

KARIBA DAM REHABILITATION
LUSAKA, ZAMBIA, ZAMBIA

Slope Protection

Problem

The Kariba Dam project is located on the border of Zambia and Zimbabwe. Kariba dam stands at 128 metres (420 ft) tall and 579 metres (1,900 ft) long. The dam forms part of Lake Kariba which extends for 280 kilometres (170 mi) and holds 185 cubic kilometres (150,000,000 acre•ft) of water.

Rehabilitation works on the project include reshaping of the plunge pool downstream of the dam wall, which commenced in 2017, and the rehabilitation of the spillway. The spillway consists of the six gates in the upper part of the concrete dam wall through which the ZRA releases water into the plunge pool to manage the reservoir water levels.

The rehabilitation works was done with the aim of extending the lifespan of the dam.

Solution

Razel BEC opted for the use of Maccaferri Polimac coated DT Netting utilizing laplinks and HD clamps for vertical bank protection. The netting was installed as dewatering for the development of the plunge pool - which took place over a period of 6 months. The netting was not removed after the rehabilitation work of the plunge pool.

Key Milestones - The plunge pool was excavated to a depth of approximately 80m.

- Completion of the cofferdam construction on 7 July 2022.
- Commencement of dewatering from level 385m ASL to the current 352m Above Sea Level (ASL).
- Dewatering to level 352m ASL was attained on 4 December 2022.
- Approximately 30000m2 Polimac DT netting was installed.

Client: Mart Solutions

Designer / Consultant: Zambia River Authority

Contractor: Rezel BEC

Products used (Qty.)

- Netting 30000m2

Date of construction: 12/2017 - 12/2025

[Google Maps](#)

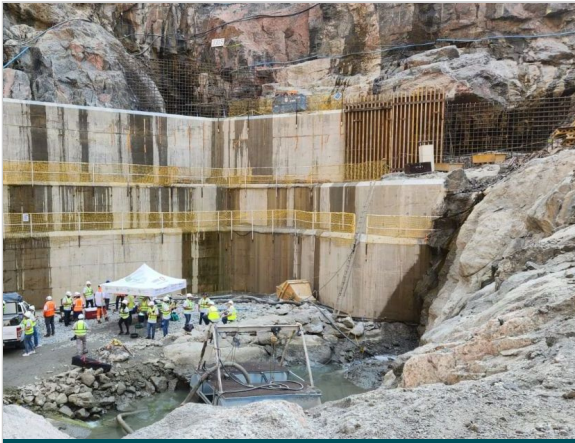
[Google Earth](#)



Completed Project



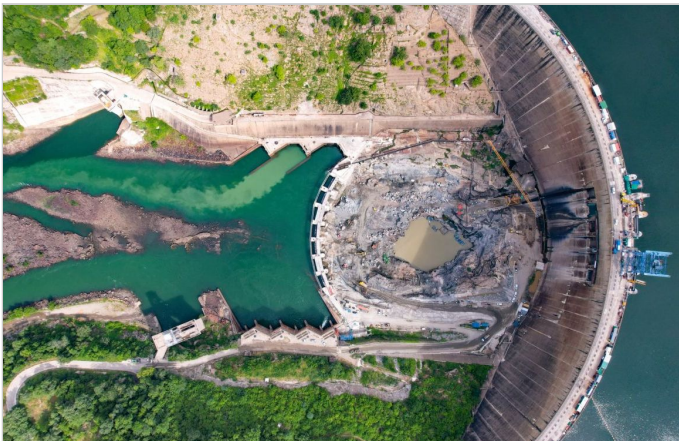
Concrete Stabilization Structure



Concrete Stabilization Structure



Dewatered Completed



Watering in progress



Dewatering Start