



Public-Private Partnerships and Climate Change

Since 1999 PPIAF has provided technical assistance to governments in developing countries to help reform the legal, regulatory, and policy frameworks that build confidence and remove barriers to private investment in order to enable improved infrastructure service provision involving ownership and financing and/or management by private companies.

In the last two years, PPIAF has provided technical assistance designed to help African countries use public-private partnerships (PPPs) in efforts to address climate change-related problems through improved infrastructure service delivery. PPIAF is now expanding this program globally to develop appropriate policy strategies, action plans, and regulations that incorporate adaptation and mitigation measures to attract private sector climate finance in low-carbon, climate-resilient infrastructure PPPs.

PPIAF can provide funding for assistance that focuses on the role of PPPs for mitigation and adaptation activities:

Mitigation:

- Transport PPPs, such as build-operate-transfer projects (BOTs) and concessions that reduce or control (or recover costs from) the use of light- and heavy-duty vehicles:
 - Bus transit (and bus rapid transit)
 - Urban light rail
 - Heavy rail (particularly associated with long haul freight and mineral transport)
 - Toll roads
- Energy generation projects, such as merchant projects and independent power producer projects (IPPs) that promote:
 - Renewable energy (e.g., hydro, geo-thermal, wind, solar, biomass)

- Energy efficiency (e.g., energy-efficient street lighting)

- Low GHG water and waste projects (BOTs, leases, and management contracts):
 - Waste recycling
 - Wastewater treatment
 - Non-revenue water reduction

Adaptation:

- Infrastructure PPPs that facilitate “climate-proofing” versus harsh weather variability:
 - IPPs and merchant power projects
 - Seaport concessions
 - Rail concessions (both urban light rail and heavy rail)
 - Toll roads
 - Water and sewerage BOTs and management contracts
 - Telecommunication projects
- Dedicated adaptation BOTs in the water sector:
 - Water storage reservoirs
 - Desalination plants
 - Waste water treatment facilities



PPPs and Climate Change

Addressing problems caused by climate change is critical to economic growth and poverty reduction and is particularly urgent in the world's poorest countries, which will suffer the most from these problems. Estimates of the costs of climate change mitigation and adaptation in developing countries vary widely, ranging from \$170 to \$475 billion per year. Africa is estimated to require \$18 billion per year for adaptation alone, in addition to the \$48 billion per year required over ten years to reach modest infrastructure service delivery levels. But the total international public funding raised to date, around \$10 billion per year, is less than 5% of projected needs and the European Commission estimates that 80% of needed funding will come from **private sources**.

Electricity generation, transport, and the water and sanitation sectors offer tremendous opportunities for introducing eleme-

nts of climate change mitigation and adaptation, but government officials need help to plan and prioritize such projects, design legal and regulatory environments to require their development, incorporate specific climate change responses into project designs, justify or find subsidy funding to pay for costs or mitigate risks that make private participation non-viable, or regulate project implementation after contract closure.

PPIAF specializes in work on the upstream enabling environment for PPP projects in basic infrastructure sectors, as well as early stage project conceptualization and pre-feasibility project development. This is precisely the kind of work that must be informed by climate change sensitivities if the private sector is to begin playing a significant role in infrastructure-related climate change mitigation and adaptation in developing countries.

Examples of PPIAF Assistance

AFRICA: Compact Fluorescent Lamp (CFL) Waste Management	Providing specific tools, incentives, techniques, and policies to manage discarded fluorescent lamps, especially with the aim of supporting an enhanced private sector role for infrastructure investment strategies and institutional arrangements.
AFRICA: Lighting Africa	Promoting the development of market-based delivery of innovative and efficient off-grid lighting services and products in Sub-Saharan Africa and providing a cross-country analytical framework to understand better the nature and the extent of policy-related barriers to the large scale market penetration of improved high quality non-fossil fueled lighting products.
COTE D'IVOIRE: Strategic Framework for the Development of Transport Infrastructure	Helping the government of Côte d'Ivoire establish a sound strategy for the development and maintenance of transport infrastructure, and identifying options for private sector participation in future investments. These developments would contribute to boosting economic growth and stability in Côte d'Ivoire, where current infrastructure suffers from degradation and overutilization, and mitigate against the impact of climate change.
JORDAN: Feasibility of a Public-Private Solar Water Heater Promotion Program for the Greater Amman Municipality	Determining the feasibility of a solar water heater (SWH) promotion program in the city of Amman, in view of the failure of market forces alone to increase the SWH penetration rate, in order to establish the preferred mode and structure of a PPP which would enable the Greater Amman Municipality to ensure a rapid increase in SWH penetration.
JORDAN: PPPs and Nationally Appropriate Mitigation Actions (NAMAs)	Providing assistance to the government of Jordan to assess options for embedding a low carbon approach into development planning through prioritization of selected nationally appropriate mitigation actions (NAMAs), with specific attention to innovative use of financial instruments (including new ones emanating from global climate change negotiations and policy) and to PPPs.
SOUTH AFRICA: South African Cities Energy Efficiency and Renewable Energy	Carrying out a prefeasibility study to increase energy efficiency, generate renewable energy and reduce greenhouse gas emissions by focusing on improved infrastructure investments with financing generated through PPPs.

PPIAF's Role

PPIAF technical assistance can complement the support of other more downstream partners such as core international development bank resources (for example, the International Development Association and the International Bank for Reconstruction and Development), the Global Environment Facility, the Carbon Partnership Facility, the Adaptation Fund, and the Climate Investment Funds by focusing on upstream enabling environment reform and project preparation to enable and facilitate private participation in climate-friendly infrastructure PPPs. Climate action has diverse needs, and it will require more than just finance to maximize the impact of climate funds and build a pipeline of bankable climate- and development-smart projects.

PPIAF assistance can help conduct upstream analytical work, capacity and institution building, generate a body of knowledge and experience on mobilizing and leveraging climate finance, and contribute to pioneering transactions that satisfy private financiers and meet climate needs.

PPIAF's Sub-National Technical Assistance (SNTA) program is also relevant to climate action. Cities and the people who live in them account for more than 80% of the world's total greenhouse emissions, and 80% of the costs of adaptation to climate change will be borne by urban areas. SNTA can help sub-national government entities and local utilities improve their creditworthiness in order to access market-based financing without sovereign guarantees. SNTA is particularly relevant for climate change responses in cases where PPPs are impractical or inappropriate. It offers municipalities and local utilities a non-PPP approach for meeting climate needs with renewed and expanded infrastructure for water, electricity provision, wastewater treatment, and efficient transport.

PPIAF has already begun helping developing countries assess the private sector's role in helping them follow through on "nationally appropriate mitigation actions" (NAMAs) submitted as an appendix to the Copenhagen Accord. Jordan, one of the first developing countries to begin the NAMA process, has asked for PPIAF assistance in identifying and prioritizing specific projects, as well as in identifying regulatory and institutional reforms needed to incentivize private participation in NAMA implementation.

PPIAF also has experience implementing activities that focus on PPPs in specific sub-sectors that are important for climate change mitigation or adaptation. PPIAF is working with the South African Cities Network to fund prefeasibility studies for PPP projects that will expand the use of renewable energy and energy efficiency in a selection of cities in southern Africa, and is assisting the government of Egypt with the implementation of its ambitious wind commercialization program. PPIAF is also helping explore PPPs focusing on specific climate-friendly technology, such as non-fossil fueled lighting products in Africa and solar water heaters in Jordan.





PPIAF's technical assistance covers the following areas:

- Enabling environment reform: activities that seek to address barriers to private sector investment in terms of lack of suitable laws, regulations, policies, strategies, and institutions to guide and structure PPPs
- Project cycle related assistance: activities aimed at developing, preparing, and transacting "bankable" infrastructure PPPs, plus those that provide support post financial close
- Dissemination and awareness building: activities that seek to address the barrier created by the lack of sufficient knowledge and understanding of the key issues related to the development of PPP projects

