

53 Kenya Mombasa Diesel Generating Power Plant Project

Contributing to a stable supply of electricity through construction of Kenya's first diesel power plant

Loan Amount/Disbursed Amount 10.716 billion yen/8.719 billion yen
Loan Agreement March 1995
Terms & Conditions Interest rate 2.6%, Repayment period 30 year (grace period 10 years), General untied
Final Disbursement Date December 2000
Executing Agency Kenya Electricity Generating Company (<http://www.kengen.co.ke/>)



Project Objectives

The project's objective was to promote the region's potential to cope with the increasing demand for electricity by constructing a power plant with a capacity of 75MW in Kipevu, a suburb of Mombasa, Kenya's second largest city, which plays a particularly important role in the development of the country's industry and tourism, thereby contributing to its economic growth.

Effectiveness & Impact

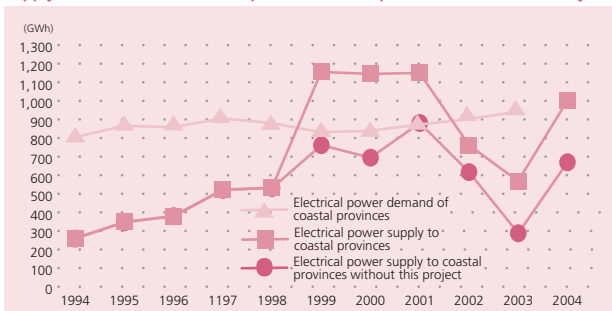
Rating **a**

The power plant constructed through the implementation of this project has a maximum output of 75MW*, but its actual performance in 2004 was 61.25MW, 81.7% of planned output. The annual power output performance was 338.4GWh and the operating ratio performance was 64.7%. This low performance rate is due to the failure of one of the six power generators; however, the executing agency used its own fund to repair, and the work is proceeded to restore the operating ratio.

Since this power plant put into operation, power outage problems in Mombasa have been completely alleviated, and this project is considered to have contributed to stabilizing the power supply to a wide area that includes the capital, Nairobi. This was especially true during the great drought of 2000–01, when the power plant worked at full capacity to deal with the national energy crisis. In a beneficiary survey (administered to 33 companies near Mombasa, including cement factories, hotels, and steel rolling mills), 82% of respondents indicated a reduction of power outages and voltage fluctuation. Production losses were observed to be 80% of 1998 values. Therefore, this project rates a highly satisfactory level of effectiveness since it has largely achieved its objectives.

* According to the contractor involved in constructing the power plant, the actual output is limited to 73.5MW due to the tropical climate of Mombasa.

Supply and demand of electrical power in coastal provinces of southern Kenya



Relevance

Rating **a**

Both at the time of appraisal and at the time of the ex-post evaluation, this project has been highly relevant to Kenya's national policy (National Power Development Plan, Five-year Least Cost Investment Plan, etc.). There is a high level of dependence on hydropower in Kenya and this project has an important role in of the case of drought.

Efficiency

Rating **b**

Though project costs were lower than planned, project period was longer than planned (138% of planned period); therefore the evaluation for efficiency is moderate. Causes of project delays included delays in handover of the site of power plant and procurement procedures, as well as delays in effectuation of the loan agreement.

Sustainability

Rating **a**

No problem has been observed for capacity, the operation or the maintenance system of the executing agency, the Kenya Electricity Generating Company; therefore, sustainability of this project is high. Financially, a degree of net profit is being secured, and both sales figures and cash flow are fine.

Conclusion, Lessons Learned, Recommendation

In light of above, this project is evaluated to be highly satisfactory. As a lesson learned, besides the superb operational and maintenance abilities the executing agency has realized, cooperation with other institutions could have brought about a greater manifestation of project effects. In addition, establishment of a technical co-operation system with the contractor and its appropriate operation have brought the improvement of the operation and maintenance capacity of the power plant.

Third-Party Opinion

The diesel power plant constructed by this project is important and has the ability to compliment hydropower, which is easily affected by the weather. There is need to lower the electric fees, address effluent water quality treatment and minimize the "human error" associated with operating the governor.

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