average income of white women equals 111.11 percent of the male cohort, whereas Afro-



Descendant women earn 75.8% and 73.9% of the average income of men. Domestic violence against them is twice larger than among white ones. Early pregnancy hampers the life opportunities of 4.1% white girls and young women, but 11.1% of the Afro-Descendants. The risk of sexual violence against teenagers is more than twice among the Afro-Descendant teenagers than the white ones.

In Belo Horizonte, low-income settlements occupy an area of approximately 24.6 km² (7,4% of city's area) and the continuous urban expansion have led to an increase in the frequency of floods and landslides in the city and a worsening of its impacts. It has been estimated that the vulnerability of the city to these events will have an increase of up to 10% by 2030. It is no coincidence that the areas most affected are those with highest concentration of social interest settlements - and, particularly, those located in the Northern portion of the city.

The intervention area of the proposed Project would be the Ribeirão Isidoro River Basin, located in the Northern Region of Belo Horizonte. In the hydrology of the city, the Nado and Vilarinho watercourses are tributaries of the Ribeirão Isidoro. These watercourses present themselves as areas susceptible to flooding, being frequently affected by extreme climatic events. The region is characterized by high soil impermeability and a consolidated urbanization process that disregarded the watercourses and natural thalwegs, aggravating the problem with floods.

Since 2011, there have been recorded 31 red alerts (occurrences of overflows) and / or orange alerts (runoff at 80% of the gallery's height) for rain events with Recurrence Times up to 1 year, which demonstrates the low response capacity of the macro-drainage system of the region. The occurrences of extreme precipitation events that imply overflows have been increasingly intense and frequent in the region. Its consequences have been increasingly serious. The neighborhoods located in the Isidoro Basin are of great importance for the northern portion of the city because of the existence of main operating units of the mass public transport systems and due to the fact that the city's growth occurs mainly towards this vector, which makes the region's road system a mandatory link for the entire northernmost area (neighborhoods and other cities in the metropolitan region). They are dense and disorderly occupied, particularly in the Izidora Region. This area covers about 933 hectares, has rich environmental attributes and is recognized as the last frontier of Belo Horizonte's urban expansion. The Izidora Region shelters a large extent of preserved green areas, forming an ecotone of savanna with Atlantic forest and containing about 280 water springs and 64 streams that contribute to the main source of potable water for the whole city – including the Macacos stream, one the few last clean water courses in the capital, the Isidoro stream and the Onça stream, which is part of the Velhas River Basin (the main water supply source of Belo Horizonte). The area is also marked by sloping terrains and the presence of landslide risk areas.

Most of the socioeconomic indicators of the area of Project intervention are worse than the city's averages. In 2019, the parcel of the population living under the Brazilian poverty line without the cash transfer programs (BRL 178,00 monthly per capita income) reached 65.7% in the North region and 59.0% in Venda Nova (49.0% in Belo Horizonte). Access to early child education (often a pre-condition to increase women's job opportunities) was 53% in Belo Horizonte, 30.8% in the North and just 19.6% in Venda Nova. Children mortality rate (0 to 1 year old) equaled 11.5/1,000 in the city, 14.3% in the North and 13.5% in Venda Nova. Among children 0 to 5 years old, these rates were 9.9/1,000, 12.0/1,000 and 10.8/1,000, respectively. And the neonatal mortality rates were 6.9/1,000, 7.8/1,000 and 7.5/1,000, respectively. The incidence rate of leishmaniosis and tuberculosis were also above the city's averages. While the city showed rates of 1.48/100,000 for leishmaniosis and 22.74/100,000 for tuberculosis, these rates equaled 5.01 and 26.37 in Venda Nova and 5.78 and 37.50 in the North. The two regions are also more poorly served by basic infrastructure than the city as expressed by the coverage of sewage collection and treatment services (84.8% in the city, 69.3% in the North and 64.3% in Venda Nova) and the municipal environmental health index (0.93 for the city, 0.84 and 0.83 for the North and Venda Nova, respectively). Early pregnancy rates equal 14.8% in the North and 13.5% in Venda Nova vis-à-vis an 8.71% city average. The rate of homicides of young men reaches absurd



201.2/100,000 inhabitants in the North and 162.2/100,000 in Venda Nova – the city’s already high average is 91.2/100,000.

Since 2013, the Izidora Region has been subject to occupations by low income families that received support from popular social movements. Four occupations have been consolidated: Vitória, Esperança, Rosa Leão and Helena Greco. They count above 4,200 families (12,492 people). The first three have been the target of four repossession lawsuits. Land disputes were mediated by the Judicial Center for Conflict Resolution and Citizenship for Urban and Rural Territorial Demands and Great Social Repercussion (CEJUSC BH). They ended when an agreement was reached in 2018 with the participation of Municipal and State governments, the State Courts. By this agreement the State of Minas Gerais Housing Company conceded a public landholding to the landowners in permutation for the occupied area and authorized the permanence of the occupants in the area. This agreement not only avoided the eviction of the occupants, but also rendered possible the regularization and urbanization of the area as a municipal Area of Social Interest. Urbanization and environmental protection actions to be supported by the Project are a demand of the population of the Izidora occupations. These occupations are essentially made up of low-income families that live under poor environmental, urban and infrastructure conditions. The majority of the population lives in poverty and lacks access to public infrastructure and services, such as transportation, water supply, sanitation, electricity and solid waste collection and leisure. Most occupy areas of environmental preservation and/or risk, in addition to facing a situation of precarious housing.

D. 2. Borrower’s Institutional Capacity

Belo Horizonte’s City Hall (PBH) recently prepared the Improving Mobility and Urban Inclusion in Belo Horizonte (P169134) under the new ESF. The institutional arrangement for the implementation of the proposed Project is mostly the same of P169134. The Municipal Secretariat of Infrastructure (SMOBI) will create a Project Management Unit (PMU) – responsible for planning, monitoring and evaluation – and a Project Implementation Unit (PIU) – responsible for environmental and social risk management and implementation of the ESF. The PMU and the PIU will be supported by the Municipal Secretariat of Planning, Budget and Management (SMPOG), the Municipal Secretariat of Urban Policies (SMPU), the City Development Superintendence (SUDECAP) and Belo Horizonte Urban Development and Housing Company (URBEL). The PIU will count with a consultancy firm to manage the Project, which will also support environmental and social risk management and implementation of the ESF. The PIU will include as part of the team an environmental specialist and a social specialist. It is noteworthy that the technical teams of implementing agencies have experience working with the World Bank as well as solid and recognized experience in the theme of environmental and social risk management.

URBEL will have final responsibility with regards to the implementation of Resettlement Action Plans. URBEL is the public company responsible for implementing the Municipal Popular Housing Policy. Its mission is to provide decent housing conditions for residents of villages and slums and low-income population, through urbanization, land tenure regularization, technical assistance and the production of new homes, with quality, popular participation and social inclusion. It is the executing body of the Municipal System of Popular Housing created in the 1993 as the result of pressure and mobilization from social and popular movements to fight for housing and urban reform. This system also comprises the Municipal Housing Council, which was instituted by Law 6,508/1994 with the participation of representatives from the Executive, Legislative, housing movements, unions, universities and the business sector. Its main duties are to prepare and guide the actions of the Municipal Housing Policy and overseeing the application of resources of the Municipal Fund for Popular Housing. The councilors are democratically elected, every two years, in the Municipal Housing Conferences, which proposals guide its actions and the municipal investments in housing for low-income families.



URBEL has 25 years of experience with interventions carrying out urban upgrading works, construction of social housing complexes, land regularization processes, social works with low-income population and inhabitants of irregular settlements, and resettlement. It is in charge of several programs of the Municipal Housing Policy and between 1997 and 2018, URBEL invested US\$ 1 billion on interventions and civil works in urban upgrading of low-income communities and in communities living in at risk areas. Through these programs, URBEL has benefited 165 thousand people, from 45,784 households. It has also carried out the physical relocation of 12,371 households from at risk areas and built 6,516 new housing units to compensate people that have been physically displaced. Carrying out these programs URBEL has gained the experience needed to carry out the required Resettlement Action Plans envisaged under the proposed Project. Thus:

- URBEL developed the Global Specific Plan (PGE) – a planning tool that aims to guide urban, environmental and social development restructuring interventions in villages, slums and popular housing estates. It consists of an in-depth study of the reality of these areas, considering the urban-environmental, socio-economic and organizational aspects, and the legal situation of the land. A critical feature of PGE is the involvement of residents in all stages of its preparation, in the definition and priority ordering of interventions to improve the environment in which they live. 72 plans have already been concluded, benefiting 101 locations, where around 260 thousand people live. Another plan is being drafted (serving around 500 families).
- From 1994 to 2015, investments of more than BRL 430 million were made in 469 works (urbanization works, treatment of risk areas, housing, leisure and sanitation) through the Vilas Participatory Budget, which provides the community of villages, slums and popular housing estates with an effective space for exercising citizenship as they decide on priority works to be carried out by the City Hall in their communities.
- Since 1995, URBEL carries out the removal and resettlement of families removed as a result of carrying out public works, who have been victims of calamities or who are residents of areas of high geological risk with a risk of accidents (PROAS -Resettlement Program). The beneficiary families receive cash compensation or acquire residences in locations they indicate (monitored resettlement), which are inspected by URBEL to ensure they are not located in areas of geological risk, present proper constructive standards and access to basic urban infrastructure (water, electricity and sewage).
- Since 2005, URBEL's Vila Viva Program operates in 12 low-income communities as a structuring intervention with actions based on three axes: urban (sanitation works, construction of housing units, eradication of risk areas, restructuring of the road system, urbanization of alleys, implementation of parks and sports equipment), social (community mobilization, health and environmental education and job and income generation) and legal (land regularization and titling).
- Its Structuring Program in at Risk Areas (PEAR) works on the prevention of disasters and protection of families residing in areas of geological and flooding risks. When the places have a high or very high risk level that cannot be eliminated or controlled by a technically viable project, the family is removed and sent to a Municipal Shelter or enrolled in the Bolsa Moradia Program until its permanent resettlement in a housing unit built by the City.
- The Bolsa Moradia Program serves families that are removed from at-risk or illegally occupied areas or as a result of public works, or are victims of calamity, live in precarious housing or are homeless. The beneficiary indicates a new home and signs the rental contract after an inspection of the property by URBEL to ensure proper construction, sanitary conditions and location of the dwelling. The renter is responsible for the expenses with water and electricity, condominium and property tax, or any necessary repairs for the maintenance of the property in the conditions in which it was received.
- The Urban Regularization Plan (PRU) consists of an in-depth study of the reality of irregularly occupied areas (predominantly, by low-income population) and serves for planning the processes of urbanization and land



regularization. It has been completed in 6 areas, benefitting 3,253 households and 8,698 inhabitants. It is in progress in 6 areas (6,794 households and 19,253 inhabitants).

- URBEL’s Land Regularization Program of Zones of Special Social Interest and housing complexes built by the City has regularized 43 villages (benefiting 31,727 families) and 65 housing complexes built by the city (6,799 families). It involves the active participation of the community through Reference Groups (GR) formed by representatives of the population that will be titled.

For the environmental licensing of the works, the PIU will work with the Municipal Secretariat of Environment (SMMA) and the Municipal Council of Environment (COMAM). The environmental management structure of Belo Horizonte is one of the oldest among Brazilian municipalities. SMMA was one of the first to be created in the country (1983) and COMAM was created in 1985 with normative and deliberative powers, and with the participation of civil society. URBEL would carry out the required Resettlement Action Plans envisaged under the proposed Project. The agency responsible for the works of Component 1 is SUDECAP, created in 1969. SUDECAP’s main attributions include: (i) planning and execution of water supply and sewage services in Belo Horizonte; (ii) preparing projects and executing works, including in Areas of Special Social Interest; (iii) performing the services and maintenance works for real estate and public places; and (iv) the management of the engineering works and services contracts signed by the Executive Branch. During almost 52 years, SUDECAP has executed countless viaducts, tunnels, public buildings, squares, hundreds of streets and, most important, other similar works for flood control, with a team of over a thousand professionals.

In addition, PBH has qualified teams within the executing agencies that will monitor the project from the initial phase until the conclusion of the works, including management and supervision exclusively dedicated to the theme of environmental and social risks management, with specific sustainability programs.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

High

Environmental Risk Rating

Substantial

The environmental risk assessment found that: (i) adverse environmental risks and impacts are mostly site-specific, temporary, predictable and reversible (ii) they are low in magnitude and in spatial extent and without potential for cumulative effects; (iii) the Project’s nature also suggests low probability of adverse effects to human health and/or the environment; and (iv) the Borrower has previous experience with the ESF, a strong track record in managing complex stakeholder engagement, proven competence in dealing with such environmental impacts, during the implementation of several other similar interventions, a solid legal and regulatory framework and robust enforcement capacity, which ensure a participatory process in the management of environmental risks and impacts due to the proposed works and in a well succeeded implementation of the appropriate mitigation measures.

However, the environmental risk is rated as substantial solely due to the fact that Component 2 supports interventions in the Izidora occupations that are located in an environmentally sensitive area.

Component 1 main premise is the urban and environmental requalification of the territories of the Ribeirão Isidoro watershed, seeking to optimize macro-drainage systems and reduce flood risks through works that will take place in already consolidated urban areas. Component 2 intends to slow down urban sprawl over sensitive environmental areas and reduce the exposure of vulnerable populations to geological risks.

Expected adverse environmental impacts tend to involve disturbances in the construction stage and may include: production of debris and solid waste due to soil movement; local traffic interruptions and congestion and potential



increase of traffic accidents due to circulation of trucks and other heavy vehicles; increase in determined pollutant emissions, mainly particulate material, leading to alteration of air quality; proliferation of synanthropic fauna; inconveniences to the neighboring population (increased noise, dust, and vibration levels); temporary disturbance in normal frequency of public services and interference with public utility networks and the functioning of commercial activities. These temporary negative environmental impacts would be minimized or reduced to acceptable levels by the adoption of simple and well known mitigation measures.

Direct and localized positive impacts are also expected from these interventions and positive downstream effects include consequent internalization by the municipality of planning innovations and nature-based design solutions. The benefits of the interventions in the Izidora occupations are expected even before the end of the works, including reduction of geological and geotechnical risks, protection of sensitive habitats and permanent preservation areas (also through the creation of public parks, whose participative management involving neighboring communities can decrease the chance of re-encroachment) and the reduction of the pollution of water-streams.

As project designs are not definitive yet and would only be available as a result of project implementation, a draft Environmental and Social Management Framework (ESMF) was prepared and publicly disclosed for consultations before Appraisal. The ESMF examined - in a generic and prospective basis - environmental and social risks and impacts, established the principles, rules, guidelines and procedures to assess environmental and social risks and impacts, proposed generic measures and plans to reduce, mitigate and/or compensate risks and adverse impacts and considered the institutional capacity of the agencies responsible for dealing with Project's environmental and social risks and impacts. The final ESMF will be disclosed within 30 days after Project effectiveness. As part of the preparation of project designs, specific environmental and social impact assessments and management plans will be prepared for each work.

Social Risk Rating

High

The social risk of the Project is considered high because of the large scale of population resettlement caused by the activities supported under Project Component 2 that aims to contain the advance of informal urban sprawl over environmentally sensitive areas, while reducing the exposure to geological risks of the inhabitants of consolidated informal settlements in the Izidora Region. However, adverse resettlement risks and impacts will be minimized and mitigated, are not expected to give rise to significant social conflict or harm (on the contrary, these activities answer the claims of the population living in such areas for enhanced urban and housing conditions) and do not require specific mitigation measures that are beyond the Client's institutional capacity, proven track-record and strong commitment in relation to stakeholder engagement, social accountability and management of environmental and social issues. Furthermore, the Project and the mitigation measures will be developed in an environment marked by robust legal and regulatory as well as strong enforcement.

Component 1 would require the acquisition of a small number of land plots and the relocation of up to 40 families. Component 2 would involve the relocation of a significant number of people (estimated in 980 families and small business) from areas of permanent protection, areas at-risk of flooding and landslides and areas needed for urban upgrading interventions.

The potential re-encroachment in the areas acquired for environmental protection, prevention of geological and flooding risks and urbanization is another risk as urban sprawl is often rapid and uncontrolled. The Borrower has already in place an institutional plan to keep control of public areas. This plan relies on community engagement, early warning systems and quick response to avoid the occupation of public lands. In the Project area of intervention, it will also rely on awareness raising campaigns, destination and occupation of the areas by public equipment, and engagement of community members on the protection and preservation of the environmentally relevant areas. The implementation of both the Project's Stakeholder Engagement Plan and Social Work Plan are expected to reduce and



mitigate such risk. Using drone flights, the Borrower has already mapped and registered in its georeferenced database all the existing buildings in the area.

Other social risks relate to neighborhood disturbances caused by routine circumstances during construction works – temporary increase of road traffic of heavy machinery, temporary closing of streets, noisy and dust, etc. – that may temporarily reduce the quality of life of neighboring communities or cause adverse impacts on the health and safety of project-affected communities. These impacts are not unanticipated, unprecedented, irreversible or unavoidable. The Borrower has a large and positive track-record with their management and the Environmental and Social Management Framework proposes measures for road safety, signaling and fencing off of work sites, management of hazardous and non-hazardous materials, and continuous communication with neighboring communities. Project contractors and workers will be required to follow a code of conduct that avoids circumstances of potential sexual harassment/sexual exploitation and abuse and proper measures to ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to local communities.

As project designs are still to be developed, the Borrower prepared a Resettlement Policy Framework, covering all elements required by ESS 5 (procedures for consultation with affected people and socio-economic census and cut-off date; different alternatives of compensation to meet the needs of PAPs, ensure compensation of affected assets at replacement cost; measures to allow for livelihood restoration; and a description of the grievance redressing mechanism).

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

The project is based on the urban and environmental requalification of the territories of the Ribeirão Isidoro watershed. Therefore, positive impacts are expected from the environmental and social point of view, with consequent internalization by the municipality of planning innovations and design solutions based on nature, which are cost-effective, provide environmental, social and economic benefits and help build resilience.

The potential environmental and social risks and impacts related to the Project's activities, included in the ESMF, can be mitigated, are mainly temporary, reversible and specific to the sites where the works will take place. Their mitigation is not complex, but involves well-known measures, with which the municipality is familiar. They may include: involuntary resettlement and temporary influx of workers in specific areas of the city; noise levels rise, increased production of debris; soil movement; traffic disruptions, increase in the number of vehicles due to the works and increase in emissions of air pollutants, especially particulates; temporary disturbance in the normal frequency of public services and interference in the operation of commercial activities.

Constructive techniques that reduce environmental and social impacts will be prioritized, considering: the efficient use of energy, water and other resources; maintenance of streams in a natural bed; use of porous pavements on low-traffic roads and trenches and infiltration ditches to increase the permeable area and to retain more water in the soil; implementation of wetlands for the treatment of domestic effluents (wetlands); decrease in energy consumption and use of renewable energy, such as solar; measures to reduce pollution and waste, as well as enabling reuse and recycling of materials; use of non-toxic, ethical and sustainable materials; prioritizing active transport (bicycles and pedestrians), increasing the population's quality of life and decreasing the emission of greenhouse gases; implementation of agro-forestry in remaining areas that increase the permeability of the soil, give a sustainable use



to the land and increase the possibilities of food and income of the residents; as well as ensuring universal access to houses and housing complexes.

The type of drainage work selected to mitigate the flooding effects in the Ribeirão Isidoro Basin was selected from a study of alternatives carried out by the Municipal Government. This study identified that the most sustainable solution would be the implementation of reservation structures, which require smaller extensions of linear works, have a low level of interference to the infrastructure systems already implemented and have lower implementation costs. These factors prove to be advantageous, given the characteristics of the basin, significantly urbanized and densely occupied, with the existence of different modes of transport and the presence of innumerable interference characterized by the implemented public service networks, both aerial and underground.

In the case of the Izidora occupations region, construction and infrastructure techniques based on nature will be prioritized, with reduced potential impacts from the environmental and social points of view. Such an approach will have its results amplified by actions of community mobilization and patrimonial, sanitary and environmental education. Stakeholder engagement with community leaders and families affected by the intervention will take place, in a continuous manner, from the pre-construction phase to the post-occupation stage, in addition to informing, fostering, training and sharing actions and commitments, including ensuring the long-term sustainability of project interventions (to avoid, for example, occupation of remaining areas).

Measures proposed for the management of potential environmental and social risks and impacts include the preparation of an Environmental and Social Management Framework (ESMF), a Labor Management Procedures, a Stakeholder Engagement Plan and a Resettlement Policy Framework for the proposed physical investments and also encompassing the technical assistance activities.

The ESMF is considered the appropriate tool at this stage because the project designs are not final yet and would only be finalized as an output of the project, during implementation. Based on current information, the ESMF examined the potential environmental and social risks and impacts and established the principles, rules, guidelines and procedures for an in-depth environmental and social assessment of risks and impacts, when setting executive designs. It proposed basic guidelines for preparing environmental and social plans to reduce, mitigate and/or compensate for adverse risks and impacts, and also considered the institutional capacity of the agency or agencies responsible for addressing the Project's environmental and social risks and impacts. Thus, the ESMF includes guidelines for: (a) a Program for Prevention and Management of Pollution and Environmental Risks, addressing the control of emissions and effluents, the monitoring of water quality and the rational use of energy, water and raw materials; (b) a Program for the management of hazardous and non-hazardous waste, including subprograms for pest control and recovery of contaminated areas; (c) a Program of Community Health and Safety, including the control of noise, vibration, road traffic, excavation, prevention of diseases and accidents, and accessibility; (d) a Safety Working Conditions Program; (e) a Landscape and Vegetation Recovery Program, (f) Plans for Integrated Management of Urban Water Streams, Implementation and Management of Green Areas, and Recovery of Degraded Areas; (g) Programs to promote nutritional safety and foster the local economy; (h) a Urbanistic Plan; (i) a Cultural Heritage Program; (j) A Social Communication Plan; (k) a Sanitation and Environmental Education Program; and (l) a Gender Equity Plan.

The draft ESMF will be publicly disclosed and consulted upon before Project Appraisal. The final ESMF will be approved by the Borrower and publicly disclosed by 30 days after Effectiveness. As part of the preparation of the project designs for each intervention, specific Environmental and Social Impact Studies (equivalent to the RCA in the Borrower's structure) and Environmental and Social Management Plans (equivalent to the PCA in the Borrower's structure) will be prepared.

To avoid delays in obtaining the environmental licenses and to oversee compliance of contractors with the terms set in the Work's Environmental Management Plans, the PIU would keep specialists in environmental risk and impact



management. The Brazilian process for environmental licensing of civil works is in charge of municipal, state or federal environmental agencies, according to their competencies. Depending on the proposal's degree of complexity and the expected environmental and social impacts and risks, different studies and assessments are required. Municipal environmental agencies are incumbent of licensing civil works (CONAMA Resolution 01/85) and the environmental licensing in the municipality of Belo Horizonte is governed by Municipal Law 7,277 / 1997, regulated by the Normative Determinations of the Municipal Council of the Environment – COMAM. The interventions foreseen by the program will be submitted to the Environmental Licensing process within the scope of the Belo Horizonte Municipal Environment Secretariat (SMMA) and the Municipal Environment Council (COMAM).

Potential negative social impacts of the Project are related with involuntary resettlement (these impacts and the proposed mitigation measures are considered under ESS 5). The positive social impacts outweigh the negative ones. In the region of Izidora informal occupations, they include: improvements on housing and living conditions and on land tenure safety; gains on mobility and access to labor markets; increased availability of basic public services; reduction of waterborne diseases and improved health conditions; reduction of vulnerability and exposure to flooding and landslides; improved citizen security; and community development and social participation in policy decision-making.

The Borrower has committed in the ESCP to the composition of the Project Implementation including a team of specialists on environmental and social risk management adequate to meet the Project's needs; the training of this staff in the World Bank's Environmental and Social Standards; and the establishment and operation of a system for monitoring, recording and reporting aspects related with Project's environmental and social risks and impacts management.

ESS10 Stakeholder Engagement and Information Disclosure

This standard is relevant. Citizen, community and stakeholder engagement is fully incorporated on Project design. Subcomponents 1.3 and 2.2 will finance activities aimed at building citizen awareness and increasing community and stakeholder participation in the planning and implementation of Project supported activities. This commitment includes consultation with local community leaderships in the Izidora Region to agree with the proposed participatory strategy. Furthermore, Component 3 will include Technical Assistance activities aimed at strengthening the Borrower's institutional with regards to citizen engagement and participatory processes. Finally, a draft Stakeholder Engagement Plan has been prepared and will be consulted before Appraisal. This SEP will be finalized by the Borrower and re-disclosed publicly by 30 days after Effectiveness.

The SEP highlights that Belo Horizonte is one of the cities in Brazil with the most extensive experience with citizen/stakeholder engagement and transparency. The city has pioneered and consolidated its experience with consultative procedures and participatory governance in city management. In general, this commitment is shown by citizen participation in: (a) the decision-making process of the Municipal Sanitation Policy, through the Municipal Sanitation Council (COMUSA) and bi-annual Conferences; (b) the updating of the municipal urban legislation (the City Master Plan and the Land Structuring, Use, and Occupation) through the Municipal Urban Policy Council (COMPUR) and conferences; (c) the definition of the Municipal Housing Policy and legislation, which are object of the Municipal Housing Council (CMH) and bi-annual Conferences; and (d) the 20 year of experience of Belo Horizonte with Participatory Budget (through which 10 percent of the municipal budget for urban development is allocated through direct citizen engagement and 469 works have been selected through public hearings), including the Housing Participatory Budget. Specifically, with regards to the flooding reduction interventions in the Nado and Vilariho Basins (supported by Component 1), the SEP shows they were object of a public hearing in March 2019 and in two meetings



of COMUSA (March and October 2019), where alternatives were discussed and deliberated. In at-risk areas, citizen engagement is also fostered through Rain Alert Nuclei (NAC) and Civil Defense Nuclei (NUDEC) where the local population is involved in prevention actions through volunteers. There are 45 NACs (545 volunteers) and 52 NUDECs (520 volunteers) organized in the city. The SEP shows that the engagement of the City Hall with the population of the occupations and their representatives in the Izidora Region dates back to 2013. The regularization of these occupations as Areas of Special Social Interest was a recommendation of the 7th Municipal Housing Conference, which was done through Municipal Decree 16888/2018 and reaffirmed on the new City Master Plan (Law 11181/2019). Since November 2019, the municipality is operating an Urban Reference Center (CREURB) in the area that promotes the implementation of public polices through the continuous dialogue and consultation with the local population and leaderships that shaped the activities envisaged under Component 2. Several actions have been developed in response to popular demands – such as the Citizen Address Program that gives access to basic services – further described in the SEP.

The SEP identifies the key stakeholders (this stakeholder mapping will be further deepened during implementation as the socioeconomic diagnostic (including socio-economic census for the RAP) of the areas of intervention is carried out) the main stakeholders of the Project. In Component 1, they include: Project-affected people that will be resettled from Vila Flamengo (around 36 low-income families); COMUSA and its civil society commission; The community Council COMUPRA and the NGOs Movimento Deixa a Onça Beber Água Limpa and Projeto Manuelzão; sanitation, energy and gas state agencies (COPASA, CEMIG, GASMIG); the Municipal Civil Defense and NACs. Other interested-parties include the 150,000 daily users of the mass public transport systems of Avenida Vilarinho and Avenida Cristiano Machado that cross points susceptible to flooding. In Component 2, they comprise: PAPs in the four Izidora occupations and other residents and merchants in the closest neighborhoods and its representative organizations; landowners in the surrounding areas; social housing popular movements (Resiste Izidora, Movimento de Luta nos Bairros, Vilas e Favelas/MLB, Brigadas Populares/BP, Coletivo Margarida Alves de Assessoria Popular and Comissão Pastoral da Terra/CPT); the municipal councils of housing (CMH), Urban Policy (COMPUR) and Environment (COMAN); the State Government of Minas Gerais and the state companies of sanitation and energy (COPASA and CEMIG), the municipal government of Santa Luzia. Overall, the 318,431 inhabitants of the Ribeirão Isidoro watershed (especially those directly affected by the existing flood spots – around 7,250 people) and the approximately 12,500 residents of the Izidora occupation are among the interested parties.

The SEP defines the specific needs of the main stakeholders and the most appropriate channels of communication with them to promote awareness and transparency about the intervention. The SEP also describes measures for: community mobilization, organization and strengthening including capacity building of local leaderships (with a special focus on female leaderships), including the identification of other relevant social groups and new leaderships (with special focus on the identification of youth and women groups and leaders) and the composition of a Reference Group for oversight of the interventions. In the Izidora Region, the SEP forecasts capacity building on the topics related with the urbanistic project, participatory workshops to define the urbanistic interventions and Project's socio-educational actions.

The SEP describes how and to whom relevant Project information will be disclosed through the websites and social media channels of Belo Horizonte City Hall as well as through printed materials and the events of Social Mobilization and Organization and Social Monitoring and Management included in the Project's Social Work Plan. It clearly states that these activities will be implemented following the health guidelines set by WHO, the municipal protocols and the World Bank to prevent the spread of COVID-19. The Municipality of Belo Horizonte (in compliance with the Access to Information Legislation – Federal Law 12,257/2011 and Municipal Decree 14,906/2012) keeps a transparency portal at the internet (<https://prefeitura.pbh.gov.br/transparencia/transparencia-e-acesso-a-informacao/o-portal>), which



provides information about the competencies and organizational structure of the City Hall, with addresses, telephones of all units, as well as the opening hours for the public, transfers of financial resources, revenues and expenses, information on public bids, remuneration of public servants, data for the monitoring of all municipal programs, actions, projects and works. If citizens do not find the information they seek in the Transparency Portal, they can request it, regardless of any justification or reason, through the Ombudsman channel, which must respond within a maximum period of time of 20 days, extendable for another 10 days, if necessary, by means of an express justification.

The SEP also defines the Grievance Redressing Mechanism of the Project. It states that requests and complaints will be received through:

- The Social Field Offices that will be open by URBEL in the areas of intervention to house the social workers' team. Social workers will be trained to fill a standard form and refer them to the agencies responsible for resolution as well as to keep the complainers informed about the processing. The Social Field Offices will be open 5 days per week (8 hours per day).
- The Izidora CREURB will also be available for lodging complaints and its officers will also be trained to fill and processing the standard form.

The official city hall's service channels for registering service requests (the website <https://servicos.pbh.gov.br/> and the BH Resolve Office) will also be available. The requests received through these channels will be referred to the Project Management Unit for resolution.

The city's Ombudsman Sub-Controller, who legally has the competence to redress complaints regarding procedures and actions of agents, organs and entities of the direct and indirect administration, as well as of the concessionaires of public municipal service (Municipal Decree No. 16738/2017) will operate as a second layer. Complaints are taken by the Ombudsman whenever the citizens are not satisfied with the response and resolution provided to the request they registered in the Belo Horizonte City Hall's Service Channels. The Ombudsman Sub-Controller is accessible through: the website Portal BH, the phone hot-line 156 (available from Monday to Friday, from 7am to 7pm), the PBH APP (<https://prefeitura.pbh.gov.br/pbhapp> and the Ombudsman Sub-Controller website (<https://prefeitura.pbh.gov.br/ouvidoria/fale-com-a-ouvidoria>). Through these channels, request can be filled nominally, confidentially or anonymously. Following national and municipal legislation requests received by the Ombudsman have to be replied within 30 days. The processing of the complaints can be followed through the internet (<https://prefeitura.pbh.gov.br/ouvidoria/fale-com-a-ouvidoria>), by phone (toll-free number 156) or in person in the BH Resolve Office or the Ombudsman Office.

Finally, the SEP states that, due to current Covid-19 and the required measures of social distancing, the environmental and social risk management tools will be virtually consulted upon as there are currently no conditions to convene in presence meetings.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

This standard is relevant. Labor Management Procedures (LMP) have been prepared and will be enforced in all activities supported by the Project. These Labor Management Procedures will be publicly disclosed before Appraisal. The LMP: (i) identify the types of project workers that will be engaged in the Project and roughly estimates the needed labor force; (ii) set the terms and conditions of employment under which these workers will be hired and the



contractual provisions that need to be put in place relating to contractors for the management of labor issues, including occupational health and safety; (iii) considering the type and location of Project interventions and the different activities to be performed, the LMP include a thorough analysis of the potential hazards to project works and set provisions of preventative and protective measures in line with the Occupational Health and Safety Standard; and (iv) describe the ways through which labor and working conditions will be overseen and the channels through which workers will be able to comply about inadequate working conditions.

Civil servants from the municipal agencies involved on the implementation of project activities as well as State partner agencies that may be involved on the eventual relocation and extension of (a) water and sewage networks (Minas Gerais State Sanitation Company – COPASA), (b) power distribution lines (Minas Gerais State Energy Company – CEMIG) and in the event of any interference with underground natural gas networks (Minas Gerais Gas Company – GASMIG). These civil servants will remain subject to the terms and conditions of their existing public sector employment agreements, per ESS2 paragraph 8, insofar as they are in line with the provisions of ESS 2 related with Protecting the Work Force and Occupational Health and Safety.

Project workers will also comprise:

a) Contracted workers: (i) consultant firms workers' that will be hired for supporting managerial and supervision activities to be carried out by the PIU; (ii) specialists that will be hired to carry out the conceptual studies envisaged under Component 3 and to develop project designs for the works included under Components 1 and 2; (iii) contracted workers engaged through third-parties to perform the social assistance works as well as the construction works envisaged under Components 1 and 2 (whose number have been roughly estimated in 700 for activities of Component 1 and 200 for activities of Component 2). Provisions will be made aiming to promote local women's employment in the project-supported works and activities.

b) Primary supply workers, per ESS2.

c) Community workers, who may be engaged on both a voluntary basis (for instance to participate on the monitoring of local interventions) or as contracted workers. In both cases, the Project will provide courses and professional workshops. The Project will also promote the necessary articulation with the company executing the work for possible use of trained staff in the execution contracts. Indeed, one of the guidelines of the Project is to incentivize contractor to tap into the local labor force and prioritize the hiring of local residents according to their professional skills as this measure not only fosters greater appropriation of the interventions by the local community, but also reduces the risks related with the influx of workers in local communities with low capacity to manage and absorb the incoming labor force as well as other eventual inconveniences that are inherent to the execution of interventions in precarious settlements such as the Occupation Izidora. All provisions that apply to contracted workers with regards to working conditions and contractual provisions are also valid for community workers. There are no impediments to hire migrant workers that are lawfully licensed to work in the country. They will be submitted to the same contractual provisions and will have all benefits and duties that apply to national workers. Therefore, Labor and working conditions of contracted, primary-supply, community or migrant workers will be ruled by the requirements set in the LMP, that consider the robust Brazilian labor laws. The applicable national legislation on minimum age and child labor is equally or more stringent than ESS 2 with regards prevention of child labor (the minimum age is 16 years old and children are not allowed to work in several activities included in the List of the Worst Forms of Child Labor (the TIP List - Decree No. 6481/2012). The TIP List includes, among others: child labor in agriculture, domestic child labor, child labor in drug production and trafficking, urban informal child labor, child labor in solid waste landfills, sexual exploitation of children and adolescents). The LMP makes clear that only when enrolled in Apprenticeship Programs (ruled by the Law of Apprenticeship), children under the age of 16 and above the minimum age of 14 will be allowed to work in project-related activities. All forms of forced labor are also illegal under



ESS2 and the Brazilian laws, which will be duly reflected in the LMP. The LMP set principles of no-discrimination in the work place, equal opportunity and pay, freedom of association and collective bargain of project workers in a manner consistent with ESS2. Finally, the LMP set a code of conduct that aims to prevent all forms of sexual harassment/sexual abuse and exploitation in the working place and with regards to local residents. Considering the context of the Covid-19 pandemic, the LMP emphasize the adoption of prevention measures in the workplace in compliance with the protocols set by the World Bank, the World Health Organization, and the Brazilian Health authorities.

The LMP and the ESCP set the Borrower's commitment with the operationalization of a specific mechanism for redressing complaints related to working conditions and the dissemination of information on the legal venues available to all project workers that consider their complaints have not been properly addressed by this GRM. The ESCP also sets the Borrower's commitment with the elaboration of "Environmental and Social Manual of Works" or "Technical Environmental and Social Specifications" to guide the activities of the contracted companies and the establishment of a system for recording and reporting incidents and accidents directly related to Program interventions

The LMP will be informed to all contractors and primary suppliers and compliance with them will be required and referred to in all bidding documents. The health and safety standards established by the Ministry of Labor's Regulatory Rules, equivalent to the Bank's EHS Guidelines, are part of bidding processes and contracts with contractors (and sub-contractors) and are frequently targeted by local government oversight, which enforces compliance.

ESS3 Resource Efficiency and Pollution Prevention and Management

This standard is relevant.

Based on hydrological and hydraulic studies and good practices, the water reservoir solutions within the Isidoro watershed – with regularization of flow, non-transfer of water flooding downstream surplus – to be supported under Component 1 proved to be the most adequate alternative for sustainable drainage in urban areas. The project will also implement innovative and associated interventions for the sustainable management of urban waters, with the potential to mitigate the consequences of waterproofing roads and public infrastructure. Such interventions, of a complementary nature to structural drainage actions, involve, among others, a list of micro drainage, infiltration (green infrastructure) and reservation (blue infrastructure) measures. The technical feasibility of implementing a wastewater reuse system will be evaluated for Component 1, as the underground reservoirs will have the functionality of temporary storage of flood flows. If it is feasible to implement the wastewater collection system, it must be completely separate from the potable water supply system. Thus, the reuse water must be captured, directed through its own plumbing and taken to reservoirs intended for its reuse in less noble uses, such as wheel washes and the supply of flushing toilets or urinals. The reuse of retained rainwater is not an object of the projected structures, however environmental and water quality studies may be carried out to assess the technical and economic feasibility of adopting the multifunctional use of the reservoir.

For Component 2 interventions, the possibility of implementing wetlands for the treatment of domestic effluents (wetlands) and the installation of sanitary devices for capturing and reusing wastewater will be evaluated, reducing the consumption of potable water and the volume of sanitary effluents to be treated. The implementation of official water networks to the detriment of clandestine ones, as well as individual water meters in the new housing estates, will provide most efficient maintenance, control and distribution, avoiding misuse and leakage. The same can be said about the distribution of electricity. It is also observed that the implementation of adequate sewage networks will



promote the separation of drainage and sewage systems, contributing to clean up the water courses, which currently receive the effluents.

For all stages of infrastructure works in Izidora region (design, construction and operation), construction techniques based on nature and sanitation solutions will be prioritized, which reduce environmental and social impacts, considering: efficient use of energy, water and other resources; maintenance of streams in a natural bed; use of porous pavements in low-circulation roads and trenches and infiltration ditches to increase the permeable area and water retention in the soil; decrease in energy consumption and use of renewable energy, such as solar; measures to reduce pollution and waste, as well as enabling reuse and recycling of materials; use of non-toxic, ethical and sustainable materials; prioritization of active transport (bicycles and pedestrians) increasing the quality of life of the population and decreasing the emission of gases; implantation of agroforestry in remaining areas that increase the permeability of the soil, give a sustainable use of the land and increase the possibilities of food and income of the residents.

Additionally addressing the objective of promoting the sustainable use of resources, the ESMF includes a Subprogram for the Rational Use of Energy, Water and Raw Materials. Furthermore, with regards to the sustainability of materials in the works, the Brazilian Standards (NBR) for civil construction ensure quality, efficiency and environmental respect. Specifically on the use of wood in constructions, the SUDECAP Specifications require products to have legal origin, being purchased from suppliers registered in the environmental agency and with license or authorization to operate. The companies contracted to carry out the works are required, as specified in the bidding process, to use raw material from deposits licensed by the environmental agency and which are as close as possible to the site of the works, in order to minimize costs with transportation and its emissions. The environmental criteria to be adopted when using the deposits of raw materials must be presented and evaluated when defining their use, being linked to the issuance of the earthmoving authorization, to be obtained by the company responsible for carrying out the earthwork interventions.

Waste management during construction is another matter addressed in the provisions included in the ESMF's Hazardous and Non-Hazardous Materials Management Plan that is consistent with the ESS3 and the national legislation for the subject. Technical assistance activities should also address issues relevant to ESS3, which were specified and detailed in ESMF. In addition, it is an usual city practice to use recyclable materials for construction and there are two construction waste recycling stations, which are responsible for recycling waste from works in the city and aim to transform construction waste into recycled aggregates, replacing gravel and sand in parts of the work that do not have structural function. Waste from asphalt pavement substitution can also be reused and URBEL uses this recycled material as a base layer for paving the public roads to be implanted in its works.

In principle, the materials that will be used in the works are classified as non-hazardous by NBR nº 10.004 / 2004 (Brazilian Standards), the majority being inert material (class II-B), such as soil, concrete, steel, among others. However, in the maintenance of the construction site and in the handling of equipment and vehicles, hazardous materials such as oils, paints, lubricants, batteries and lamps may be required, the management of which must comply with legal requirements. According to CONAMA (National Environmental Council) Resolution No. 307/2002, hazardous waste from the civil construction process is classified in class D and must be stored, transported and sent to the industrial landfill in accordance with specific technical standards, including asbestos waste, if it occurs in the buildings to be demolished. Waste oils and paints must have specific management processes and partnerships with suppliers can also be studied so that they are returned, according to the reverse logistics system. NR 15 sets out requirements for correct handling of asbestos-based products, for protecting the health of workers that may have to handle this waste, although it is not expected. All waste receiving units must have an Environmental License.



The ESMF also contains provisions for the management of contaminated areas, which consist of adopting strategies and taking sequential actions necessary to identify and characterize the impacts associated with contamination, including: risk estimation; determination of the most appropriate forms of intervention, when applicable; minimization of risks and possible damages to people, the environment or other assets to be protected; and monitoring through periodic measurements of the affected environments. The contamination that occurred in the past and still persists is a major challenge in the management of the contaminated areas. For this reason, it is necessary to carry out a historical study before any demolition or work to be carried out, in order to identify such risks, as well as to adopt the appropriate corrective and mitigating measures. In Belo Horizonte, the management of contaminated areas is carried out by the Municipal Environment Secretariat. The State Environment Foundation (FEAM) carries out environmental licensing of any necessary interventions, considering the use of proper methodologies that include the historical analysis use of industry, commerce and services that may have resulted in contaminated sites.

Another issue considered in the ESMF (Subprogram of Pest Control) concerns to pesticides or chemical methods that may be used for the purpose of controlling urban pests during drainage works in Izidora's region infrastructure works, which must follow ESS3 requirements. The Project does not involve significant pest management issues. The Zoonoses Directorate of the Belo Horizonte City Hall, which is regionalized by the nine regional offices of the Municipality, is responsible for pesticide management and acts according to guidelines from the Brazilian Government's Ministry of Health, which meets ESS3 requirements. Considering the spectrum for controlling synanthropic fauna, specifically for those species of interest to public health, the routine is the scheduled service or according to spontaneous demand captured via the citizen attendance service (SAC). The risk assessment for pesticide use is carried out by preparing technical reports containing recommendations appropriate to the situations encountered in the field and the proper control measures.

The Project's net GHG emissions are -10,685 tons of CO₂ equivalent (tCO₂-eq) over the economic lifespan of 30 years, stemming from Project gross emissions of 24,725 tCO₂-eq and baseline emissions of 35,410 tCO₂-eq. The ESCP sets Borrower's commitments with: (a) the adoption of efficient technologies (e.g., photovoltaic panels, LED lights, etc.) and guidance for the rational use of energy and water in built housing developments and in urban development interventions; (b) the insertion in the Social Work Plan of practical guidelines on the rational use of energy and water by the residents of the new housing estates built by the project; (c) the adoption of pollution prevention and management measures as well as hazardous and non-hazardous waste management measures; and (d) the adoption of pest control measures that give preference to integrate pest management or integrated vector management approaches.

ESS4 Community Health and Safety

This standard is relevant.

Given the type of proposed investments, it is anticipated that, during the implementation of civil works some temporary, site-specific, and reversible adverse impacts may occur at the community level bringing risks to community health and safety. These risks are related with the increase in noise levels and production of debris; soil movement and consequent air pollution by particulate material; potential adverse impacts on water quality; management of hazardous waste and chemical materials; circulation of trucks and heavy machinery that can lead to traffic accidents and impair traffic and road safety; potential proliferation of synanthropic fauna and use of pesticides in its control; and the temporary influx of workers.



The Borrower will ensure that structural elements will be designed and constructed by competent professionals and certified or approved by competent authorities or professionals as required by ESS 4 and the Brazilian legislation and technical standards of Ministry of Labor. The new public facilities and the houses built to receive the resettled population will incorporate climate, water and energy efficiency features, nature-based constructive technologies (green and blue infrastructures), and use sustainable materials aiming to reduce the impacts on ecosystem services and improve housing standards. In addition and in compliance with the Brazilian legislation on accessibility, all community infrastructures and housing under the project will ensure safety and universal access of people with disabilities.

Additionally, the Project's ESMF includes provisions for the preparation and implementation of:

- a) A Community Health and Safety Program that includes provisions to control noise, vibration, guarantee the road safety and avoid adverse impacts of excavation works in neighboring buildings, prevent diseases and other adversities, ensure accessibility;
- b) A Hazardous and Non-Hazardous Waste Management Program, including provisions for the management of construction debris, hazardous waste, chemicals and pesticides as well as the recovery of contaminated areas;
- c) An Environmental Risk Management and Pollution Control Program, addressing issues related with control of atmospheric emissions, liquid effluents and monitoring of water quality);
- d) A Work Safety Program containing measures to prevent and respond to accidents, protecting both the labor force and the resident population. These measures must include, among others, the efficient signalization and control of entrance in work sites, the adequate maintenance and periodical technical inspection of vehicles, equipment and machinery, the operation of vehicles and machinery only by professionally trained drivers and operators, and the use of PPEs.
- e) An Environmental and Sanitary Education Program and a Urbanistic Plan for increase environmental awareness among local people of environmental issues and involve the population on the planning, implementation and maintenance of public equipment and services that better fit the local context and demands;
- f) A Social Communication Plan for providing relevant information and convening local stakeholders to discuss the interventions before the construction works start aiming to minimize disturbances these works may cause on the ordinary life of neighboring communities and to make the local population aware of safety procedures and about emergency preparedness and response measures that need to be followed; and,
- g) A Program on Nutritional Safety (fostering urban agriculture, agroecology and agroforest systems to increase food security among the low-income and vulnerable families within the area of intervention).

As mentioned under ESS 2, compliance with a Code of Conduct will be required from all contractors and Project Workers. Guidance related with adequate behavior of project workers in their daily relationships with the local communities will be periodically reinforced and emphasis will be given to aspects related with sexual harassment and fraternization. Furthermore and considering the context of the Covid-19 pandemic, the Community Health and Safety Program emphasizes the adoption of prevention measures in compliance with the protocols set by the World Bank, the World Health Organization, and the Brazilian Health authorities. Finally, the Borrower will monitor and report to the Bank any project-related incidents and accidents, as set out in the ESCP.

All works in the project will follow the concept of universal access.

The Project does not involve any actions related with new, existing or under construction dams.

The ESCP sets Borrower's commitments with: (a) the adoption of road safety measures (including vehicle and equipment maintenance, operator training); (b) the adoption of signaling measures, fencing and control of entry and exit of construction sites; (c) the adoption of management measures for synanthropic fauna; (d) the adoption of



biosafety measures minimizing the risk of disease transmission (waterborne, Covid-19, etc.); and (e) the articulation with Civil Defense for community action aimed at readiness and response in the face of emergency situations.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is relevant. Flood reducing works in targeted areas of the Nado and Vilarinho basins and interventions to contain the advance of informal urban sprawl over environmentally sensitive areas, improve the precarious living conditions and reduce populations living in areas with geological risks and environmentally protected areas in the Izidora Region would involve the relocation of around 1,000 families. This estimate is based on drone flights and the counting of built structures that may be affected.

For Component 1, it was provisionally identified the need to acquire five areas. The location of these reservoirs were selected according to the hydrological and hydraulic studies that considered three alternatives balancing environmental, social and financial costs and benefits. The expropriation of these lands will require the relocation of up to 40 families in Vila Flamengo neighborhood. For Component 2, it is estimated the need to remove up to 980 low-income families and small business (around 20% of the population on the informal occupations of Vitória, Esperança, Rosa Leão and Helena Greco). Ninety percent of the PAP will be relocated from areas of geological and flooding risk or unsuitable for housing use and 10 percent because of urban upgrading works.

As project designs for these works are still to be developed and will be finalized with the resources of the Loan during implementation, the Borrower prepared a Resettlement Policy Framework (RPF). The draft RPF was publicly disclosed and consulted with relevant stakeholders before Appraisal. The final RPF will be disclosed within 30 days of Project Effectiveness.

The RPF covers all elements required by ESS 5, including: procedures for consultation with PAPs and socio-economic census of PAPs; the requirement of broad dissemination of a cut-off date; the provision of different alternatives of compensation to meet their needs, ensure compensation of affected assets at replacement costs and allow for livelihood restoration; and a description of the grievance redress mechanism. The RPF takes into account:

- Lessons learned in other Bank projects elsewhere (including the lessons from the P088966 Teresina Enhancing Municipal Governance and Quality of Life Project) and from the 2020 Brazil Social Safeguards Portfolio Review;
- The main guidelines of Belo Horizonte's Municipal Housing Policy (Resolution LII- Deliberation of the Municipal Housing Council, Law 10,887/2015 and its Regulatory Decree 17,219/2019) and Post-Resettlement Program (instituted by Municipal Decree 14,641 of November 10, 2011) - including: (a) the preference of PAP's resettlement in a location as close as possible to the place of origin and (b) the mandatory implementation of resettlement assistance measures and Social Work Plans (SWP) throughout the entire resettlement process (The city's Housing Policy is deliberated by the Municipal Social Housing Council and Conferences - participatory instances with large representation of civil society and popular housing movements);
- Consultations held with residents and leaderships of the Izidora occupations since 2015, when the Judicial Center for Conflict Resolution and Citizenship for Urban and Rural Territorial Demands and Great Social Repercussion (CEJUSC BH) started a mediation process between the occupants of the area and the landowners with the participation of the municipal and state governments. An agreement was reached in 2018, allowing the permanence of the occupants in the area and the beginning of the planning process of urbanization and land regularization of the



area by city of Belo Horizonte. The urbanization and environmental protection actions to be supported by the Project are a demand of the population of the Izidora occupations.

The ESCP states the timeline for the preparation of the Resettlement Action Plans (RAP) that will be fully implemented and completed previously to the beginning of the construction works. These RAPs will take into account the magnitude of the risks and impacts caused by the each construction work envisaged under Components 1 and 2.

It is expected that:

(i) Five RAPs will be prepared – as soon as project designs are completed - for the construction works of the flooding reducing facilities financed by Component 1:

- a. The Córrego do Capão reservoir may need the resettlement of 36 families living in the Vila Flamengo low-income settlement;
- b. The Anuar Menhen reservoir will require the acquisition of one plot of land where there is one building;
- c. The Vilarinho 3 reservoir will require expropriation of one free and vacant plot of land;
- d. The Nado 2 reservoir will require expropriation of one plot of land where there is one commerce building, which economic activities will be compensated; and
- e. The Candelária reservoir will require the expropriation of one plot of land with several built structures.

(ii) One RAP will be prepared in response to the needs of the interventions envisaged under Component 2 that will be discussed and deliberated listening the local population. It is expected these works will affect 980 PAPs (vulnerable families and small business) in the four Izidora's occupations.

The RPF offers compensation alternatives for PAP according to their entitlements and affected assets:

- Owners and occupants are offered: (a) the reallocation in housing units of 2 and 3 bedrooms and in units for resettlement of businesses that will be built within the intervention area, or (b) the resettlement in other houses acquired in or outside the region, (c) cash compensation for the improvements made on the land (mainly in the case of non-residential use), or (d) inclusion in the Municipal Program of Social Rent. PAP that choose the first option would also be eligible for temporary enrollment in the municipal Bolsa Moradia Program – i.e., cash allowances for temporary leasing of vacant housing properties, with good habitability conditions - until their final resettlement in one of the 480 housing units to be built under the Project.
- Tenants will be eligible for resettlement in one of the 480 housing units to be built under the Project or enrollment in the Municipal Program of Social Rent.
- Landlords will receive cash compensation for their rented assets.
- Owners and occupants of commercial buildings or buildings used for shelter and commercial activities (mixed use) are guaranteed assistance with resettlement and presented with alternatives for maintaining their economic activity. These alternatives include (i) cash compensation or (ii) cash compensation plus the offering of remnant areas where they can rebuild their commercial establishment. Additionally, they will also receive (iii) compensation for foregone profits. Foregone profits will be compensated for a period between the demolition of the property until the delivery of the area for reinstallation of the activity plus transitional allowances for a period up to four months, limited to the date of commencement of the commercial activity at the new location.
- Agricultural producers will be compensated at full replacement costs for their crops and productive structures and/or allowed to keep their activities in nearby reserved public spaces. Training and technical assistance on agroecology will be provided for those who want to continue these activities (as envisaged in the Project's SWP – job and income generation axis – and the Local Economy Promotion Program).
- As part of the SWP, job requalification and entrepreneurial skills training will be offered according to the skills of the PAP who are willing to take the classes. Groups of producers will also be offered training and technical



assistance in urban agriculture, agroecology and agroforestry as well on managerial skills to improve their livelihoods through participation in “solidarity economy” associations or cooperatives.

- Vulnerable and disadvantaged people – the elderly, the disabled people, women and children in situation of domestic violence – will be referred according to their needs to social protection programs available.

These different options meet the different needs of PAP with different standards of living, livelihoods and sources of income and they will freely choose among them.

The RPF sets the guideline of the Project’s SWP, which is organized in five axes: Social Mobilization and Organization, Social Monitoring and Management, Socioeconomic Development, Environmental and Patrimonial Education and Resettlement Support. It aims to: provide information on the Project’s to the local community, build community commitment with Project goals and outcomes, and foster community participation and social control over the interventions: promote PAP’s ownership of their new housing areas and strengthen or establish socio-cultural bonds among the new neighbors; liaise PAP with private companies, non-governmental organizations and public entities located in the neighborhood as well as enroll eligible residents in social protection policies; improve socioeconomic conditions through support to local entrepreneurial and cooperative initiatives, professional training and job qualification courses based on the identification of local productive potentials; and monitor and evaluate the effectiveness of the resettlement process and the expected improvements on people’s lives. Activities to be included in the SWP will be discussed and deliberated in a participatory way listening the local population and PAP.

URBEL will be in charge of the resettlement process and holds a robust experience in similar issues in several settlements across the city, being widely recognized as a local government agency of excellence in resettlement and social housing policies. The city's budget has resources allocated for resettlement needs. In 2018, the city has an Executive Group for the control and monitoring of public areas, preventing invasions. Since 2020, one group is monitoring the Izidora Region.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is relevant.

The Environmental and Social Impact Assessment confirmed that no significant impacts on biodiversity and the sustainable development of living natural resources are expected from the Component 1 proposed works because they will be developed within an urban environment that has already been quite modified in relation to its natural characteristics. These modified habitats (also object of attention of this standard) are mainly composed by the banks of watercourses where the native vegetation has been suppressed or no longer exist, parks, backyard gardens and arborized public squares and streets that provide shelter for small representatives of the fauna (especially birds and small mammals). Adverse impacts are not expected from the works proposed by Component 2 either. On the contrary, one of the intended objectives of this component is to preserve 280 water springs and 64 streams as well as the native vegetation cover - including permanent preservation areas – in the Izidora Region.

The Izidora Region is the last large unoccupied green area in the city of Belo Horizonte and of high environmental value, covered by riparian forests and seasonal semi-deciduous forests. However, there is some evidence of the presence of drivers of environmental degradation, mostly related with vegetation suppression related and pollution of water bodies due to urban sprawl and the lack of basic infrastructure in precarious settlements as well as to small farming in the surrounding areas. Project interventions in the Izidora Region cumulatively aim to guarantee the preservation of the existing natural attributes, to contain environmental degradation processes and recover degraded areas and, consequently, to increase local biodiversity.



To ensure protection and conservation of biodiversity and promote the sustainable management of living natural resources while supporting livelihoods of local communities, the ESMF has incorporated guidelines for the preparation and implementation of:

- (a) An Integrated Urban Water Management Plan aiming to address problems with the pollution or contamination of water bodies by diffuse pollution, liquid effluents and other pollutants. This plan also contains measures aiming to prevent and mitigate floods and water pollution, through the adoption of nature-based solutions combining conventional drainage structures and treatment of water quality with green and blue infrastructures, control of rainwater runoff, the recovery of valleys and the maintenance of water streams in their natural beds (stabilization of their margins and containment of erosive processes).
- (b) A Landscape and Vegetal Recovery Program based on the preservation of existing tree specimens in the intervention areas, the provision of native specimens compatible with the plant physiognomies of the planting site and the promotion of biodiversity and ecological connectivity between green areas.
- (c) A Green Areas Implementation and Management Plan aiming to guarantee the preservation of the existing natural attributes of the Izidora Region and to consolidate ecological connectivity between a mosaic of green areas (conservation units, parks, squares, open spaces for public use, permanent preservation areas, among others through the implementation of conservation units, parks, squares and free spaces for public use as well as the maintenance and recovery of permanent preservation areas). This plan is also intended to promote the appropriation, maintenance and conservation of public spaces together with the community, through educational, cultural and recreational activities and to redefine green areas as spaces for generating employment and income through food production in agroforestry systems, whenever compatible with the preservation of natural attributes.
- (d) A Plan for Recovery of Degraded Areas that aims to increase local biodiversity by containing environmental degradation processes and recovering degraded areas, supporting: (i) studies for the characterization of degraded areas, identification of the causes of environmental degradation and its impacts on the environment, and proposition of measures to eliminate these drivers and promote environmental recovery; (ii) a monitoring and evaluation of these measures; and (iii) the promotion of urban agriculture and educational, cultural and recreational activities in green areas in order to foster their appropriation and management (in partnership with the municipality) by the local community.

The ESMF also includes: a Community Health and Safety Program that, among others, sets measures to deal with the proliferation of synanthropic fauna (insects, rats and scorpions; a Subprogram for Pest Control to rule the use of pesticides or chemical methods of pest control; and measures to carry out the rescue and release in the green areas of fauna that, during civil works, can be found on the construction sites or on the road system. Project interventions are not related to primary production or extraction of natural resources, and, a priori, there will also be no direct acquisition from primary suppliers. However, in order to avoid the purchase of natural resource commodities originated from areas where there is a risk of significant conversion or degradation of natural or critical habitats, the ESMF includes the provision that the contractors must declare their commitment to only purchase such commodities from certified primary suppliers. Such rules will be set out in the bidding notices for Components 1 and 2.

Municipal secretariats and agencies in the city of Belo Horizonte have proven experience in the process of urban environmental management and environmental licensing, which ensures that the mitigation hierarchy will be applied to minimize adverse effects of the Project's implementation. In case there is no locational solution that allows the preservation of a tree specimen, its suppression will be requested to the Municipal Environment Secretariat (SMMA) and its environmental compensation will occur according to what is recommended in the COMAM Normative Deliberations. The landscape design must provide native specimens compatible with the planting site, taking into account factors such as pedestrian circulation, maintenance and planting conditions. The feasibility of increasing the



afforestation of the surroundings of all interventions is also evaluated. For Component 1, it is planned to create spaces for public use over deep (underground) reservoirs, along the same lines as those proposed for Vilarinho 2 and Nado 1 Reserves (interventions for the return period of 10 years, in the environmental licensing phase), with garden areas, blocks, playgrounds and an open-air gym, guaranteeing accessibility conditions for users. For Component 2, road afforestation and public parks are planned, especially on the sidewalks and remaining areas of road interventions. The use of exotic species will only be allowed in exceptional circumstances, provided they are technically justified. The technical justification will include the evaluation of the risks of propagation and dispersion of exotic species, as well as preventive and control measures.

In the ESCP, the Borrower committed to: the adoption of measures to rescue and release in green protected areas the fauna specimens found at work sites; the inclusion of environmental education content in the activities Social Work Plan; the promotion of the involvement of beneficiary communities in the protection and management of existing / to be created Environmental Protection Areas; the adoption of measures to maintain natural drains, water courses and protect their permanent preservation areas in the Izidora Region; and the guarantee that construction works will only use wood from certified origins.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is not currently relevant. The team carried out a screening exercise to determine if Indigenous Peoples are present in or have collective attachment to the project area. This screening exercise concluded that this standard is currently not relevant in spite of the fact that there are individuals and small groups who migrated to Belo Horizonte's urban area in search of economic opportunity who self-identify as Indigenous Peoples. This conclusion is based on the fact that these individuals are spread all over the city and there is no evidence that they meet any of the four criteria set out in ESS7.

The population of the city of Belo Horizonte that had self-declared as Indigenous Peoples counted for 3,477 people in 2010 (the last official Demographic Census). They count for 0.15% of the city's population. According to a mapping exercise made by the Center of Urban Studies of the Social Sciences College of the Federal University of Minas Gerais, based on the microdata of the 2010 Demographic Census, the indigenous peoples in Belo Horizonte were largely spread and were found in very small numbers in all nine administrative regions (at most they counted for less than 39 people per neighborhood).

The Project will intervene in limited areas of the North Region of Belo Horizonte within the Isidoro River Watershed, where the presence of Indigenous Peoples is also not found.

ESS8 Cultural Heritage

This standard is relevant, despite the fact that Project interventions have no interference with cultural heritage (archeological sites, built heritage, natural features with cultural significance or movable cultural heritage). Brazil and the city of Belo Horizonte have a well-developed legal framework for protection of its cultural, historical and archeological heritage. At the national level, the Institute of National Historical and Artistic Heritage (IPHAN), directly responsible for this matter, has adequate normative tools to deal with these aspects, under the environmental licensing process. Law 3,924/1961 rules over the property of pre-historical and archeological heritage, its use and exploitation as well as chance find procedures. IPHAN requirements and procedures are similar to the requirements of ESS 8. IPHAN Instruction 001/2015 establishes administrative procedures to be observed in the licensing processes of which this agency participates. The entrepreneur and archeological coordinator are responsible



for the execution of the activities approved by IPHAN, which also analyzes the plans, programs, projects and measures for environmental control envisaged on the Project’s ESMF before the issuance of the Installation License, which may include a Cultural Heritage Plan, including measures to ensure the preservation and safeguard of cultural heritage and monitoring and report guidelines among other aspects. At the municipal level, the Municipal Law 3802/84 created the Deliberative Council for Cultural Heritage of the Municipality of Belo Horizonte (CDPCM-BH) and, since 1993, there is a municipal agency responsible for the implementation and management of the protection policy for the cultural heritage of the city. Nowadays, this attribution is under the responsibility of the Directorate of Cultural Heritage, Public Archive and Conjunto Moderno da Pampulha (DPAM).

This last agency has carried out an assessment of project interventions and concluded that they: (a) have no interference with legally protected cultural heritage areas; (b) are not close to cultural assets protected by Deliberative Council for Cultural Heritage of the Municipality of Belo Horizonte (CDPCM-BH); (c) are not close to assets listed at the state and federal level; and (d) have no no interference with known archaeological sites and materials. Hence, there is no specific guideline for the protection of cultural heritage to be attended to in order to carry out the intended interventions.

Nevertheless, the requirements of ESS 8 will be considered in all civil works and constructions supported by the project, some of which will require excavation works. The client will be required to avoid impacts on cultural heritage or to identify and implement measures to address these impacts in chance finding situations. The project team will ensure that no cultural resources will be affected by project investments. The Project’s ESMF includes a section establishing the requirements that are common to ESS 8 and IPHAN’s normative. This session addresses the procedures set by IPHAN to deal with: chance finds; stakeholder consultation to determine whether disclosure of information regarding cultural heritage could compromise or jeopardize its safety or integrity and to allow continued access to the cultural site by its users; and how to protect archeological sites and materials, built heritage, natural features with cultural significance and movable cultural heritage. The ESMF also proposes the inclusion of contents related with the valorization of the intangible cultural heritage as part of the awareness raising activities to be carried out in the scope of the Project’s Social Work Plan.

The Borrower’s committed in the ESCP to adopt rescue and preservation procedures for “chance finds” and to insert in the Social Work Plan contents for the valorization and enhancement of intangible cultural heritage.

ESS9 Financial Intermediaries

This standard is not currently relevant. The project will not involve Financial Intermediaries.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework? No

Public Disclosure



Areas where “Use of Borrower Framework” is being considered:

The Project is not considering the use of Borrower Framework.

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: Municipality of Belo Horizonte

Implementing Agency(ies)

Implementing Agency: Municipal Secretariat of Works and Infrastructure (SMOBI)

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VI. APPROVAL

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Practice Manager (ENR/Social)	Maria Gonzalez de Asis Cleared on 20-Feb-2021 at 09:14:25 GMT-05:00
Safeguards Advisor ESSA	Angela Nyawira Khaminwa (SAESSA) Concurred on 23-Feb-2021 at 00:30:5 GMT-05:00