

TECHNICAL ASSISTANCE COMPLETION REPORT

Division : South Asian Energy Division

TA No., Country and Name		Amount Approved: \$400,000	
TA 4242-IND: Institutional Development for Rural Electrification		Revised Amount: \$400,000	
Executing Agency: Department of Power, Government of Assam	Source of Funding: Government of the United Kingdom	Amount Undisbursed: \$28,191.79	Amount Utilized: \$371,808.21
TA Approval Date: 10 December 2003	TA Signing Date: 18 March 2004	Fielding of First Consultant: 11 July 2004	TA Completion Date Original: 31 Dec 2004 Actual: 30 Jun 2007 Account Closing Date Original: 31 Dec 2004 Actual: 18 Jun 2008
Description			
<p>In the state of Assam, 89% of the population was widely scattered across rural areas. While 73% of the total rural villages was electrified, more than 80% of the rural customers did not yet have access to electricity in 2004. In addition to this low rate of the household penetration for electrification, 80% of energy sold to end users in rural areas were unpaid and there were little maintenance and repairs for the system. To improve the rural electrification systems and services, the Government of Assam (GOA) requested ADB to design a technical assistance (TA) for the rural electrification management in the post-reform environment where the Assam State Electricity Board (ASEB) was to be unbundled into five functional corporate entities including three distribution companies. Under the situation, there needed to be an effective organizational model at a village community level to support the connection, billing and collection functions. The proposed organization would be responsible for managing local problems for rural electrification operations. The main objective of the TA was to support GOA and ASEB to develop a new policy and institutional mechanism for sustainable rural electrification in Assam.</p>			
Expected Impact, Outcome and Outputs			
<p>The TA's impact was to provide affordable and reliable power supply in rural areas and expand the coverage of rural electrification in Assam. As the TA's outcome measures, the efficiency for the overall rural electrification operations needs to be improved through the community based operative models. The TA was thus designed to (i) study the rural power system, demography, and operational and financial feasibility, (ii) propose a structural model for rural electrification operations and (iii) prepare a policy framework for rural electrification. At the request of ASEB and GOA, the scope of the TA was expanded to support implementation of initial formation and operations of new service providers under the pilot project. The executing agency (EA) was the Department of Power, GOA and the implementing agency (IA) was ASEB.</p>			
Delivery of Inputs and Conduct of Activities			
<p>The TA envisaged 16 person-months of international consulting services. This was revised to 24 person-months of international consultants and 50.15 person-months of national consultants. The additional requirements of the national consultant support were approved during the contract negotiation for the demographic survey and data gathering services in extensive rural areas. The increase in international consulting services was to accommodate the support implementation of initial formation and operations of new service providers under the pilot project. In 2005, the original scope of the TA was completed with only a 3-month delay from the original completion date. The consultants supported GOA to prepare the Rural Electrification Policy, which was successfully notified in February 2005. While the original TA scope envisaged feasibility study for three pilot project sites, the target was reduced to one pilot project site at the request of GOA and ASEB to reallocate the TA fund to cover the pilot project's implementation support. The consultants intended to replicate and modify the rural cooperative business model that was proved to be successful in Bangladesh. Based on this model, the consultants prepared their operational support program to test localized independent consumer-owned utilities called <i>gamyā bidyut samities</i> (GBSs) on a pilot basis. After then, the procurement and construction for the pilot project was significantly delayed for more than one year from the original schedule. All details of the procurement plan had to depend on decisions of the monthly board meetings of the IA. To accommodate the progress of the pilot project, the entire TA schedule was extended twice. While this delay affected the TA's productivity, the overall quality of the TA inputs was generally acceptable. The TA completed a demonstration project with a comprehensive training program. ADB provided adequate supervisions through review missions and communications to interact closely with the ASEB, GOA, and the consultants. The EA's and IA's performances were generally satisfactory except the procurement capacity.</p>			
Evaluation of Outputs and Achievement of Outcome			
<p>On 25 February 2005, GOA notified a Rural Electrification Policy, which defined a policy framework for sustainable rural</p>			

electrification. The policy provides for (i) the designation of the existing ASEB's Rural Electrification Cell as the implementing agency for the rural electrification in Assam, and (ii) a gradual transition of responsibilities for rural service from distribution companies, through franchisees, to small community-based rural utilities. This policy formation was highly relevant to the development priority in Assam, and initiated a new development for rural electrification operations. ASEB started to develop their own business model called franchising and demonstrated the immediate revenue collection improvement in rural operations through the performance based contracts with franchisees.

While the pilot project focused on testing more advanced model called GBSs on a pilot basis, it was redesigned to strengthen the franchising system. The franchising model was replicated in other areas in Assam and resulted in significant efficiency improvement in rural electrification operations, but there were concerns that the benefits of the franchising may be diminished over time after reaping the initial recovery, without improving poor service of supply (e.g., load shedding, low voltage, and fluctuation). To deal with the operational sustainability, the pilot project refocused on a franchising model from both the technical and commercial aspects, consisting of the system improvement combined with application of the community base service provider type, on a larger scale. The TA provided an in-depth engineering analysis for the construction of the pilot project and a training program for linemen and franchising managers. The pilot project achieved significant efficiency improvements and demonstrated the effectiveness of the strategy that points the way for future improvements. The training materials and equipment were given to ASEB for their subsequent use.

ASEB demonstrated its operational efficiency by improving monthly revenue collection by 75% on average through franchising. The EA is satisfied with the achievement of the ASEB's efficiency improvement.

Overall Assessment and Rating

In spite of some changes in scope and delays in the pilot project during TA implementation, the TA was rated as successful in delivering the outcome. Under the TA, the policy formation initiated various efforts for efficiency improvements in rural electrification operations. ASEB demonstrated its operational efficiency improvement for rural electrification and built up its confidence. The post assessment for the training program indicated high satisfaction from participants.

The number of franchising contracts is likely to be increased. The consulting services under the loan 2036-IND: Assam Power Sector Development Project supported introduction of an evaluation software system for franchisees. In addition to an appropriate monitoring system, adequate training program for new franchising staff will need to be maintained to ensure the sustainability of the institutional framework for rural electrification.

Major Lessons

The franchising model proved to be implemented easily since it is not involved in regulatory requirements like licensing and tariff issues. Since the incentive and penalty mechanism is built-in the performance based contract with private operators and local communities, it will create proactive motivation for improvement between the utilities and franchisees. Service improvements will also benefit customers eventually. The franchising model can be considered for other areas and countries.

Recommendations and Follow-Up Actions

Since some areas in Assam experienced high systems losses with over 50-80%, it was not difficult to reap the initial benefits of efficiency improvement through the franchising approach. Depending on the sustainability of this model in 3 to 5 years, a subsequent study may be considered to strengthen the franchising system or evolve it to more independent service provider type.