

ANGOLA

REHABILITATING BIOPIO HYDROPOWER PLANT



**AFRICA
RENEWABLE
ENERGY
SCALE UP**



DATES

2018-2019



AMOUNT

81 k€



REQUESTED FROM

PRODEL



STATUS

FINISH

Angola hydroelectric power potential is very high, but existing installations are old and in a bad shape. In that context, there is an opportunity of rehabilitating Biopio hydropower plant of 15MW, located in the center of the country



BACKGROUND

Electricity access is still very limited in Angola : it only reaches a third of the population. At the same time, country's hydroelectric potential is very high, and half of the national electricity is already produced from this source. However, some installations date back to colonial times and have been greatly damaged by time, war, and a lack of maintenance. This is the case of Biopio dam located on Catumbela river in Benguela province. Dating back from 1957, it remains crucial for the neighboring population as it represents an important electricity generation source.

Through the intermediary of the Ministry for Energy and Water, Angolan government solicited Agence Française de Développement (AFD) to assess the possibility of supporting the national electricity generation company PRODEL in rehabilitating Biopio power plant. AFD and PRODEL wish to analyze current state of disrepair of Biopio installations, followed by a potential plant rehabilitation financed by AFD.



TECHNICAL ASSISTANCE

The technical assistance mobilized within ARE Scale Up encompassed two main steps :

Step 1:

- Review and analysis of existing documentation ;
- Site visit for data collection and preliminary check of the dam and plant's current state ;
- Recommendation on required update or additional studies to assess the project feasibility.

Step 2:

- Detailed study and cost estimate of the decommissioning of the existing works ;
- Detailed quantification of the rehabilitation works ;
- Rehabilitation alternatives comparison, including different options of installed capacity on a new hydropower plant.

Final report available on request



FURTHER STEPS / OUTCOMES

The execution of the first tranche of technical assistance revealed that the degradation level of the current hydropower plant is worse than expected. It implies to potentially drop the rehabilitation project, dismantle

the actual plant, and build a new one on site. Further detailed studies have been provided to help choosing the best option, but the PRODEL has never taken any decision : the contract has therefore been interrupted.



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Agence Française de Développement

A facility to develop innovative projects in renewable energy and boost electrification on the African continent.

The AFD Group, with the support of the European Union, has set up the "African Renewable Energy Scale-Up facility" (ARE Scale Up facility) to boost private sector investment in on-grid and off-grid renewable energy production in Africa.

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