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Committee G Environment –

Case studies involving planning, construction and operation of dams demonstrating environmental and social benefits

KALETA HYDROPOWER Project

Developing the local economy and society

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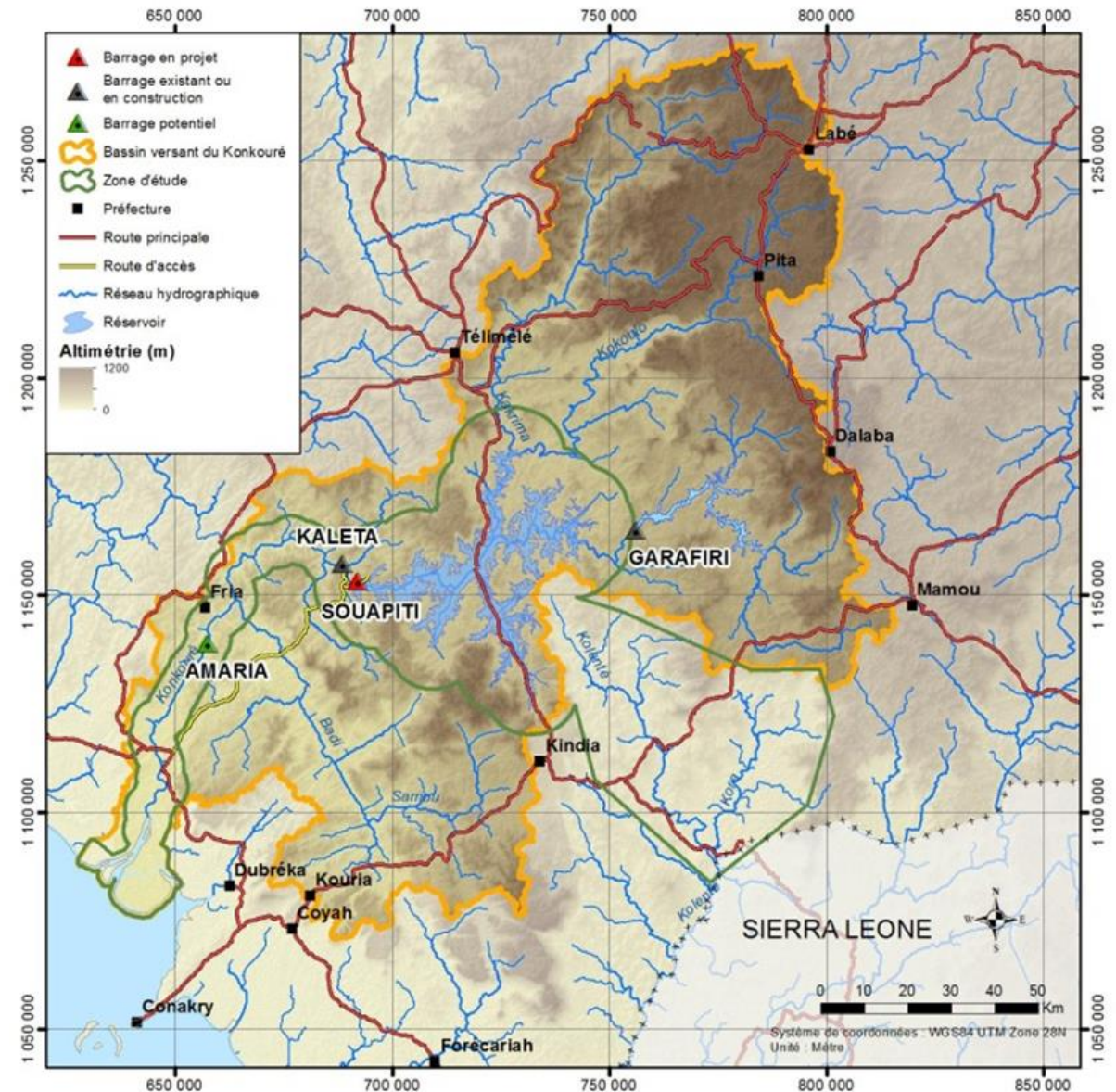


KALETA DAM

- Kaleta hydroelectric power plant (Guinea) commissioned in September 2015
- The power plant is built on the Konkouré River, 115 km north-east of Conakry and 130 km upstream of the river's estuary
- 75 km access road, concrete dam 1,050 m long and 25 m height, ungated spillway, 240 MW hydroelectric power plant. Kaleta is a run-of-river hydroelectric plant
- EPC contract between CWE (China Water and Energy) and Guinea's Ministry for Energy in 2011. Kaleta Hydroelectric Power Plant Project (PAHK) is the authority representing the Ministry for Energy. The Administration and Control of Major Projects and Public Procurement (ACGPMP) is the public project manager
- TRACTEBEL (ENGIE) chosen to monitor and oversee work, including the environmental management plan



Kaleta dam within the Konkouré basin





Environmental and social issues and challenges

- Environmental and social impact assessment was carried out in 2006 for the Kaleta project as well as the resettlement action plan (COTECO, 2006/2007)
- Limited impact due to the reservoir's low surface area and the plant's run-of-river operation
- However, **three villages would have to be resettled** with an estimated population of 500 people
- Main challenge: **developing the local economy** (because area's isolation, lack of schools, health amenities, infrastructures)
- Authorities and local populations saw the hydroelectric project as a major opportunity to promote the region's economic development



Construction of social and educational infrastructures

- In accordance with the initial objective of developing the local economy, PAHK built basic infrastructures in addition to those that had been planned for the sites receiving the displaced populations
- Construction and/or renovation of markets, secondary schools and youth centres, local health centre, mosques, local government offices, medium-voltage lines from the hydroelectric power plant to the local sub-prefectures
- The preliminary land development plan and the construction of masonry houses with outdoor toilets and showers were reviewed with the village committees. Each house was designed with grounds of 500 m², and another 500 m² of grounds were reserved for later individual extensions.
- As soon as the first bricks were laid, the inhabitants from the villages concerned were invited to see how work was progressing and identify the location of their future house. In all, 139 houses were built at the three resettlement sites.



Figure 1: New houses (Silikhoum sites - right bank). TRACTEBEL, 2015



Figure 2: New houses (Bengue sites - left bank). TRACTEBEL, 2015



Results obtained

- Reducing geographic isolation and promoting Local employment
- Access road welcomed by the local populations since the very beginning of works
- In 2014 during the height of activity, there were 2,250 workers at the site, approximately 75% of whom were from Guinea (i.e. 1,700) and 25% from China
- Moving into new houses for the resettled populations is an important step, but not the only one. Need for other reviews at a later stage
- In terms of the new houses allocated to the resettled populations and their integration, the overall outcome is good, but the results are especially positive one year later after the populations have had chance to overcome the initial upheaval of moving and the electricity supply has been connected
- Nearly one year later, the situation has radically changed compared to when the populations were in the process of resettling. By March 2016, the resettlement villages had modified their landscape, and the inhabitants had made the villages their own





Results obtained

- villages connected to a medium-voltage power line as part of the project
- basic infrastructures built in the area as part of the Kaleta project, including schools, markets, wells and offices, have also been of direct benefit to the populations



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Figure 1: The Bengue site one year after the resettlement. TRACTEBEL, 2016



Figure 2: Mosque under construction in Bengue and the market (one year after the resettlement). TRACTEBEL, 2016

