Third Party Evaluator's Opinion on
Anpara B Thermal Power Station Construction Project (1)-(5)

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Relevance

Per capita capacity for electricity generation in Uttar Pradesh (UP) is well below the national average. 32% of her households use electricity as compared to 56% of India. The situation is further glaring as electricity is the most desirable Millennium Development Goals-compatible source of energy. During June 2005, UP experienced a shortage of about 20% of her electricity requirements. The relevance of Anpara B Thermal Power Station (AB) is thus beyond any doubt.

Impact

Impact of a power utility project should be felt far beyond the project site. In spite of achieving high efficiency as evident from high plant load factor, impact of AB may not be as phenomenal as desired in view of the considerably huge transmission and distribution losses typical of UP.

The impact of the project in and around the project site is not quite impressive either. Around 1985, a collection entitled "*Bikash ki Kimat"* (Price of Development) highlighted the possibilities of conflict between the national desire for growth and development and the well being of people of this region. Their concerns are now a reality. Poor management of fly ash has added considerably to the deterioration of the ambient air and ground water qualities. The failure to maintain the standard environmental monitoring methods indicates the indifferent attitude of the plant management towards the well being of the local communities. Central Pollution Control Board, India notes high concentration of particulate matters in the flu gas emitted by AB. The doctor in charge of the Primary Health Centre revealed an increasing incidence of pollution-related diseases among the local residents, even though this may not have resulted exclusively because of AB as a good number of thermal power stations concentrate in this area.

A power plant, being highly land intensive, involves displacement of households from their traditional habitats.1307 households have been affected officially in AB. They, however, have not been treated sensitively. Health services to the displaced households by the project Dispensary are allegedly provided at commercial rates. Even though primary education are provided to the children from the relocated households, no special educational support are provided to upgrade their skills and help them join the skilled labour market. A good amount of land acquired for the project is still lying unutilised. In the presence of abject poverty a promise of employment generally reduces the bargaining power of the affected households in this region. Such expectations are often belied. More than half of the households evicted due to the project could locate employment for none of their family members in AB. Low human capital base of ousted households prevents them from seeking gainful employment in a modern power plant. A well-designed plan supporting the locals in economic use of the fly ash through enterprises in fertilisers, bricks, cement etc. and plantations on filled-up ash-ponds will add considerably to sustain the livelihoods of affected households and create a win-win situation for all stakeholders.

A re-engineering of the management philosophy of Uttar Pradesh Rajya Vidyut Utapadan Nigam Limited (UPRVUNL) is necessary. That a well intended project might lead to unintended impacts — if not properly executed and managed — is amply evident with the experiences in AB. External evaluator sent by JBIC during July 2005 asked UPRVUNL to take corrective actions such as installation of environmental monitoring instruments. Those recommendations are yet to be complied to. Local residents now want JBIC to put further pressure on UPRVUNL to ensure strict maintenance of environmental standards and social responsibility as were intended originally. A thorough and continuous monitoring by an independent and professionally competent agency over a longer term is absolutely necessary to ensure the required compliance.

External Evaluator's Opinion regarding
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In August 2004, the Hosei University team of economist, sociologist, and electric engineer, conducted an "impact study" regarding AB on (a) environment effects of AB and (b) social effects on relocated residents. Main findings are shown below:
(a) Environmental effects: The team found that SPM (suspended particulate matter) concentration exceeds the emission standard. Regarding SO2 and NO2, most of samples showed figures below the environmental quality standard, according to our own measurement. It should be admitted it is quite difficult to identify the effects of AB on air or water, since at least seven (7) coal-fired thermal power plants are operating in the project area. The team also found that the monitoring system of air pollution by the executing agency does not meet the mutually agreed requirements.
(b) Social effects on relocated residents: It was impressive that the primary health care system in the project area worked properly in the villages we visited. The Primary Health Center provides medicines free of charge. However, it is necessary to have a hospital in the region to take care of serious diseases. From this viewpoint, the team suggests the Anpara Power Station Hospital, which now limits the services only to employees of the executing agency and their families, to provide medical care to the whole residents. The team found that nearly 70% of children of relocated residents are enrolled in the primary/secondary school, and textbooks are provided to the children of specific castes or tribes free of charge.
Through the interviews with the relocated residents, there was no claim that compensations were not paid, while we found a lot of cases of disputes among family members about the allocation. Although a certain number of jobs were created for the relocated residents by the executing agency, the frustration about the high unemployment rate are widely shared among them. In this regard, however, it should be pointed out the job opportunities are rapidly increasing in the region.
One notable agenda to improve the living conditions of the relocated residents is to improve their access to electricity. The rate of access is quite low at this moment.
In July 2005, based upon the above findings, the JBIC feedback mission and I had a discussion with the executing agency. We urged them to repair promptly the electrostatic precipitator in AB to reduce SPM, and install the instruments for monitoring air pollution. In addition, we suggested them again to open the Anpara Power Station Hospital for relocated residents. Also we conveyed our concern about the initial expense of household electrification which hampers the further access to electricity.