



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 07-Jun-2019 | Report No: PIDC27146

**BASIC INFORMATION****A. Basic Project Data**

Country Brazil	Project ID P170682	Parent Project ID (if any)	Project Name Southern Brazil Urban Resilience Program (SUL RESILIENTE) (P170682)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Jan 13, 2020	Estimated Board Date Mar 24, 2020	Practice Area (Lead) Urban, Resilience and Land
Financing Instrument Investment Project Financing	Borrower(s) Banco Regional de Desenvolvimento do Extremo Sul (BRDE)	Implementing Agency BRDE	

Proposed Development Objective(s)

To promote resilient investments in the municipalities of Southern Brazil States by providing access technical assistance and support towards disaster risk mitigation interventions.

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

Total Project Cost	125.03
Total Financing	125.00
of which IBRD/IDA	100.00
Financing Gap	0.03

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	100.00
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Non-World Bank Group Financing

Counterpart Funding	25.00
Borrower/Recipient	25.00



Environmental and Social Risk Classification

Substantial

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. After rapid growth and social progress between 2001 and 2010, Brazil's economy first stumbled and then fell into deep recession, threatening a decade of development progress.** Fast economic and social progress between 2001 and 2010 led to unprecedented reduction in poverty and inequality: 24.8 million Brazilians escaped poverty between 2006 and 2015 and the Gini coefficient of household income fell from 0.59 in 1999 to 0.51 in 2015. However, the deterioration in internal and external environment led to a decline in growth after 2010. The economic crisis precipitated a rapid rise in unemployment, with job losses of 2.6 million in 2015 and 2016. The unemployment rate peaked 13.6 percent in March 2017 and has slowly declined to 12.7 percent in March 2019. As a result, poverty increased to 21 percent in 2017. With on-going tepid economic growth poverty is estimated to have leveled off at 20.9 percent in 2018. The economic recovery remains weak with 1.1 percent growth in 2017 and 2018, with 1.8 percent growth projected in 2019.
- 2. Restoring fiscal sustainability, resuming growth and increasing investments in infrastructure are among the most urgent challenges for Brazil.** Brazil has one of the lowest investment levels in infrastructure when compared to its peers. The country's total investment is of only 2.1 percent of the GDP. Higher levels of investment in infrastructure will be needed to ensure economic growth is resumed, maintenance of existing infrastructure stock is in place, and access to social services is expanded. This calls for improvement in the planning and implementation capacity, as well as for mechanisms to leverage public and private resources to finance sustainable investments in infrastructure.
- 3. Sub-national governments' ability to cope with large fiscal disequilibrium and provide infrastructure at the local level is particularly challenging.** The economic crisis has caused a drastic decrease in direct investments from the Federal Government's sector investment programs such as water and sanitation, drainage, and integrated urban upgrading. According to Federal Government¹, only 69.7 percent of activities planned under the Growth Acceleration Program (PAC) were completed by 2018. A great number of municipalities (small and medium-size ones in particular) have difficulties in accessing funds (grant or credit) for investments in urban infrastructure.

Sectoral and Institutional Context

- 4. Brazil's rapid urbanization process over the last 60 years was characterized by lack of planning and poor access to services.** In 1960, less than half of Brazil's population lived in urban areas. In the last 60 years, Brazil's development entailed a massive migration to large cities, where jobs were primarily located. A large proportion of the poor migrants in search for jobs and better living conditions in the city centers ended up settling in high risk terrains such as high slopes, creeks and low-lying areas. Alternatively, they occupied housing complexes located in peripheral areas that lack infrastructure and service. Policies and programs addressing informal settlement upgrading and infrastructure provision were initiated since the 1980's, accompanied by the development of DRM-specific relevant legislation, which emerged and evolved over the 2000's. But the evolution was not accompanied by the capacity of subnational

¹ <http://www.pac.gov.br/pub/up/relatorio/37855886e9418dce3f9baf3128444233.pdf>



governments for planning, implementation and enforcement of the regulations. As a result, many Brazilian cities continue to have large informal settlements and high exposure and vulnerability to climate events.

5. **The projected shift in demographic trends towards medium-size cities is likely to bring about significant challenges in the near future.** By 2013, the share of Brazil's urban population had increased to 85 percent. Population's growth is expected to continue annually by nearly 1.2 percent. It is expected that demographic projections will shift towards medium-size cities over the next 20-30 years. This could bring significant challenges, as governmental agencies have limited financial, technical and management capacities to keep up with the needs of a growing population and to address problems such as urban sprawl and climate / disaster externalities. Cities lack disaster risk knowledge, human resources and institutional capacity to implement cross-cutting policies, and they also lack financial resources for investment to mitigate disaster risks.
6. **The Disaster Risk Management and Climate agendas in Brazil have been consistently neglected.** Until recently, Brazilian authorities and the public strongly believed that the country was disaster free. In fact, seismic hazards are moderate or almost nonexistent and extreme temperatures are not commonly observed, which reduces the perception of exposure to substantial natural hazards. However, Brazil often faces recurrent hydrometeorological events, such as floods, runoff, landslides, and storms that cause human and asset damage. Climate change is resulting in more frequent and more intensive hydromet events that, combined with unregulated urbanization process, as well as insufficient infrastructure, elevate the exposure and vulnerability, thus generating significant and frequent human and economic impacts.
7. **Impacts due to disasters and climate change are expected to grow.** Through its lasting Technical Assistance sustained by the Global Facility for Disaster Risk Reduction (GFDRR), the World Bank has been able to develop cutting edge knowledge on Brazil's exposure to disaster risks. For instance, between 1995 and 2014, Brazil has reported losses on the average of BRL 800 million monthly according to an assessment of over 23 thousand reports from National, State and Municipal Civil Defense. In addition, a novel study in Santa Catarina led to the understanding that disaster events can lead to annual average losses of BRL 645 million while a 20-year return period event can incur losses up to BRL 2.3 billion to the State. The report gave the WB Team the ability to project future losses and therefore be better prepared to justify investments to mitigate risks through urban resilience lenses².
8. **The Southern Region is no exception to the increasing urban and disaster issues in Brazil.** With an extension of 563,802 km² and a population of 29.6 million inhabitants (85% in urban areas), the region encompasses the states of Paraná, Santa Catarina, and Rio Grande do Sul. It is recurrently affected by floods, flash-floods, droughts, landslides, windfalls, among others. According to Federal Data (S2ID System³), 8,428 events were classified and reported by the Civil Defense as disasters in the three Southern States between 1991 and 2017, which resulted in 459 deaths, 1.87 million people displaced or made homeless, and a total of 36.87 million people affected. In addition, a recent World Bank study⁴ pointed out that estimated damages, based on municipal records, from 1995 to 2014 totaled BRL 3.74 billion for the housing sector and BRL 6.45 billion for the infrastructure sector. Complementary analyses indicated that losses due to natural disasters accounted for BRL 2.83 billion for the public sector and BRL 14.13 billion for the private sector.
9. **As a multi-state development bank, BRDE (*Banco de Desenvolvimento do Extremo Sul*) has started its financing**

²<http://documents.worldbank.org/curated/en/225111496862182949/Santa-Catarina-disaster-risk-profiling-for-improved-natural-hazards-resilience-planning>

³ S2ID: Sistema Integrado de Informações de Desastres [<https://s2id.mi.gov.br/>]

⁴ Relatório de danos materiais e prejuízos decorrentes de desastres naturais no Brasil 1995-2014 : <http://documents.worldbank.org/curated/en/849781483696189311/Relatório-de-danos-materiais-e-prejuizos-decorrentes-de-desastres-naturais-no-Brasil-1995-2014>



support to municipalities. BRDE is a state-owned development bank operating in South Brazil – Paraná, Santa Catarina and Rio Grande do Sul. The bank operates multiple credit lines (mainly for the private sector), in areas, such as agriculture, infrastructure (energy, transports, ports etc.), retail commerce, technological innovation, services and industry. BRDE has also a proven track record (confirmed by the WB’s initial assessments) in lending to municipalities. More recently, in 2015, they have launched *BRDE Municípios*, a credit line targeted at municipalities for a broad range of investments, including sustainable cities (clean and renewable energy, public lighting and energy efficiency, SWM), municipal infrastructure (urban mobility, sanitation and machinery for road rehabilitation), tourism and regional development.

10. **Building on its current portfolio with municipalities, BRDE has decided to partner with the World Bank to deepen its support to municipalities by investing in climate / disaster risk mitigation and urban resilience.** This partnership will expand BRDE’s ability to support municipalities beyond simple infrastructure investments with a focus on much needed investments on climate/disaster related vulnerabilities and urban resilience. Through BRDE as a financial intermediary, World Bank support will also reach municipalities, especially smaller ones with less than 100K inhabitants, which lack access to credit and external technical support.
11. **The proposed operation will be guaranteed by the Federal Government and will disburse through BRDE, operating as a Financial Intermediary (FI).** BRDE will then on-lend to subnational / municipal governments, conditional on those sub-national governments meeting certain criteria, such as (i) creditworthiness; (ii) relevance of the resilience agenda to the municipality; and (iii) technical soundness and readiness of the proposed demand, in satisfactorily addressing vulnerability and exposure factors. BRDE considers financing fiscally healthy municipalities, showing satisfactory creditworthiness ratings⁵. The final beneficiaries would be a limited number of sub-national / municipal governments, each to enter with BRDE agreements for financing subprojects fitting their specific urban resilience demands. Sub projects will vary in scale and scope, but average sub-loans will be around USD 5 million. Where appropriate, investments to municipalities can be complemented by lending to the private sectors via BRDE’s private sector financing window.
12. **BRDE operation will serve as a pilot to develop, test and improve this model, which if successful can be then be replicated.** This will be the very first operation in urban resilience in Brazil that will be using a regional development bank to promote a sector agenda. As such, a two-fold strategy has been defined for this operation to ensure replicability: (i) to develop, implement and improve a financial mechanism to promote urban resilience investments (structural and non-structural) in a series of municipalities; (ii) to provide finance access to municipalities with less than 100 thousand inhabitants but fiscally healthy according to the BRDE’s standards. While the project will leverage an existing line of credit from BRDE to finance municipal improvements (i.e. *BRDE Municípios*), it will also promote a variation on the nature of investments by the requesting borrower (BRDE) and sub-borrowers (municipalities) to incorporate disaster and climate risks into proposed investments. If successful, the model can be easily scaled up both by BRDE to much more municipalities with more sector coverage. Finally, lessons learned and improvements in its technical and financial model (on fiduciary and procurement arrangements, on social and environmental risk management practices, and on currency risk management and parameters, among others) can be used to inform a framework and portfolio-level approach with other national-level SOEs / SFIs⁶ and also with the Ministry of Regional

⁵ Southern municipalities show evidence of strong creditworthiness, as 53.74% of them are rated CAPAG A- and A+; while 34.68% are rated B- and B+. As such, an overall 88% of the 1,191 municipalities in the region demonstrate a sound fiscal and low credit risk situation to benefit from the intended BRDE Urban Resilience Project. [SOURCE: FGV]

⁶ The Urban team has, for instance, started a promising dialogue with *Banco do Nordeste* (BNB), which is a Federal development bank operating in nine States in Northeast Brazil.



Development⁷.

Relationship to CPF

13. **Alignment with the CPF.** The proposed project is fully aligned with the FY18-23 Country Partnership Framework (CPF)⁸ for Brazil, more specifically with Focus Area 3: “Inclusive and sustainable development” and Objective 3.2: “Provide more inclusive and sustainable urban services”. The CPF calls for the World Bank to support in the implementation of strategies to build resilience in urban areas. As stated in the CPF: “*The Bank will continue to support the Brazilian government’s efforts to build resilience of populations, infrastructure, and production systems, by reducing vulnerability, adapting to climate change, and improving social services*”. The document also mentions the need to (i) promote better urban planning and land use to reduce space segregation; (ii) improve the environmental quality of cities; (iii) reduce the vulnerability and exposure of low-income communities to environmental degradation, natural hazards, and climate change; and (iv) increase the capacity of the most vulnerable communities to cope with the manmade and climate change related stressors that impair their livelihood and well-being. Based on the very positive qualification of the Carta Consulta on May 30th, 2019⁹; the priorities set for this project are in line with the new eligibility criteria set by COFIEX¹⁰ and therefore suit well both the National and World Bank agendas.

C. Proposed Development Objective(s)

To promote urban resilience in the municipalities of Southern Brazil States by increasing their access to financial and technical support aimed at mitigating and/or avoiding disaster risks.

Key Results (From PCN)

14. The proposed PDO indicators should allow for an efficient tracking of results of the investments to municipalities, with emphasis in reducing exposure and vulnerability to disaster risks and therefore promoting urban resilience:
- Number of people with direct access to disaster risk mitigation infrastructure (e.g. drainage, slope stabilization, coastal protection, etc.);
 - Volume of BRDE resources applied towards urban resilience projects and initiatives; and
 - Percentage of total Project funds allocated to small and medium municipalities.

D. Concept Description

15. The proposed project will provide small and medium size municipalities in Southern Brazil with access to financing to promote urban resilience through targeted investments in technical assistance and infrastructure. These investments are expected to address the municipalities’ vulnerabilities and exposure to hazards, including (but not limited to) floods, landslides and coastal erosion. The Project will be comprised of three Components, which combined will be able to tackle natural hazard exposure through soft measures (e.g. improved urban planning and control, high quality detailed designs) and vulnerability through hard investments in urban infrastructure.

COMPONENT 1 – Resilient Infrastructure (88% of total funds):

16. Component 1 will improve existing or build new physical infrastructure in selected municipalities in Southern Brazil. The provision of such infrastructure shall avoid and/or mitigate disaster risks, thus contributing to the borrowers’ and sub-borrowers’ (municipalities) ability to improve urban resilience against climate events. The proposed / eligible

⁷ The Ministry of Regional Development currently houses the Urban, Housing and DRM agendas in Brazil.

⁸ World Bank, 2017. Brazil: Country Partnership Framework for the period FY18 – FY 19. Report n° 113259.

⁹ [TO ADD LINK TO COFIEX RESULTS](#)

¹⁰ Brazilian Federal Government Foreign Financing Committee, Ministry of Economy.



interventions will include:

- (i) *Flood management systems*: such as macro and micro drainage; dredging, cleaning and maintenance of channels; solid waste management; sanitation; integrated urban-water management for flood mitigation; flood retention reservoirs;
- (ii) *Landslide and erosion management systems*: such as slope stabilization, drainage upgrades, riverbanks protection, reforestation, and conservation of soils and springs; and
- (iii) *Structural and non-structural solutions*: such as capacity building; acquisition of hydrometeorological monitoring equipment; acquisition and installation of Early Warning Systems (EWS); and resilient urban amenities and social facilities to avoid the occupation or re-occupation of disaster risk areas.

COMPONENT 2 – Technical Assistance to Promote Urban Resilience (10.4% of total):

17. Component 2 will provide technical and institutional capacity building to selected municipalities in Southern Brazil in the field of urban resilience. The proposed / eligible interventions will involve activities and consultancies for detailed designs, risk mapping studies, contingency planning, urban planning and growth management, risk awareness and citizen participation, qualification and training, workshops, among others.

COMPONENT 3 – Project Management (1.6% of total):

18. Component 3 will provide support to Project management in technical, social and environmental risk management, monitoring and evaluation, and supervision areas.
19. **The World Bank and the BRDE Task Teams are working since the early identification stage to ensure technical soundness of the Project design and investment readiness.** Taking advantage of historical approaches towards improved DRM in Southern Brazil, in addition to BRDE, the WB Team has already engaged with leading actors in the DRM agenda at National and State levels. The objectives were multiple-fold: (i) to ensure the Project's relevance to the Federal Government's DRM and Urban sector policies and priorities; (ii) to confirm the existence of an unmet demand justifying BRDE's proposed credit line, including identifying existing proposals which did not get federal financing; and (iii) to discuss overall selection and eligibility criteria, including a possible geographic targeting for selecting subprojects in coordination with the States of Parana, Santa Catarina and Rio Grande do Sul through their designated institutions and agencies. A first workshop led by BRDE took place in Florianopolis in April 2019, when State Civil Protection and Defense Secretariats were invited to share the status of investment projects in these states. A subsequent State specific event is planned to take place in the early Project preparation stage to identify and agree on the planned list of subprojects.
20. **Social assessment.** Overall, the expected impacts of the infrastructure works and capacity building activities that are eligible for financing under the project are positive and will benefit the most vulnerable social groups that live in at-risk urban areas, are most exposed to hazards and hold less capacity to cope with its adverse consequences. It is expected that it can benefit the most socially disadvantaged, vulnerable and excluded groups (women, children, disabled people and the elderly) among the population with low socioeconomic status as well as to contribute to social inclusion. It is also expected to contribute to SDG 11 – Make cities and human settlements inclusive, safe, resilient and sustainable.
21. **Citizen Engagement, Grievance Redress Mechanism (GRM) and Gender Integration.** Assessments conducted during Project identification indicate appropriate (and/or easily adaptable) practices and mechanisms for citizen engagement, GRM and gender integration. BRDE keeps a Transparency unit which is responsible for operating a web-



based portal and communication with external stakeholders. In compliance with the requirements set in ESS 9 – Financial Intermediaries with regards to stakeholder engagement, BRDE will require their Sub-borrowers to carry out stakeholder engagement plans in a manner satisfactory to the World Bank. The Project will also rely on BRDE’s corporative channels for lodging and redressing grievances. Finally, among the socially disadvantaged/vulnerable groups, women are the most vulnerable in face of natural disasters, as they hold less access to and control of resources needed to recover and they recover at a slower pace when hit by natural disasters. The Project is therefore also expected to contribute to gender equity.

- 22. **Maximize for Finance Development (MFD).** MFD will be sought in two fronts: (i) leveraging BRDE’s alternative sources of finance to municipalities; and (ii) leveraging private sector investment. For the first, BRDE has already expressed its intent to use other available programs and lines of credit to promote and finance urban resilience projects, such as the existing *BRDE Municípios* program. Private sector engagement will be promoted by making BRDE’s private sector existing financing lines even more targeted towards resilient infrastructure.
- 23. **Screening for climate change and disaster risks.** The Project will be screened for climate change and disaster risks once the Project Appraisal Document (PAD) is ready for the Decision Meeting. As climate change will increase the frequency and severity of adverse hydrometeorological events, the proposed project, by supporting the cities to deal with these impacts, will have significant climate adaption benefits. The Task Team and Client have engaged in the design of a project in which overall objective and investments will contribute from both a mitigation and adaptation perspectives.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The Project is Financial Intermediary (FI) with the Regional Development Bank of Southern of Brazil, comprising the States of Paraná, Santa Catarina and Rio Grande do Sul (BRDE). The FI will open a particular window in its portfolio for financing the delivery of resilient infrastructures able to cope with extreme natural events (floods and geotechnical risks) as well as institutional capacity building for municipalities to deal with disaster risk management and urban planning. BRDE will finance around 30 subprojects, aiming to promote urban resilience in selected municipalities. Therefore, it will be possible to trace specific FI subprojects and an a clearly defined type of financing.

The FI subproject will be implemented mainly in urban and peri urban areas. The foreseen potential adverse environmental impacts are expected to be site specific. They are not expected significant adverse environmental impacts that are irreversible or unprecedented. Most FI subproject activities would be developed in modified habitats and most impacts during the implementation phase can be properly mitigated.

Considering the potential environmental impacts from urban flow and extreme events, the expected FI subprojects may have net positive impacts on the local ecosystems, controlling the stability of the stream channels, reducing runoff from urban areas; and compensate the urbanization tends to increase both the flood volume and the flood peak.

The project will prioritize small municipalities in the Southern region, where disaster risks are of lesser magnitude when compared to the big cities and is expected to have a transformational impact on the mid and long-term on their capacity for disaster risk management and urban planning, ultimately avoiding they follow the similar urban growth patterns that many cities experienced in Brazil in the past decades – i.e. uncontrolled urban expansion and occupation of hazards areas



without proper provision of disaster risk mitigation and public services.

Initial assessments of BRDE's Environmental and Social Management System (ESMS) show it needs some enhancements, which are underway as part of BRDE's engagements with other development agencies (the French Development Agency and the Deutsche Gesellschaft für Internationale Zusammenarbeit - GIZ). BRDE's Environmental and Social Framework (and the regulatory environment under which it operates) properly addresses the risks and impacts of the project related with the aspects considered under ESS 1, ESS 2, ESS 4, ESS 7 and ESS 8 and enables it to achieve outcomes materially consistent with their objectives. There are minor gaps with regards to the requirements set by ESS 9 and ESS 10. There are significant gaps with regards to the requirements of ESS 5, but the selection of FI Subprojects will prioritize those that have only minor adverse impacts related with land acquisition, restrictions to land use and involuntary resettlement. A project exclusion list to be set in the Project's ESMF and included in the loan agreement will screen out proposals of subprojects that may require physical displacement as well as those that have impact on critical habitats.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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APPROVAL

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