



Economic and Financial Committee (ECOFIN)

Topic 3: Public-Private partnerships for climate adaptation and mitigation

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1. Definition of key terms

Public-Private Partnership (PPP): a long-term contract between a private party and a government entity for providing a public asset or service, in which the private party bears significant risk and management responsibility, with profit linked to performance.

Adaptation: the impact of climate change on infrastructure assets and actions that can be taken to reduce their vulnerability and enhance their resilience.

Mitigation: strategies or actions taken to remove or reduce the level of greenhouse gas emissions.

Stakeholder: a person or group involved in an economic initiative, company, or other project, with interests linked to the execution and outcomes of the initiative itself.

World Bank: an international financial institution that provides loans and grants to the governments of low- and middle-income countries for economic development.

Low-Carbon Climate-Resilient (LCCR) Infrastructure: projects aimed at reducing greenhouse gas emissions (such as implementing low- or zero-emission technologies or fostering clean energy generation and conversion) or facilitating adaptation to climate change (such as projects in water management or urban planning).

Sustainability: managing the earth's limited resources responsibly while creating a sustainable society and promoting social justice.

The Caribbean Climate-Smart Accelerator (CCSA): launched in 2018, the CCSA aims to make the Caribbean the first Climate-Smart Zone, uniting 26 governments, corporations, and foundations. Key goals include achieving 90% energy electrification, full transportation electrification by 2035, and protecting 30% of ecosystems by 2030.

Local Climate Adaptive Living Facility (LoCAL): aims to increase local-level climate change awareness, engage in capacity building, and integrate climate change adaptation into local government planning and budgeting in a participatory and gender-sensitive manner.

2. Introduction

Public-private partnerships (PPPs) for climate adaptation and mitigation are essential for addressing the urgent challenges of climate change. By uniting public authorities and private entities, these collaborations mobilize resources, expertise, and technology to develop sustainable infrastructure and practices.

This report explores the role of PPPs in advancing global climate efforts through key case studies and identifies the conditions necessary for effective collaboration. By integrating climate considerations into public policy and investment strategies, PPPs can drive financial support while ensuring projects meet local needs. Understanding these dynamics is crucial for maximizing the potential of PPPs to foster a sustainable future in an evolving climate landscape.

3. Background information

Public-private partnerships (PPPs) provide a pathway to address both climate adaptation and mitigation by leveraging the combined strengths of the public and private sectors. They serve as a mechanism to mobilize resources and expertise necessary for implementing climate-smart infrastructure projects. Climate action cannot be delegated to a single actor—whether government, business, or civil society—because the challenges are too vast for any one entity to tackle alone. PPPs are designed to share risks and responsibilities between public authorities and private entities, fostering innovation while operating under public regulation and control. By increasing investment in green infrastructure, natural resource management, and innovative solutions, PPPs can significantly contribute to climate finance initiatives aimed at meeting international climate targets.

The success of PPPs in addressing climate change hinges on the establishment of support systems that provide long-term certainty for investors. This requires transparent laws and regulations that distribute risks effectively and incentivize private investment in climate-related projects. The Caribbean Climate-Smart Accelerator (CCSA) serves as an example of how PPPs can meet local needs while ensuring infrastructure remains resilient against climate impacts. By involving multiple stakeholders, this initiative highlights the importance of collaboration in driving climate action. Incorporating climate considerations at every stage of project development, from ideation to contract management, enables PPPs to create infrastructure that addresses both current needs and future climate challenges.

Launched in 2018, the CCSA is a collaborative effort aimed at establishing the Caribbean as the world's first Climate-Smart Zone. It brings together 26 Caribbean governments, global corporations, financial institutions, and philanthropic foundations with the overarching goal of promoting resilience, social progress, and economic development, particularly for Small Island Developing States (SIDS). The initiative's key objectives include achieving 90% electrification of the region's energy supply and fully electrifying the transportation sector by 2035. Additionally, it aims to protect 30% of both marine and terrestrial ecosystems by 2030, significantly enhancing environmental sustainability and resilience to climate change impacts.

Another notable example of a PPP is the project under the Local Climate Adaptive Living Facility (LoCAL) titled "Innovative Decentralized Water Solutions to Provide Safety and Resilience for Residential Water Systems" in Cambodia. This initiative secured private-sector funding to support improved clean piped water infrastructure that meets both basic and climate-resilience needs for vulnerable communities. The partnership emphasizes integrating local climate adaptation into government responsibilities while generating the resources needed for effective implementation.

4. Major countries involved

Chile

Chile has developed advanced PPPs for climate adaptation.

The Chilean PPP law (CL 2010b) requires that catastrophic risks be covered by insurance, with earthquakes excluded from consideration as an unexpected event. In the 1980s, Chile faced significant fiscal costs due to infrastructure damage following frequent earthquakes. However, in recent decades, Chile has developed its road network using PPPs, mandating insurance coverage by private partners. As a result, the 8.8 magnitude earthquake in 2010, which caused infrastructure losses totalling \$21 billion, had almost no fiscal impact on roads built through PPPs.

India

With the world's largest population and the fifth-largest economy, India faces immense climate challenges. However, through PPPs in areas ranging from services and utilities to tech start-ups, the country is emerging as a global model. Nearly 90% of India's corporate leaders view sustainability as a driver of competitive advantage, growth, and cost reduction.

For example, Indian Railways began using solar-powered trains approximately six years ago and has continued to expand this initiative.

Mexico

Mexico has been highly active in climate change mitigation through PPPs.

For instance, Mexico City has made multiple efforts to improve air quality, including closing the city's most polluting factories and banning cars in the metropolitan area one day per week. Against this backdrop, the Metrobus project, a Bus Rapid Transportation (BRT) system, was launched as part of the Programme to Improve Air Quality in the Mexico City Metropolitan Area.

The PPP model for the Metrobus project includes multiple stakeholders:

1. **Metrobus**, a decentralized body of Mexico City's government that manages services.
2. **Service operators**, responsible for transportation.
3. **Fare collectors**, including INBURSA bank and two other companies that install, operate, and maintain the fare collection system.

Additionally, a trust fund was established to gather collected fees and distribute payments to transportation companies based on kilometres travelled.

The Metrobus system has achieved remarkable results:

- A 30% reduction in accidents.
- 40% shorter travel times.

- A 15% modal shift from cars to public transit.

During its first six years of operation, the initial BRT line reduced CO₂ emissions by 300,000 tons. Annually, the Metrobus is estimated to reduce:

- CO₂ emissions by 110,000 tons.
- Nitrogen oxide by 690 tons.
- Particulate matter by 2.8 tons.
- Hydrocarbons by 144 tons.

5. UN involvement

Climate issues are discussed annually under the United Nations Framework Convention on Climate Change (UNFCCC).

The UN collaborates with the World Bank, which has developed *Climate Toolkits for Infrastructure PPPs*. These toolkits assist emerging markets and developing economies in screening for climate risks and opportunities. By integrating mitigation and adaptation strategies into the early phases of PPP advisory work and structuring, the toolkits help embed climate considerations into national planning and mobilize private sector investment for low-carbon, resilient infrastructure development.

At COP28, on December 6, 2023, a convention on PPPs was held. Key outcomes included:

1. Tackling climate change is central to the World Bank's mission of reducing poverty and boosting shared prosperity. Private sector engagement and investment are essential for financing the green transition and strengthening climate resilience. PPPs can help maximize limited public resources by mobilizing private capital, expertise, and innovation, thereby unlocking climate finance.
2. The private sector and PPPs are seen as vital solutions, though long-term projects present challenges for investors. Evaluating costs and savings in climate investments remains complex, but failure to address climate resilience risks rendering projects non-bankable.

6. Useful links

- <https://www.youtube.com/live/l9Zz4m4Nvc?si=4AD73PY-XNf1-clw>

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