

TC Document

I. Basic Information for TC

▪ Country/Region:	BRASIL
▪ TC Name:	Facilidad de APP en el sector de agua potable, saneamiento y residuos sólidos en Minas Gerais
▪ TC Number:	BR-T1452
▪ Team Leader/Members:	Garcia Merino, Lucio Javier (INE/WSA) Team Leader; Siqueira Moraes, Marcos (VPC/PPP) Alternate Team Leader; Guerrero Rivera, Marilyn Ivette (INE/WSA); Mendez Torrico, E. Gustavo (INE/WSA); Rojas Lara, Julio Andres (VPS/ESG); Siqueira Moraes, Marcos; Eschoyez, Guillermo Antonio (LEG/SGO); and Meirovich, Hilen Gabriela (INO/NFP).
▪ Taxonomy:	Client Support (Apoyo al Cliente)
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	24 Abr 2020.
▪ Beneficiary:	
▪ Executing Agency and contact name:	Banco De Desenvolvimento De Minas Gerais
▪ Donors providing funding:	Programa Estratégico para el Desarrollo de Infraestructura(INF)
▪ IDB Funding Requested:	US\$300,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	42 months
▪ Required start date:	August 2020
▪ Types of consultants:	
▪ Prepared by Unit:	INE/WSA-Agua y Saneamiento
▪ Unit of Disbursement Responsibility:	INE-Sector de Infraestructura y Energía
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law

II. Objectives and Justification of the TC

- 2.1 According to the National Sanitation Information System (2018), in Brazil, 83,6% of the population have access to water supply network, 53,2% are connected to sewage network, and 46,3% of the sewage produced is treated. The same report presents that, in Minas Gerais, 17 million have access to water supply network (82,1%), 15 million are connected to sewage network (72,1%) and only 39% of the sewage produced is treated¹.
- 2.2 In the Brazilian infrastructure, the sanitation sector has the highest service deficit and greatest expansion challenges. The main institutional and regulatory challenges are the low level of service and technical inefficiency, which caused by, among other reasons, inadequate regulation, insufficient investments and lack of proper local

¹ <http://www.snis.gov.br/diagnostico-anual-agua-e-esgotos/diagnostico-dos-servicos-de-agua-e-esgotos-2018>

government planning and management. Also, the slow expansion of the water and sanitation networks and the low quality of service provision have had strong implications for the health of the population, for the environment and for the productive sector.

- 2.3 **State of Minas Gerais.** The northernmost state of Brazil's richest Southeast region, Minas Gerais is the fourth largest by area in the country (586.525 km²) - about the same size as France. Covering such a large area, its terrain is quite varied: it features some of the longest rivers in Brazil, most notably the São Francisco and the Paraná, extensive scrublands (Brazilian *cerrado*), covering the northern half up to the boundary with country's capital (Brasília), undulating cleared forest land in the southern part of the State and mountains regions near its state capital, Belo Horizonte. Minas Gerais ranks as the second most populous - 21 million inhabitants - and has 853 municipalities, by far the largest number of a Brazilian state - nearly 15% of all cities in the country. With 85% of its population living in cities, Minas Gerais has an urban population of some 18 million. The vast majority of municipalities are considerably small: almost 80% have less than 20,000 inhabitants and are essentially rural towns and only 13 municipalities have more than 200,000 inhabitants.
- 2.4 With an average Human Development Index (HDI) of 0.731², Minas Gerais is composed of 12 regions very different among themselves, reflecting Brazil's huge social disparities. While pockets of development exist in the state, nearly 75% of its municipalities have medium or low HDI and only 78 cities have HDI above its average.
- 2.5 After the restoration of democracy in the 1980s, Brazilian Constitution of 1988 consolidated the process of decentralizing authority away from the federal government, enhancing the relevance of municipalities by increasing their fiscal revenues and responsibilities for local public services. As a result, local government were transformed into important providers of certain public services such as health, education, water supply, waste collection, drainage, paving and public transport. Whereas municipalities are more knowledgeable about their local needs, the large majority of them lack institutional capacity to structure public private projects at the local level.
- 2.6 **Water, sanitation, and solid waste sector in Minas Gerais.** Water is a strategic natural resource in Minas Gerais, which draws attention to the management of watersheds and the multiple uses of water resources, with policies for the preservation of its springs being established by the State Water Resources Policy (State Law 13.199/1999). The state-owned company COPASA, along with its subsidiary COPANOR, are the main providers of water and sanitation services in Minas Gerais, being responsible for (i) 638 water concessions, supplying 5,23 million units by 54.9 thousand km (90,6% coverage); and (ii) 307 sewage concessions, 3,61 million units connected, by 28.1 thousand km (79,7% of population connected 53% of treatment coverage).
- 2.7 According to the *Trata Brasil Report* (2020), between 2014 and 2018, R\$64.5 billion were invested in sanitation in Brazil, in absolute values, with the state of Minas Gerais receiving only R\$6.5 billion of such investments (10%), despite a gap for access universalization estimated in R\$44 billion, until 2033³ (annual investments required

² below Brazil's HDI of 0.76

³ [1 – Queiroz e Nascimento, Estimativa do déficit de investimentos em saneamento em Minas Gerais, 2016](#)

estimated of R\$2.4 billion). Still, the largest population of Minas Gerais has precarious conditions regarding the access to water supply and sewage networks.

- 2.8 According to National Household Sample Survey (PNAD 2020), 62% of the households without sewage system in the Southeast Region are located in Minas Gerais. *Trata Brasil Report* (2020) also evaluates the quality of sanitation in a given municipality, based on the indicators of water services, sewage collection and treatment as well as index of loss and of investment.
- 2.9 As of 2020, according to the State Secretariat of Environment and Sustainable Development (SEMAD), out of the 572 municipalities that provided information to the National Sanitation Information System (SNIS), only 355 declared to have an approved PMSB (Water and Sanitation Municipal Plan), representing 41% of the total⁴ and only 39% of generated waste are treated in adequate landfills compared to 58% and 40% respectively in the country as a whole. Minas Gerais produces nearly 5,31 million of tons, out of which 6,8% are disposed in open dumping sites (lixão), 23,7% in controlled landfills and 69,5% in sanitary landfills.
- 2.10 The lack of sanitation has immediate implications for health and quality of life of the population. The lack of potable water has a direct impact on health, especially for the youngest and the oldest, as it increases the incidence of gastrointestinal infections. The lack of sewage collection and treatment services, even when there is access to treated water, is responsible for another part of gastrointestinal infections and diseases transmitted by mosquitoes and animals. The recurrence of such diseases harms the society's life quality as it generates heavy sunk costs materialized in 2 immediate consequences: (i) by increasing the incidence of infections, the lack of sanitation causes people to be removed from their work duties, reducing economic output; and (ii) increased public costs for the treatment of affected individuals.
- 2.11 In 2018, a study 'Economic and Social Benefits of the Sanitation Expansion in Brazil' conducted by *Trata Brasil* and Brazilian Association of Private Concessionaires of Public Water and Sewage Services (ABCON) indicated that the universalization of sanitation would bring significant gains for the Brazilian society, much higher than its underlying costs. In two decades, discounting the costs of universalization, the economic and social gains resulted by the expansion of water and sanitation services could be greater than R\$1 trillion. Furthermore, the benefits of universalization of sanitation go beyond the reduction of public health expenses or waste with unworked days. An improved sanitation system has a significant impact by increasing value of real estate assets and by attracting a greater number of tourists and the income generated by the sector.
- 2.12 As a result, Minas Gerais has major deficiencies in sanitation infrastructure, wastewater treatment and solid waste collection, which leads to negative environmental consequences and puts a lot of pressure on the region's resources (soil, surface, and groundwater contamination). Minas Gerais is planning to increase these coverage levels and improve the services by using Public Partner Partnerships (PPP) projects. In addition, it is important to register and promote lessons and good practices of PPPs projects in the water, sanitation and solid waste sector to create a body of

⁴ <http://www.agenciaminas.mg.gov.br/noticia/municipios-devem-ter-plano-de-saneamento-ate-2022-ou-irao-perder-recursos-federais>

established knowledge that will be made available to other entities in Brazil and in the region.

- 2.13 Since the early 1990s, PPPs has been an important instrument for the development of the water, sanitation, and solid waste sector in Latin America, particularly in some of the larger countries of Latin America. PPPs can a play an important role improving the expansion and quality levels of these services.
- 2.14 This TC meets a clear demand of the Brazilian context of Private Participation in Infrastructure⁵: The need of professional and comprehensive project preparation exercise to guarantee that projects taken to market:
- Reduce the mortality rate, that is, the number of projects that enter the pipeline and never reach financial close.
 - Enforce users' requirements as key objectives of project development.
 - Meet quality standards required to promote environmentally and socially responsible projects able to promote a competitive tender as well as fiscally efficient contracts.
- 2.15 Thus, this TC can help the State of Minas Gerais to close the infrastructure and service gap in water, sanitation, and solid waste from 2 different directions:
- It will contribute to mobilize higher investment from the private sector.
 - It will contribute to improve the outputs of investment, directing the efficiencies generated by PPPs to users, governments, and investors.
- 2.16 **Demand.** Given the number of municipalities that do not meet basic standards in the provision of water, sanitation and solid waste treatment, as described in previous paragraphs, there is a large number of candidate municipalities where the private investment can contribute to improve the services provision. Also, the recent approval of a revised regulatory framework for the sector (PL 4.162) by the national legislative, will facilitate the private participation in water, sanitation and solid waste infrastructure and services. Thus, a large number of municipalities with investment needs and a enabling regulatory framework for further involvement of the private sector will create the condition for an expanding demand for the deliverables of this TC.
- 2.17 Furthermore, the COVID-19 crisis will create a pressing demand to attract private sector investment as strategies to economic growth. In addition, the prioritization of investments in water, sanitation and solid waste to improve public health will create a positive demand outlook for the deliverables of this TC.
- 2.18 **Objective.** The objective of this TC is to contribute to mobilize private investment in public infrastructure to deliver better services of water, sanitation, and solid waste provision in municipalities of the State of Minas Gerais.
- 2.19 This objective will be met though the following targets:

⁵ A detailed diagnostic about the demand for project structuring resources and knowledge is widely presented in the literature. In particular this demand is presented in a report by BNDES named Estruturação de Projetos de PPP e Concessão no Brasil: Diagnóstico do modelo brasileiro e propostas de aperfeiçoamento, available at: [Link](#)

- Ensure enough level of resources as well as the application of internationally recognized good practices in the appraisal of PPP candidate initiatives, proposed by municipalities in the state of Minas Gerais, so that commercially, fiscally and environmentally feasible projects in the sector of water, sanitation and solid waste are selected to the structuring phase of the PPP project cycle.
- Mobilize world-level consultants to structure approved transactions so as the risk allocation structure creates the incentives for high service quality as well as superior environmental standards are adopted in investment projects in water, sanitation, and solid waste.
- Enhance environmental management in the State of Minas Gerais, through development of a coherent State strategy to improve basic sanitation and related services, primarily water, sewerage, drainage, solid waste in the State's municipalities.
- Strengthen local government institutional capacity in support of their institutional development to improve municipal management and infrastructure planning.
- Foster mechanisms of long-term impact of the practices developed, mainly through:
 - Develop a hub of capacity and knowledge in the Banco de Desenvolvimento de Minas Gerais S.A. - BDMG to replicate the lessons learned with this technical cooperation.
 - Develop standardized legal documents and financial-economic models

2.20 The TC is consistent with the IDB's Second Update to the Institutional Strategy (UIS) 2020-2023 (AB-3190-2) through the following pillars: (i) productivity and innovation, by supporting well-designed PPPs interventions; (ii) institutional capacity and rule of law, by strengthening the institutional environment to structure projects with the participation of the private sector; and (iii) social inclusion and equality, by promoting the provision of social infrastructure and economic infrastructure that gives the population access to services and better living conditions. This operation is also aligned with the IDB Group Strategy with Brazil 2019-2022 (document GN-2973), specifically the priority area of improving the business climate and narrowing gaps in sustainable infrastructure for enhanced competitiveness and the strategic objective "narrow infrastructure gaps". It also contributes to the strategic objectives and outcomes from the INF results framework document (GN-2819-1 paragraph 3.24) related to improve quality of infrastructure projects and promote greater investment in region's infrastructure sector and enhance performance, quality and sustainability of infrastructure services.

2.21 **Complementary projects.** This operation complements other initiatives with converging objectives financed by the IDBG to support the BDMG, including the RG-3600 (Support to Public-Private Partnerships in Infrastructure Assets and Services that Contribute to Economic Growth and Equity in Latin America and the Caribbean) financed by VPC/PPP.

III. Description of activities/components and budget

3.1 **Component I: Preparation of PPP Projects in water, sanitation, and solid waste.** This component will finance studies required for the preparation of specific PPP projects in water, sanitation and solid waste sector, containing project appraisal exercises (including technical, financial, environmental, social, institutional and legal

due diligence), including the assessment if the PPP is the most adequate procurement route, a communication plan and document preparation for tendering. These products will support municipalities of the State of Minas Gerais or other State entities responsible for the delivery of sanitation services (Contracting Authorities) to appraise and structure PPP initiatives to attract private investment in infrastructure.

- 3.2 **Component II: Identification and promotion of PPP good practices.** This component will finance knowledge products including, manuals, technical notes and specific publications to register and promote lessons and good practices of PPPs projects in water, sanitation and solid waste sector in Brazil such as standardized clauses of legal documents and financial-economic models. This component will include dissemination activities (workshops).
- 3.3 **Audit.** The resources will also finance the cost of an external financial audit of the TC at the end of the disbursement period.

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Total Funding
Component 1	Preparation of PPP Projects in water, sanitation and solid waste	US\$265,000	US\$265,000
Component 2	Identification and promotion of PPP good practices	US\$25,000	US\$25,000
Audit		US\$10,000	US\$10,000
TOTAL		US\$300,000	US\$300,000

IV. Executing agency and execution structure

- 4.1 **Banco de Desenvolvimento de Minas Gerais - BDMG** (Minas Gerais Development Bank) will be the executing agency of this TC. BDMG is a financial institution established in 1962 and controlled by the State of Minas Gerais, with the purpose of promoting the state's economic, financial, and social development. For more than 58 years BDMG has actively participated in the development of Minas Gerais. In its history, it has focused on generating opportunities and sustainable regional growth. Its actions are distributed throughout the territory of the state and it supports various sectors of the economy: industry, agriculture, agribusiness, commerce, and services. In addition to these sectors, BDMG finances infrastructure and urbanization projects in the cities of Minas Gerais. It operates with its own resources and also utilizes credit lines from the Banco Nacional de Desenvolvimento Economico e Social (BNDES), as well as other sources of capital. Furthermore, it is also the financial agent of the Development Funds of the State of Minas Gerais.
- 4.2 In this context, BDMG established within its structure a Project Preparation Unit (within the Superintendência de Preparação de Projetos – SEP) composed of fulltime staff, responding directly to the vice presidency of the BDMG. This unit will be responsible for the execution of the TC.
- 4.3 For the execution of the studies contemplated in Component I, BDMG will coordinate with the respective Contracting Authorities. To that end BDMG will enter into an agreement with each beneficiary Contracting Authority to establish their responsibilities in the execution of the activities.

- 4.4 **Other aspects of the executing arrangements.** Disbursement and execution period of the TC will be 42 months. The activities to be carried out under this operation have been included in the Procurement Plan (Annex IV) and will be executed in accordance with the Bank's procurement policies. An external financial audit of the TC will be submitted by BDMG to the Bank within one hundred twenty (120) days following the expiration of the Original Disbursement Period or any extensions thereof.
- 4.5 Monitoring and supervision will be carried out by INE/WSA (UDR will be in headquarters) including INE/WSA team in Brazil, in coordination with VPC/PPP and IDB Invest. The monitoring of the execution of the TC will be carried out through biannual technical work meetings between the BDMG, the Contracting Authorities and the IDB group.
- 4.6 BDMG will submit to the Bank a Final Evaluation Report 180 days after the date of last disbursement of the contribution with a content agreed upon by the Bank.

V. Major issues

This Some of the possible key risks of the project are:

- 5.1 **Demand Risk:** As projects will be proposed by Contracting Authorities such as municipalities, there might be a lack of interest from contracting agencies. A communication strategy will be implemented to promote widespread success to information regarding the fund and mitigate this risk.
- 5.2 **Policy Continuity Risks:** Brazil will hold municipal elections in October 2020. Thus, projects that start in the current political cycle might face the challenge of continuity, particularly if there is a governing party change in the beneficiary entities. This risk will be mitigated by starting project screening and selection during the first 4 months of the TC implementation and begin project preparation once the following electoral cycle begins.
- 5.3 **Impact of COVID-19:** The sanitary crisis could diverge the political attention of the Contracting Authorities to more immediate public health policy goals, from long term investments in water, sanitation, and solid waste projects. However, as investments in water, sanitation and solid waste sector are directly related to positive health outcomes, the increased attention to public health issues, due to COVID-19 might increase the political priority of long-term water, sanitation and solid waste initiatives, aligning local authorities' priorities to the objectives of this operation. To mitigate the potential negative impact of the COVID-19 pandemic, the project will design specific communication strategy with beneficiary entities that link long term investments in water, sanitation, and solid waste treatment to positive public health outcomes.

VI. Environmental and Social Strategy

- 6.1 The proposed TC will have no environmental or social impacts as it will not finance direct investments in infrastructure, it will only fund project preparation. Taking into account the Environment and Safeguards Compliance Policy of the IDB (OP-703) and due to the nature and objectives of the TC, the classification of this operation is Category "C" ([please see Safeguard Policy Filter and Safeguard Screening Form](#)).

Required Annexes:

[Solicitud del Cliente 76296.pdf](#)

[Matriz de Resultados_81019.pdf](#)

[Términos de Referencia_74509.pdf](#)

[Plan de Adquisiciones_9548.pdf](#)