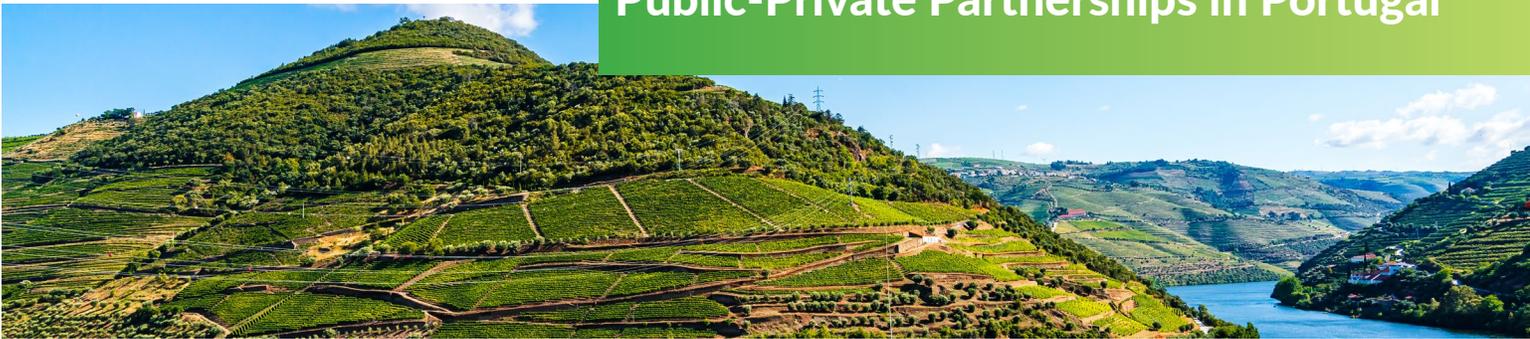


CASE STUDY

Public-Private Partnerships in Portugal



IDENTIFYING HAZARDS:

Through the [ADAPTACLIMA](#) project, the Portuguese Government has partnered with water sector entities, through the [Empresa Portuguesa das Águas Livres](#) (Portuguese Free Water Company; EPAL), to develop adaptation strategies based on the climate considerations deemed most relevant to Portugal. The project uses a variety of climate scenarios to focus on the impacts of greater temperature variability, changes in precipitation, and the impact of rising sea-level on the Tagus River estuary and the resulting increased salinity. It provides projections for these hazards up to 2100 and has a specific focus on water availability and water quality.

POLICY APPROACHES TO INCREASE RESILIENCE:

Since the 1990s, the Government of Portugal has promoted and encouraged the use of public-private partnerships in order to develop the infrastructure of the country with lower public expenditure. Under this structure, the Portuguese government sets out the necessary requirements for services and is able to shift much of the financial and implementation risk to its private sector partners. The private sector partners are looking to increase profitability by efficiently investing in projects needed to fulfill their service obligations. Through ADAPTACLIMA, the government has also helped participants in the water sector to identify, assess, quantify, and manage relevant climate considerations in forward planning.

In 1993, as part of its PPP policy, Portugal formed Aguas de Portugal ([AdP Group](#)) as a **private company majority owned by the Portuguese state to build and maintain water and wastewater infrastructure throughout the country**. AdP Group currently serves 80% of the population using a multi-municipal structure in which these municipalities hold equity shares in the group or its subsidiaries. This multi-municipal structure allows **the Government of Portugal and municipalities to transfer risk** while giving AdP Group efficient economies of scale and the ability to leverage its large customer-base with its large and high fixed-cost water infrastructure assets.

- The PPP approach and unique multi-municipal financing structure has been successful in **helping Portugal rapidly build a modern water and wastewater management system with minimal public investment**. The success of the company has also allowed it to expand operations in other, mainly Lusophone, markets.

Illustrative Checklist for Incorporating Climate Considerations in PPPs

✓	Have project developers identified potential climate hazards, particularly those that have been identified as most impactful in this jurisdiction and/or for water infrastructure in general?
✓	How have the project developers integrated identified climate hazards into project design and financial projections? What risk management and resilience measures have been put into place for each of the identified material hazards?
✓	How sensitive is the provision of service to business interruption events? What are the revenue losses associated with system slowdowns or stoppage?
✓	What risk management measures have been put in place to ensure the resilience of a project and what is the estimated change in CapEx, OpEx, and life of the assets with these risk management measures?
✓	Have changes in water demand and wastewater discharge, related to climate change (from both physical and transition impacts) been incorporated into the project finances?
✓	Has the developer included projected changes in the cost of water or energy (due to climate change impacts)?
✓	What types of expertise within state government offices should be engaged in approval (i.e. engineering, climate experts, finance experts)?
✓	How are climate considerations for existing infrastructure monitored as part of operating contracts?



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ADVISORS



The profit motive inherent in the PPP structure has also motivated AdP to promote [sustainability](#) in its operations and to focus on reducing energy intensity in water provision. AdP has even managed to capture and use renewable energy created at one of its plants from the kinetic energy in the water flowing into its reservoir.

Interested in learning more about this work or Climate Finance Advisors, contact us here: info@climate-fa.com

Established in 2015 in Washington, DC, as a mission-driven Benefit LLC, CFA is a certified B-Corporation and a women-owned consulting and advisory firm that works at the nexus of private investment and climate change. Our mission is to accelerate sustainable, climate-aligned investment to the benefit of society, the economy, and the global environment.

This project has been organized with the financial support of the European Union's Partnership Instrument within the Strategic Partnerships for the Implementation of the Paris Agreement program. The opinions expressed are the sole responsibility of the authors, and do not necessarily reflect the views of the European Union