



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

Concept Stage | Date Prepared/Updated: 07-Aug-2018 | Report No: PIDISDSC24669

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

Country Brazil	Project ID P165055	Parent Project ID (if any)	Project Name Ceará Water Security and Governance (P165055)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Nov 19, 2018	Estimated Board Date Mar 01, 2019	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) State of Ceara	Implementing Agency Secretariat of Water Resources - SRH, Ceara Water and Sanitation Utility - CAGECE, Ceara Economic Research and Strategy Institute - IPECE	

Proposed Development Objective(s)

The proposed Project's Development Objective (PDO) is to strengthen efficient water management and provide access to reliable water supply in selected areas of the State of Ceará.

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

Total Project Cost	174.85
Total Financing	174.85
of which IBRD/IDA	139.88
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	139.88
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Non-World Bank Group Financing

Counterpart Funding	34.97
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Borrower

34.97

Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track I-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Brazil is an upper-middle-income country that has made significant gains in poverty reduction in recent decades, however, inequality and macroeconomic instability have hampered economic growth. Brazil has a population of approximately 200 million people, most of which are concentrated along the coastal areas. With a GDP of US\$2.2 trillion, its economy is the seventh largest in the world (2013). Between 2001 and 2013, a booming economy fueled by a favorable external environment and sound macro policies contributed to fast economic growth, and an unprecedented reduction in inequality evidenced in the fact that an estimated 24.6 million Brazilians escaped poverty -- especially in the poorer North and Northeast Regions - and in the attendant reduction in the Gini Coefficient of household incomes from 0.59 to 0.53 percent. However, despite these gains, Brazil remains one of the most unequal countries in the world.

After a “Golden Decade” of rapid growth and social progress Brazil’s economy first stumbled and then fell into deep recession. Growth declined from an average of 4.5 percent per year between 2006-10 to 2.4 percent in 2011-14, followed by further contractions in 2015 and 2016. While external factors triggered the slowdown, an expansionary policy response led to rapidly rising fiscal disequilibria and, together with rising domestic political uncertainty, a loss of confidence and sharp drop in investment. The economic crisis precipitated a rapid rise in unemployment in 2015 and 2016, during which time over 3 million Brazilians lost their jobs, and average real wages declined by 0.3 percent and 2.3 percent respectively, further depressing domestic demand.

A large structural fiscal imbalance lies at the heart of Brazil’s present economic difficulties. While revenues are cyclical and have declined during the recession, spending is rigid and driven by constitutionally guaranteed social commitments. As a result of these trends, the primary balance deteriorated from a surplus of 4.0 percent of GDP in 2012 to a deficit of 0.1 percent in 2014. In 2015, the government adopted a series of measures aimed at controlling expenditures. However, despite deep cuts to public investment and other austerity measures (notably the tightening of eligibility for unemployment benefits and survivor pensions) and a series of revenue-raising measures, the primary deficit widened to 1.0 percent and 2.0 percent of GDP in 2015 and 2016, respectively. Because of high interest expenditures the overall fiscal deficit is considerably larger and reached 8.8 percent of GDP in 2016.



Since 2016, the Government has embarked on a program of fiscal adjustments and a reform agenda aimed at restoring investor confidence and a favorable investment environment going forward. As a first important step to restore fiscal sustainability, in December 2016, Congress approved a constitutional amendment to limit the growth of public expenditures¹ which has, since 2017, set the country back on a path of economic growth (1.0 percent), although the pace of recovery is expected to remain slow.² Brazil's medium-term outlook will depend on the success of current adjustments and the enactment of growth-enhancing reforms. Growth will need to be based on higher investment and productivity gains.

Brazil must overcome significant infrastructure challenges if it is to spur sustainable growth going forward. Since the 1980s, investment in infrastructure has declined from over 5 percent to just under 2 percent of GDP, which is insufficient even to cover depreciation and has created a significant infrastructure gap. Over the same period, Brazil has struggled with stagnant productivity growth and the poor status of infrastructure is widely believed to be a key reason for Brazil's growth malaise (SCD, World Bank, 2016a). While there has been no shortage of national flagship programs targeting infrastructure, their impact has been disappointing. Brazil has neither been able to substantially raise its total rate of investment in infrastructure, nor has the quality of services improved. Brazil will need to significantly increase the efficiency of infrastructure spending to close the gap which will require that it rebuild its capacity for planning, budgeting and managing infrastructure assets. This also holds true for water related infrastructure. While public funding will remain constrained by Brazil's ongoing fiscal adjustment, private investment is unlikely to be an effective substitute unless infrastructure governance improves. However, with appropriate policies, institutions and regulations in place, substantial gains in infrastructure performance could be achieved as a result of efficiency gains coupled with public investments.

Located in the Northeast Region, the State of Ceará economy represented 2.10 percent of the Brazilian GDP in 2016. Coming from three consecutive raises in the GDP from 2012 to 2014³, the State suffered the impacts of the fiscal crisis in 2014 and had negative rates of 3.85 and 5.33 percent in 2015 and 2016. During the first quarter of 2018, the State's economy showed signs of recovery, with an increase of 1.55 percent, compared to the same period in 2017. The agriculture and livestock sector represented 5.31 percent of this expansion.

Sectoral and Institutional Context

Brazil's overall abundance in water supply belies highly uneven spatial distributions, particularly in relation to population densities and industrial development. Whereas fully 73 percent of the country's freshwater is located in the Amazon basin – which houses less than 5 percent of the population, the semi-arid Northeast region – which accounts for 28 percent of the population -- provides a mere 4 percent of water resources, while the South and Southeast regions which account for 56 percent of the population and are home to large urban metropolises and robust industrial development, confront continuous water scarcity due to mismanagement, over-exploitation, and pollution. This uneven distribution poses challenges to efficient water resources management. Brazil has made progress in water resource management since the adoption of the National Water Law in 1997 and the creation of the ANA in 2000. These achievements set the foundations for multi-level and integrated governance of water resources in the country. However, water management has not fully reaped the expected economic, social and environmental benefits.

Water is key to decades of long efforts to reduce poverty and promote shared prosperity through more equitable and widespread provision of water supply and sanitation (WSS) services to a growing population, and to support key drivers of economic growth. Indeed, the sectors that contribute the most to Brazil's economy are also the most dependent on

¹ The constitutional amendment (PEC 241) was approved by the Brazilian Senate in December 2016. It limits the growth of the Federal Government's public expenditures, corrected by inflation, for up to 20 years. Limits for the education sector take effect starting in 2018.

² Organization for Economic Co-operation and Development (OECD), Economic Outlook 2017: Brazil economic forecast summary (June 2017).

³ Ceara GDP growth rates in the period was 1.63%, 5.06% and 4.18%, while Brazil GDP growth was 1.92%, 3.00%, 0.50%.



water, including inter alia: (i) irrigated agriculture, which accounts for two-thirds of bulk of water withdrawals; and (ii) the electricity sector, 65 percent of which is generated by hydropower plants; and (iii) industry, which represents 11 percent of water withdrawals⁴. This, together with wide-spread urbanization, pose ever increasing and competing demands on already scarce resources. Throughout the last decades, the sum of these factors together with resulting increases in pollution and ever more prominent climatic variability have accentuated the stress on water resources and the need for a more integrated approach to water resource management to meet Brazil's sustainable livelihoods and economic development objectives.

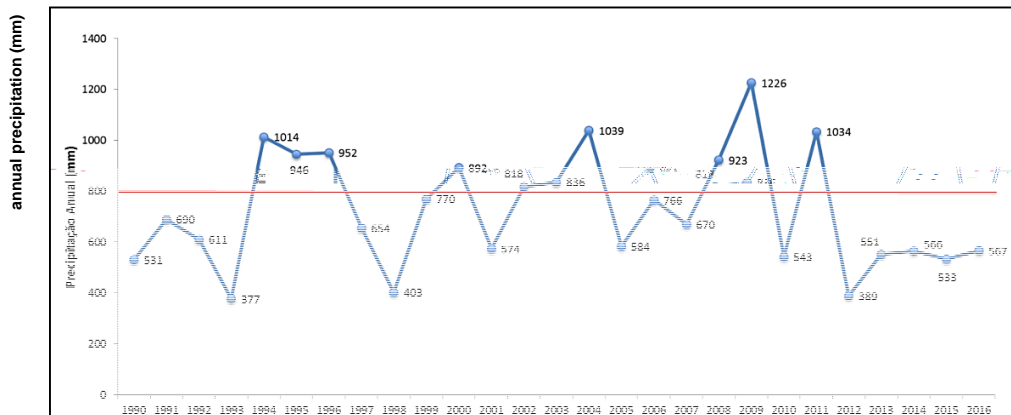
The need to efficiently manage competing water and development demands is particularly relevant in the water scarce Northeast -- including the State of Ceará – the fourth largest state in the northeastern region of Brazil. Ceará occupies an area of 148,886 km², equivalent to approximately 2 percent of Brazil's geographic expanse. The Metropolitan Region of Fortaleza (MRF) occupies an area of 7,440 km² with 19 municipalities and concentrates 4 million people out of a total State population of more than 9 million people⁵. Roughly 93 percent of its territory is semi-arid, with elevated temperatures, spatial and temporal variability of rains and high-water scarcity. Rivers are intermittent, most of the territory is underlaid by crystalline rock formation with shallow soil cover, thus minimizing the availability of groundwater storage and natural retention of surface flows. The State is particularly susceptible to climatic adversities related to water scarcity, which are exacerbated by prolonged periods of climate change-induced drought, undermining its economic and social development.

Due to global climate change, the Northeast Region may experience adverse weather conditions that may worsen economic and social inequalities. Such conditions include changes in rainfall patterns, hot waves, and increased occurrences of droughts and floods (in the coastal region). Climate change projections place the Northeast as one of the world's regions to face increases in the intensity and duration of droughts. In addition, the northeastern semi-arid region may present an average increase of 0.5°C to 1°C in the air temperature and decrease up to 20 percent in the level of rainfall by 2040. The semi-arid region faces periodic droughts and Ceará recently faced six consecutive years (2012 to 2017) of drought resulting in serious losses in terms of access to water and impacting the State's economy. In 2017, according to the Ceara Meteorology and Water Resources Foundation (FUNCEME), the State rainy season (February to May) registered rainfall patterns close to historical average, with a percentage deviation of -7.7 percent in relation to climatological standard (1981-2010), as shown in figure below. During the rainy season, a total of 554.5 mm of rainfall was registered, the average being between 505.6 mm (lower) and 695.8 mm (upper) limits. In this context, it is fundamental to develop actions to guarantee the water security of Ceará, thereby raising the resilience of the State to droughts and, consequently, creating conditions for sustainable development.

Figure 1. Average Rainy Season Rainfall (mm) - Ceará: 1990 – 2016

⁴ ANA, 2017 – Brazil Water Resources Status

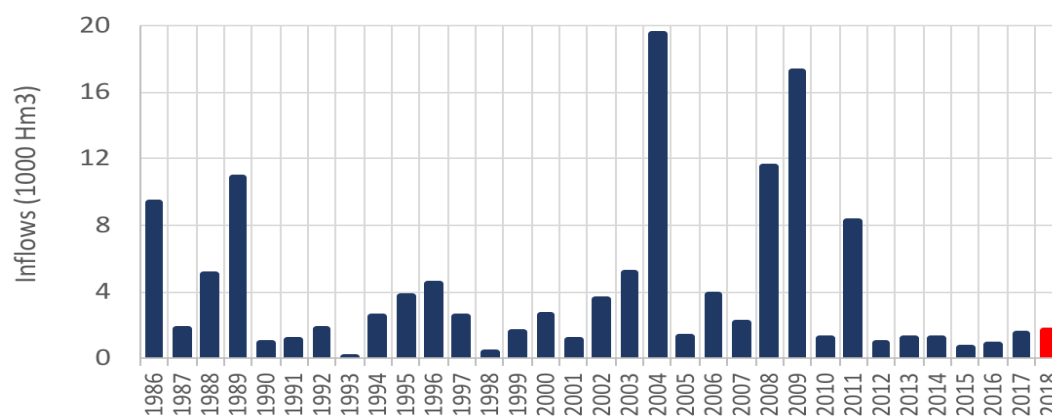
⁵ IBGE (*Instituto Brasileiro de Geografia e Estatística*) Brazilian Geography and Statistic Institute projection for 2017.



Source: FUNCEME (2017). Note: The red line represents the historical mean of rainfall

Decreasing rainfall levels throughout the past years have led to a sharp decrease in reservoir water levels. The 155 dams monitored by the Water Resources Management Company (*Companhia de Gestão dos Recursos Hídricos – COGERH*), have a total volume of 18.6 billion m³. However, following the six consecutive years of drought (average precipitation of 559.1 mm/year in the period of 2012–2017) and post 2018 rainy season⁶, the reservoir levels have only reached 16.6 percent of their total capacity. Given the scarcity of water, COGERH has implemented stringent water allocation rules and in 2017 roughly 75 percent of stored water was directed to the priority human consumption, while 16 percent was allocated to agriculture and 7 percent to industry. Figure 2 shows the total inflows to the reservoirs monitored by COGERH from 1986 to 2018. The challenge going forward will be to increase water security in the State of Ceará, through (i) improved governance of the water resources sector; (ii) strengthened climate forecasting capacities; (iii) improved efficiency of water services provision and use; and (iv) expanded water infrastructure.

Figure 2. Inflows to the reservoirs monitored by COGERH



Source: FUNCEME (2018).

To date Ceará posts the lowest water supply access rate in the Northeast Region. According to latest figures (2015), 78 percent of households are connected to piped potable water, while the national average is 85.4 percent, rendering it the

⁶ February to May 2018.



lowest in terms of access rate in the Northeast. The rate of urban household connections is even lower at 48.2 percent compared to the Northeast rate of 55.7 percent, lagging behind Brazil's 74.6 percent urban access rate. Studies indicate a close relationship between the lack of adequate water supply and important health indicators, such as infant mortality. Therefore, the absence of reliable water supply can be one of the main factors of proliferation of diseases, through the consumption of untreated (bulk) water. In this context, there is need to improve water resources governance to strengthen water management, regulation, pricing and expansion of infrastructure to increase resilience to cyclical drought periods, ensuring adequate water provision for multiple uses that enables sustainable development.

The Government of Ceará (GOC) recognizes that public sector governance is critical for sustainable development.

Accordingly, it has launched a number of initiatives aimed at improving its resources management and, decision-making capacities, and increasing overall transparency and accountability. For example, Ceará has introduced results-based management initiatives including a system of indicators to facilitate the monitoring and evaluation of Government programs. The GOC has also revamped its transparency portal to foster citizen engagement and has invested resources in its Economic Research and Strategy Institute (*Instituto de Pesquisa e Estratégia Econômica do Ceará – IPECE*) aimed at providing cutting-edge research to inform government planning and policy-making. Although these important initiatives have contributed to improved public sector governance, the state must now invest additional resources in sectoral evidence-based service delivery and resource management and governance improvement. Given the strategic relevance of the water sector to Ceará, governance initiatives that support better planning, decision-making, and management of scarce water resources can have a long-lasting impact on Ceará's social and economic development.

As for water governance, Ceará is one of the pioneer states in the implementation of a water resources management model. Indeed, even before the approval of the 1997 National Water Resources Policy Law, the state already had a State Water Resources Policy in place (Law N. 11.996 of 1992, revised in 2010), which effectively established its Integrated Water Resources Management System (*Sistema Estadual de Gerenciamento de Recursos Hídricos – SIGERH*) and a suite of water resources management instruments, including water resources plans. The State Water Resources Plan (*Plano Estadual de Recursos Hídricos – PLANERH*) was prepared in 1992 (and revised in 2005), establishing the diagnosis of water availability and demand, guidelines and strategic programs underlying water resources management in the State.

Anchored within the framework of the 1992 State Water Resources Plan, six River Basin Water Resources Plans have been prepared, which establish guidelines for the application of water resources management instruments. In line with the State Water Resources Plan, between 2007 and 2009, the State Legislative Assembly led the Water Pact initiative, which resulted in the Ceará State Water Resources Strategic Plan, following participatory process carried out in integration with SIGERH institutions. The Strategic Plan, considered an update of the State Water Resources Plan, incorporates the multisectoral aspect of water resources management, identifies alternatives and solutions for water security and establishes institutional agreements for the implementation of proposed actions.

The institutional framework for water resources was established in 1987 with the creation of the Secretariat of Water Resources (*Secretaria de Recursos Hídricos - SRH*), the Superintendence of Water Works (*Superintendência de Obras Hídricas - SOHIDRA*), and the FUNCEME, followed by the creation of COGERH in 1993, which is responsible for managing water resources and providing bulk water supply services. Outside SIGERH, the Ceará Water and Sanitation Utility (*Companhia de Água e Esgoto do Ceará – CAGECE*) is responsible for treating and supplying potable water to urban end users (individuals, commercial and industrial entities, non-governmental organizations and public bodies). CAGECE is responsible for the provision of water supply and sanitation services to 152 municipalities out of 184, reaching 5.7 million beneficiaries. In the MRF, CAGECE's water supply coverage rate is 98.5 percent, however, the Utility's overall water losses



in 2017 were accounted to 42.23 percent, a little lower than the Northeast average of 46 percent and higher than the country's average of 38 percent⁷.

For over two decades, the Bank has supported the establishment and strengthening of the State water resources management (WRM) model as well as the expansion of bulk water resources infrastructure. Bank support began in 1993, with the financing of the Urban Development and Water Resources Management Project⁸. This US\$140 million operation included a specific WRM component to support the implementation of the State's 1992 Water Law and the construction of 16 strategic medium-size reservoirs to increase water storage for multiple uses. The US\$9.6 million Ceará WRM Pilot⁹ and the US\$136 million PROGERIRH Project, with an Additional Financing of US\$103 million¹⁰ followed in 1998, 2000 and 2008, respectively, to assist the State of Ceará in consolidating its institutional framework, and implementing modern WRM policies, planning and management tools as well as water storage and distribution infrastructure to overcome the impact of water scarcity and recurrent droughts. Water resources management and water supply and sanitation programs were also supported by the series of multisectoral SWAPs and P4R projects financed by the Bank over the past years.

Despite the success in implementing Ceará's water resources policy, a number of vulnerabilities have surfaced as a result of the long recent drought and the risk of future scenarios of increasing climate variability, which underscore the need to adopt an even more proactive approach to water management to ensure water security in the State. Considering these challenges and the planning process carried out over the last thirty years, the Secretariat of Water Resources (SRH), in coordination with FUNCEME, COGERH and SOHIDRA, and with support from the ongoing Bank financed P4R project, prepared the Strategic Actions Plan (*Plano de Ações Estratégicas*), with important contributions from CAGECE. The Plan establishes a set of water sector priorities, including infrastructure, water management and governance actions considered crucial to promoting water security in the state.

One of the main infrastructure programs under the Strategic Actions Plan is the *Malha D'água* Program with the objective of increasing the State's water security, providing conditions for qualitative and quantitative water supply to urban areas. The program includes a total network of 4500 km treated water pipelines systems, benefiting 6.3 million people in the next 25 years with a total estimated investment of US\$1.4 billion. The Program design aims at increasing water supply reliability in quantity and quality and water storage management efficiency by placing water intakes inside the reservoirs, therefore, reducing flows released from these reservoirs for river perenization. The proposed Project will finance the first water pipeline system, out of 31 planned under the Program.

The GOC aims to fulfil the expectations of its constituents in terms of improving the social, economic, productive and environmental conditions of the state. To this end, the Government has structured its public policies within the framework of a government program focused on seven major areas, referred to a "Seven Ceará's", representing the major challenges for the State Government in view of its socioeconomic reality with high social debt, historical social problems and high-income concentration. The actions to be supported by the proposed Project were selected based on their relevance to the State's objectives and sectoral planning and the World Bank's experience in other Brazilian states and countries. In addition to responding to the State's priorities, this Project will contribute to the well-being of the poorest segment of the population while also aiming to increase the state residents' resilience to droughts and floods, and boost future growth and shared prosperity with environmental sustainability. Moreover, the Project supports and encourages the State's economic dynamics to achieve sustainable growth.

⁷ SNIS (*Sistema Nacional de Informações sobre Saneamento*) National Sanitation Information System, 2017.

⁸ Ceará Urban Development and Water Resources Management Project – Loan 3789-BR (ICR No. 29362 of May 18, 2004) – 1995-2003.

⁹ Ceará Water Resources Management Pilot Project – Loan 4190-BR (ICR No. 26071 of June 4, 2003) – 1998-2002.

¹⁰ Ceará Integrated Water Resources Management Project – Loans 4531-BR and 7630-BR (ICR No. 1973 of December 28, 2012) – 2000-2012.



Relationship to CPF

The proposed Project aligns well with the FY18-23 Country Partnership Framework (CPF) for Brazil. The CPF proposes a reorientation of new lending and advisory services and analytics toward supporting the Government in addressing the main development constraints identified in the Systematic Country Diagnostic, including water security, with an emphasis on the third focus area of the Framework: inclusive and sustainable development. As stated in the CPF, “the third requirement for improved livelihoods and economic opportunities is the smarter management of Brazil’s natural resources and the better mitigation of environmental pollution and the risk of natural disasters. Three principal issues in natural resource management stand out and affect the B40 directly and indirectly through their effects on growth and incomes: access to land and secure property rights, water management, and, more broadly, environmental management. These are largely governance issues where the state acts as a mediator between competing private interests, including the poor and vulnerable who are least able to protect their interests”. It also states that “pricing policies need to be reviewed to improve incentives for conservation of water and other natural resources, and encourage investments in improved quality and resilience of service provision”. The project will address these issues by improving governance of scarce water. It will likewise improve the operational efficiency of water services, increase access to water supply and water security in the poorest area of the State. Finally, the proposed operation will seek to set the analytical foundations for tariff revisions aimed at improving prospects for the conservation and sustainable management of scarce water resources going forward.

The Project is directly related to the third focus area of the FY18-23 CPF. As stated in Objective 3.2 of the CPF (Provide more inclusive and sustainable urban services), “While Brazilian cities have become engines of economic growth, their competitiveness is below similar-sized cities in East Asia, Europe, and the US. Further, many cities face tremendous challenges in terms of reducing water and air pollution, improving the quality of the urban environment, reducing disaster risks, and addressing problems of water scarcity and lack of access to basic services”. As mentioned in the CPF, the Bank will continue to invest in water and sanitation to foster resilience against the increased variability of water supply, while also focusing on pricing policies to ensure that water charges reflect provision costs; and the support from the Bank will be embedded in the broader context of water resource management and protection of scarce water resources, representing key areas of the proposed Project. In addition, the Bank will also be more selective, focusing on water and sanitation, urban transport, land use planning, risk management and resilience, and energy efficiency. These priorities are fully consistent with the new eligibility criteria set by COFIEX (Foreign Financing Committee – Ministry of Planning).

The Project also contributes to the World Bank’s Twin Goals. The proposed Project activities would increase access to water supply, contribute to reduce water losses and improve water management regulations and instruments. Water scarcity and unreliable water supply affects the poorest area of the state, with important negative impacts on health, wellbeing and economic development. Investments to be made on new water infrastructure will directly benefit roughly 200,000 beneficiaries in the semiarid region, by improving water supply reliability to areas subject to severe rationing and service cuts. Also, the actions for control and reduction of water losses in the water system supplying water to the Metropolitan Region of Fortaleza will contribute to increase the efficiency of water supply, increasing availability in the system and therefore minimizing the need for investments in new water sources. By supporting the improvement of water resources management and water supply services efficiency, installing a more resilient water supply infrastructure in the most vulnerable areas of the states, and reducing water losses in the larger urban center the proposed project will assist the State of Ceará in confronting the effects of climate change – above all, the increasing water scarcity.

C. Proposed Development Objective(s)

The proposed Project's Development Objective (PDO) is to strengthen efficient water management and provide access



to reliable water supply in selected areas of the State of Ceará.

Key Results (From PCN)

The following outcome indicators are proposed to measure PDO achievement:

- People benefiting from reliable water supply under the project;
- Reduced water losses in the metropolitan system of Fortaleza in liters/connections/day;
- Increased bulk water use regulation and charging.
- Strengthened climate forecasting system with information in public domain.
- Improved information on water quality and quantity in the State's reservoirs.

D. Concept Description

The proposed Project would comprise US\$174.85 million Investment Project Financing operation financed by a US\$139.88 million IBRD loan and US\$34.97 million State counterpart funding. The Project would comprise three main components and a Contingent Emergency Response Component (CERC) to support the State of Ceará should emergencies associated with natural disasters negatively impact the state's water systems during project implementation.

Component 1. Increasing Water Security (US\$150.2 million). This component will support improvements to water governance, as well as the reliable access to water in the State of Ceará, with activities divided into two sub-components.

- Sub-component 1.1: Integrated Water Resources Management (US\$10.52 million).** This sub-component will seek to improve the State's water resources management and increase its resilience to droughts. It will support (i) COGERH in increasing knowledge on bulk water use by universalizing water supply measurement and regularizing water users; and (ii) FUNCEME in the strengthening of the climate forecasting system and the improvement of water quality and quantity monitoring. Integrated Water Resources Management increases the available supply of clean water and contributes to the efficient use and distribution. It, therefore, directly addresses the problem of increasing water shortages.
- Sub-component 1.2: Water Infrastructure (US\$139.68 million).** This sub-component will support the expansion of water distribution infrastructure in the Banabuiu river basin thereby directly increasing the supply of available water to the State. The proposed Banabuiu Sertão Central pipeline system was conceived in the ambit of SRH's *Malha d'água* Program, which aims at increasing the State's water security, guaranteeing water supply in adequate quality and quantity to urban areas using Banabuiu dam as water source. The system will supply treated water to nine municipalities and selected rural areas with the construction of a 290km pipeline network, benefiting around 200 thousand people. The Project will also finance the preparation of the Emergency Preparedness Plan (EPP) of the Banabuiu dam together with the main outcomes of the dam safety assessment to be carried out during preparation. The prioritization of Banabuiu Sertão Central system support under the Project was based on a set of hydrological criteria including water source availability, criticality of current water supply and availability of immediate alternative water source. The technical, economic and environmental feasibility studies are being carried out with the State's own resources in parallel with project preparation.

Component 2. Improving the Efficiency of Water Services (US\$ 16.15 million). This component will seek to increase water supply efficiency in the MRF, and support CAGECE in improving operational efficiency. The component includes two main



sets of activities: the first one - Water Losses Control in the MRF, will seek to support CAGECE in improving water supply efficiency by financing a water losses reduction plan in the MRF (lower water losses translate into large supply of water); and the second, will underpin technical assistance to support CAGECE in improving its governance capacity and operational efficiency, including, among others, the preparation of an improvement action plan and economic and social studies to review CAGECE'S tariff structure. In addition, considering that the intake of MRF will be at Gavião dam, the Project will also finance the preparation of the EPP of that dam together with the main outcomes of the dam safety assessment to be carried out during preparation.

Component 3. Strengthening Public Sector Management (US\$8.5 million). This component will contribute to improving public sector governance, particularly in the water sector, by supporting enhanced use of evidence-based decision-making and improving the accountability of public investments. Better governance will indirectly contribute to the higher supply of water and more efficient use and allocation of water. To this end, it will support: (i) the optimization, strengthening and modernization of the management and regulatory activities of ARCE¹¹; (ii) the design of public policies in the water and agribusiness sectors, including through the provision of an integrated data system and a business intelligence tool inside SEPLAG¹²/IPECE; (iii) the provision of indicators and criteria to prioritize agricultural activities based on water use efficiency; (iv) the preparation of the State Basic Sanitation Plan; (iv) the development of a contract management and control system for the State General Controller (CGE); and (v) strengthening of the State's Court of Accounts (TCE) capacity for external control of public activities, including the monitoring of water infrastructure works.

Component 4. Contingent Emergency Response Component (CERC). The objective of this zero-fund component is to support the State of Ceará in eventual emergencies associated with natural disasters that affect water systems. This disaster recovery contingency component could be triggered following the declaration of a disaster or emergency. When triggered, funds may be reallocated from other components and activities to facilitate the rapid financing of goods and services under streamlined procurement and disbursement procedures. Eligible activities may include emergency rehabilitation works, supply of critical equipment, or any other critical inputs to ensure the continued operation of water infrastructure and provision of services. This component therefore directly enhances the residents' resilience to droughts and floods. During project preparation, the definition of the key aspects of the CERC will be detailed in the Project Operational Manual.

Citizen engagement. Consultations with key stakeholders, beneficiaries, and affected people would be carried out by the Borrower during preparation. These consultations would take advantage of the committee of the Banabuiu River basin, which convenes representatives of civil society, nongovernmental organizations, and academia. Local community leaders would also be consulted. These consultations would address the findings of the social and environmental assessment and evaluate the identification of impacts and benefits derived from project activities as well as the proposed measures to avoid, minimize, and/or mitigate adverse impacts. Consultations would be recorded and the feedback received would be incorporated in the final versions of the project's ESMF and RPF. COGERH already relies on a robust strategy of engagement with water users and river basin committees. Water users will also be consulted for the allocation of water from the Banabuiu reservoir to the pipeline system.

Gender integration. As previously mentioned, the assessment of social impacts and benefits would incorporate a gender-sensitive lens. According to the CPF, gender gaps in economic opportunities and agency continue to remain, while the country has made significant progress in health and education for gender equality. The Project, therefore, will support the preparation of a gender strategy for CAGECE and COGERH¹³, focused on increasing the number of women in leadership

¹¹ ARCE (*Agência Reguladora de Serviços Públicos Delegados do Estado do Ceará*) – Ceará State Delegated Public Services Regulatory Agency.

¹² SEPLAG (*Secretaria do Planejamento e Gestão*) – State's Secretariat of Planning and Management.

¹³ COGERH has 37% of women in its workforce and 27% in the managerial positions; CAGECE has 33% of women in its workforce and 39% in the managerial positions.



positions. Currently, both institutions have one-woman director out of eight directors each. Finally, the social assessment to be carried out by the borrower for the preparation of the ESMF will assess gender issues that are relevant to the project, and to the extent possible include specific actions to close identified gender gaps as well as indicators to monitor actions. As households headed by single women with children are overrepresented among the most socially vulnerable groups of the State and the country population, this gender-sensitive analysis may point out how the project can bring further benefits for this vulnerable group.

SAFEGUARDS

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

Ceará is mostly located in the semi-arid. Around 90% of its territory is semi-arid, with elevated temperatures, spatial and temporal variability of rains and high-water scarcity. Rivers are intermittent, most of the territory is underlain by crystalline rock formation with shallow soil cover, thus minimizing availability of groundwater storage and natural retention of surface flows. The semi-arid region faces periodic droughts and Ceará recently faced six consecutive years (2012 to 2017) of drought resulting in serious losses in terms of access to water. The population of the Ceará has surpassed 9 million people in 2017. At least ¾ of the population lives in urban areas and 29.1% lives in the capital. The 14 municipalities within the Sertão do Banabuiú region comprise 6.2% of the population. These municipalities remained largely rural (55%). Extreme poverty rates are still higher than the state average in all but one of the municipalities of the Sertão do Banabuiú region. The average extreme poverty rate at the Sertão do Banabuiú region was 28.6%.

The project comprises four components, including: (i) technical assistance activities (improvement in the governance capacity of state agencies, and policy design), (ii) construction works (expansion of the water infrastructure and water losses reduction plans) and (iii) a contingent emergency response fund to be triggered at the aftermath of natural disasters aiming to facilitate the rapid financing of emergency rehabilitation works, supply of critical equipment, fuel, generator rental, transport of chemicals and critical parts (electro-mechanical equipment) to ensure the continuous operation of the water supply infrastructure. Direct social and environmental impacts are expected mostly of the works related with (i) the expansion of the water infrastructure and (ii) the implementation of water losses reduction plans.

The works for the expansion of the water infrastructure would take place in the region of the Sertão do Banabuiú, and will serve nine municipalities located southwest of the Banabuiú reservoir. The water losses reduction plans would occur in the Metropolitan Region of the capital city. Water losses reduction plans would be implemented in seven neighborhoods of the capital city of Fortaleza – namely: Barroso, Cajazeiras, Cidade dos Funcionários, Engenheiro Luciano Cavalcante, Edson Queiroz, Guarapes and Jardim das Oliveiras. About 6% of the population of the city live in these neighborhoods.

B. Borrower's Institutional Capacity for Safeguard Policies

The Client has a long and positive experience with the safeguard policies of the World Bank, having developed operations in a satisfactory way since the 1990s. These operations include four operations in the water sector – namely: P046052 Ceara Water Pilot, P006436 Ceara Urban Development & Water Resource. P006449 BR Ceara Water Management



PROGERIRH, P110487 BR (AF) Ceara Integrated Water Resources Management. In addition, the Client has implemented several operations in rural development, including P050875 BR Ceara Rural Poverty Reduction Project, P100791 BR Ceara Rural Poverty Additional Financing, and the ongoing P121167 BR Ceara Rural Sustainability & Competitiveness. Other operations include: P099369 BR Ceara Regional Development, P106765 BR Ceara Inclusive Growth (SWAp II), and the ongoing P127463 BR Strengthening Service Delivery Ceara PforR, which includes actions related with the governance of the water sector.

The State of Ceará has a long experience with the requirements of the Dam Safety Policy (OP 4.37) and a sound dam safety policy. The Ceará Secretariat of Water Resources has a unit dedicated to dam safety, managing a cadaster of all existing dams within the state territory, as well as conducting regular safety inspections on the public dams. The Water Resources Management Company (COGERH) also has a section devoted to dam safety.

Most of this previous experience is held by the Project's main implementing agencies: SRH, CAGECE, COGERH and IPECE.

A full assessment of the institutional capacity of these agencies to manage social and environmental risks would be prepared before appraisal and a strategy for institutional capacity building in this area would be proposed and included in the Project's Environmental and Social Management Framework (ESMF).

C. Environmental and Social Safeguards Specialists on the Team

Alberto Coelho Gomes Costa, Social Safeguards Specialist

Maria Bernadete Ribas Lange, Environmental Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The proposed project comprises four Components: Component 1. Increasing Water Security, with two subcomponents: Sub-component 1.1: Integrated Water Resources Management and Sub-component 1.2: Water Infrastructure; Component 2. Improving the Efficiency of Water Services; Component 3. Strengthening Public Sector Management, and, Component 4. Contingent Emergency Response Component (CERC).</p> <p>The following major types of activities are expected: (i) technical assistance activities (studies for improvements in the institutional governance capacity of several state agencies, and policy design), (ii) civil works (expansion of the water infrastructure in rural and urban areas, and water losses reduction interventions) and (iii) a contingent emergency response component to be triggered at the aftermath of natural disasters aiming to facilitate the rapid</p>



financing of emergency rehabilitation works, supply of critical equipment, fuel, generator rental, transport of chemicals and critical parts (electro-mechanical equipment) to ensure the continuous operation of the water supply infrastructure.

Among the activities under the four components, direct social and environmental impacts are expected mostly of the works related with (i) the expansion of the water infrastructure (Sub-Component 1.2) and (ii) the implementation of water losses reduction plans (Component 2).

The Sub-component 1.2: Water Infrastructure would support the expansion of water distribution infrastructure in the region of Banabuiu thereby directly increasing the supply of available water to the State. The following type of activities would be expected:

- (i) Civil works: proposed Banabuiu Sertão Central pipeline system was conceived for guaranteeing water supply in adequate quality and quantity to urban areas using Banabuiu dam as water source. This system is part of the statewide Malha d'Água Program. The works for the expansion of the water infrastructure – comprising the construction of a 290km pipeline network – would take place in the region of the Sertão do Banabuiu and benefit around 200 thousand people in nine municipalities located southwest of the Banabuiu reservoir. The system will supply treated water to the urban areas of these nine municipalities and selected rural areas. Interventions would be expected in rural and urban areas. Nevertheless, the areas of direct intervention of proposed activities and project designs have not been fully defined yet;
- (ii) technical assistance: the preparation of the Emergency Preparedness Plan (EPP) of the Banabuiu dam based on the outcomes of the dam safety assessment.

The Component 2 would support interventions of water losses reduction in seven neighborhoods of capital city of Fortaleza (namely: Barroso, Cajazeiras, Cidade dos Funcionários, Engenheiro Luciano Cavalcante, Edson Queiroz, Guarapes and Jardim das Oliveiras).



In urban and peri urban areas, the foreseen potential adverse environmental and social impacts are expected to be site specific. It is expected that mitigation measures would be required for the following direct potential environmental and social impacts that are common on these project types: (i) civil works/construction activities can bring about noise, dust, and wastes; (ii) local communities can be affected by the use of local roads for improving water services provision, affecting traffic patterns and local infrastructure, increasing levels of noise and dust and other nuisances and, consequently, posing risks to safety in local communities.

Downstream social and environmental effects are expected from technical assistance activities related with (a) the economic and social study to review CAGECE's tariff structure, (b) the design of public policies to stimulate actions in the water resources and agribusiness sectors and (c) the preparation of the Basic Sanitation State Plan.

According to the World Bank's Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank, these three technical assistance activities should be classified as Type 2 (Assisting in formulation of policies, programs, plans, strategies or legal frameworks etc.) The other technical assistance activities included in the Project should be classified as Type 1 (Strengthening client capacity).

The Project would include Type 1 technical assistance activities that do not have potential adverse environmental and social implications or risks; and, would not require the preparation of any safeguard instrument before appraisal or during implementation. Type 2 technical assistance activities may have little or have no significant downstream impacts. The Project would include Type 2 activities that may have some social and environmental impacts. For instance: (i) a new tariff structure may have effect on the budget of low income families and, consequently, distributive impacts might be considered; (ii) public policies in the water resources and agribusiness sectors may have



effect on access to natural resources and protected areas and, consequently, these impacts might be addressed through measures aiming to avoid, minimize, mitigate and off-set; and (iii) a state basic sanitation plan may also have effects related with natural resources uses and land acquisition.

The Contingency Emergency Response Component (CERC) could be triggered following the declaration of a disaster or emergency. Eligible activities may include emergency rehabilitation works, supply of critical equipment, or any other critical inputs to ensure the continued operation of water infrastructure and provision of services. All activities financed through the CERC are subject to World Bank safeguards policies. The Environmental and Social Management Framework (ESMF) will include a section on the CERC, including the types of activities likely to be financed and evaluating the potential risks and mitigation measures associated with them. Given the uncertainties and rapid changes inherent in emergency situations and responses, the CERC-ESMF Annex will be designed around a flexible, “adaptive management” approach, with emphasis on monitoring of key outcomes and mechanisms. In case of CERC activation, the following elements will be considered: (i) confirming which activities can proceed, with no additional environmental or social assessment and which ones require assessment prior to being initiated; (ii) rapidly assessing the environmental and social baseline of planned CERC activities and location; (iii) preparing specific safeguards instruments, including, as necessary, mobilizing, consultation, stakeholders engagement, institutional arrangements, monitoring and evaluation procedures and estimating the costs for safeguards preparation and implementation. If the CERC activities would result in potentially significant negative social or environmental impacts, a formal review of project safeguard category will be required. Activities that do require new environmental and social assessments will wait until these are produced, consulted on, and disclosed. The incremental costs of any such needed instruments for the CERC will be included in the budget for the Emergency Action Plan. Once activated the CERC, the Bank’s oversight and due diligence of safeguard



policies would be done through augmented implementation support, increased safeguard supervision, and/or third-party safeguards policies reviews, including dams safety panel. Bank safeguard team will periodically review with the Borrower the CERC Annex, focusing on activation processes, general implementation arrangements, and safeguard issues.

Proposed EA Category – Based on the preliminary assessment of potential impacts, the proposed project is Category B, as there are not expected significant adverse environmental impacts that are irreversible or unprecedented. Despite the diversity of activities to be supported by the Project, the foreseen potential adverse environmental and social impacts are expected to be site specific and in most cases mitigation measures can be designed to prevent, minimize, mitigate or compensate adverse impacts and improve environmental and social performance. Preparation of Safeguard Instrument – Activities would be implemented in Fortaleza metropolitan area and in rural areas in the Banabuiu Sertão region. The project comprises a series of integrated interventions in the metropolitan area of Fortaleza. The proposed Banabuiu Sertão Central pipeline system will supply treated water to nine municipalities and selected rural areas with the construction of a 290km pipeline network.

The proposed project locations are not yet fully defined. Site-specific investments are still in a preliminary design stage. Feasibility studies – which consider alternative locations for site-specific facilities – are not expected to be completed before appraisal. In this context, an Environmental and Social Management Framework and a Resettlement Policy Framework would be the proper instruments to attend safeguard requirements.

The ESMF will be prepared base on the WBG General and Water and Sanitation Environmental Health and Safety Guidelines (EHS Guidelines).

An institutional capacity of the implementing agency for management of social and environmental risks would also be carried-out before appraisal and would provide inputs for an institutional capacity building



		<p>strategy to be set at project's Environmental and Social Management Framework (ESMF).</p> <p>The ESMF will include the requirement of the assessment of environmental and social impacts and risks in respective Terms of Reference and capacity-building content for technical assistance activities and consultations with civil society on relevant technical assistance.</p> <p>Labor Influx Impacts – The proposed Project will involve construction of civil works, including labor force and associated goods and services, but no significant labor influx is expected. Nevertheless, the project Environmental and Social Management Framework (ESMF) and bidding documents will include specific measures to address labor requirements and performance, assess and manage labor influx related risks, as well as monitor potential impacts from labor influx.</p>
Performance Standards for Private Sector Activities OP/BP 4.03	No	<p>This policy will not be triggered, as the proposed project does not include Bank financing for private sector. The responsibilities for identifying, assessing and managing environmental and social risks and impacts will be fully owned and operate by the public sector.</p>
Natural Habitats OP/BP 4.04	Yes	<p>Some activities under the proposed Project may have interference on water use on ecosystem and natural habitats as riparian forests and caatinga natural vegetation. Nevertheless, no significant conversion or degradation on natural habitats are expected. Springs and river margin areas are classified as Permanent Preservation Areas (APP), and legally protected by the Brazilian Legislation (Federal Law 4771/65). According to the Brazilian Legislation, the Borrower would have to request previous authorization from the State Environmental Agency to convert natural vegetation and implement activities involving conversion or degradation of natural habitats.</p> <p>The ESMF will include clear guidance regarding direct and indirect impacts on natural vegetation and habitats. The ESMF will also consider the provisions of the policy, national legislation, and any need to offset losses of habitat.</p>
Forests OP/BP 4.36	Yes	<p>This policy would be triggered. Some activities under the proposed Project may have interference on forests</p>



		<p>natural habitats. Nevertheless, the Project would not include activities that require commercial forest harvesting; or utilization of natural forests formations or plantation. The ESMF will consider the requirements of OB/BP4.36 whenever restoration activities are being planned, and should be planned and executed in such a way to minimize or prevent negative impacts on natural vegetation areas. The ESMF will also consider any need to offset losses of habitat.</p>
Pest Management OP 4.09	No	<p>This policy is not being triggered because the proposed Project will not support the purchase or increased use of pesticides and other agricultural chemicals and defined under the policy. The proposed Project will not include any support for agriculture land use which would promote pest management.</p> <p>If the purchase of any algicides would be considered under the proposed project, this policy would be triggered at appraisal stage and proper measures would be included in the Environmental and Social Management Framework (ESMF).</p>
Physical Cultural Resources OP/BP 4.11	Yes	<p>This policy will be triggered on a precautions basis, as there is no indication, so far, that the Project works may interfere with known cultural resources. However, the nature and scope of civil works, 262 km long water main, may result in interference with historical and/or paleontological sites.</p> <p>The ESMF will include procedures for screening any known cultural property in the Project area and incorporate 'chance find' procedures if culturally significant resources are discovered during the Project implementation. The 'chance find' procedures would be defined in accordance with requirements from IPHAN (Instituto de Patrimônio Histórico e Artístico Nacional) and from OP 4.11.</p>
Indigenous Peoples OP/BP 4.10	TBD	<p>There are 14 Indigenous Peoples in the state of Ceará comprising a population of about 34,000 people. They include the Tapeba, Tabajara, Tapuia-Kariri, Jenipapo-Kanindé, Potyguara, Pitaguary, Tremembé, Anacé, Kanindé, Kalabaça, Tubiba-Tapuaia, Kariri, Gavião and Tupinambá.</p>



Only one out of 25 claimed Indigenous lands has been regularized so far. These 25 areas claimed by Indigenous Peoples are located in 19 municipalities (Acarau, Aquiraz, Aratuba, Boa Viagem, Canindé, Carnaubal, Caucaia, Crateús, Itapipoca, Itarema, Maracanaú, Monsenhor Tabosa, Novo Oriente, Pacatuba, Poranga, Quiterianópolis, São Benedito, São Gonçalo do Amarante and Tamboril).

The Banabuiu Sertao Central pipeline and the interventions in water losses reduction in Fortaleza would not interfere with indigenous peoples and their lands, because there is no indigenous peoples and lands nearby these areas of intervention.

The claims of Indigenous Lands that are nearest to the areas of intervention are in Serra das Matas, which is located in the borders of the municipalities of Monsenhor Tabosa, Tamboril, Boa Viagem, Catunda and Santa Quitéria. Lands in Serra das Matas – at the Acarau River watershed – are claimed by the Tabajara, Potyguara, Tubiba-Tapuia and Gavião people. However, Serra das Matas is located about 180 kilometers away of the Banabuiu dam.

Although technical assistance activities are not expected to have significant implication for Indigenous People, the Social Impact Assessment (SIA) included in the Project's ESMF will address issues related with the presence of Indigenous Peoples in the watersheds/river basin areas covered by them.

If the presence of Indigenous Peoples is identified by the SIA in the river basins covered by supported technical activities, then, (i) OP 4.10 would be triggered, (ii) the TOR of these studies should include the assessment of social and environmental impacts on Indigenous Peoples and define a consultation process with these Indigenous Peoples among other key stakeholders, but (iii) the preparation of an IPPF before appraisal would not be needed.

Involuntary Resettlement OP/BP 4.12

Yes

It is expected that the works related with water losses reduction would not require land acquisition. Nevertheless, they may have adverse temporary impacts on mobility and commercial activities.



It is very remote that adverse impacts related with involuntary resettlement occurs in the works related with the expansion of water infrastructures, because the Client aims to use only their own lands and the rights-of-ways of existing highway network for these works. Nevertheless, the long extension of the water infrastructures makes possible that site-specific land acquisition for facilities or rights-of-way as well as adverse effects over formal or informal petty-merchants located in the rights-of-way occur.

Some technical assistance activities – for instance the State Basic Sanitation Plan – may also have downstream impacts related with land acquisition and involuntary resettlement.

The team considers that OP 4.12 Involuntary Resettlement should be triggered to address these potential adverse, direct and downstream impacts.

Site-specific investments are still in at design stage. Feasibility studies – which consider alternative locations for site-specific facilities – are not expected to be completed before appraisal. As the areas of direct intervention of these activities and the project designs of the infrastructures have not been fully defined yet, the team considers adequate the preparation of a Resettlement Policy Framework.

This Policy is being triggered because two proposed activities will rely on the performance of existing dams: (i) the Banabuiú water supply system (Sub-component 1.2 - Water Infrastructure) will rely on the performance of the Banabuiú Dam; and (ii) the Fortaleza Metropolitan Region water supply system (Component 2 - Improving the Efficiency of Water Services) will rely on the Gavião Dam Reservoir.

Safety of Dams OP/BP 4.37

Yes

As part of the preparation, the Borrower is gathering information on the Banabuiú and Cocó watersheds, including: (i) location maps of existing large dams, and water supply schemes; and (ii) basic information on all public dams within these watersheds. The preliminary screening indicates that there is no dam upstream from the Gavião Dam, and that there are two smaller dams immediately upstream from the Banabuiú Dam.



The Banabuiú Dam is operated by the National Department of Drought Works (DNOCS) and the Gavião Dam is operated by the Ceará State. Both are large dams, in accordance with OP 4.37. The Banabuiú Dam is 57.7 meters high and has a reservoir with approximately 1.6 billion cubic meters. The Gavião Dam is around 14.6 meters high and has a reservoir capacity of 32.9 million cubic meters. Both are being maintained in accordance to the Brazilian National Policy on Safety of Dams, Law No. 12.334/2010, which sets dam safety requirements. The Banabuiú was object of a recent inspection, (2015), funded by the São Francisco Water Transfer Project, including the preparation of detailed engineering designs for rehabilitation works that will be funded by the Federal Government.

The Ceará State has a sound experience with the Bank Dam Safety requirements and agreed to engage independent dam expert to evaluate the dam safety of the two dams directly related to the project. This assessment would include the inspection and evaluation of the safety status of the two existing dams, their appurtenances and performance history, a review of the operation and maintenance procedures, a preliminary impact assessment of a dam break of the smaller dams upstream on Banabuiú, consolidations of findings and recommendations for any remedial work or safety-related measures necessary to upgrade the existing dams to an acceptable standard of safety. The project would finance during implementation the elaboration of the Emergency Preparedness Plans (EPP) of Banabuiú and Gavião Dam as well as the main outcomes of the dam safety assessment, eg. improvement of the O&M plan, instrumentation and minor rehabilitation works if need be.

The Task Team includes a World Bank Dams Specialist who will prepare a preliminary characterization of the dams related to the Project and a draft of the Dam Safety Review Report ToR, once the Client delivers additional information on the existing dams.

The independent dam safety assessment would be undertaken during project preparation before appraisal. This independent review will also assess



how the dam owners have been in compliance with the regulations and dam safety requirements established by the Brazilian National Policy on Safety of Dams (Law No. 12.334/2010), as well as relevant regulations by CNRH (National Council of Water Resources) and ANA. This would include dams' risk/hazard classification and supplementary measures needed for meeting the dam safety requirements. The ESMF will address the potential impacts of the existing dams' operation rules, including alteration of river flow and sediment transport downstream.

Projects on International Waterways
OP/BP 7.50

No

The proposed project will neither affect the efficient utilization and protection of international waterways, nor adversely affect relations between the bank and its borrowers, and between riparian states. Thus, this policy is not triggered because the project will not affect any international waterways as defined under the policy. The Ceará State is located in the Brazilian Northeast and is not bordered by other countries.

Projects in Disputed Areas OP/BP 7.60

No

Not applicable, because the activities financed by the Project would not be located in disputed areas.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Oct 11, 2018

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

The Client would prepare two main safeguards instruments: an Environmental and Social Management Framework, a Resettlement Policy Framework, and a Dam Safety Review Report.

The ESMF would include: (i) an assessment of potential environmental and social impacts associated with the operation, including a proposal of mitigating measures of these effects; (ii) the environmental and social screening procedures and implementation arrangements under this project; (iii) a strategy of communication and citizen engagement – including a Grievance Redress Mechanism (GRM); (iv) community and labor health and safety measures; (v) a set of rules for a conduct code in relationships between project laborers and beneficiary communities; (vi) a construction manual; and (vii) a gender action plan.

The RPF would include the principles and guidelines to be followed in the preparation and implementation of Resettlement Action Plans, including measures to avoid, minimize and compensate for permanent and temporary effects related with land acquisition, physical and economic displacement. For each RAP, the Client will consider the necessity of establishing standalone GRM.



The ESMF and RPF would be consulted before Appraisal. The team would recommend two meetings are held during this consultation process: one in the capital city of Fortaleza; the second in the Sertão do Banabuiú region, convening the Consultative Committee of the Banabuiú River Basin. Feedback received during the consultation process would be incorporated on the ESMF and RPF as appropriate. These consultations would take advantage of the committee of the Banabuiú River basin, which convenes representatives of civil society, NGOs, and academia. Local community leaders would also be consulted. These consultations would address the findings of the social and environmental assessment and evaluate the identification of impacts and benefits derived from project activities as well as the proposed measures to avoid, minimize, and/or mitigate adverse impacts. COGERH already relies on a robust strategy of engagement with water users and river basin committees. Water users will also be consulted for the approval of water use from Banabuiú reservoir for the conveyance system. All comments and suggestions received would be registered and included as an Annex of these instruments.

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