

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA4574

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| Project Name | AR Flood Risk Management Support Project for the City of Buenos Aires (P145686) |
| Region | LATIN AMERICA AND CARIBBEAN |
| Country | Argentina |
| Sector(s) | Flood protection (100%) |
| Theme(s) | Water resource management (100%) |
| Lending Instrument | Investment Project Financing |
| Project ID | P145686 |
| Borrower(s) | City of Buenos Aires |
| Implementing Agency | Ministry of Finance, City of Buenos Aires |
| Environmental Category | A-Full Assessment |
| Date PID Prepared/Updated | 17-Feb-2016 |
| Date PID Approved/Disclosed | 11-Mar-2016 |
| Estimated Date of Appraisal Completion | 29-Jan-2016 |
| Estimated Date of Board Approval | 05-Jul-2016 |
| Appraisal Review Decision (from Decision Note) | The review did authorize the preparation to continue |

I. Project Context

Country Context

The new administration has moved with significant speed to implement core reforms. After taking office on December 10, 2015 the new administration eliminated export taxes on major crops and beef, and reduced those on soy by 5 percentage points. Export taxes on most industrial manufacturing exports have also been eliminated, including autos, textiles, metals and toys. The government has unified the exchange rate, effectively ended most foreign exchange restrictions, and has moved from a system of discretionary to automatically provided import licenses in line with WTO procedures. Electricity tariffs were realigned. The new scheme reduces energy subsidies while including price incentives to reduce energy consumption and a social tariff destined to low income users. In INDEC, new staff has been appointed and a revision of inflation, economic activity, and poverty statistics are under way. The publication of more credible statistics is expected by mid-2016.

However, important challenges remain. A sound macroeconomic program and a growth enabling policy framework is key to build credibility, enable reentry to capital markets and support broad based growth and quality employment creation. Less expansionary monetary and fiscal policies will

help to address the country's macroeconomic imbalances, while restoring access to external finance would allow a more gradual fiscal consolidation. Fiscal deficit is large (estimated at 8 percent of GDP for 2015) and public spending increased significantly before elections in 2015. Financing fiscal deficit with monetary emission pushed up inflation (29% in 2015 according to private sector estimates). The potential pass through from the recent currency depreciation to prices is a source of concern for 2016. Unofficial figures (IPC Congreso) point to an acceleration of inflation in December 2015 (+3.8% mom) and January 2016 (+3.6% mom). Economic growth is expected to experience a mild contraction in 2016 before accelerating in 2017 as the positive impact of the recent policy changes kick in and the global economy recovers. During transition to a more stable macroeconomic environment, short-term adjustments could have negative impacts on firms and employment. Small firms and the poor face the greatest risks because they lack instruments and resources to hedge against potential shocks. Therefore, carefully designed policies are key to avoid negative impacts on the poor and preserve important social milestones attained during the past years. Improving spending efficiency in key social sectors and infrastructure will be critical to avoid major cuts in public spending and protect pro-poor expenditures. Strengthening competitiveness and productivity of the economy through an improved business environment will help to fully reap the benefits of greater trade openness. For a broad based and inclusive growth, improving public goods provision and reducing regional disparities (including transportation, health, and education) is crucial.

Sectoral and institutional Context

Environmental degradation and vulnerability to natural disasters associated with extreme weather events represent a significant cost to the economy of Argentina. The natural disaster loss per capita in Argentina is high and relates predominantly to floods. According to the world's second-largest reinsurer, Swiss-Re, Argentina is among the top ten emerging economies with the highest flood hazard exposure. This translates into estimated losses in excess of US\$3 billion a year, accounting for an estimated 0.7 percent of GDP in 2012.

Recurrent flooding in the Buenos Aires Province and Autonomous City of Buenos Aires (CABA by its initials in Spanish) has a negative impact on local livelihoods, commuters, the city budget, and the overall national economy. In the Buenos Aires Province, during the period 2000–2011, floods caused nearly US\$4.5 billion in losses and affected 5.5 million people. CABA is one of the busiest cities in Latin America and the political, financial, commercial, and cultural center of Argentina. CABA represents approximately 24 percent of Argentina's economy and is home to 8 percent of the national population. The recurrent flooding in the city has a negative impact on the livelihood of its 3 million inhabitants and its more than 2 million daily commuters—who come to the city to work, study, and access health institutions.

In April 2013, CABA experienced one of the heaviest storms recorded in nearly 50 years, resulting in key transportation routes being submerged and mass-transit systems shutdowns affecting 350,000 people directly. Power outages lasted for as long as 15 hours in many neighborhoods and up to several days in a few others. Direct damages and losses of this event amounted to US\$300 million. In addition, fiscal impacts (subsidies and tax exemptions) of severe weather events are important—the events recorded in April 2012 and April 2013 were estimated to result in a US\$49 million budget impact. Logistics disruptions also had a negative impact on the overall economy.

The main causes of flooding in CABA are intense rainfall and exceptionally high tides in the La

Plata River. With rapid urbanization, the natural drainage network has been completely modified and the soil absorption capacity has diminished. Nowadays the majority of water courses flow under the city streets and buildings rather than through the numerous creeks and small ponds that used to drain into the La Plata River. Climate variability, unsustainable urban planning, and increased migration of people to flood-prone areas are worsening the impacts of floods. The annual rainfall and storm water runoff has dramatically increased in recent decades, rendering the existing urban drainage system insufficient to drain the large amounts of rainfall from the city's streets and leading to major incidences of unexpected flash floods.

In 2004, CABA's government, with the support of the Bank, prepared a Hydraulic Master Plan (Plan Director de Ordenamiento Hidráulico [HMP]). The HMP was developed under the Bank-financed Flood Protection Project. Argentina's approach to floods in the 1990s focused mainly on reconstruction of damaged infrastructure. However, over time and with the Bank's support, this approach gradually shifted from pure recovery/emergency response toward a more integrated flood risk management approach. Under the 1993–1998 Flood Rehabilitation Project, Argentina developed the Water Basin Management Study that generated a flood risk management strategy for the Parana-Paraguay River Basin that was the basis for subsequent Bank operations. Following that study, the HMP (focusing on CABA) was developed under the 1997–2006 Flood Protection Project. The HMP began its implementation through the APL1 Urban Flood Prevention and Drainage Project (P088220).

The HMP lays out a comprehensive plan for improving the level of protection against floods and reducing economic and social losses caused by flooding by 2050. Based on best practices in flood risk management, the HMP takes a Basin-wide approach (dividing the city into ten Basins) and details a set of priority nonstructural and structural measures focused on (a) interagency coordination; (b) urban planning; (c) green-space management; (d) green and resilient infrastructure; (e) hydrometeorological system for forecast and warning; (f) emergency plans; and (g) infrastructure investments, such as primary and secondary drainage systems, pumping stations, and retention areas. The HMP has been revised and updated on a regular basis.

Implementation of the HMP has resulted in significant improvements in drainage capacity. The new drainage system in the Maldonado Stream Basin (financed under the Bank's APL1 Urban Flood Prevention and Drainage Project [P088220], hereafter referred to as APL1) resulted in a threefold increase in drainage capacity within the Basin and directly benefited around 1 million people by reducing their exposure to flood hazards. During the heavy rain events in recent years, the improved drainage system has proven effective in reducing the accumulation of water in historically flood-prone areas with noticeable improvements to households and businesses. The investments in the Maldonado Basin have been complemented by other infrastructure works but also by nonstructural measures such as (a) the development of a Green-spaces Master Plan; (b) the issuance of the Emergency Plan Decree 695/009; (c) development of action protocols for the agencies involved in emergency response; (d) communication campaigns aiming at changing citizens' behaviors during storm alerts; and (e) introduction of clauses in the garbage collection contracts that are triggered under a storm alert, and improved solid waste management (source separation, containerization, and recycling strategies). While there has been progress in adoption of the nonstructural measures, implementation has been slower than originally envisaged and some activities planned during APL1 were not completed.

Cities across the globe have learned that effective flood risk management requires extensive

interagency coordination. Figure 1 outlines the main institutional actors and their roles in flood risk management in CABA. These flood risk management responsibilities are dispersed across different agencies within and outside the CABA government posing a coordination challenge. In addition, coordination with national, provincial, and neighboring municipalities that are part of the same hydraulic system is also important as their policies, projects, and actions on water management will have an impact on CABA.

To address the challenges of interagency coordination, a committee for emergency attention (as per Decree 695/009) convenes once an emergency is declared. While effective in coordinating emergency responses, there is still the need for a mechanism to ensure interagency coordination on a permanent basis. To ensure there is coordination among agencies and guarantee an umbrella for all the actions regarding risk management in the city (avoiding conflicts and contradictory actions and messages to the community), the CABA government has committed to establishing a permanent inter-ministerial council for risk management and is studying successful examples from other countries. The final structure, roles, and responsibilities of this committee have been defined based on international best practice, and it is expected that this council will be established before Board presentation. The council will be responsible for the integrated planning (through periodic plans approved by this council); operation and management strategies of infrastructure; emergency response (in a coordinated way as established by CABA's strategy for emergency response); community outreach, capacity building of all agencies involved in flood risk management; and monitoring, evaluation, and control of the overall strategy for risk management. It is foreseen the council will have representatives of all agencies in the CABA, with periodic meetings for planning and evaluation, and, when necessary, for emergency attention, as it works currently.

The Bank is well placed to provide global knowledge, technical assistance, and finance for flood risk management. The partnership between the Bank and Argentina and CABA on flood risk management has evolved from pure recovery/rehabilitation projects moving toward a more comprehensive flood risk management program focusing on prevention, special poverty measures, and interagency coordination. In addition, CABA seeks the Bank's technical and financial support for the design and implementation of complex infrastructure works, which include large drainage tunnels to be installed deep under the pavement of very busy main roads in the city and which require careful consideration of technical, financial, environmental, and social issues. CABA also values the long-term engagement of the Bank to support it in its transition to a more permanent institutional framework to more comprehensively address flood risk management in the city and neighboring jurisdictions. CABA recognizes that the Bank supports an adequate combination of nonstructural and structural measures. Many of the proposed nonstructural project activities are cutting edge in the field of flood risk management and are meant to serve as pilots that could be scaled up nationwide. More specifically, CABA looks to the Bank to offer valuable global knowledge and expertise on: flood risk financing schemes; complex hydrometeorological observation systems, monitoring, analysis, and forecasting; community participation; and targeted poverty measures. In addition, the Bank is financing the Matanza Riachuelo Basin sustainable development project that is complementary to this operation.

II. Proposed Development Objectives

Strengthen the Autonomous City of Buenos Aires to efficiently manage flood risk and improve the drainage systems in the Cildáñez, Maldonado and Vega watersheds.

III. Project Description

Component Name

Institutional Development for Flood Risk Management

Comments (optional)

Four subcomponents will be part of Component 1: (a) hydro-meteorological observation, surveillance and alert system; (b) flood risk financing and protection scheme; (c) flood risk social communication and education; and (d) capacity building for flood risk management.

Component Name

Flood Mitigation Infrastructure

Comments (optional)

This component will finance priority flood mitigation infrastructure in the Cildáñez, Maldonado, and Vega watersheds. The selection of the large-scale drainage works was made based on Hydraulic Master Plan consideration of the economic benefits of the alternatives. The Cildáñez, Maldonado, and Vega watersheds are the most flood-prone watersheds of the city where the most urgent investments are needed. The Cildáñez watershed counts the greatest number of poor in CABA.

Component Name

Project Management

Comments (optional)

This component will include: (i) the provision of support for the management of the Project, including the financing of audits, the M&E of the Project, training and operating costs; and (ii) the development and implementation of a comprehensive baseline data collection and post Project data collection and analysis to allow the monitoring and evaluation of the Project results and impacts on the population.

IV. Financing (in USD Million)

| | | | |
|---|--------|-----------------------|---------------|
| Total Project Cost: | 326.00 | Total Bank Financing: | 200.00 |
| Financing Gap: | 0.00 | | |
| For Loans/Credits/Others | | | Amount |
| Borrower | | | 126.00 |
| International Bank for Reconstruction and Development | | | 200.00 |
| Total | | | 326.00 |

V. Implementation

CABA will be the borrower of the Bank loan, under a Guarantee Agreement with the GoA.. The PCU will be created in the MoF, within its Unit for Multilateral Financing (UMF), once the loan is approved. This PCU will be responsible for overall project coordination. The PCU will serve as a permanent link between the Bank and CABA, throughout the life of the project. Once set up legally, the PCU will be in charge of all project procurement and will be staffed with qualified professionals to handle the project, according to the Operational Manual. The PCU will ensure timely participation of the institutions that will be responsible for the O&M of the assets to guarantee a smooth handover between construction/purchase and operation. Similar to the previous Bank-financed project with CABA, the project's financial management (FM) responsibilities comprising budgeting, accounting, financial reporting, disbursements, the external audit hiring process, and data management and filing will be the responsibility of the Directorate of Public Credit (DCP) in the MoF.

VI. Safeguard Policies (including public consultation)

| Safeguard Policies Triggered by the Project | Yes | No |
|--|-----|----|
| Environmental Assessment OP/BP 4.01 | x | |
| Natural Habitats OP/BP 4.04 | | x |
| Forests OP/BP 4.36 | | x |
| Pest Management OP 4.09 | | x |
| Physical Cultural Resources OP/BP 4.11 | x | |
| Indigenous Peoples OP/BP 4.10 | | x |
| Involuntary Resettlement OP/BP 4.12 | x | |
| Safety of Dams OP/BP 4.37 | | x |
| Projects on International Waterways OP/BP 7.50 | x | |
| Projects in Disputed Areas OP/BP 7.60 | | x |

Comments (optional)

The proposed Project is classified as Category A according to World Bank Environmental Assessment OP/BP 4.01 based upon one of the flood mitigation works to be developed under Component 2, specifically the large drainage tunnel and its complementary works in the Vega basin, even though the associated potential socio-environmental adverse impacts are not considered irreversible or non-mitigable.

The Project does not anticipate any significant negative impact on physical cultural resources. However, Component 2 works entail large excavations and soil movement, and potential exists for the accidental discovery of physical cultural resources. Thus, OP 4.11 is triggered for the Project. All Sub-component construction contracts will include requirements related to chance find management.

OP 4.12 has been triggered in the case of any eventuality, particularly near the informal settlements in the Cildáñez Basin. Therefore, a Resettlement Policy Framework has been prepared and was disclosed on August 29, 2014. If the civil works planned cause resettlement, a Resettlement Action Plan will be prepared before the start of the works.

OP/BP 7.50 - Projects in International Waterways is triggered. The project involves the construction of a new drainage tunnel and discharge of storm water into the La Plata River, which is an international waterway shared by Argentina and Uruguay. The proposed project works represent expansions of existing systems that will not adversely change the quality or quantity of the water flows or be adversely affected by other possible riparian water uses. Following the OP/BP 7.50 requirements, a formal notification of the proposed project and its elements was sent by the Bank to the Republic of Uruguay on June 18, 2014. No response has been received from the government of Uruguay.

VII. Contact point

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