



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

Appraisal Stage | Date Prepared/Updated: 27-Apr-2021 | Report No: PIDISDSA31623



BASIC INFORMATION

A. Basic Project Data

Country Argentina	Project ID P176034	Project Name Matanza Riachuelo Basin Sustainable Development Project Second Additional Financing	Parent Project ID (if any) P105680
Parent Project Name Matanza-Riachuelo Basin Sustainable Development Project	Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 28-Apr-2021	Estimated Board Date 31-May-2021
Practice Area (Lead) Environment, Natural Resources & the Blue Economy	Financing Instrument Investment Project Financing	Borrower(s) Argentine Republic	Implementing Agency Unidad Coordinadora General del Proyecto (UCGP), Ministry of Interior, Public Works and Housing

Proposed Development Objective(s) Parent

The overall development objective of the proposed APL program supports the Government's Integrated Basin Cleanup while simultaneously improving sanitary conditions along the banks of La Plata River and providing a long-term and cost-effective solution for safe disposal of wastewater from the Buenos Aires Metropolitan Area (AySAs concession area). The two stage APL program that contributes to this objective and the allocation of works and activities under each APL has been specifically designed to ensure that APL-1 can be free-standing, with no stranded assets at the end of the first stage.

The project (APL-1) development objectives contribute to the overall program development objective by (i) improving sewerage services in the M-R River Basin and other parts of the Province and City of Buenos Aires by expanding transport and treatment capacity; (ii) supporting a reduction of industrial discharges to the M-R River, through the provision of industrial conversion grants to small and medium enterprises; (iii) promoting improved decision-making for environmentally-sustainable land use and drainage planning, and piloting urban drainage and land use investments, in the M-R River Basin; and (iv) strengthening ACUMAR's institutional framework for ongoing and sustainable clean-up of the M-R River Basin.

Components

- Sanitation
- Industrial Pollution Abatement
- Environmental Territorial Management
- Institutional Strengthening and Project Management



PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	265.00
Total Financing	265.00
of which IBRD/IDA	265.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	265.00
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Environmental Assessment Category

A-Full Assessment

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

1. This PID provides information on a proposed a second Additional Financing (AF) in the amount of US\$265 million to the Argentine Republic for the Matanza-Riachuelo Basin Sustainable Development Project (P105680). The proposed AF will cover the financing gap for Components 1 and 4 of the project. The AF will not modify the Project Development Objective (PDO) and intermediary results indicators and their target values, implementation arrangements, environmental assessment category, or safeguard policies triggered. The proposed AF will modify the Results Framework (RF) by adding two new intermediary result indicators to measure gender impacts of selected project activities. Along with this second AF, the project’s closing date will be extended from March 31, 2022 to September 30, 2024 to allow satisfactory completion of all project activities.

Country Context

2. The coronavirus disease 2019 (COVID-19) outbreak hit Argentina at a time when its economy faced significant macroeconomic imbalances and a highly uncertain outlook. Following a two-year recession, high inflation, and lack of access to capital markets, the strict lockdown imposed to contain the spread of the pandemic triggered the sharpest gross domestic product (GDP) monthly decline ever recorded in the seasonally adjusted series from March to April 2020. From the third quarter onward, the Government of Argentina (GoA) gradually eased confinement measures, allowing economic activity to pick up at a higher pace than previously expected. Indeed, GDP fell 9.9 percent in 2020, below the 12.5 percent decline forecasted by the authorities in the context of the Budget bill adopted in September 2020. The implementation of a fiscal stimulus package to support families and firms—equivalent to 3.5 percent



of GDP¹—coupled with an abrupt decline in revenues resulted in a central government (primary) deficit estimated at 6.5 percent of GDP in 2020.² In a context of restricted market access, financing the response to the COVID-19 shock required an important monetization of the deficit. This has exacerbated macroeconomic imbalances, notably by exerting pressures on reserves and on the persistent large gap between the official and parallel exchange rates. However, this pressure has been receding since the last quarter of 2020.

3. **In September 2020, the GoA managed to restructure the sovereign debt denominated in foreign currency.** The restructuring was agreed by creditors holding 99 percent of the bonds under external and domestic law. It significantly reduced debt service obligations in the medium term, by shifting the bulk of external debt service payments to beyond 2026, creating much-needed fiscal space in the context of the recovery from the crisis.

4. **The unprecedented economic contraction has had a severe impact on poverty and employment.** Labor market statistics point to a sharp fall in total employment (from 42.2 to 33.4 percent) between the first and the second quarters of 2020.³ The partial regularization of the labor market in the third quarter led to a gradual recovery of the employment rate to 37.4 percent. The impact on unemployment was relatively moderate—an increase of 2.7 percentage points (p.p.) in the second quarter—as an important share of workers ceased looking for jobs during the lockdown, leading to a massive fall in the activity rate from 47.2 to 38.4 percent.⁴ The fiscal emergency measures were effective in mitigating the impact of the economic crisis on the most vulnerable. Still, poverty and extreme poverty—at 40.9 percent and 10.5 percent of the population, respectively—reached their highest levels since 2016 in the first semester of 2020.

5. **Real GDP shrunk by 9.9 percent in 2020 and is projected to partially recover by 6.4 percent in 2021.** Economic recovery has gradually picked up as containment measures are progressively lifted, building on the economy's ample idle capacity. Uncertainty as well as price and capital controls might limit investment growth, while the imperative to bring down the fiscal deficit limits the scope for demand stimulus. However, investment in construction has been highly dynamic since end-2020. The rebound is expected to be only partial in 2021, and the economy is not projected to reach 2019 GDP levels before 2023. There are important downside risks to this baseline scenario, notably related to inflation, which ended 2020 at an annual rate of 36.1 percent, almost 18 p.p. lower than in 2019, yet has shown some signs of acceleration in the first months of 2021. The 2021 budget foresees a reduction in the primary deficit from an estimated 6.5 percent of GDP in 2020 to 4.2 percent in 2021.

6. **Despite the early and strict lockdown measures, the health impact of COVID-19 in Argentina has been severe.** The country ranked 3rd in the region and 12th in the world in the number of confirmed cases as of March 31, 2021.⁵ Although the pandemic first hit the most populated parts of the country, with the

¹ Fiscal cost of the COVID-19 stimulus package is based on the latest (October 2020) report of the Budget Congressional Office (*Oficina de Presupuesto del Congreso*). The figure of 3.5 percent of GDP refers to the overall budget outlays to finance COVID-19-related expenditures. <https://www.opc.gob.ar/covid-19/impacto-financiero-del-covid-19-al-5-de-octubre-2020/>.

² Fiscal accounts for 2020 are based on National Public Sector cash statistics, which is used as a close proxy of accrued fiscal statistics that are usually released with some delay in the future. <https://www.economia.gob.ar/onp/estadisticas/>.

³ INDEC labor market statistics.

⁴ INDEC poverty statistics.

⁵ <https://www.worldometers.info/coronavirus/>.



Province of Buenos Aires (PBA) and the Autonomous City of Buenos Aires (CABA) representing around 90 percent of all accumulated cases back in August 2020, it has subsequently affected other provinces that now represent 47 percent of all accumulated cases. Since November 2020, the speed of the spread has decreased, and as of March 25, 2021, there were 3,574 patients with COVID-19 hospitalized in intensive care units (ICUs), with an occupancy rate for all diseases of 55.7 percent at the national level.⁶ However, in Neuquén and Rio Negro, ICU occupancy rates are still higher than 80 percent.⁷

Sectoral and Institutional Context

7. **The Matanza-Riachuelo (M-R) River is the most contaminated waterway in Argentina.** With an area of about 2,200 km², its basin covers areas of 14 municipalities of PBA and the southeastern part of CABA.⁸ Over the last hundred years, uncontrolled discharges of domestic and industrial wastewater and solid waste have increased steadily along with the urbanization and industrialization in the basin. Limited basic infrastructure investment, weak environmental management, and poor urban and industrial planning have resulted in the most visible environmental pollution in the country. The current sewerage system frequently overflows as it does not have adequate capacity to manage peak flows due to rapid urbanization, allowing untreated wastewater to contaminate surface and ground water bodies, as well as drainage systems, in particular during heavy rain periods and high water levels of the La Plata River. These events are likely to become more common in the future due to climate change.

8. **The M-R River Basin is home to the largest concentration of urban poor in the country, and they are disproportionately affected by the environmental problems.** Of its 4.5 million inhabitants (or about 10 percent of Argentina's population), about 1.7 million (or 38 percent of the basin population) are living with Unsatisfied Basic Needs (*Necesidades Básicas Insatisfechas*, NBI) and are directly exposed and vulnerable to the pollution problems of the basin.⁹ Considered among the poorest population in the basin, about 880,000 people reside in informal settlements that are often in flood-prone areas and/or near open garbage dumps with very limited access to basic services such as water supply, sanitation, and waste management. During flood events, the sewage overflow brings contaminated water straight into these informal settlements, posing serious health risks, especially to children and vulnerable groups.

9. **In the 1990s, the GoA launched several initiatives to address the pollution and flood issues in the M-R River Basin.** The implementation of these initiatives was continuously postponed due to legal, economic, and political reasons. The lack of an institution with a clear mandate and accountability for action, combined with an inadequate institutional and legal framework to coordinate the involvement of different actors, was considered as the major obstacle to implement many initiatives. The deteriorating environmental conditions and the lack of progress on the cleanup efforts caused a group of residents in the M-R River Basin to sue the GoA, PBA, CABA, and 44 industries in 2004 for damages of pollution to their health. In response to the worsening situation and as part of the court ruling, *Autoridad de Cuenca Matanza Riachuelo* (ACUMAR) was created in 2006 to help coordinate efforts among different government agencies and to regulate, control, and promote industrial activities, public services, and any

⁶ <https://www.argentina.gob.ar/salud/coronavirus-COVID-19/sala-situacion>.

⁷ Data from the Health Ministry, as of March 25, 2021.

⁸ The 14 municipalities are Lanús, Avellaneda, Lomas de Zamora, Esteban Echeverría, La Matanza, Ezeiza, Cañuelas, Almirante Brown, Morón, Merlo, Marcos Paz, Presidente Perón, San Vicente, and General Las Heras.

⁹ ACUMAR data on population residing within hydrologic boundaries of the basin. The NBI is a method of measuring poverty which uses indicators related to people's basic needs, namely shelter, sanitation, education, and minimum income.



activity that has an environmental impact on the basin. Its board includes representatives from the GoA, PBA, and CABA.

10. **Responding to the complaints by neighbors in 2004, a Supreme Court ruling in 2008 required the GoA to prepare and implement an M-R River Basin Integrated Cleanup Plan (*Plan Integral de Saneamiento de la Cuenca Matanza-Riachuelo, PISA*).** The plan has the objective to improve the quality of life of the basin residents; restore the basin's air, water, and soil environment; and prevent future environmental damages. Since then, the Supreme Court has actively supervised the implementation of PISA. At its request, the national Ombudsman has established a permanent working group with civil society representatives to engage grassroots organizations and monitor the implementation of the ruling. Routine hearings have been organized where petitioners have raised concerns over the GoA's progress and accountability in implementing PISA. All these have made the cleanup of the basin a national priority, with a top ranking on policy agendas of all concerned governments.

11. **Since 2009, ACUMAR has been coordinating the implementation of PISA by different jurisdictions**¹⁰. Between 2010 and 2019, PISA invested over ARS 96 billion to expand drinking water and sewage networks, provided affordable housing to residents in informal settlements, improved water resource management, built necessary roads, removed waste dumps to maintain river banks, and strengthened health systems. PISA implementation is monitored through a series of publicly available indicators.¹¹

12. **To help finance the implementation of PISA, the GoA requested World Bank support for the Matanza Riachuelo Basin Sustainable Development Project with a focus on managing and reducing water pollution from domestic sewage and industrial wastewater.** Domestic sewerage is estimated to contribute for about 80 percent of the organic pollution, and industrial wastewater accounts for almost all toxic discharges in the M-R River.¹²

C. Proposed Development Objective(s)

13. **PDO.** The PDOs have not change and are to: "(a) improve sewerage services in the M-R River Basin, and other parts of the PBA [Province of Buenos Aires] and the CBA [Autonomous City of Buenos Aires] by expanding transport and treatment capacity; (b) support a reduction of industrial discharges to the M-R River, through the provision of CRI [Industrial Conversion Agreements by its initials in Spanish *Convenio de Reconversión Industrial*] Grants; (c) promote improved decision-making for environmentally-sustainable land use and drainage planning, and to pilot urban drainage and land use investments, in the M-R River Basin; and (d) strengthen ACUMAR's [M-R River Basin Authority by its initials in Spanish *Autoridad de Cuenca Matanza Riachuelo*] institutional framework for the ongoing and sustainable cleanup of the M-R River Basin."¹³

¹⁰ Argentina, the City of Buenos Aires, the Province of Buenos Aires and 14 municipalities in the Province of Buenos Aires.

¹¹ Over the years, indicators have changed, and some have shown significant progress (such as those related to wastes management and drinking water connections) while others have made limited progress (such as the quality of life index and people exposed to contaminants). <https://www.acumar.gob.ar/indicadores/>

¹² <https://www.acumar.gob.ar/ultimas-noticias/efluentes-cloacales-riachuelo/>

¹³ It should be noted that the datasheet and section VIII of this paper include the Program and Project Development Objectives statements from the Project Appraisal Document (PAD), which is different from the PDO used in the LoA. As this Project Paper



14. **PDO indicators.** The PDO indicators are:

- (a) Annual discharge of sewage adequately treated from the Riachuelo System;
- (b) Volume of COD (chemical oxygen demand) pollution load reduction achieved under the project;
- (c) Number of enterprises in the matching grants program that have reduced their discharge loads according to their PRIs (*Planes de Reconversion Industrial*);
- (d) Development of a Flood Contingency and Emergency Response Plan for the Basin; and
- (e) ACUMAR is fully staffed against its new organigram, operates with its own operating budget and is fully able to fulfill the functions vested in it by law.

D. Project Description

15. **Project components.** The project has the following four components: Sanitation, Industrial Pollution Abatement, Environmental Territorial Management, and Institutional Strengthening and Project Management.

16. **Component 1: Sanitation.** This component supports the construction of sanitation infrastructure for the collection, conveyance, treatment, and appropriate disposal of domestic wastewater within the concession area of *Agua y Saneamientos Argentinos (AySA)*. As shown below, this component finances four major works contracts and their associated engineering supervision contracts. Of these contracts, the first three contracts are supporting the development of a new mega sewerage infrastructure—the Riachuelo System—to augment AySA’s capacity to provide better coverage and quality of sanitation and wastewater treatment services in the basin and AMBA, thus decreasing sewerage discharges to the M-R River and improving the environmental conditions of the basin and the quality of life of its residents. The four major works contracts are as follows:

- (a) **The Left Bank Collector (LBC) (Lot 1 Contract)**, including 16.2 km underground sewerage collectors, 12.6 km of secondary collectors, and complementary works on the left bank of the M-R River to convey the sewerage from AySA’s concession area to the Riachuelo Wastewater Treatment Plant (WWTP) in Dock Sud.
- (b) **The Riachuelo WWTP (Lot 2 Contract)**. This contract includes a WWTP with inflow and outflow pumping stations that will receive raw sewage from the LBC (Lot 1) and provide preliminary treatment and then transfer the treated wastewater to the Riachuelo Outfall (Lot 3) for final disposal. These works were fully appraised during preparation and were part of World Bank financing. In 2011, at the GoA’s request, this contract was converted to a contract fully financed by the Government. As a critical part of the Riachuelo System, the implementation of this contract has been under World Bank supervision throughout project implementation.

does not include a restructuring to reconcile the differences, the PDO statement in the Loan Agreement (LoA) is used in this paragraph.



- (c) **The Riachuelo Outfall (Lot 3 Contract).** This subfluvial outfall consists of a 12 km long tunnel 40 m below the riverbed of the La Plata River. It will discharge treated sewerage from the Riachuelo WWTP into the La Plata River.
- (d) **The Sludge Treatment Plant of the Southwest WWTP.** This contract is not a part of the Riachuelo System. The treatment plant will treat the sludge generated from the operations of the Southwest WWTP to reduce pollution load and the volume of sludge to be disposed from the WWTP.

17. **Component 2: Industrial Pollution Abatement.** At design, this component provides technical and financial support to help ACUMAR improve industrial pollution monitoring and enforcement and thus promote environmental compliance. This component includes a matching grant program to help small and medium enterprises (SMEs) reduce their pollution discharges and comply with environmental regulations. Currently, Component 2 is supporting two works contracts and its associated supervision contract: (a) the development of a Tannery Industrial Park (TIP) and accompanying infrastructure in the Municipality of Lanus and (b) the construction of the industrial WWTP (IWWTP) for the TIP. These investments will help manage pollution discharges from the tannery sector, a major source of industrial wastewater in the basin.

18. **Component 3: Environmental Territorial Management.** This component supports ACUMAR to improve its decision-making capacity for environmentally sustainable territorial planning and flood management in the basin. In addition, it finances pilot interventions to improve water and sanitation infrastructure in low-income urban areas, including

- (a) Drinking water infrastructure in the city of Cañuelas, benefiting nearly 12,000 residents;
- (b) Water and sewerage works in the city of Marcos Paz, benefiting 45,000 residents; and
- (c) Water, sanitation, and drainage networks for about 25,000 informal settlements in Villa 21–24 in CABA.

19. **Component 4: Institutional Strengthening and Project Management.** This component supports (a) ACUMAR to strengthen its institutional capacity for effective implementation of PISA and (b) the Project Implementation Unit (*Unidad Coordinadora General de Proyecto, UCGP*) to carry out project management activities.

E. Implementation

20. **The implementation arrangements remain the same; the project coordinating unit (UCGP) under the Ministry of Public Works (MOP) that remains as the implementing agency of the Matanza Riachuelo Sustainable Development Project, its first AF and the proposed second AF.** Under Component 4, the UCGP has maintained its key staff throughout project implementation. With increased capacity over the years, UCGP has managed well the implementation of all project activities and the coordination among ACUMAR, AySA and other stakeholders of the project.

21. **Project implementation has sustained momentum after the approval of the first AF.** The progress toward achieving the PDO and implementation performance continue to be rated Moderately



Satisfactory. As of March 31, 2021, the World Bank has disbursed a total of US\$876.0 million (91 percent of World Bank financing): US\$707.5 million out of the US\$718.0 million of the original loan and US\$168.4 million out of US\$245 million of the first AF loan.

22. **PDO indicators (c), (d) and (e) of the project have already been achieved satisfactorily.** With this AF's support to Component 1 activities, PDO indicator (a) will be achieved after the operation of the Riachuelo System. In addition, the operation of the Riachuelo System and the IWWTP under Component 2 will help reduce organic pollution loads discharged from domestic and industrial sources to the M-R River, and thus help achieve PDO indicator (b). These remaining works are expected to be completed within the new project timeframe.

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

The project's area of influence is quite large, with most of the proposed investments and programs to be located within the Matanza-Riachuelo Basin (MRB), the AySA concession area and the La Plata River, all within the City and Province of Buenos Aires. The project's area of influence involves the following (often overlapping) areas: (i) the entire MRB; (ii) the entire AySA concession area; (iii) the reaches of the Lujan River, from the mouth of the Reconquista River to its confluence with the La Plata River; (iv) the reaches of the La Plata River between the coast and the outer limit of the so-called "Parana de las Palmas Flow Corridor"; and (v) the coastal section between the coast of the La Plata River, the neighborhood access road to the river at approximately 14,000 m southeast of the boundary of the General Belgrano plant site, the Boca railroad, and the boundary between the districts of Quilmes and Berazategui. Key considerations relating to the physical location and characteristics of the project area include the large number of poor and vulnerable communities that live in close proximity to the MRB and who are most exposed to the uncontrolled and untreated discharges; the specific water quality characteristics of the MRB and the La Plata River; and the international riparian issues relating to the La Plata River.

G. Environmental and Social Safeguards Specialists on the Team

Santiago Scialabba, Social Specialist
Maria Emilia Sparks, Social Specialist
Federico A. Scodelaro, Environmental Specialist
Elba Lydia Gaggero, Environmental Specialist
Eleonora Beatriz Camalli, Social Specialist
Alicia Josefina Gesino, Environmental Specialist



SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	Yes	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	Yes	
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	Yes	
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	Yes	
Projects in Disputed Areas OP/BP 7.60	No	

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:

As the proposed AF will provide resources to cover the financing gap of ongoing project activities, it will not change safeguard issues and potential impacts of the project. The safeguards review confirmed that all the contracts that would be supported by the AF, particularly the Lot 2 Contract, are an integral part of the Riachuelo System, fully assessed at appraisal of the original project and covered by its safeguard instruments, all of which have been disclosed, consulted and continually implemented in accordance with the Bank’s safeguard policies.

Overall, the environmental benefits of the project are expected to outweigh the environmental costs of the project. Its expected benefits include: (a) improved quality of life for MRB inhabitants; (b) improved sewerage and drainage services in the MRB and other parts of the City and the Province of Buenos Aires by enabling the expansion of coverage of the sewerage network, especially in poor and marginal areas; (c) improved environmental quality of rivers and tributaries crossing the urban area and the Rio de la Plata through investments in industrial pollution control and management; and (d) improved urban living conditions associated with territorial development and flood risk management in the MRB.

The project poses potential environmental risks during both the construction and operation phases. A summary of all



potential environmental impacts, risks, mitigation and management measures is presented in Annex 10 of the project's PAD (<https://documentos.bancomundial.org/es/publication/documents-reports/documentdetail/237751468199768944/argentina-matanza-riachuelo-basin-sustainable-development-project>). During the construction phase, the main environmental risks are associated with the management and control of temporary risks of the construction of the various large-scale, complex civil works to be carried out under component 1 (Sanitation). These risks include the usual potential impacts associated with large scale construction, such as dust and noise emission; handling and disposal of hazardous materials at construction sites; potential of erosion and sedimentation near sensitive water bodies; handling and disposal of tunnel's excavation materials from underground works; large amounts of soil movement; local disruption of traffic flows; and occupational health and safety issues. Works under component 1 do not anticipate any significant negative impact on physical cultural resources; however, the ESMPs includes (and, accordingly, related contracts include) procedures and requirements associated with chance finds. During the operational phase, environmental risks include those associated with the potential increased contamination of the Rio de la Plata due to the operation of the sub-aquatic outfall (models developed for the outfall indicate, however, that the discharge plume is expected to be fully contained within a relatively small area of the receiving waters and thus not affecting coastal zones nor producing significant damaging effects); nuisance noise and odor associated with the wastewater treatment plant operations (although it will be located in the Dock Sud zone, in an isolated area quite far from the closest houses and urbanization); and disposal of the solid wastes generated by the treatment plant. None of the adverse potential impacts have been assessed as irreversible and can be mitigated with well-known mitigation actions.

Environmental risks and potential impacts associated with components 2 (Industrial Pollution Abatement) and 3 (Environmental Territorial Management) are, by their nature, much less significant. Adverse impacts will mostly be associated with small- and medium-scale construction of civil works. The main anticipated potential adverse impacts related to activities of these components include noises; vibration; exhaust emissions from machinery; dust emission and dispersion from excavation activities; disruptions in normal urban movement (traffic and pedestrian); and safety issues. None of these potential impacts is anticipated to be significant. In addition, civil works involved in certain sub-projects may affect a small number of houses in informal settlements, or potentially restrict the use of private land. To date, only one set of works has triggered the need for an ARAP as defined under the RPF. This ARAP was approved and disclosed by the Bank on July 17, 2019. However, the ARAP has not been implemented as there is ongoing consultation with one household regarding the sufficiency of the compensation. This process has been delayed because of the COVID-19 pandemic and will be fully implemented before any works affecting these households begin. Foreseen works and complementary interventions in components 2 and 3 do not anticipate any significant negative impact on physical cultural resources; however, any environmental analyses, as part of the as part of the corresponding ESMFs, specifically includes consideration of physical cultural resources: all sub-projects' ESMP and related construction contracts will include procedures and requirements related to chance find management.

Some of the identified potential impacts of project activities are of a social nature. For the works contracts, temporary social impacts expected during the construction phase include restriction of access to some public areas, increased transit of trucks to the trenches and collector sites etc. For large works under component 1, the proposed construction methods - mainly pipe jacking and tunneling - have been explicitly designed to avoid potential resettlement issues and minimize such social impacts. In addition, pipe routes have been selected to be located in public areas and will not impact private property. Regarding potential impacts of tunneling works (drilling, tunneling or other works that cause vibrations and may impact surrounding structures) there is a monitoring and mitigation plan in place. Following a baseline of structures, regular monitoring has been performed throughout construction. The monitoring within a year after construction will be managed by the contractor and supervision firms. After that, the monitoring will be managed by AySA. All complaints related to construction activities, including tunneling, have been registered and



managed through the GRM channels of AySA and ACUMAR. Concerns have been raised mainly on construction impacts of the wells areas of the left bank collector of the Lot 1 contract and resolved satisfactorily.

No other concern has been raised in other areas along the alignment of the tunnels so far. No adverse impacts or issues that were not previously identified as of potential occurrence have appeared during project implementation; risk and impacts have been successfully managed with the safeguard instruments developed for the project.

Given the complexity and the visibility of the project, the client has implemented ongoing consultation activities with a wide range of stakeholders, both during project preparation and ongoing into implementation. These consultation activities include formal engagement with roundtables established under a court order to provide citizen engagement in the larger execution of the PISA, of which this project partially finances some key activities, consultations with the cross-border CARP with Uruguay, and ongoing receipt of public comment through various websites (www.aysa.com.ar and www.acumar.gov.ar). There have also been public meetings to discuss project implementation and gather feedback, though these have moved online due to the COVID19 pandemic since March 2020. The client has also deployed a large communications campaign from the beginning of the preparation of the original project in 2008 to alert citizens and stakeholders to what the project is doing, all the more to allow them to then engage in and be informed for ongoing consultations. In addition, in July 2020 the stakeholder engagement process included the creation of a Matanza-Riachuelo Basin Environmental Adequacy Network (RAAC), a multidisciplinary space made up of representatives of the public sector, civil society organizations, academic institutions and industrial leaders that also has its website (www.raac.com.ar) where different stakeholders publish information on the activities financed by the project, as they key elements of the PISA.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: As mentioned above, the long-term environmental impacts of the project are expected to be positive. There would be some adverse but limited impacts associated with the operation of the treatment plant and subsequent discharges into the Rio de La Plata River. The pollution loads are expected to affect a relatively small area of the Rio de La Plata River, especially given the very high dilution factors of the river. As the project's area of influence is under intense urbanization and industrial development, the long-term success of the project will be determined, to a certain extent, by how successful governments will be able to control future growth and industrialization in highest risk areas and to regulate pollution from existing and future industries.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. A variety of alternatives were considered for the sanitation component (component 1). These included the level of wastewater treatment, the length of the outfall, and the number and location of the wastewater treatment plants. A summary of the description of the alternatives and the reasons for rejection of those that were not selected is presented in Annex 12 of the PAD.

In addition, during the negotiations of the original loan between the Government and the World Bank, it was agreed that prior to the construction of the proposed right bank collector (Colector Margen Derecha, CMD), the Government would carry out a prefeasibility study of alternatives through the water and sanitation utility of the Metropolitan Area of Buenos Aires (AySA). The prefeasibility study was carried out in 2010 and, instead of the construction of the CMD, it favored the alternative of advanced secondary treatment in four wastewater treatment plants from which effluents will be discharged into the M-R River to meet the water quality standards set by ACUMAR ("Decentralized Alternative"). An Expert Panel convened by the Bank reviewed the Prefeasibility Study and concluded that the decentralized alternative was a well thought-out proposal that could be supported by the Bank.



An issue of major importance for the project is the choice, for the Riachuelo System, of a preliminary treatment of the wastewater coupled with the discharge of the effluent into the La Plata River through a long effective outfall (an “outfall system”). The decision to choose a lower over a higher level of treatment has been questioned in some stakeholder meetings. However, the choice of this alternative is considered an effective strategy. Discharges from the preliminary treatment plant will be further processed by the oxygenation capacity of the La Plata River into which it drains. Choosing a higher level of treatment and a shorter outfall would not be fully justifiable (or sustainable) due to its inefficiency: it would be significantly more expensive and probably unaffordable both in terms of its capital investment as well as its operation and maintenance costs, while the alternative is equivalent, in terms of risks to humans and to the environment, to the selected alternative (preliminary treatment and long, effective outfall).

These conclusions are based on the findings of mathematical modeling of the implications of the various alternatives on water quality of the La Plata River. They are also consistent with the recommendation of the World Health Organization (WHO) that, from the public health standpoint of human exposure to wastewater, additional treatment higher than preliminary prior to the discharge does not reduce health risks. That is to say, the health risk associated with a system comprised of preliminary treatment followed by a long effective outfall is identical to that from a system comprised of secondary treatment followed by a shorter effective outfall. The WHO report refers to risk related to human exposure through bathing in the relevant zone of influence of the discharge, which is not exactly the potential risk in the case of discharge to the La Plata River; but as the main risk of effluent discharge is imposed by pathogenic organisms, the WHO exposure risk measure serves as a reasonable proxy.

For the industrial pollution component (Component 2), two alternatives were considered: (i) a high level of treatment of all industrial wastes and discharge of the effluents, except those which contain toxic matters, to the M-R river, and (ii) a lower level of treatment of all industrial wastes and discharge of the effluents, except those which contain toxic matters, to the municipal sewerage network for further processing together with domestic wastewater. Alternative (i) was rejected since it was found, through mathematical modeling, that even after a high level of treatment, the discharge of industrial effluents to the M-R River will still render it anaerobic. So that the only way to induce aerobic conditions in the river and recover its water quality is through Alternative (ii).

Following that strategy and in the frame of the restructuring of the project, in 2015 the GoA prioritized the construction of a Tanneries Industrial Park (TIP) with an Industrial Wastewater Treatment Plant (IWWTP) in the Lanus Municipality, as part of component 2, that will enable treatment of 78 percent of tannery effluent in the basin. The IWWTP will allow a proper treatment of the effluents with toxic matter as well as of the effluents with organic matter, which will be further processed with domestic wastewater.

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 environmental risks, impacts, and benefits of the project have been analyzed at two different levels using two closely related environmental assessment approaches. The environmental impacts (both positive and negative) have been assessed through: i) a detailed seven volume EIA conducted for specific works proposed under component 1 (Sanitation); and, (ii) separate ESMFs prepared for activities to be carried out under component 2 (Industrial Pollution Abatement) and component 3 (Environmental Territorial Management). In addition to the EIA and the ESMFs, an Integrated Environmental Assessment (IEA) has been prepared which serves two purposes: first, it summarizes the main findings of the more detailed EIA reports; second, the IEA presents the overall regional context and strategic goals for the long-term recovery and management of the MRB in its entirety. This has been a critical tool for broader consultations.



At each site-specific level, a detailed EIA report was prepared for each of the major civil works that are being constructed under component 1 (for the main works of the Riachuelo System, volume IV, V and VI of the seven-volume EIA), including those corresponding to the decentralized alternative prioritized by the GoA. Under component 2, the TIP and its IWWTP were screened applying the ESMF resulting in an EIA and its corresponding ESMPs.

The seven-volume EIA of component 1 was prepared under the general direction of the AySA Environmental Management Unit using independent environmental engineering consultants for key aspects of the analysis. These assessments, which were coordinated with associated modeling and other technical evaluations, indicate the overall environmental viability of the proposed project activities. The EIA provides a thorough assessment of the project's environmental impact during the construction and operational stages for the project's main civil works. The EIA for component 1 includes specific volumes on the general conditions and background of the project; a description of AySA's corporate Master Plan (Plan Director); the proposed Riachuelo preliminary treatment plant; the pumping stations; the Riachuelo sub-aquatic outfall; as well as the Left Bank Collector (Colector Margen Izquierda). In addition, the EIA includes baseline data, legal and institutional capacity assessments, an ESMP and site-specific management measures. The seven volume EIA was amended in 2016 to account for some changes in construction methodologies and the final engineering technical design of the left bank collector and outfall. The Integrated Environmental Assessment was prepared under the overall guidance of ACUMAR and corresponds to a regional, basin-wide assessment of environmental risks and benefits. The IEA describes the baseline conditions of the MRB, the legal and institutional setting and the strategic challenges and options that underpin the choice of the specific project components and investment activities. This IEA was used to evaluate the regional strategic objectives of the project (including infrastructure works that belong to the PISA but that will not be financed through the project) and to provide a clear rationale for the project components that respond to these objectives. The IEA also describes the structure of the project as a whole, including a detailed description of the environmental risks and benefits of the three project components and the institutional arrangements for implementing the Environmental Management Plan (EMP) for the project. AySA is updating an EA report as part of project implementation. A study 'Estudio de Impacto Ambiental. Emisario Subfluvial Planta Riachuelo. Etapa Operativa' is being undertaken by AySA to update the 2009 'Estudio de Impacto Ambiental del Plan Director de Saneamiento Obras Básicas en la Cuenca Matanza-Riachuelo, Volumen V: Emisario Subfluvial'. The 2009 report modeled and assessed environmental impacts related to the construction and operation of the Riachuelo Outfall based on data available at that time. The study is updating the modeling exercise to reassess the impact of the effluent discharge to the La Plata River based on 10 years of monitoring data collected by AySA. This includes, among others, (a) water quality, hydraulic conditions, currents, and bathymetry of the La Plata River; (b) effluent quality based on actual operating and monitoring data of the newly constructed Berazategui WWTP, with similar characteristics as the Riachuelo WWTP; and (c) hydrometeorological data and related impacts on the La Plata River. This study also considers the final locations and configurations of the elevated diffusers of the Riachuelo Outfall. The new data will allow AySA to make a more accurate and realistic assessment of the impact of effluent discharges to the quality of water in La Plata River. The initial findings of this study are consistent with the conclusions of the 2009 EA report. As required by the Environmental Authority of the Province of Buenos Aires, the initial findings of the updated ESIA study were published on AYSA's webpage in December 2020; a notification was sent by AySA to stakeholders (including pertinent government authorities and agencies, environmental NGOs and other civil society organizations, academia, among others) with the link to the study to invite them to share their comments and questions. So far, AySA has not received any feedbacks on this study. Once the final draft is finalized, it will be publicly disclosed and open to comments at the website of AySA (www.aysa.com.ar/Que-Hacemos/Estudios-de-impacto-ambiental). It is important to highlight that the update is intended only to apply real-world data from the past ten years to the mathematical modeling in the study to confirm the originally assigned risks and impacts. The final product will be published in the websites of AySA and of the World



Bank.

Since the beginning of the works under each component, the safeguards aspects are being managed through the implementation of the subproject-specific ESMPs. The UCGP has systematically submitted (at least once every six months) progress reports on the implementation of the ESMPs of the works under execution, as well as of the AySA's Social Engagement Plan, in a manner satisfactory to the Bank. Also, systematic monitoring meetings, some of them specifically convened to discuss safeguard issues, and frequent supervision visits to works sites confirm that the social and environmental management of all subprojects have been so far implemented and monitored in full compliance with safeguards instruments. The ESMPs are being implemented in a manner satisfactory to the Bank.

ESMPs include Occupational Health and Safety (OHS) programs which have been implemented as part of the plans. Also, Argentinian applicable legislation on OHS requires a stand-alone OHS Plan in place, under the responsibility of a professional and the supervision of an Insurance Occupational Risks firm. The Bank team performs a close supervision of OHS aspects, as part of the systematic review of advance reports on ESMPs, the periodic monitoring meetings, and the frequent visits to works sites. The project has incorporated the Bank requirement on reporting and management of incidents (Environmental and Social Incident Response Toolkit, ESIRT), which was formally reflected in the third restructuring (approved by the Bank on April 29, 2019). So far, the project has had one serious OHS incident, which has been handled by following ESIRT requirements. In addition, the OHS programs have been updated to include public and worker safety related to the ongoing COVID19 pandemic; all project related works and activities are being implemented under proper COVID-19 protocols, which consider current guidance on the matter of relevant organizations.

Social Assessment Process. Given the complexity of the project, two complementary social assessments (SAs) were prepared for ACUMAR and AySA during project preparation (2008-2009). ACUMAR's social assessment was a basin-wide study, describing the social base line conditions of the MRB; identifying stakeholder perceptions, positions, and influence on the project; highlighting the existing communication channels; pinpointing the overall social impacts; and assessing various social risks of the project. AySA's Social Assessment, on the other hand, explored the opinion of stakeholders about the proposed infrastructure works to be carried out by the company. Both SAs were developed based on available project information and consultations with relevant stakeholders, including 45 meetings during project preparation with stakeholders including representatives of community organizations, NGOs, the industrial sector, provincial and municipal officials, professional associations and members of academia. Stakeholders also participated in workshops and other consultation processes associated with the environmental instruments mentioned above, such as those for the presentation of the TOR's for the seven-volume EIA and the draft EIA itself. Based on the review of the Social Assessment carried out during the project preparation (2008-2009), AySA prepared a Communications Plan to produce clear and meaningful project information for all relevant stakeholders through publications, interviews, presentations in diverse forums, visits to the works, etc. In 2015, AySA prepared an updated and improved Social Engagement Plan that comprises four components: i) Social participation; ii) Stakeholder Analysis; iii) Communication; and, iv) Independent Monitoring. This new instrument received the Bank No Objection in January 2015 and is currently under implementation.

All environmental and social instruments are published in the AySA Website, as well as all the reports from public comment received through the different social engagement activities. Also, AySA systematically submits to the Bank, twice a year, the advance reports on the implementation of its Social Engagement Plan. Complementarily, ACUMAR launched its own Strategic Communication Plan in 2015, which established the guidelines for improved (in terms of transparency, responsiveness and openness) interaction with the public. It has been implemented through an updated and upgraded Website (at www.acumar.gov.ar), developed in modules and finalized in 2018, that includes, among



other aspects, Open Data and a functional Grievance Response Mechanism (GRM). Both ACUMAR and AySA have their own GRMs in place. The GRMs are functioning and accessible to project-affected people through different modalities (telephone, email and institutional websites).

During project implementation, risks associated with OP 4.12 related impacts, linked to some projected complementary road works under the contract of Lot 3 appeared and were managed according to the RPF. Specifically, an Abbreviated Resettlement Action Plan (ARAP) was prepared by the client and cleared by the Bank in 2019 to mitigate the impacts of an access road on three households and a firm. The ARAP includes compensatory measures for the affected households and the firm. However, the ARAP has not been implemented as there is ongoing consultation with one household regarding the sufficiency of the compensation. This process has been delayed because of the COVID-19 pandemic and will be fully implemented before any works affecting these households and the firm begin.

The Borrower's capacity to implement and achieve a successful environmental and social management as required for the project has been considerably improving during project implementation. While, at the beginning, ACUMAR had some staff with very strong environmental and water resource management credentials, it did not have a stand-alone unit responsible for safeguards tasks under the project. A subcomponent under component 4 was specifically designed to support any key activities identified in ACUMAR's institutional strengthening plan and proved to be vital in the creation of needed capacities. Today, ACUMAR has several dedicated units with specialized staff, such as the Social Participation Directorate, the Environment Directorate, the Social Policy and Management Directorate, among others, that develop all the tasks related to ACUMAR mandate and support the implementation of project activities. For example, in 2017 ACUMAR's social team developed its own Resettlement protocol that is materially consistent with OP 4.12. Furthermore, the Executive Director of ACUMAR is the General Coordinator of the Project Implementation Unit, UCGP, which allows a fluent dialogue with and an agile response from ACUMAR in connection with the project implementation. Within AySA, standalone environmental and social units with staff appointed to carry out a variety of corporate environmental functions existed at the time of project preparation. These units had already quite strong capacity with respect to project preparation tasks. Further, AySA has further strengthened its team with a full range of skills necessary to carry out all the tasks related to project implementation. Dedicated units of AySA are supporting project activities, such as the Directorates of Sustainability, Community Development, Occupational Health and Safety, among others. The Social Communication and Community Action unit, within the Directorate of Community Development, is in charge of the implementation of the Social Engagement Plan, that is being implemented in a manner acceptable to the Bank. In addition, AySA has developed an integrity code applicable for its staff and contractors, and a comprehensive gender equality policy that includes actions to prevent gender-based violence.

The project is in full compliance with its environmental and social safeguards instruments. Compliance with the safeguards policies has been rated at satisfactory levels throughout project implementation. Several field visits to works sites and meetings to specifically discuss on safeguards issues take place systematically (currently, site visits have been suspended given the pandemic restrictions, but virtual meetings continue). Counterpart teams at UCGP, ACUMAR and AySA, with the support of independent supervision firms for the major works, have demonstrated that they have appropriate capacity to carry out the environmental management of the works, including Occupational Health and Safety aspects, in accordance with the safeguard instruments established for the project. Social performance of this project is also progressing well, with some room for improvement. The different institutional social teams involved in the project (AYSA's Social Communication and Community Action team, ACUMAR's Social Participation Team, the City of Buenos Aires Housing Institute, etc.) have been able to work together to handle potential complex social situations, diminish or avoid conflicts and promote community participation related



to project's works. Some difficulties in the implementation of an Abbreviated Resettlement Plan in Lot 3, and challenges in the interinstitutional coordination between the agencies mentioned above for the social management of specific water, sanitation and drainage works in Villa 21-24 delayed the implementation of those works. This challenge has been addressed through regular coordination meetings. The implementation of the ARAP for Lot 3 is being carried out by ACUMAR and is also expected to be finalized in the short term.

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

As part of the project preparation process, stakeholder consultation and information disclosure has been carried out thoroughly. Information on the project and its components has been made publicly available through stakeholder consultation and workshops. Informal focus groups discussions have been conducted with NGOs, local government, affected people and beneficiaries at various points during preparation and appraisal. In addition, household and individual surveys done by the economic evaluation team have been used to disseminate information and gather stakeholder perceptions. Consultation and information disclosure have continued during project implementation. In the case of informal settlements, the project is implementing specific communication activities and roundtables with the beneficiaries and the local community to explain the scope of the works, evaluate potential impacts and agree on specific mitigation measures.

ACUMAR and AySA are working to constantly engage with all the local communities who are directly affected by the project. ACUMAR, for example, has established a network of approximately 300 community and environmental NGOs that are part of its broader engagement strategy relating to issues facing the MRB. This network provides an opportunity for information disclosure not just on the project but on a wide array of development issues facing the MRB. This engagement also socializes the variety of platforms for stakeholders to provide information, ask for more information or submit complaints. Both ACUMAR and AySA also carry out engagement activities targeted to specific social groups. For example, in 2021 ACUMAR is providing formal virtual training to 300 teachers on environmental and social issues of the MRB.

During project preparation, a first major consultation event was held in Buenos Aires on July 10th, 2008, for the scoping of the terms of reference for the seven-volume EIA. A second round of formal public disclosure of the advanced draft EIA report was conducted on November 7, 2008. Most of the identified stakeholders have taken part of these events. The seven-volume EIA final report is published in AySA's website (www.aysa.com.ar/Que-Hacemos/Estudios-de-impacto-ambiental) and in the WB's external website.

During project implementation, the EIA reports that were prepared by AySA for each of the different civil works prioritized by the GoA that correspond to the decentralized alternative, had a consultation meeting convened by AySA and targeted to relevant stakeholders (including government authorities and agencies, environmental NGOs and other civil society organizations, local community organizations and representatives, opinion leaders, professional associations, academia, among others). Another important event to highlight, is the presentation of the Final Report prepared by the Bank's Expert Panel on the Prefeasibility Study of the Alternative to the Right Bank Collector to the Supreme Court's Cuerpo Colegiado, which took place in October 2013. Also, as it was mentioned above, AySA prepared a comprehensive Communication Plan to engage stakeholders, share information, and collect feedback, as part of a broader Social Engagement Plan. Some actions in the Communication Plan had to be adjusted due to COVID-19 restrictions. AySA's social team acknowledged the impact of not having face to face contact with the neighbors at the worksites and therefore focused on strengthening the digital channels (mailing, twitter, webpage) to maintain engagement with the people during the pandemic.



In addition, ACUMAR and other involved agencies are implementing stakeholder engagement as part of the execution of works under components 2 and 3, such as (a) the construction of the TIP and the IWWTP in the Lanus Municipality (www.acumar.gob.ar/parque-curtidor/espacios-de-participacion/); and (b) the improvement of the water & sanitation and drainage infrastructure in a low income settlement in the City of Buenos Aires. A dedicated stakeholder engagement process is under implementation in Villa 21/24, which has involved regular meetings with neighbors, community representatives and local NOGs in so called “round tables” (“mesas de trabajo”). Representatives from ACUMAR, the City of Buenos Aires, the UCGP, the supervision firm, among others as required, receive and respond to the concerns of the community. This close interaction has allowed an adequate implementation of the works in a very sensitive social context. For example, based on community requests, AySA adjusted its internal technical norms in a way that will allow to reach with the provision and operation of the water supply service to more neighbors than originally planned. In this regard, AySA has been working together with ACUMAR to ensure proper articulation of ACUMAR's stakeholder engagement strategy in order to foster participation and to bring more information to stakeholders. During 2020 and 2021 regular meetings with neighbors could not take place due to COVID-19 related restrictions. However, ACUMAR, the City of Buenos Aires and the UCGP stayed in virtual contact with stakeholders that are part of the “mesas de trabajo”.

Both ACUMAR and AySA have their own GRMs in place. The GRMs are accessible to project-affected people through different modalities (telephone, email and institutional websites). In case of AySA, complaints can also be presented in-person at the worksites or AySA Headquarters. In case of ACUMAR, complaints can be made at its Headquarters too. The project has handled many concerns and complaints of different types, such as requests for information about works disturbances. ACUMAR and AySA reported systematically to the Bank on the claims received and the way they are managed. ACUMAR and AySA have followed their GRM procedures to address claims received in a manner satisfactory to the Bank.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)

Environmental Assessment/Audit/Management Plan/Other		
Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors

"In country" Disclosure

Resettlement Action Plan/Framework/Policy Process	
Date of receipt by the Bank	Date of submission for disclosure



"In country" Disclosure

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)

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