

Third Party Evaluator's Opinion on Kulekhani Disaster Prevention Project II

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Relevance

Nepal is one of the richest in water resources in South Asia. The water resources have tremendous potentials of contributing to Nepal's sustained development. This is the reason for each successive plan giving top priority on harnessing it for energy development. However, out of the total electricity generating capacity of 83000 MW, Nepal has been able to generate only 527.5 MW or 0.64 percent of potentials by the end of the Ninth Plan (1997-2002). The Kulekhani Plants (part I and II) generate 92-mw powers and thus their contribution still remains around 17 percent in total supplies. Upto 1994 these were the largest power supply plants meeting approximately 40 percent demands. More importantly, these are the only reservoir type big hydroelectric plants in Nepal with stable power supplies. The predomination of run-of-river type power plants are not only creating serious problems of supply gap during the dry season but also they are becoming instrumental to a greater extent in raising the electricity tariff rates every year. It is worth mentioning that now the electricity tariff rate in Nepal is the highest in South Asia. Therefore, from all these perspectives, the role of Kulekhani power plants is distinctive and crucial.

However, the Kulekhani Power Plants have had the risk of serious disaster problems from unexpected heavy rains. The plants had to face severe disaster problems at first in 1984 and 1986 due to the same reason. As a result, the Kulekhani disaster prevention project phase I was launched immediately. But when it was about to complete, there was another large flood in July 1993. The flood created heavy damage to steel penstock and headwork and halted power generation. This happened at a time when Nepal was facing serious power shortage problem. Therefore, an emergency restoration program was executed and in Dec 1993 power generation was again restored. But two time severe damages to the power plants revealed that if some long-term measures were not taken to ensure the prevention of disaster, the stopgap arrangement could render the risk of similar damages in case of large flood within ten years. Therefore, the Kulekhani Disaster Prevention Project II was a necessity at that time.

From the medium to long perspective of electricity tariff rate and Nepal Electricity Authority's overall financial position also any risk of damage to the Kulekhani power plants could have been very distressing. In Nepal delay in project selection or implementation, immature or wrong power purchase agreements and management problems have increasingly made very adverse effect on electricity tariff rate and financial position of the NEA. For instance, in 1991/92 the average electricity tariff rate was Rs. 2.22. It reached Rs.7.02 in 2002/03 from Rs. 3.52 in 1996/97. Thus, the rate is increasing in a way that it is gradually becoming unaffordable to the people. The high rate is also adversely affecting the competitive strength of the industry and trade. The various conditions included in the private sector invested power projects like Khimti and Bhotekosi have led to escalate prices every year to a greater extent. After the closer analysis of the power purchase agreements between these projects and the NEA it is found that the prices paid by the NEA are always higher than the average prices fixed by the NEA for the consumers. For instance, in 2000 NEA purchased electricity from Khimti at the rate of Rs. 7.34 per KW where as at that time the rate charged by it to the consumers was Rs. 6.27 only. As a result, despite phenomenal rise in tariff rates, the NEA is confronting with the problem of big financial losses in recent years. In 2001/02 and 2002/03 it registered a net loss of Rs. 777.44 million and Rs. 655.7 Million respectively. This means that the cost of recently constructed projects have been too high to be compensated by profit earning relatively old power projects. This further reveals that, in the event of disruption in the power supplies from power projects like Kulekhani, the adverse effect could have been wide-ranging and long term in nature.

Impact

After quick assessment of the overall impact based on JBIC report, NEA documents and other primary sources, it is clear that the project has fulfilled its overall objectives. It has helped to stabilize the supply of power by minimizing the risk, at a time when the demand for electricity was rising at an annual rate above 13 percent. From the same token, it immensely contributed to contain the probable steep rise in the prices of electricity. The increase in the rate of operation of the plants from 80 percent previously to 99 percent after the completion of project also additionally contributed for this.

Despite project having management problems leading to delay in the completion of project by three years, this however, did not adversely affect the project cost. The competitive bidding and saving of entire funds allocated for emergency restoration made such a possibility. The project was started in 1996 and was completed in May 2001 despite the target of completing in June 1998. However, going by the information contained in the JBIC report and actual expenses reported in the income and expenditure account of the government, some discrepancy in the project cost is revealed. Based on the evaluation report, only 66 percent of the funds allocated were spent. This, in turn, enabled to raise the rate of return to 16.9 percent from 13.6 percent envisaged at the time of project formulation. This is based on the information that out of the total cost of \$ 36.87 million (converted into Dollar at 1995/96 prices for comparison purposes) envisaged, only \$24.35 million was spent. Based on the National Planning Commission documents and Ministry of Finance income and expenditure records, however, out of the total cost of US \$ 31.03 million envisaged about \$ 30.32 million was spent. One problem, thus, found is that there is no complete uniformity in the reporting of even the total expenses, needing enforcement of a system that could ensure that expenses are made through standard budgetary processes and recording. Nonetheless, even based on the budgetary documents some cost effectiveness is found particularly in view of long delay in the completion of the project. One additional area that requires enough care and attention is that the management system of project is significantly improved by means of measures to strengthen accountability system. The institutional and governance related problems are the ones that need enough attention in the course of project design and implementation in countries like Nepal.

No serious environmental problems have been created by the project. The over all social impact of the project also has been positive. Despite fears in the course of project design, neither the school nor the temple had to be moved from the project area. Likewise, only two families had to be resettled outside the project site. For them also adequate compensation was given. The construction or continued repairs and maintenance of road by the project have facilitated increased movement of vehicles. This has also provided incentive to the local people to collect sand from the project site for making additional or alternative incomes. This project has also paved the way for the initiation of the 42 MW third phase power project in the same area. However, from the sustainability point of view, there is a risk of scarcity of funds for repairs and maintenance especially due to continued deterioration in the financial position of the NEA. Therefore, further control of technical losses and measures to curb operating expenses in Kulekhani will be required.