



Covenant of Mayors
in Sub-Saharan Africa



Co-funded by
the European Union



Co-implemented
by AFD

Development of a sustainable public lighting project



PROJECT OWNER

Urban Community of Douala
(CUD)



NATURE OF SUPPORT

- › Development of a public lighting master plan
- › Prefeasibility study



PERIOD

september 2022
-december 2023



CLIMATE FOCUS

Climate change mitigation



COM SSA FUNDING

€170,000

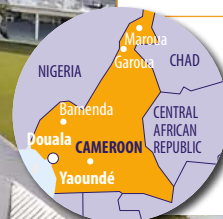


OUTCOMES

- › **Development of a public lighting master plan** with long-term strategy and priorities for intervention
- › **Structuring of an investment project** and linking with private investors in preparation for a public-private partnership
- › **Capacity building** of the Urban Community of Douala



ENERGY



DOUALA,
CAMEROON

A photograph showing a worker in a white bucket with red and white striped safety markings, positioned on an orange hydraulic lift. The worker is working on a utility pole that is heavily cluttered with numerous black power lines. A street light fixture is visible on the pole. The background is a clear, light blue sky.

Context of the support

Although public lighting accounts for more than half of Cameroon's public electricity expenditure, the related infrastructure is mostly outdated. The quality of service provided to the inhabitants is insufficient. A technical diagnosis carried out on 7,400 light points (about 10% of the Douala's fleet) revealed that 66% of luminaires and 30% of supports (poles, candelabra) are in an advanced state of degradation.

Moreover, lighting sources are mostly energy intensive (SHP lamps and fluorescent balloons). Light-emitting diode (LED) technology accounts for only 20% of the total energy consumption. This outdated and aging public lighting network is very energy-intensive. A centralized management system would allow for more optimal asset management.

In 2022, the Urban Community of Douala (CUD) therefore called on the initiative of the CoM SSA – through Proparco and AFD – to finance support for the structuring of a program to rehabilitate and extend its public lighting system.

Objectives



**Detailed analysis
of the current
situation**



**Elaboration of public
lighting master plan
for the Urban Community
of Douala**



**Prefeasibility study
of the renovation and
extension project**

Achievements

Detailed analysis of the existing situation

- **Technical inventory of the public lighting system** and analysis of current costs.
- **Institutional diagnosis and analysis of** social, economic and environmental issues related to public lighting.

Development of a master plan for public lighting in the urban community

- **Construction of a lighting plan** and presentation of a long-term strategy and priorities for intervention.
- **Proposal of solutions for network renovation and extension:** support for site prioritization, benchmark of technical solutions.

Pre-feasibility study of the renovation and extension project

- **Financial costing and support for the choice of** organizational and financial arrangements.
- **Assessment of** the expected socio-economic and environmental benefits.
- **Connecting interested stakeholders with the CUD.**

Results

Thanks to the initial diagnosis that allowed the structuring of an investment project, the CUD now has an updated database of its fleet and a cost analysis. The public lighting master plan developed proposes a methodology for prioritizing areas to (better) illuminate. It will also facilitate the implementation of future investment projects.

The pre-feasibility study contributed to building an enabling environment for the mobilization of financial partners in the context of a public-private partnership, thanks to the analyses carried out and the facilitation of a multi-stakeholder dialogue (public at different levels of local governance, development banks, private investors).

The recommendations

- **An estimated €20 million project to rehabilitate 10,000 light points and deploy 1,000 solar autonomous street lamps.**
- **The model suggested for the project is that of public-private partnership,** which would thus integrate the design, construction, financing, management and maintenance of public lighting in Douala. The private partner would sign an energy performance contract with CUD, with expected gains to cover operational, financial and maintenance costs.
- **The project will be able to avoid 17,000 tonnes of CO₂ emissions** over 20 years.

Study follow-up

If the CUD validates the proposed organizational and financial setup for the street lighting project:

Operationalization of the study in consultation with private stakeholders:

- Additional studies (detailed preliminary design) that will allow the precise identification of the fleet of 10,000 light points to be renovated and the extension area;
- Development of a proposal for the CUD (actors, financial proposal and broad outlines of a concession contract).

Launched in 2015, the Covenant of Mayors for Sub-Saharan Africa (CoM SSA) is a major catalyst for local climate action in the region, thanks to the political commitment of more than 300 local governments. The objective of the CoM SSA is to help local governments move from planning to implementation, with a focus on unlocking climate finance at the local level.



For more information:

<https://comssa.org/>

