



# Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 06-Feb-2019 | Report No: PIDISDSA25845



**BASIC INFORMATION**

**A. Basic Project Data**

Country Brazil	Project ID P167455	Project Name Ceara Rural Sustainable Development and Competitiveness Phase II	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 12-Feb-2019	Estimated Board Date 30-Apr-2019	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) State of Ceara	Implementing Agency Secretariat of Agrarian Development	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to enhance access to markets and access to water and sanitation, adopting climate resilient approaches, by targeted beneficiaries in selected areas of the State of Ceará.

Components

Sustainable Economic Inclusion  
Rural Water Supply and Sanitation Access  
Institutional Strengthening and Project Management  
Front-end-Fee

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

**SUMMARY**

<b>Total Project Cost</b>	153.53
<b>Total Financing</b>	153.53
<b>of which IBRD/IDA</b>	100.00
<b>Financing Gap</b>	0.00

**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	53.53
Borrower/Recipient	53.53

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

**B. Introduction and Context**

Country Context

- After a decade of rapid growth and social progress up to 2013, Brazil’s economy first stumbled and then fell into deep recession.** A decade of sound macro policies and a favorable external environment contributed to fast economic and social progress between 2001 and 2010. However, the deterioration in both factors led to a steady decline in growth declining from an average of 4.5 percent per year in 2006–10 to 2.4 percent in 2011–14, followed by contractions of 3.5 percent per year in 2015 and 2016. While external factors triggered the slowdown, an expansionary policy response led to rapidly rising fiscal disequilibria and, with rising domestic political uncertainty, a loss of confidence and sharp drop in investment. Economic recovery remains weak with 1 percent growth in 2017 and 1.2 percent growth projected for 2018.
- The crisis threatens a decade of development progress.** Brazil experienced an unprecedented reduction in poverty and inequality between 2006 and 2015 when 24.8 million Brazilians escaped poverty and the Gini coefficient of household incomes fell to 0.51 in 2015 from 0.59 in 1999. Most of this reduction was explained by the creation of formal sector jobs, resulting in a sharp decline in the unemployment rate to a low of 6.8 percent in 2014. However, the economic crisis precipitated a rapid rise in unemployment with job losses of 0.6 million in 2015 and 2.0 million in 2016. As a result, poverty increased in 2015 and 2016. With on-going tepid economic growth, poverty is estimated to have leveled off at 20.6 percent in 2017.
- Restoring fiscal sustainability is the most urgent economic challenge for Brazil.** To address unsustainable debt dynamics, in December 2016 the Government adopted a constitutional amendment to limit public expenditure growth, which entails an accumulated adjustment of 5 percentage points of Gross Domestic Product (GDP) for 2019–26 and would stabilize debt at around 89 percent of GDP by 2026, declining thereafter. Implementing this fiscal adjustment requires alleviating the rigidities affecting public spending and revenue earmarking mechanisms, which make over 90 percent of the federal government’s primary spending mandatory. It will also require a comprehensive reform of social security to halt the projected increase in the deficit and possible adoption of controls on the wage bill and rationalizing programs to support private sector development.



This large fiscal disequilibrium also affects subnational governments with limited capacity to cope with growing wage bill and pension payments unless reforms are adopted. While spending restraint will continue to dominate the fiscal agenda, there is large scope for efficiency improvements in public services. Thus, fiscal adjustment need will not come at the expense of worsening access or service quality. However, realizing efficiency gains requires structural changes to budget rules and incentives and is resisted by some public-sector interest groups.

4. **Brazil will also need to accelerate productivity growth and infrastructure development.** The income of an average Brazilian has only risen by 0.7 percent per year since the mid-1990s—one-tenth the rate in China and only half the average in the Organization for Economic Co-operation and Development countries. This is mainly explained by the lack of total factor productivity growth between 1996 and 2015. The productivity problem in Brazil stems from the lack of a conducive business environment, distortions created by market fragmentation, multiple business support programs, and a market that is relatively closed to external trade and competition. Brazil also posts one of the lowest rates of infrastructure investment (2.1 percent of GDP over 2000–13) compared to its peers and the quality of this investment is low. Accelerating productivity growth remains a key priority for the country and there is limited space for public sector led growth. Reforms could focus on boosting market competition, greater access to external markets and cheaper inputs and technologies and simplifications to the tax system. Higher levels of investment in infrastructure will also be needed to ensure adequate maintenance and expansion of the existing infrastructure stock necessary to meet the needs of the population and to increase Brazil’s prospects for further economic growth and competitiveness. This calls for improved planning capacity at the Government level, improving the regulatory environment and leveraging private resources to finance investments.

5. **Brazil is short of its commitments under the Paris Agreement.** Brazil’s actual progress towards achieving its National Determined Contributions (NDC) has been rated by the Climate Action Tracker (CAT) as “Insufficient,” meaning that its targets are not consistent with agreed limiting warming to below 2°C. Brazil’s remarkable progress in emissions mitigation observed since 2005 has stopped, with deforestation and resulting emissions picking up speed again in recent years. Total deforestation increased almost 30% in 2016 compared to 2015, with more than 50% in the Amazon region, adding around 130 MtCO<sup>2</sup> to total net emissions in 2016. This increase in emissions goes in the opposite direction of Brazil’s commitments under the Paris Agreement, which included a target of zero illegal deforestation in the Brazilian Amazonia by 2030. In addition, emissions in most sectors are expected to rise at least until 2030. To be able to control emissions and rapidly decrease levels as required by the Paris Agreement, Brazil will need to reverse the current trend of weakening climate policy, by sustaining and strengthening policy implementation in the forestry sector and accelerating mitigation action in other sectors, including a reversal of present plans to expand fossil fuel energy sources.

6. **Located in the Northeast Region, the State of Ceará’s economy represented 2.1 percent of the Brazilian GDP in 2016.** Coming from three consecutive increases in the GDP from 2012 to 2014<sup>1</sup>, the State suffered the impacts of the fiscal crisis in 2014 and had negative growth 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. The State is composed of 184 municipalities with 9 million inhabitants, 74 percent of whom live in urban areas and 26 percent (2.3 million inhabitants) in rural areas.

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<sup>1</sup> Ceará 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%.



7. **The State Government of Ceará (GoC) prioritized investments and programs to restore the economic dynamism and retain past social gains.** In 2015, GoC launched the strategic plan “The Seven Ceará’s” prioritizing investments under seven development dimensions: (a) Participatory planning and public management for results; (b) Human rights, housing and social inclusion; (c) Business and entrepreneurship, including family agriculture; (d) Water and environmental sustainability, including infrastructure and energy; (e) Education, innovation, science and technology; (f) Health and sanitation; and (g) Public security and urban development. The Pluriannual Plan prepared for the 2016-2019 period also incorporated the State’s efforts to improve the efficiency of public service delivery, through four strategic pillars: (i) a new public management model; (ii) strengthening citizen participation; (iii) promoting territorial development; and (iv) enhancing the inter-sectorial implementation of public policies. Most recently, the GoC launched the Long-term Strategic Development Plan – ‘Ceará 2050’ aiming to layout strategies to accelerate the State’s long-term economic growth and to more effectively meet society’s expectations for the provision of essential services - health, education, water supply, public security, and employment and income generation.

#### Sectoral and Institutional Context

8. **Agriculture is vital to Ceará State’s rural economy.** Although agriculture accounts for only 4.5 percent of Ceará’s GDP (which increases to around 8 percent when the whole agribusiness value chain is included), it is the main source of economic activities in rural areas, particularly for small landholders. Agriculture generates 21 percent of employment and is directly related to food and nutritional security, in special to the poor rural population. Ceará has 341,000 agricultural households, covering almost 8 million hectares. Nearly 75 percent of agricultural households have less than 10 ha, representing less than 7 percent of the total area. Even though family agriculture<sup>2</sup> occupies a small area, it accounts for 59.3 percent of the Gross Production Value (GPV), as opposed to 40.7 percent of the large-scale farms. According to data from the Brazilian Institute of Geography and Statistics - IBGE (2010), about 52 percent of total people living in poverty in the State are residing in rural areas, where the poverty indexes show 38.9 percent living in poverty and 18.7 percent in extreme poverty (compared to 10.9 and 3.4 percent for the entire State, respectively).

9. **The scarcity and uneven distribution of rainfall also impacts the reliability of access to basic water services, such as potable and continued water supply in rural areas.** In 2014<sup>3</sup>, potable water supply access in the State reached 78 percent of the urban population and only 37 percent of the rural population. Similarly, basic sanitation services reached 52 percent of the population in urban areas and only 18 percent in rural areas. Open defecation numbers in Brazil (over 4 million people) are higher than many Latin American countries<sup>4</sup>. In Ceara, water-related diseases (such as diarrhea) has been an issue, especially for children under 5 years-old. In 2016, Ceará’s index for infant mortality was 14.3 (higher than Brazil’s average of 14). The Human Development Index for Ceará is 0.682, the 10<sup>th</sup> worst in the country. Studies<sup>5</sup> recognize the strong link between health and access to improved water and sanitation. Poor sanitation and water quality and the resulting diarrheal diseases are the second and third leading risk factors for stunting worldwide. Conscious of this issue, the GoC has intensely invested

<sup>2</sup> In Brazil a family farm is defined by the Family Farming Law (Law No. 11,326/2006), based on four criteria: (i) does not have under any tenure regime an area of more than four fiscal modules; (ii) predominantly relies on its own family labor; (iii) household income predominantly originates in the family farm; and (iv) family members operate the farm.

<sup>3</sup> IPECE. Anuário Estatístico do Ceará, 2015. 13.2.1 – Water supply, Sanitation and Solid waste.

<sup>4</sup> Instituto Trata Brasil, 2018. “Benefícios econômicos e sociais da expansão do saneamento no Brasil”

<sup>5</sup> Instituto Trata Brasil, 2018. “Benefícios econômicos e sociais da expansão do saneamento no Brasil” and World Bank, 2018. “Water and Human Capital – Across the lifecycle.”, to mention a few.



in water supply and sanitation infrastructure and these investments have increased water distribution services and have started to improve access to sanitation (early 2008, rural areas had minimum access); however, the availability of these services is uneven in urban and rural areas and have been impacted by the long drought period. In order to reach universal access in rural areas it would be necessary to continue improving planning, infrastructure and management, as well as promoting a more efficient coordination of water resources management (WRM) and water services delivery to guarantee sustainability and the reliability of water services.<sup>6</sup> In addition, capacity building activities including social and behavior change techniques are expected to improve environmental and hygiene conditions, impacting human capital and increasing resilience of the population.

10. **Lack of opportunities and work hardships have contributed to the migration of large numbers of youth to urban areas and increased the impoverishment of women.** Young people often perceive agricultural activities as labor-intensive and unprofitable, opting to migrate to urban centers in search of better opportunities. According to the Institute of Research and Economic Strategy of Ceará (*Instituto de Pesquisa e Estratégia Econômica do Ceará* - IPECE), rural youth account for around 20 percent of the state's youth population and they are among the most disadvantaged of groups. Migration of rural men also resulted in increases in female heads of households, who need to support their families, having fewer work opportunities and lower wages than men. Currently, only about 20 percent of family productive units are headed by females (IBGE, 2017). At the same time, the gender gap in average earnings in Ceará (United Nations Development Programme, 2017) is estimated in around 23 percent. In rural areas, it is estimated that women spend on average about 18.1 hours per week in household and care-taking tasks, including about 6.3 hours per week to collect water, which possibly indicates the gender gap is even greater in these areas.

11. **Rural population and agriculture activities are highly vulnerable to climate conditions.** Roughly 91 percent of the Ceará's territory is in the semiarid region of Brazil, with elevated temperatures, spatial and temporal variability of rains and high-water scarcity. The dominating natural vegetation in this semiarid region is a savanna-steppe known as *Caatinga*, that has been degraded by inadequate land management (slash and burn practices), over-grazing and over-exploitation. This region is the most vulnerable Brazilian ecosystem due to further reduction of rainfall deficit and increased aridity. Since the predominant soils are superficial and vulnerable to degradation and erosion, areas with bare soils over long periods are most prone to desertification. Different studies have shown that the *Caatinga* areas of superficial soils are generally exposed to high rates of soil erosion, generally reaching averages of annual soil losses of about 50 metric tons per ha (Araujo Filho, 2013 cited by Tomasella, J. et al, 2018).

12. **Worsening agro-ecological conditions have recently prevailed.** This reality was worsened by the six consecutive years<sup>7</sup> of persistent drought experienced in Brazilian semiarid region (and affecting more than 90 percent of the area of Ceará) since 2011, including one year when rainfalls were 46 percent below the historical

<sup>6</sup> "Ceará 2050. Juntos pensando o futuro." Status of the Water Resources in the State.

<sup>7</sup> During the drought of 2012-2016, nearly 78 percent of the small farmers in Ceará accessed the *Garantia Safra* crop insurance. This scheme was designed by the former Ministry of Agrarian Development (MDA) as an income compensation mechanism for family farmers who plant maize, beans, cassava, cotton and rice in the semi-arid of Brazil. The program disburses a fixed amount (currently R\$850) to farmers when the occurrence of a severe drought or excess of rainfall has caused crop losses above 50% of the expected yield.



value, and four years were 23 percent below the historical value. A recent study (Tomasella, J. et al, 2018<sup>8</sup>) has estimated that all categories of soil degradation (moderate, high and very high) have increased during 2000-2016, but the variation became more significant during 2007-2016 where the total areas classified as “degraded” in the semiarid region of Brazil increased by around 17,518 Km<sup>2</sup> reaching a total of about 72,708 Km<sup>2</sup>.

13. **There is an urgent need to increase resilience to climate and weather impacts.** About 92 percent of family farmers do not have access to irrigated land and thus depend entirely on rainfall. Production of certain crops (maize, beans and rice) and livestock production (bovine, swine and poultry) were severely affected by the drought from 2011 to 2016. Climate Change models project significant temperatures increases for 2020-2099 for the interior of Ceará coupled with decrease in rainfalls. Although climate models are less accurate in forecasting rainfall distribution, an overall increase of extreme events could be also expected. This would further increase the challenge to climatic resilience of agricultural production in the Northeast of Brazil. Despite this context, resilience has increased as farming activities grew more than other economic activities in the state in 2017, a very water scarce year. To continue coping with adverse climate conditions, agricultural systems need to build more resilience through expanding water supply for agriculture, and climate-smart agriculture (CSA) practices and technologies, which can help raise agricultural productivity, reduce rural communities’ vulnerability to weather extremes and offer some protection to farmers from the impacts of food price volatility.

14. **Solid food and agriculture systems potential to generate climate smart jobs and contribute to the State’s GDP.** Although precipitations have been gradually reducing and climate change models project further reductions, still the rainfed crop potentials in normal years (at least 800 mm year in the driest areas) are adequate to support some specific crops and value chains, when relevant technologies and good crop management are applied. With the adoption of CSA practices and technologies, there exist solid opportunities for the food and agriculture system to augment its capacity to adapt to the agro-ecological and precipitation changes. During the past 20 years, rainfall trends reduced by 14 percent while the trend of total agricultural production increased by around 40 percent. A particularly revealing example is milk production in Ceará that during the recent consecutive drought years has increased. The drought episodes forced cattle and goat herders to intensify production, improve alimentation, scale up new sources of animal feed such as the “*palma forrageira*” (*Opuntia Ficus Indica*, a drought resistant cactus), including with the support of the Bank-supported ongoing Sao Jose III project. The State thus has an opportunity to leverage CSA technologies and practices, improve linkages to markets to increase productivity and enhance resilience of the sector while reducing greenhouse emissions.

15. **State’s institutions to track agriculture-water nexus issues.** The GoC created through the Law No. 13,875 of February 2007 the State Secretariat of Agrarian Development (*Secretaria Estadual de Desenvolvimento Agrário - SDA*) to plan, coordinate, and execute federal and state level policies and programs for rural development, with emphasis on family agriculture. SDA counts with a network of network of public and private technical assistance and rural extension (ATER) institutions to implement policies and programs. The State Rural Extension and Technical Assistance Company (*Empresa de Assistência Técnica e Extensão Rural do Ceará – EMARTECE*), a public agency linked to SDA, is the leading ATER institution in Ceará. The existent ATER network has proved uncoordinated and insufficient to meet the demand of family farmers and rural settlers in the State. Recently, the Governor announced a proposal to recruit new technicians to EMARTECE to increase the coverage of ATER across the State. However, there is an urgent need to strengthen the institution to build strategic and operational

<sup>8</sup> Desertification Trends in the Northeast of Brazil over the period of 2000-2017. Tomasella, Javier; Viera, Rita; Barbosa, Alexandre; Rodriguez, Daniel; de Santana, Marcos; Sestini, Marcelo. International Applied Earth Observation Geoinformation (2018).



capacity, as well as redefine its role and complementarity vis-a-vis the existing private ATER providers in Ceará. Also, given the State's fiscal constraints to recruit additional public servants to operationalize policies and programs, SDA relies on the partnership with the Agropolos Institute of Ceará (Agropolos), which is a non-for-profit civil organization with a public mandate with an independent legal personality. On March 7, 2002, Agropolos was accredited as a Social Organization (OS) to provide support to rural policies, meeting the requirements of State Law No. 12,781 of December 1997, with the GoC, through State Decree No. 26,528 and State Decree No. 29,320 of June 12, 2008.

16. **Along with agricultural policies, SDA is also responsible for implementing water and sanitation infrastructure in rural areas to expanded water coverage for human and productive consumption.** As a novelty in the sector for the country, the GoC approved the complementary Law No. 162 of June 2016 to establish the State water supply and sanitation services (WSS) Policy, especially focusing on rural challenges. The law establishes that the Secretary of Cities is responsible for coordinating the WSS sector in the State; and for rural WSS (RWSS), will work in close collaboration with the State Secretariat of Agrarian Development (SDA) and the State Secretariat of Water Resources (SRH). The institutional framework for water resources was established, since 1987 with the creation of the SRH, the Superintendence of Water Works (*Superintendência de Obras Hídricas - SOHIDRA*), and the State Meteorological and Water Resources Foundation (*Fundação Cearense de Meteorologia e Recursos Hídricos – FUNCEME*), followed by the creation of the State Company for Water Management (*Companhia de Gestão dos Recursos Hídricos – COGERH*) in 1993, which is responsible for managing water resources and providing bulk water supply services. 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. CAGECE is responsible for the provision of (mainly urban) water supply and sanitation services to 152 municipalities out of 184, reaching 5.7 million beneficiaries. Since 1996, the GoC supported the creation of the Integrated Scheme for Rural Water Supply and Sanitation (*Sistema Integrado de Saneamento Rural - SISAR*) – a federation of community associations with technical support from CAGECE – to carry out the maintenance of water supply systems at scale for rural areas with operational support from community members. Since then, over 680,000 inhabitants are being serviced with piped water supply by one of the eight existing regional SISAR management model scheme. Water tariffs are collected to sustain services provision. 2018 SISAR numbers indicate that 96 percent of users are regularly paying the bills. The GoC recognizes SISAR as the government model for managing water services provision in the State. Bank's studies<sup>9</sup> have also recognized SISAR scheme as best practice. However, despite all efforts, sustainability challenges still remain for water services provision and the difficulties for institutional coordination, constraining the long-term impacts in terms of increasing the quality of life of the rural population.

17. **Recently established water services working group, along with improved planning and institutional capacity, will assist the State to be more effective towards reaching sustainable RWSS access.** In October 2018, the Secretary of Cities has established a Working Group to discuss and implement public policies for rural WSS (RWSS WG)<sup>10</sup>, but also to coordinate actions in the sector and agreeing about sector challenges<sup>11</sup>. As part of the State's strategy to improve knowledge about the sector, actions were prioritized to scale up the RWSS information

<sup>9</sup> World Bank, 2017. Sustainability Assessment of Rural Water Service Delivery. Findings of a Multi Country Review. And World Bank, 2016. *Estudo de modelos de gestão de serviços de abastecimento de água no meio rural no Brasil*.

<sup>10</sup> The following institutions will take part of the RWSS WG: SDA, SRH, State Regulatory Agency- ARCE, National Health Foundation – FUNASA, National Association of Municipal Water and Sanitation Services Providers – ASSEMAE, CAGECE, SISAR and Association of Municipalities of the Ceara State – APRECE.

<sup>11</sup> Such as planning, environmental license, regulation, information system, community association services provision, technical standards, technologies, sustainability and financing focusing on the universalization of service provision etc.



system (SIASAR) to more communities in order to better subsidize decision-making for planning, monitoring and managing the water supply systems implemented in rural areas by all state and federal entities<sup>12</sup>. In addition, the Bank is supporting the preparation of the *Malhas D'água* Project, which would have complementary activities in support to the sector by preparing the State WSS Plan (including both the urban and the rural challenges); preparing studies to map the State's main values chains water demands; and water supply infrastructure designs and intervention to increase urban and, potentially, rural potable water access.

18. **Irrigation potential and opportunities.** Over the years, the GoC has improved its monitoring and planning capacity on water availability, as COGERH and FUNCEME provide daily reports on water reservoirs (around 100) and groundwater levels. This information allowed the GoC to identify vulnerabilities in the water infrastructure and reformulate piped water schemes (especially with the State's *Malha D'água*<sup>13</sup> Program) to improve water services management for rural and urban population and to continue the integration of water basin for multiple uses. Moreover, Ceará has potential for groundwater use in specific areas of the state and the ongoing project has already financed several wells, mostly for drip irrigation. The GoC has identified opportunities to increase irrigation by diversifying water sources, including reuse and rain harvesting systems; identifying productions that rely less on water, and Community-Based Adaptation (CBA) technologies customized to the semi-arid region. Wastewater reuse could be potentially applied to industrial and agricultural needs that correspond to 70 percent of the total water demand in the State<sup>14</sup>.

19. **Given these opportunities and challenges, the GoC had established a long-term policy agenda to support the poverty reduction and economic development in rural areas.** Starting in the 1980s, the Federal government launched interventions<sup>15</sup> to bridge the development gap between rural and urban areas and relied on the States for the implementation of the programs. In line with this strategy, in 2002, the GoC prepared a Bank-financed operation to implement this policy, the Rural Poverty Reduction Project – *São José I* (P050875 - US\$37.5M), whose objective was to strength the State's capacity to implement and complement Federal programs to improve the rural poor's access to basic social and economic infrastructure and services. Using a Community-Driven Development (CDD) approach, the project financed basic infrastructure subprojects (electricity, water supply and productive activities) and enhanced local governance to increase citizen participation and transparency in decision-making, by strengthening community associations and municipal councils. In 2006, an Additional Financing for the Rural Poverty Reduction Project – *São José II* (P100791 - US\$37.5M) was approved to scale up the positive results from the previous operation (over 1,400 community subprojects were financed, benefiting 370,000 people, as per ICR assessment).

20. **Progress in poverty and extreme poverty reduction over a decade, led GoC to upgrade the CDD approach by adding element of competitiveness to the rural development efforts.** In 2010, the Federal Government approved the "Ceará Rural Sustainable Development and Competitiveness Project" – *São José III* (P121167 - US\$100M IBRD loan), to be implemented in two phases. The project focuses on structuring a "pipeline"

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<sup>12</sup> Governo do Estado do Ceará. Secretaria de Recursos Hídricos. *Plano de Ações Estratégicas de Recursos Hídricos do Ceará*, March 2018.

<sup>13</sup> To be partially financed by a Bank loan in preparation - "Ceará Water Security and Governance" Project (P165055) – the *Malhas D'água* Project

<sup>14</sup> Governo do Estado do Ceará. Secretaria de Recursos Hídricos. *Plano de Ações Estratégicas de Recursos Hídricos do Ceará*, March 2018.

<sup>15</sup> The main policies were created to improve electricity connectivity (*Luz para Todos*), water supply (*Água para Todos*), microfinancing access (National Family Agriculture Program - PRONAF), and land tenure and agrarian reform (INCRA).



of increasingly entrepreneurial, market-driven, productive and creditworthy small-farm producers. Also, the project supported the State's efforts to universalize the access of water supply for human consumption and sanitation for rural areas. Along with CAGECE, SOHIDRA, and SISAR for water investments, the project also partnered with the Ceará State Rural Extension and Technical Assistance Company (*Empresa de Assistência Técnica e Extensão Rural do Ceará – EMARTECE*) to support the execution of productive activities. The project has benefitted over 7,500 family farmers under productive subprojects and around 22,000 and 39,000 people with improved access to rural water supply services and sanitation, respectively.

21. Those long-standing investments have improved the state's overall socioeconomic indicators in the last decade and, most recently, buffered the rash effects of the economic crises started in 2014 and the prolonged drought period. The proposed project brings a unique opportunity to be built upon lessons learned and consolidate ongoing investments by reducing the agro-climatic vulnerability of rural communities, reach a larger share of the rural population remains uncovered with basic public services, and strengthened the state's institutional capacity and sustainability to plan, implement and develop coordinate policies and programs in rural areas.

### C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The Project Development Objective (PDO) is to enhance access to markets and access to water and sanitation, adopting climate resilient approaches, by targeted beneficiaries in selected areas of the State of Ceará.

#### PDO Level Indicators

##### Access to markets:

- (a) Increase gross value of sales (in real terms) by members of organizations participating in approved subprojects (percentage)

##### Access to water and sanitation:

- (b) People provided with access to improved water sources (number, Core Results Indicator - CRI)
- (c) People provided with access to improved sanitation services (number, CRI)

##### Adoption of climate resilient approaches:

- (d) Farmers (members of supported organizations) adopting improved agricultural technology (number, CRI).

### D. Project Description

22. **Geographical Focus.** In order to focalize productive and water interventions in priority territories, one of the first steps to be implemented under the Project will be to carry out a municipal classification to establish a prioritization based on the juxtaposition of some or all of the following parameters: (i) existence of strategic<sup>16</sup>

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<sup>16</sup> Value chain selection will be based on the following criteria: i) high predominance of family farmers already active at the production level; ii) market opportunities to increase farmers' income; iii) adequacy with climatic conditions, use of natural resources, lower water production requirements and potential for territorial development; iv) high potential to develop geographical branding through products and services; v) potential to create new jobs in rural areas (and across the value chain), particularly for women and youth.



value chains showing high potential to promote competitiveness and inclusive growth; (ii) Municipal Alert Index<sup>17</sup> showing vulnerability levels above and index of 0.72 (Medium-high and above); (iii) Agro-Climatic Zones showing level of natural resources and climatic conditions capable of supporting development of value chains (even though with existing risks); (iv) presence of priority groups, mainly family farmers organizations capable of responding to the support offered under the Project, but also including possible significant participation by women, youth, and other vulnerable groups; and (v) assessment of water availability. These studies are expected to be initiated shortly, even before approval of the loan by the Bank, by using government's own resources and it would potentially be eligible for retroactive financing (following Bank's policies and procedures under the operation).

23. **Strategic Approach.** The proposed project has introduced innovations compared to previous efforts in rural areas, mainly focusing on: (i) definition of key priority territories where the activities would be more likely to produce sustainable impacts; (ii) increased focus on larger groups of beneficiary organizations, with more chances to enhance competitiveness and sustainability; (iii) greater emphasis on vulnerable groups, including indigenous peoples, women and youth; (iv) ensure enhanced and sustainable formal linkages with prospective buyers; (v) redesign the investment cycle of the productive subprojects to increase efficiency and quality; (vi) greater interconnection between the productive activities and the improvement of water services, as well as expansion of integrated systems and household sanitary modules; and (vii) strengthening the interinstitutional coordination and capacity of strategic public institutions to improve quality and sustainability of public service delivery in rural areas (see details in Annex 2).

24. The Project is structured within three components and six subcomponents as follows:

25. **Component 1: Sustainable Economic Inclusion (US\$68.79 million; IBRD loan US\$43.54 million).** The purpose of the component is to improve family farming producers' organizations (including priority vulnerable groups, women and youth) access to dynamic markets thus leading to more sustainable source of income. Market access will be fostered through the identification of private and public buyers and the formulation and implementation of business plans, under subprojects, to meet market requirements. Through their own producers' organizations (PO), family farmers will have possibilities to mitigate the impact of small farm size (atomization), adopting new technologies and increasing their competitiveness, improving product quality, quantity, and traceability as required by the high-end value chains. Moreover, given the climate variability and water scarcity, the component will pay special attention to increase the capacity to manage potential impacts of climate change to agro-ecosystems, by promoting technologies and agricultural and resource management practices that have demonstrated stronger effects on-farm sustainability and effectiveness in semi-arid rural areas and are well adapted to agro-climatic conditions in the State. The component will also identify the need for improvement in water supply for households involved in subprojects to be financed, either for human consumption or for productive use. The identified demand will be evaluated as part of the activities of component 2 to attend these households with water supply systems or for analysis of the feasibility for reuse of gray water for productive purposes.

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<sup>17</sup> The Municipal Alert Index Series (IMA) of the Research and Economic Strategy of Ceará (IPECE) is calculated for the 184 municipalities of State of Ceará from a set of 12 indicators, which capture climatic, agricultural and social vulnerabilities using meteorological, agricultural production and social assistance indicators. According to the IMA of 2018, the municipalities with highest vulnerability rate are: Monsenhor Tabosa, Deputado Irapuan Pinheiro, Boa Viagem, Piquet Carneiro, Parambu, Catarina, Solonópole, Saboeiro, Araripe, Tauá, Mombaça, Milhã, Jaguaribe, Independência, Madalena, Campos Sales, and Paramoti. For more details see [https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2018/09/IMA\\_2018.pdf](https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2018/09/IMA_2018.pdf).



26. **Subcomponent 1.1: Strengthening Organizations for Enhanced Market Access.** Support the preparation and implementation of Productive Subprojects by selected Producer Organizations in priority areas through: (i) technical assistance, carry out pre-investment studies, preparation of business plans, capacity-building activities, *inter alia*; and (ii) the provision of Matching Grants to Producer Organizations for carrying out Productive Subprojects, including, *inter alia*: minor on-farm infrastructure; energy, water and soil conservation and management measures; provision and utilization of inputs, equipment and tools; complementary technical assistance services; support to meet legal environmental and sanitary requirements for market access; implementation of sustainable management plans (especially agro-silvo-pastoral) in areas of Caatinga.

27. **Subcomponent 1.2: Improving Social and Productive Inclusion for Vulnerable Groups.** Support the preparation and implementation of Investment Subprojects in selected organizations of priority Vulnerable Groups in rural areas through: (i) technical assistance, capacity-building activities and preparation of community development plans; and (ii) the provision of Matching Grants to Vulnerable Groups for carrying out Investment Subprojects to increase food security and income generation initiatives through improved productivity, greater efficiency in water use, and increased resiliency to climate change.

28. **Component 2 – Rural Water Supply and Sanitation Access (US\$53.09 million; IBRD loan US\$35.35 million).** The objective of this component is to support the State's efforts to universalize access to improved water and sanitation access by investing in sustainable and resilient service provision in prioritized rural communities. Water and sanitation infrastructure investments will include: (i) water supply for human consumption for communities identified on both components 1 and 2; (ii) rural onsite sanitation for communities supported with water interventions; (iii) reuse of grey water and of wastewater from desalinization processes to support agricultural production; and (iv) protection or recuperation of water sources. Lack of access to water and sanitation has immediate implications on the health and quality of life of the population; and these implications are harder among women and children. In this sense, Component 2 actions will provide specific support to women, reducing gender gaps.

29. **Subcomponent 2.1: Expanding Water and Sanitation Access.** This subcomponent will finance new water supply systems for prioritized rural communities using three approaches: (a) in response to the demand of component 1; (b) spontaneous demand; and (c) induced demand; and will support the rehabilitation of water supply systems of a specific number of communities prioritized by SISAR to join the existing operation and maintenance (O&M) scheme. Water supply systems will include the intake from water sources (most common are wells or small reservoirs), simplified treatment (e.g. desalinization, filtration and disinfection), reservation, distribution, macro and micro-metering; including the energy supply (if not available yet). The subcomponent will create incentives in the design of the infrastructure for the adoption of technological innovation (e.g. solar panel, chlorine equipment, etc.) aiming to reducing costs, increasing resilience and the operational efficiency of the systems. Water sources availability and alternatives would be assessed before the design and implementation of subproject with support from COGERH and FUNCEME's data and expertise.

30. In addition, this subcomponent will support the construction of onsite sanitation structures – complete household sanitary kits (*módulos sanitários domiciliares - MSD*) or treatment units for existing sanitary kits - in the communities identified to receive new water systems. Piloting of a new approach for families who desire to make improvements to existing sanitary kits based on demand using microcredit (via the State Fund for Family Agriculture Development – *Fundo de Desenvolvimento da Agricultura Familiar - FEDAF*) will be tested. Sanitary



kits include water-flushed toilet, water tank, laundry, washbasin, shower), inspection box, and treatment using septic tank.

31. **Subcomponent 2.2. Increasing Water Security and Resilience.** The subcomponent aims to increase the availability and access of water for agricultural production purposes by financing the implementation of water reuse systems in response to the demands of component 1 (as indicated by the environmental management or business plans); as well as the promotion of activities aimed at the protection and conservation of water sources (small reservoirs, river banks etc.) surrounding areas for communities who benefited from water supply interventions.

32. **Component 3 – Institutional Strengthening and Project Management (US\$31.41 million; IBRD loan US\$20.86 million).** The overall objective of the component is to strengthen the organizational, management, knowledge and operational capacity of key implementing State institutions, as well as to provide overall Project Management and Supervision.

33. **Subcomponent 3.1. Institutional Strengthening and Capacity Building.** The subcomponent will strengthen public institutional capacity, including staff training and capacity building and improvement of technical services delivery aimed at rural population. The subcomponent will focus on consolidating the coordination of sectorial agencies, relevant to the implementation of the State's programs and policies supported under the Project and enable better sustainability of policies and programs post-Bank support. Given the strategic role of SDA, EMATERCE CAGEGE, SOHIDRA and SISAR in the implementation of Components 1 and 2, the Project will support key activities to strengthen these agencies' strategic and operational capacity. In addition, other partner institutions such as FUNCEME, COGERH, IPECE, and Secretariat of Cities will also develop key activities and/or share knowledge of the sector to improve rural resilience and sustainability.

34. **Subcomponent 3.2. Project Management and Supervision.** The subcomponent will support the overall project management/coordination and implementation of all three components, including the following aspects: (i) inter-institutional coordination, (ii) activity monitoring, evaluation and impact assessment; (iii) fiduciary administration, internal controls and audits; (iv) environmental and social safeguards management and implementation; (v) a citizen's engagement and grievance redress mechanism, (vi) project-related studies and pilots, and (vii) communication and outreach strategy.

### Other Design Aspects

35. **Gender Strategy.** Through its targeting of beneficiaries, institutional strengthening activities, and farm level interventions, the Project will ensure equitable opportunities for women family farmers. The project's gender strategy is organized in three main axes: (a) Support for the productive inclusion of groups of rural women farmers - which reduce economic gaps. Special incentives for matching grants subprojects that target female farmers, such as additional scores for prioritizing matching investments proposals, will be in place; (b) Improving access to water and onsite sanitation - reducing gaps in health and time used in domestic activities; (c) Gender sensitization - which reduces gender-based violence and allows an environment for economic improvement, health, time use and women's participation. The project's gender strategy also includes combating gender-based violence and the Project will carry out activities aimed at preventing and combating different forms of violence against women.



36. **Youth Strategy.** The project will pay special attention to rural youth. They will be the priority beneficiaries for professional training activities, mainly to occupy roles in the management of supported producer and community organizations. The strategy for youth consists in carrying out professional training in three modules. For the first module considered, young people will be supported to develop their skills of associativism and cooperativism. The second module will develop management skills and technological innovation for organizational strengthening and management, and the third module will develop entrepreneurship and marketing skills. At the end of the training, the Project will also support entrepreneurship proposals presented by young people with micro credits or grants that will be accompanied by technical assistance. The design of the strategy will be compatible with the investments made so that the young people are integrated into the activities carried out in their communities and integration with families to ensure support for young people and facilitate family succession.

37. Total project cost (including all price and physical contingencies) is estimated at US\$153.53 million, comprising an IBRD loan of US\$100 million and a local counterpart contribution of about US\$53.53 million (in cash, US\$50 million from the State government and the remaining US\$3.53 million from Project beneficiaries). The financing by component and subcomponent is presented in Table 1.

**Table 1: Summary Project Cost and Financing (US\$ Million)**

Components/Subcomponents	Total	Financing Sources	
		IBRD Loan	Counterpart Funding
<b>Component 1: Sustainable Economic Inclusion</b>	<b>68.79</b>	<b>43.54</b>	<b>25.25</b>
1.1. Strengthening Organizations for Enhanced Market Access	60.24	37.88	22.36
1.2. Social and Productive Inclusion of Vulnerable Groups	8.55	5.65	2.89
<b>Component 2: Rural Water Supply and Sanitation Access</b>	<b>53.09</b>	<b>35.35</b>	<b>17.73</b>
2.1. Expanding Water and Sanitation Access	49.13	32.72	16.41
2.2. Increasing Water Security and Resilience	3.96	2.64	1.32
<b>Component 3: Institutional Strengthening and Project Management</b>	<b>31.41</b>	<b>20.86</b>	<b>10.56</b>
3.1. Institutional Strengthening and Capacity Building	13.04	8.69	4.35
3.2. Project Management and Supervision	18.37	12.16	6.21
Front-End-Fee	0.25	0.25	--
<b>TOTAL PROJECT COSTS</b>	<b>153.53</b>	<b>100.00</b>	<b>53.53</b>

**Note:** Exchange rate used for planning purpose was US\$ 1 = BRL 3.7 based on average projection for 2019 carried out by the Brazilian National Central Bank.

38. **Retroactive financing** will be allowed for all components of this Project up to an aggregate amount not to exceed US\$ 20,000,000 for expenditures made up to 12 months before the signing date of the loan agreement and for eligible expenditures incurred no earlier than January 1<sup>st</sup>, 2019.

#### D. Project Beneficiaries

39. **Component 1.** The general definition of key direct beneficiaries is the group comprising family farmers' households and smallholder producers organized in different forms of Producers' Organizations (PO, such as



community associations, cooperatives, producers' associations, vulnerable groups, youth groups, etc.) and people receiving training by the component (see further details in Annex 2). The component is expected to benefit directly around 13,000 households, including: 11,750 households participating in the implementation of about 390 Productive Subprojects; and about 1,250 households participating in the implementation of Investments Subprojects for vulnerable groups (indigenous peoples, *Quilombolas*, women and young, as well as other groups). Women and young people are priority beneficiaries, especially in training activities and will account to around 20 percent of total beneficiaries.

40. **Component 2.** Direct beneficiaries consist of rural population directly benefiting from improved access to water and onsite sanitation infrastructure investments. Specific eligibility criteria per type of investments has been based on the expected demands under each subcomponent (See Annex 2 for more details, including prioritization criteria within each eligible group). The main characteristics of beneficiary population are: (i) Municipal Alert Index (*Índice Municipal de Alerta – IMA*) in the "High" and "Medium High" bands; (ii) Municipality's approval for works; (iii) SISAR's legal framework (including community membership in the management of SISAR and the City Hall); (iv) availability of water sources; and (v) projects that contemplate the universalization of the water supply in the localities. In addition, component 2 will directly benefit a portion of the family farmers of component 1 by supporting the implementation of water supply for human consumption and water reuse for production. Overall, the component is expected to directly benefit around 25,000 households, through water supply systems and, in some cases, sanitary kits (MSD) as well. Women and young people will also be priority beneficiaries, especially in training activities for operation and management of water systems.

41. **Component 3.** Direct beneficiaries include staff to be directly benefiting from capacity building activities geared towards public institutional strengthening.

42. Finally, indirect beneficiaries include: (i) private agribusiness enterprises and government entities who may enter into partnerships with producers/farmers organizations; and (ii) the entities that may participate in and manage state-wide services promoted by the Project. Special efforts will be made to ensure women, youth, *Quilombolas*, and Indigenous groups are adequately informed of project procedures and benefits to promote their participation. No identifiable group will be negatively affected by project activities.

## E. Implementation

### Institutional and Implementation Arrangements

43. The project will be implemented by the Secretariat of Agrarian Development (*Secretaria Estadual de Desenvolvimento Agrário, SDA*), through the Project Management Unit (*Unidade de Gerenciamento de Projeto - UGP*), already established for the previous São José III Project. UGP will continue to be responsible for the overall management, planning, coordination, monitoring and evaluation of all project activities, both at the central and field levels, as well as for project financial management, procurement, disbursements and accounting. UGP will also be responsible for implementing the social and environmental safeguards instruments, and for disseminating project results through a proactive communication strategy.

44. For the overall project implementation support, SDA/UGP will continue with the support established under the Sao Jose III Project with (i) the Agropolos Institute of Ceará (Agropolos) through an Implementation Agreement; and (ii) the State General Controller and Ombudsman (*Controladoria e Ouvidoria Geral do Estado do Ceará – CGE*) in addition to the already engaged State Auditing Court (*Tribunal de Contas do Estado do Ceará –*



TCE) through specific Auditing Agreements. Under the Project, Agropolos will provide technical cooperation and support to project management, implementation and capacity building to central and field-related activities. TCE will carry out external auditing of annual financial statements and CGE will be responsible for the internal auditing compliance-related functions and the internal control environment as well as for auditing the contracts implemented by TCE. During project preparation, the institutions technical and fiduciary capacities were reassessed and found in compliance to meet the implementation needs and with Bank's procedures.

45. SDA/UGP will also partner with several State institutions, such as EMATERCE, CAGECE, SOHIDRA, SISAR, FUNCEME, COGERH, Secretariat of Cities, and IPECE for project implementation, M&E and impact evaluation, through Cooperation Agreements to formalize responsibilities regarding project actions. Their roles, as well as the detailed implementation arrangements, are described in Annex 1. Cooperation Agreements to be signed with these partners, acceptable to the Bank, should be available shortly after effectiveness.

46. A Steering Committee, chaired by SDA, will be established to improve the inter-institutional coordination with other State Secretariats, co-implementers and partner institutions and dialogue with State Planning and Finance Secretariats to ensure that counterpart resources are allocated in the State's budget. Key managerial and technical staff will be formally appointed as to be fully operational immediately after Project effectiveness in accordance with detailed profiles and Terms of Reference as included in the Project Operational Manual (POM).

47. Producer and community organizations will be responsible for implementing the selected investment proposals under component 1 through Matching Grants Contracts to be signed, with the support and supervision of the SDA/UGP and partners. For component 2, SDA/UGP will be responsible for carrying out project activities to benefit community organizations with support from CAGECE, SOHIDRA and SISAR.

48. SDA/UGP will also convene once a year a multi-stakeholder meeting (consultative forum) including civil society, agri-business organizations, academics, indigenous peoples, project beneficiaries, municipalities, government institutions, and other concerned parties, to openly discuss and receive feedback and advice regarding project strategy and progress, as part of the citizen engagement strategy. The proceedings of each of these annual meetings will be submitted to the Bank for information.

#### **F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

The proposed project is in the State of Ceará, which is divided into 14 macro-planning regions and 184 municipalities, of which 183 will likely be targeted by the Project. At the local level, the basic project planning unit will be the rural community, including rural agrarian reform settlements and Afro-American Quilombola Communities. At the local level, the basic project planning unit will be the rural community, including rural agrarian reform settlements and Afro-American Quilombola Communities. The selection of specific communities where the Project will be implemented will only be finalized during project implementation through the adoption of eligibility and prioritization criteria. The State is covered by the Caatinga biome, which is exclusive to Brazil and characterized by a semi-arid climate and high biodiversity. The strong seasonality of this biome contributes to this rich biological diversity with many endemic species adapted to the climate and soils types. During rainy periods, dry vegetative cover is replaced by trees with



crowns composed of foliage and flowers which characterize the beginning of the reproductive cycle for many species; this is a condition of resilience that makes this biome unique on the planet. Erosive processes exacerbated by anthropic activities in this semi-arid region have contributed to serious changes in the environment, that are increasingly compromising the both its quality and carrying capacity. Land degradation in the Caatinga biome has significantly increased the area of the so-called "drought polygon" due to desertification; a process that is occurring throughout the northeast of Brazil. In Ceará, currently 13 of the 183 municipalities in the state are facing significant desertification and 50% of municipalities have extensive areas susceptible to severe desertification. This environmental condition is traditionally associated with poverty. In the state 40% of the 184 municipalities had indicators above 30% of extreme poverty. According to IBGE data, the highest proportion of people in poor conditions in the municipalities of Ceará continues to concentrate in the rural area. In 2010, in urban areas, access to treated water reached 81.8%, while in rural areas coverage reached only 17%, which makes it indispensable for the São José Project to remain as a support for sustainable productive life in rural areas and access to water as a essential rights, with a focus on vulnerable groups.

**G. Environmental and Social Safeguards Specialists on the Team**

Katia Lucia Medeiros, Environmental Specialist  
 Juliana Medeiros Paiva, Social Specialist  
 Maria Ines Miranda Ramos, Environmental Specialist

**SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Despite the low risk and the positive or neutral project impacts anticipated, some small- and medium-scale investments supported under Components 1 and 2 could potentially have adverse environmental impacts. These investments relate to: (i) the adoption of sustainable agricultural, livestock and aquaculture practices; (ii) the promotion of value added products through agro-processing and support to meet legal environmental and sanitary requirements for market access; and (iii) improvements in water services in rural areas (e.g. small-scale water supply infrastructure for human consumption and, where feasible, for agricultural production, small-scale rural sanitation).



More specifically, Component 1 will finance investments within the following subproject typologies: (i) value added promotion and value chain development including financial support and technical assistance for: (a) the construction or reform of small and medium scale agro-processing units (mainly cashew nuts, vegetable, fruits, honey, milk, cheese and fish); (b) legal environmental and sanitary requirements for market access (mainly in agro-processing and livestock production); (c) the promotion of more sustainable agricultural production systems including both crops (fruits, coconut, vegetables, manioc, cashew nuts) and livestock production (small-scale chicken and milk production from goat, sheep and cattle); (d) development and implementation of agro-silvopastoral management plans as a condition to prevent and arrest land degradation; (e) provision of minor on-farm infrastructure associated with the aforementioned production systems (such as milk churn, fencing for pasture management, small irrigation equipment, weed cutter, sanitary kit box for animal insemination); (f) energy and water conservation measures, as well as soil conservation and management; and provision and utilization of inputs, equipment and tools; and (g) equipment and small works for agro-processing and aquaculture.

Under Component 2 the Project will finance investments within the following typologies: (a) small scale (community level) water supply for human consumption and, where feasible, agricultural production; (b) rural sanitation (mostly onsite sanitation solutions); (c) support for technological innovation (solar panel, equipment, etc.) aiming at reducing costs and increasing the operational efficiency of water supply systems; (d) reuse of grey water and wastewater; and (e) support for environmental conservation activities that aim at the conservation and recovery of Caatinga riparian vegetation of small reservoirs and rivers.

Potential adverse environmental risks and impacts associated with these investments could include: soil erosion; water pollution (e.g., discharge of untreated wastes from agro-processing) and deforestation in



small areas where (a) water supply and sanitation schemes would be constructed and (b) improper extraction of wood (from native Caatinga trees) for wooden fence posts to be used in rotational grazing systems (pasture rotation for the rehabilitation of degraded grazing lands). In all cases, environmental impacts are expected to be localized and preventable through responsive mitigation measures. Environmental screening and evaluation procedures, as well as proposed mitigation measures, would be built into the management of the financial mechanisms to be adopted to implement subprojects under Components 1 and 2.

The overall envisaged social impacts of project activities would be beneficial and pro-poor. The Project will use indicators that include data on income, access to social benefits, besides the emergency due to lack of rainfall, to prioritize investments and should will benefit very poor municipalities in the driest regions of the state. The extreme poverty rate in the state is high, reaching about 13.9% of the population. Most of this population is facing the effects of seven years of drought, and with the Project they will have access to reliable water supply and investments to improve rural productive capacity.

Productive investments tend to improve income and opportunities in rural areas, not only for the direct beneficiary, but also for the whole family, especially for the young, who will receive specific incentives to reduce the early exit from the rural areas and ensure the family succession.

The expansion of access to reliable water services and education and communication programs among the beneficiary population (to induce knowledge, attitude, and behavioral changes and promote improved sanitation, health and hygiene practices as well as the rational use of water) are expected to have large positive impacts in both the health conditions and the family budgets of the low-income population.



The Project will establish a multilevel feedback and GRM. The Project's GRM will rely on the network of sectorial ombudsman offices and the General Ombudsman Office, which includes a web-based portal (Ceará Transparente). The portal allows access to the state network of sectorial ombudsman offices, the General Ombudsman Office of the State of Ceará as well as access to information and social oversight of the implementation of the Multi-Year State Plan (<https://Cearátransparente.ce.gov.br/>).

In addition to these available channels, the implementation agency will designate. The structure and processes of these mechanisms – including their scope, receipt procedures, documentation of complaints received, responses provided, and procedures for organizing mediation and conciliation hearings whenever needed – will be included in the Project Operational Manual and in the ESMF. The operation of the project's GRM will be periodically reported to the World Bank and monitored according to agreed performance indicators.

The project's ESMF has included the assessment of impacts. It has also included the assessment of possible cumulative impacts of the small-scale interventions on: water use; implementation of 82 agro-silvo-pastoral management plans; and other indicators of sustainability, with appropriate monitoring measure.

Risks linked to labor influx are expected to be limited. When civil works are carried out it is expected that most of the workforce will be local. The project would incorporate various measures to mitigate potential negative impacts of labor influx, such as requiring that Environmental and Social Management Plans (ESMPs) to include labor influx management/camp management measures, enforcing the signing of codes of conduct by all workers, and ensuring that labor-related commitments are reflected in: (i) the bank-borrower legal agreement, and (ii) the contractor's bidding documents (and subsequently in the borrower-contractor contracts). Any incident or accident involving persons contracted by the Project, directly or indirectly (through contracted companies), must



		be registered and informed to the Bank. Workers' complaints will be reported to the GRM of the Project and should be monitored until their resolution.
Performance Standards for Private Sector Activities OP/BP 4.03	No	This policy is not be triggered, as the responsibilities for identifying, assessing and managing environmental and social risks and impacts will be fully owned and operate by the public sector. The project will not support subprojects or activities designed, owned, constructed and/or operated by a Private Entity.
Natural Habitats OP/BP 4.04	Yes	The Project would not support activities that lead to the conversion or degradation of natural habitats. In fact, it would help rehabilitate and restore degraded Caatinga lands in areas under livestock management through the promotion of conservation and sustainable management of Caatinga xeric shrublands and thorn forests, hence preserving and restoring local biodiversity. The Project would also promote more sustainable agriculture and land management practices, including the rehabilitation of degraded soils and more rational use of natural resources. Despite the positive impacts foreseen through the implementation of these activities, the ESMF has included clear guidance regarding direct and indirect impacts on natural habitats, including those related to the implementation of small water-supply services, which may affect the status of one or more APPs located down-stream in the catchment. The Project will also make provisions to regenerate and reforest water-producing systems (mainly Caatinga riparian vegetation), benefiting local biodiversity preservation and restoration. Special attention should be given to areas where desertification process was already identified by the State.
Forests OP/BP 4.36	Yes	It is not expected that project implementation will have negative impacts on forest resources (i.e. on Caatinga xeric shrublands and thorn forests located in the project area). Based on the on-going subproject activities supported under the current Bank operation in this type of shrub and forest lands (which are also foreseen under the new operation), the Project would generate positive environmental impacts by promoting the rehabilitation and



conservation of degraded Caatinga lands, as well as by contributing to the restoration and maintenance of ecological functions in those areas. The subproject selection procedures would be consistent with the National Forest Code. Despite the positive impacts foreseen through the implementation of these activities, the ESMF has included clear guidance regarding direct and indirect impacts on native forests. Moreover, based on the current operation and on preliminary discussions with the Borrower regarding the new operation, subprojects with the potential for conversion or degradation of natural forest or other natural habitats that are likely to have significant adverse environmental impacts which are sensitive, diverse or unprecedented would be ineligible. The Project would also exclude activities that require commercial forest harvesting, wood extraction or firewood use in the production chain. Activities resulting in deforestation and loss of native vegetation cover will not be allowed.

The Project would not finance the procurement of any pesticides or other chemical amendments that would trigger the OP 4.09. Nevertheless, minor amounts of pesticides would probably continue to be used in the short term by a small portion of targeted small-scale farms. In this case the Project would provide support for the adoption of integrated pest management technologies (IPM) through the provision of technical assistance, hence supporting farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. These approaches would also be designed to increase farm productivity (yields) while simultaneously reducing input costs and human health risk, as well as adverse environmental impacts through the virtual elimination of pesticide use. Notwithstanding these approaches, the ESMF has included a section on pest management following the guidance of OP 4.09 for the safe handling, storage, use, and disposal of pesticides, as well as guidelines for IPM. The final ESMF will also reflect the inclusion in the design and budgeting of the project activities related to training and equipment.

Pest Management OP 4.09

Yes



Physical Cultural Resources OP/BP 4.11	Yes	<p>It is not expected that project implementation would have any negative impacts on known physical cultural resources (PCR). The task team will make sure that proposed subprojects with expected direct and negative impact on known archeological, paleontological, historical or other culturally significant sites will not be eligible. Brazil has a well-developed legislative and normative framework, which is under Federal oversight by the National Institute for Protection of Historical and Archeological Sites (IPHAN). Ceará also has the State Agency, Regional IPHAN (4a Superintendência Estadual do IPHAN) and the State Secretariat of Culture, tasked with the identification, restoration and protection of PCR in the State. The ESMF and Project Operational Manual will include procedures for screening any known physical cultural resources in the project areas and 'chance-find' procedures if culturally significant resources were discovered during the proposed project implementation, according to the procedures of OP 4.11 and the Brazilian legislation.</p>
Indigenous Peoples OP/BP 4.10	Yes	<p>OP/BP 4.10 Indigenous Peoples is triggered. 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-Tapuia, Kariri, Gavião and Tupinambá.</p> <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).</p> <p>As in the current Bank operation (São José III Project - P121167), the Project intends to continue supporting indigenous peoples. It is not expected that project implementation would have any negative impact on Indigenous Peoples. Project activities will contribute to engage indigenous peoples and increase their access to project benefits and other public services.</p>



As site-specific project investments cannot be defined at the preparation stage, the client has prepared an Indigenous Peoples Policy Framework (IPPF).

The IPPF was elaborated based on the document resulting from dozens of public consultations carried out by the State Government with indigenous peoples. The document entitled "Positive Agenda of Indigenous Peoples and Quilombolas" presents demands of these peoples in various areas such as rural development, health, education and so on. A specific public consultation was held to present the IPPF to representatives of indigenous peoples on January 17, 2019. The IPPF aims to guide the Project regarding the needs of indigenous peoples and ensure that the actions implemented in Indigenous Lands are appropriate and that Indigenous Peoples are aware of the Project and how to participate using culturally appropriate channels to ensure their prior free and informed consultation (FPIC).

OP/BP 4.12 Involuntary Resettlement is triggered . Some investments in productive infrastructures to strengthen productive chains as well as in water supply systems may require land acquisition and, potentially, might cause adverse effects of physical and economic displacement. It is expected these adverse impacts will be small in scope and locally confined.

It is very remote that adverse impacts involuntary resettlement. In the works related to Component 1, the client intends to use voluntary donation of land for construction or improvement of infrastructure to benefit rural production. In the work related to Component 2 with the expansion of water infrastructures, the client intends to use only his own land and rights of way of the existing road network for this work. However, the long stretch of water infrastructure makes it possible for the site-specific land acquisition facilities or rights-of-way As site-specific project investments cannot be defined at the preparation stage, the client is preparing a Resettlement Policy Framework for the project.

Consultations with key stakeholders, beneficiaries and affected people were carried-out by the Borrower. The Resettlement Policy Framework was

Involuntary Resettlement OP/BP 4.12

Yes



		submitted to the public consultation simultaneously with the ESMF, held on January 10, 2019.
Safety of Dams OP/BP 4.37	Yes	<p>Over recent years there has been a significant amount of resources` infrastructure installed in the State including structure supported with World Bank financing. Moreover, the current standard of water resources management, is considered excellent with good practices already incorporated into the State water resources institutions (SRH and COGERH) routine procedures. Nevertheless, OP 4.37 Safety of Dams is triggered as a precautionary measure (not to limit any possibility of using existing water sources). The project water supply systems will depend mainly on wells and, to a lesser extent on existing small/local reservoirs (dams measuring less than 5 meters high). No new dam construction will be financed by this proposed operation. OP 4.37 Safety of Dams is also triggered in view of possible project financing of subprojects involving the construction and/or rehabilitation of small-scale fish ponds. The dams for this type of subproject are expected be less than 5 meters in height. To ensure that appropriate safety measures are implemented, and to avoid risks of significant adverse impacts due to potential failure of the dam structure to local communities and assets, including assets to be financed as part of the proposed project, the ESMF procedures (to be reflected in the project`s Operational Manual) requires the involvement of qualified engineers in the design and maintenance of dam structure. Potential adverse impacts are addressed through OP/BP 4.01 Environmental Assessment and measures included in the ESMF.</p>
Projects on International Waterways OP/BP 7.50	No	<p>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 sates. Thus, this policy is not triggered because the project will not affect any international waterways as defined under the policy. The Cear State is located in the Brazilian Northeast and is not bordered by other countries.</p>
Projects in Disputed Areas OP/BP 7.60	No	<p>Not applicable, because the activities financed by the Project would not be located in disputed areas.</p>



## KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

No large scale, significant and/or irreversible impacts are envisaged. The environmental and social impacts of project activities are expected to be small in scale and site-specific.

The Project is classified as a Category B and requires an Environmental and Social Management Framework (ESMF) which was prepared and submitted by the Borrower (first draft on January 8, 2019, and final draft on 23 January, 2019). The Bank reviewed and approved a final version on 25 January, 2019.

The Project will focus on localized interventions in small-scale agricultural production and rural community water supply and sanitation, thus generating only minor, reversible and localized impacts. For the most part, the Project is expected to produce positive environmental impacts, including improved soil conservation and management, restoration of degraded grazing lands and degraded riparian vegetation (both contributing to reduced erosion and desertification prevention), access to water supply for human consumption in rural communities, access to rural sanitation and treatment and reuse of grey water. The Project will also generate climate co-benefits. Specifically, it is expected to enhance climate change adaptation by: (i) increasing adaptive capacity through water access and reuse in areas vulnerable to droughts as well through financial assistance and capacity building to implement locally adapted production systems; (ii) reducing exposure of communities and systems through conducting proper water-use planning and management and changing of cropping patterns; and (iii) reducing sensitivity by developing or adopting suitable plant and animal varieties, enhancing soil nutrition and on-farm water management. Finally, some climate change mitigation co-benefits are also expected through the reduction and removal of GHG emissions through: (i) improved cropland and grazing management and restoration of Caatinga shrublands and forests and (ii) increasing feed-use efficiency and agricultural waste recycling and reducing deforestation and forest degradation in grazing areas.

No large-scale, significant, and/or irreversible impacts are foreseen. A Bank review of potential project impacts was conducted in a recent Bank mission (December 2018), which concurred with the results of the project's ESMF together with the Bank Environmental Safeguards Specialist's knowledge of impacts associated with the on-going São José III Project (P121167). The localized environmental impacts of any misdirected support for the subproject investments could include: soil erosion; water pollution (i.e., discharge of untreated wastes from agro-processing, sediments) and deforestation in small areas where water supply and sanitation schemes would be constructed. In all cases, these impacts are expected to be localized and preventable through responsive mitigation measures. Environmental screening and evaluation procedures, as well as proposed prevention and mitigation measures, would be built into the management of the financial mechanisms to be adopted to implement subprojects under Components 1 and 2.

The Bank reviewed and approved the ESMF, hence ensuring that the project has in place an effective instrument that includes: (i) principles, rules, guidelines and procedures to assess the Project's environmental and social risks and impacts; (ii) environmental screening and evaluation procedures, as well as proposed mitigation measures built into the management of the financial mechanisms to be adopted to implement subprojects under Components 1 and 2 ; (iii) information on the approximate areas in which subprojects are expected to be sited (to include any potential environmental and social vulnerabilities of the area as well as information on the potential impacts that may occur and mitigation measures that where needed); (iv) provisions for estimating and budgeting the costs of measures and



plans to reduce, mitigate and offset adverse risks and impacts; and (v) information on the implementation agency (SDA) responsible for addressing project risks and impacts, including the Agency's capacity to manage environmental and social risks and impacts, building on the SDA's existing capacity developed from the on-going São José III Project - P121167.

The overall envisaged social impacts of project activities would be beneficial and pro-poor. The Project will use indicators that include data on income, access to social benefits, besides the emergency due to lack of rainfall, to prioritize investments and should will benefit very poor municipalities in the driest regions of the state. The extreme poverty rate in the state is high, reaching about 13.9% of the population. Most of this population is facing the effects of seven years of drought, and with the Project they will have access to reliable water supply and investments to improve rural productive capacity.

Productive investments tend to improve income and opportunities in rural areas, not only for the direct beneficiary, but also for the whole family, especially for the young, who will receive specific incentives to reduce the early exit from the rural areas and ensure the family succession.

The expansion of access to reliable water services and education and communication programs among the beneficiary population (to induce knowledge, attitude, and behavioral changes and promote improved sanitation, health and hygiene practices as well as the rational use of water) are expected to have large positive impacts in both the health conditions and the family budgets of the low-income population.

These positive social impacts may also contribute to reduce gender gaps observed in participation at the labor market, job opportunities, time available for productive activities and income. Due to traditional and still prevailing cultural norms related with gender-based division of labor, the lack of access to reliable water sources in the households is a key factor that increases women's workload, reducing their job opportunities and income and contributing for the extreme vulnerability of women single-parent families. The actions undertaken by the Project are expected to contribute to reduce women's domestic workloads and, consequently, can contribute to reduce gender gaps associated to the traditional gender-based patterns of labor division

Project activities will contribute to engage indigenous peoples and Quilombola communities to increase their access to project benefits and other public services. An Indigenous Peoples Policy Framework is being prepared by the Client and will be reviewed by the Bank task team and consulted with Indigenous Peoples before appraisal. The Project will also help improving the production capacity and increase access to drinking water.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:  
No significant indirect or long-term or cumulative impacts are foreseen under the Project.

Initiatives to be supported under Components 1 and 2 will be subjected to a rigorous screening process to ensure that maximum socioeconomic and environmental benefits are accrued and that any unintended negative environmental impacts are avoided or minimized, including those eventually associated with secondary or indirect and long-term effects. However, if preventive and mitigating measures are not adopted properly, two types of Project activities may cause cumulative impacts, albeit of low magnitude: (i) impacts of possible deforestation associated with the improper extraction of wood for fencing (wood from native Caatinga trees) for the installation of a series of rotational grazing systems throughout the State of Ceará (i. e. pasture rotation for the rehabilitation of degraded grazing lands), which may cause soil degradation and impacts on the Caatinga bioma (in plant diversity and ecosystem stability). To avoid this kind of impact, the Project will only finance wood for fences whose source and means of extraction has been agreed to and validated to ensure its sustainability (this condition is included in subproject approval procedures); and



(ii) excessive groundwater abstraction to supply water for human consumption in rural communities, which may cause a reduction in the amount of groundwater flowing naturally into adjacent surface water bodies (whether perennial or intermittent dams or streams). To avoid this cumulative impact, the Project does not foresee water extraction in communities close to each other (but in isolated communities, as prevailed in the ongoing Sao Jose III Project), and the extraction of water in each community will not exceed (in average) a low volume of 4 m<sup>3</sup> per hour.

The Project is expected to generate long-term positive social and environmental impacts by strengthening the capacity of the government and the various beneficiary groups, including small-farmers and Indigenous Peoples to jointly plan the preparation and implementation of business plans (small-farmers) and community development plans (IPs and Traditional Communities, the latter including Quilombolas, Artisanal Fishermen and Settlers of Agrarian Reform), in alignment with the government's priorities outlined in Ceará sustainable rural development programs, and in conformity with the Focus Area 3 of the Bank CPF FY18-FY23 (i.e. inclusive and sustainable development aims to promote socio economic development of small rural producers and vulnerable groups through the implementation of investments that contribute to improved climate vulnerability and business management of small family agricultural production, including women, youth, indigenous peoples, and traditional communities).

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Not applicable.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Client prepared an Environmental and Social Management Framework, a Resettlement Policy Framework and an Indigenous Peoples Policy Framework to set the principles, guidelines, processes and procedures to be followed for screening and address social and environmental impacts that may be caused by project supported activities. The SDA/UGP PMU has already established a safeguards unit, composed by six social and environmental specialists, who have been working in the previous project, which safeguard performance is rated satisfactory.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders include: state agencies and water and sanitation service providers; state regulatory bodies for water, sanitation and environmental services; water users living in the municipalities that can be served, social movements, unions of rural producers, representatives of productive groups, women, young people, indigenous peoples and Quilombolas that can be served.

Consultations with key stakeholders, beneficiaries and affected people has been undertaken by the Borrower during the preparation. A first consultation meeting with key stakeholders - including representatives of organized civil society, experts and academics, and members of relevant councils was held on January 10, 2019. This consultation addressed the scope of the project and the social and environmental assessment of activities. In this consultation, the findings of the socio-environmental impact analysis and the proposed measures to avoid, minimize and / or mitigate the adverse impacts evaluated. For indigenous peoples and Quilombola communities, the Client prepared a specific consultation, which was held on January 17, 2019. The Project's safeguard documents were made available on the Project's Portal <https://www.sda.ce.gov.br/ugp-sao-josee-iii/> before the public consultations and remained available for contributions during fifteen days. The portal was prepared to receive the contributions and doubts about the documents. The final version included stakeholder contributions and public consultations.



**B. Disclosure Requirements**

**Environmental Assessment/Audit/Management Plan/Other**

Date of receipt by the Bank 28-Jan-2019	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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**"In country" Disclosure**

**Resettlement Action Plan/Framework/Policy Process**

Date of receipt by the Bank 28-Jan-2019	Date of submission for disclosure
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**"In country" Disclosure**

**Indigenous Peoples Development Plan/Framework**

Date of receipt by the Bank 28-Jan-2019	Date of submission for disclosure
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**"In country" Disclosure**

**Pest Management Plan**

Was the document disclosed prior to appraisal? NA	Date of receipt by the Bank	Date of submission for disclosure
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**"In country" Disclosure**



**If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:

The safeguards documents was prepared and cleared by the Bank.

**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)**

**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?

No

**OP/BP 4.04 - Natural Habitats**

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

No

**OP 4.09 - Pest Management**

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

**OP/BP 4.11 - Physical Cultural Resources**

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes



**OP/BP 4.10 - Indigenous Peoples**

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

No

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

Yes

**OP/BP 4.12 - Involuntary Resettlement**

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

No

**OP/BP 4.36 - Forests**

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

Yes

Does the project design include satisfactory measures to overcome these constraints?

Yes

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

**OP/BP 4.37 - Safety of Dams**

Have dam safety plans been prepared?

NA

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

NA

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

NA

**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank for disclosure?



Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

### All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

### CONTACT POINT

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**APPROVAL**

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**Approved By**

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Country Director:	Doina Petrescu	11-Feb-2019