

With a gross domestic product (GDP) of US\$614 billion, Argentina was the third-largest economy in Latin America in 2022.

Decades of underinvestment have led to sizeable gaps in capital stock relative to comparable countries, although capital spending as a percentage of GDP has improved in recent years.

The economy recovered from the Coronavirus Disease (COVID) crisis at a fast pace, reaching pre-pandemic activity levels by mid-2021.

However, since 2022 increasing macro imbalances and a more turbulent global context, started to slow down the pace of GDP growth.

Climate change will particularly affect the Argentinian energy sector and its climate resilience, as higher temperatures and extreme weather events will impact power generation, especially clean energy sources such as hydro, solar and wind.¹² Higher demand resulting from economic growth, industrial expansion, urbanization, and population growth will also challenge existing power supply systems.

This amount covers the remaining obligations under the 2018 SBA (US\$40.5 billion) and provided a small net financing support for reserves accumulation (US\$4.5 billion). The program sets a gradual fiscal consolidation path toward a zero primary deficit in 2025 (from 3 percent in 2021 to 2.5 percent of GDP in 2022, 1.9 percent in 2023, and 0.9 percent in 2024), a reduction of monetary financing of the deficit (eliminated by 2024), and the framework for monetary policy involving positive real interest rates, as part of a strategy to fight inflation.

According to the IMF statement, prudent macroeconomic management in the second half of 2022 supported stability and helped secure program targets through end-2022 with some margin.

While fiscal targets have been met so far, a still sizable fiscal deficit continues to pressure monetary policy, given limited access to capital markets. A severe drought is expected to strongly affect agricultural production in 2023, reducing exports and fiscal revenues while limiting the capacity of the Central Bank to accumulate international reserves.

In this context, the government is increasing efforts towards a gradual macroeconomic stabilization program that contains a broad set of economic policies. To reduce the monetary financing of the fiscal deficit and the associated persistent and high inflation, the government has adopted measures to reduce the cost of subsidies and improve their targeting, especially in the costly energy sector.

Investing in flood risk reduction will have macroeconomic impacts and urban flood mitigation infrastructure will reduce asset and welfare losses.

Reduced exposure and vulnerability of urban areas to floods can greatly benefit assets and well-being, bringing macroeconomic stability, which is pivotal for economic growth.

This reached up to US\$22.5 billion of economic losses since 1980 for the populations living in the areas affected.

Climate change adds further stress to the existing infrastructure, and without proper planning and investments in risk management, floods will have a larger impact on residents and the economy.

Thorough planning and design of infrastructure require an integrated river basin management approach.

As urban areas face a wider range of shocks and stresses, it is important to promote urban development and sustainability, as well as foster climate resilience in metropolitan areas.

Although urban flood hazard is considered high in Argentina, few cities have truly integrated water management plans to properly prioritize investments. Some provinces have prioritized investments, and other provinces are carrying out studies, often financed by the national government, to identify the required investments to reduce flood risks in an integrated manner. For the provinces of Buenos Aires and Santa Fe, two of the most affected provinces, the investment needs to reduce flood risks amount to more than US\$3.4 billion alone.

The MPA would support the

20 Green infrastructure (also called natural infrastructure, or engineering with nature) intentionally and strategically preserves, enhances, or restores elements of a natural system, such as streams, wetlands and can also include linear parks with flood plains, bioswales and wadis, or green roofs.

The proposed MPA for a total of US\$900 million includes a three-phase overlapping approach, with each phase using the Investment Project Financing (IPF) instrument, in agreement with the government.

The Program Development Objective (PrDO) will be achieved by (i) efficiently blending and developing green-blue, and grey infrastructure, as well as non-structural interventions, (ii) improving flood risk multi-level governance,¹⁸ and (iii) increasing the capacity to manage flood risk through an integrated river basin planning approach.

This will lead to a strong portfolio for the second and third phases while including other provinces and moving toward a country wide approach optimizing the efficiency of the projects using lessons learned and increased capacity at national, provincial, and local levels.

Based on the Water Security Diagnostic for Argentina and lessons learned the learning agenda will initially focus on aspects related to (i) improving the institutional framework and strengthen water governance, (ii) how infrastructure to reduce flood risk can be made more resilient, (iii) strengthening the basic needs for improved sustainability and (iv) how to increase citizens engagement and close the gender gaps that are related to flood risk management and the added value of water in urban development.

Expand resilient infrastructure.

Phase I will also provide important input on how integrating water in urban development can increase the added value of water (economic, social, and environmental) in urban upgrading processes.

The project, as the first phase of the MPA, focusses initially on no-regret actions ready to be implemented in cities located in the most flood affected regions of Argentina.

Structural interventions under this Project focus on (i) rehabilitating/constructing defense works in urban areas with high vulnerability to flooding damage; and (ii) pluvial drainage works to reduce the areas and communities affected by storms.

This subcomponent will carry out demand-driven no-regret interventions consisting of rehabilitation, upgrading, reconstruction, or construction of new grey hydraulic infrastructure for urban drainage and flood risk mitigation (e.g., primary drainage channels, secondary and tertiary drainage networks, flow control infrastructure, storage areas, defenses, embankments, and pumping stations among others).

Within the comprehensive matrix of green-blue infrastructure options, this Subcomponent will include the development of retention areas, linear parks, green roofs, and permeable pavements among others.

Furthermore, these solutions could support the creation of recreational areas and urban green corridors adding to the integration, maintenance, and recovery of urban biodiversity.

This component will also focus on non-structural measures including the development of urban flood risk management plans and strategies, environmental assessments, urban development and solid waste management plans, the revision of legal frameworks, development of early warning systems, and any other tool necessary to strengthen the capacity to operate and maintain the infrastructure for improved urban flood risk management.

With interventions improving the management of urban flood risks, for example, through better planning, prioritization, and more efficient interventions, the people living in the selected cities will benefit from the Project.

With a long track record of supporting the sector with bold interventions, including over 20 years of engagement in mitigating flood risks, support in addressing the poor environmental conditions of the Matanza-Riachuelo river basin, and expanding water supply and sanitation services in low-income northern provinces (Norte Grande Region), the Bank is a trusted partner in the sector, helping the government overcome technical, institutional, financial, and legal challenges, among others. The Bank supports infrastructure investments and provides global technical expertise to encompass institutional development, environmental management, and citizen engagement, assisting the government toward the 2030 agenda and pursuing the SDGs.

Selected

cities already have strong programs on participatory planning and inclusion of communities to improve awareness and create a sense of ownership.

It is expected that additional interventions (in other cities) will become eligible for financing using criteria such as cost effectiveness, impact on poor and vulnerability factors of communities.

Improvement of the existing hydraulic conditions of the Canal Alvarado and the integration of the works in urban development in San Salvador de Jujuy, Jujuy (US\$8.8 million).

This activity will address issues resulting from uncontrolled urban sprawl, which has led to the expansion of vulnerable settlements along the canal.

c. Rehabilitation of Canal Alvear and secondary drainage network in the city of Salta, Salta (US\$23.4 million).

The main part of the intervention^{4 1} seeks to rehabilitate and upgrade the existing tunneled section of the Canal Alvear and its secondary network draining to the Canal-Alvear basin to increase the capacity in the face of climate change.

d. Improvement of the Arribalzaga street drainage network, and rehabilitation of Canal Soberania, Resistencia, Chaco (US\$18.3 million).

Interventions considered to reduce impact are (i) rehabilitation of the existing Canal Soberania (10Km) including the construction of a linear park to retain water, and (ii) improvement of the drainage system located in the Avenida Arribalzaga including tunneled drainage and green interventions like rain gardens to reduce the peak flows toward the drainage system.^{4 2} Expected

^{4 1} The tunneled section and secondary drainage network are estimated at 80 percent of the costs and 20 percent of the costs will be related to green interventions.

Previous Bank-financed operations have shown that flood risk management interventions such as the ones to be financed under this project are economically feasible, showing positive Economic Internal Rates of Return (EIRR) and benefit-cost ratios (B/C) larger than 1. As a result of limited data, it is often the case, that only a partial economic assessment of structural flood mitigation measures can be carried out, leaving out the valuation of additional benefits and underestimating the positive impacts of these types of investments.

Other benefits, associated with the regularization of informal urban settlements, and those linked with green and blue infrastructure, like improved air quality, GHGs emissions reduction, increase of recreational areas, reduction of the heat islands effect, creation of new local socioeconomic opportunities, and tourism, have also been partially considered.

Economic analysis shows that the project is economically feasible presenting B/C ratios larger than 1 and positive EIRR. After performing a sensitivity analysis, considering alternative cost scenarios and discount rates (between four and twelve percent) the interventions continue to be economically feasible, depicting their robustness.

In the case of San Salvador de Jujuy, benefits were estimated using a combination of avoided damage and hedonic prices methods.

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For instance, if the baseline is 30 %, the expected average increase for the end target will be 31.5 per cent ($30\% + (30\% * 5\%) = 31.5\%$)

Each project will be supported by complete technical designs considering climate change effects, proof of its economic feasibility, financial sustainability, as well as adequate environmental and social management.

Additionally, urban growth was not accompanied by the necessary urban drainage infrastructure works, causing the existing systems to become less efficient and resulting in exacerbated flooding episodes after rainfall events.

c. The current drainage system lacks development and maintenance, especially the secondary drainage network that no longer has the capacity to drain sufficient storm water.

Works will involve the opening of the drainage tunnel or emissary to be rebuilt with reinforced concrete, improvement of the secondary drainage system and construction of rain gardens to reduce the peak discharge.

Fast urban development with limited consideration of criteria related to storm water drainage resulted in insufficient drainage capacity and flooding exacerbated by improper solid waste management.

Proposed works in San Salvador de Jujuy to adapt to climate change and reduce flood risks include (i) the construction of a new Canal (2.5Km), (ii) the consolidation of the surface runoff stormwater drainage network (4867m of gutter systems and 468m² of channels), and (iii) the planting of Squares, Parks, and Green Corridors along the Canal as a complement to grey infrastructure and to increase water retention in the focus areas.

However, all works will complement existing schemes, including pumping stations with evacuation capacities of less than 10m³/s and less than 5 Km long drainage pluvial systems.

Expected beneficiaries from reduced flood exposure are estimated at 15,000, corresponding to the population living in La Rubita neighborhood, while beneficiaries from reduced flood impacts ascend to 291,000.

In Resistencia, the identified intervention focuses on developing a linear park along Canal Soberania Nacional (cost yet to be determined).

rate for Argentina in 2023.

The World Bank forecasts a 2.1 percent real GDP growth

Hence, if such positive externalities were to be accounted for, results are expected to show greater economic benefits.



Canal Alvarado presents four objectives: (i) flood risk mitigation; (ii) Increase in sustainable mobility share; (iii) urban improvement; (i) increase access to public spaces.

