



An Evaluation of Communitisation of Electricity Management in Rural Areas of Nagaland

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ABSTRACT

Power sector in India has been undergoing a major reform since the last two decades. As part of the power sector reform process, the Government of Nagaland launched the Communitisation programme in the state. Communitisation is a unique way of decentralization of electricity management through community empowerment. This study is an attempt to evaluate the effectiveness of Communitisation programme in rural areas of Nagaland. The study is based on primary data collected by conducting field survey. The data so collected were analyzed using statistical measures like average, percentage and weighted average. The study reveals that Communitisation programme has been effective in improving the revenue collection efficiency, controlling the power theft and reduction of technical and commercial losses in rural areas. However, the study shows that no improvement has been witnessed in service delivery after Communitisation.

KEYWORDS: Communitisation, Power sector, VEMB

Introduction

Power sector across the world has been undergoing a major transformation; and India is no exception to this. Conventionally, electric power system has been considered as a natural monopoly and so vertically integrated generation, transmission and distribution systems were established as state-owned undertakings. In Indian power sector, since early 1990s there has been a paradigm shift from natural monopolies to competitive model by way of unbundling and privatization of generation, transmission and distribution functions. The power sector reforms process in India was initiated in 1991 and since then, various State Electricity Boards and Electrical Departments are at the different stages of unbundling, restructuring and setting up of regulatory body. In Nagaland, as part of the power sector reform process the Department of Power, Government of Nagaland launched the Communitisation programme in the year 2003.

Communitisation

Communitisation is a unique way of decentralization of electricity management through community empowerment initiated by the Department of Power, Nagaland under the Nagaland Communitisation Act of Public Institutions and Services Act, 2002. It consists of a partnership between the government and the community involving transfer of ownership and sharing responsibility of management of the government institutions with the community; all with the aim of improving the delivery of public utility systems. Communitisation of electricity management was introduced with the objectives: to reduce technical and commercial losses in the rural areas, to involve village community to work as business partners with the Department in the management of electricity revenue so as to provide the needed leverage for privatization in power sector in long run, and to entrust the responsibility to Village Electricity Management Board (VEMB) to check theft of power in the villages.

The programme has been implemented in phased manner; it has so far been implemented in 802 villages of the state. Village Electricity Management Board (VEMB) consisting of 5 to 9 members has been constituted in all the communitised villages to undertake the responsibility of electricity management in villages under the Communitisation programme.

Single Point Metering System

The Communitisation programme has been launched through Single Point Metering (SPM) system for billing and collection of revenue. SPM is a system of collective metering of the power consumption by a village through one or more main meter(s) in the village. Under this system a village is billed collectively with a single electricity bill

through one or more main meter(s) at the intake point of the village and served to the VEMB for payment to the Department of Power. The VEMB bills the individual electrified households either through the individual household meters or on the basis of 'useful points'. In order to assess the consumption of electric power by an individual household under SPM system, the Department has innovatively developed the concept of 'useful points'. One 'useful points' is defined as equal to 40 W.

The VEMB is billed at the flat rate of tariff which means that the tariff for all consumer categories is charged at the same rate. The flat rate of tariff is fixed by the Department in a manner as to ensure that the VEMBs may receive the benefit of at least 20% of the lowest rate of tariff that is ordinarily fixed for domestic consumers.

Objective of the Study

The main objective of the study is to evaluate the effectiveness of Communitisation programme in rural areas of Nagaland.

Research Methodology

The study is based entirely on primary data. A field survey was conducted in five Electrical Divisions of the state to collect the data for the study. Convenience sample of 90 villages under the five Electrical Divisions were selected. Two sets of well structured questionnaires with a 5 point Likert scale were used for the data collection. Respondents were asked to specify to which extend they agree or disagree with the achievement and operational effectiveness of Communitisation. One set of questionnaires was administered to the VEMB of the 90 selected villages and the other set of questionnaires was administered to 30 officials (in-charge of Communitisation) of the Department of Power. Data were also collected through informal interview and discussion with the VEMBs and the officials of the Department.

The primary data so collected were evaluated with the two perspectives: effectiveness in achieving the objectives of Communitisation and service delivery under Communitisation. Statistical measures like average, percentage and weighted average were used for analysis and interpretation of the collected data.

Effectiveness in Achieving the Objectives of Communitisation

The success of Communitisation of electricity management can be judged by its effectiveness in achieving the objectives. The VEMBs' as well as Department's Perceptions on achievement of the objectives of Communitisation in rural areas is shown in Table 1.

Table 1
Perceptions on Achievement of the Objectives of Communitisation

Statements	VEMBs' Perceptions					Department's Perceptions						
	SA	A	N	D	SD	WS	SA	A	N	D	SD	WS
Collection of revenue has increased after Communitisation	51	47	2			4.49	71	29				4.71
Power theft in villages after Communitisation has decreased	63	31	4		2	4.53	71	29				4.71
Setting up of VEMBs has helped in generation of employment in the village	13	20	23	34	10	2.92	43	43	14			4.29
The differences between electricity billed and revenue collection has decreased	64	23	13			4.51	61	29	10			4.51
Total Weighted Score	16.45					18.22						
No of Respondents	90					30						

Source: Field Survey

Note: SA: Strongly Agree A: Agree N: Neutral SD: Strongly Disagree D: Disagree WS: Weighted Score
Weights: SA-5, A-4, N-3, D-2, SD-1.

It can be seen from Table 1 that the implementation of Communitisation has helped in improving the collection of revenue in rural areas. Out of 90 VEMBs, 51% strongly agreed and 47% agreed that the collection of revenue after Communitisation has increased. The officials of the Department were also of the opinion that the revenue collection has increased significantly after Communitisation. Out of 30 respondents, 71% strongly agreed and 29% agreed that collection of revenue has increased after Communitisation.

It is also evident from Table 1 that in all the communitised villages, VEMBs were effective in reducing the prevailing high scale of power theft in villages. After Communitisation, not a single case of power theft was reported to the VEMBs in the surveyed villages. As shown in Table 1, 63% of VEMBs and 71% of departmental officials strongly agreed that power theft in villages has been reduced significantly after Communitisation.

Table 1 also shows that majority of the VEMBs were of the view that the differences between electricity billed and revenue collection has also decreased significantly. Non-payment of electricity bill by rural consumers resulted in huge accumulation of arrears. Many rural consumers were using the electricity supply continually without paying for it. After Communitisation such non-payments of bills were reduced. However, the majority of the VEMBs were of the opinion that 'the provision of 20% rebate on tariff to the VEMBs by the Department' has not helped much in generation of employment in the villages. Conversely, on the same statement the weighted score of the Departmental officials' perceptions is 4.29, which means that a large majority of respondents agree with the statement.

As shown in Table 1 out of the possible best overall weighted score of 20 (i.e. 5X4) of the perceptions of the VEMBs and the Department on achievement of objectives of Communitisation, the weighted score is 16.45 and 18.22 respectively; this shows that a large majority of respondents agree that Communitisation has been successful in achieving its objectives. However, since the weighted score of the department is higher than that of the VEMBs; the Department's view on success of achieving the objectives has been more encouraging than the VEMBs.

Service Delivery under Communitisation

The effectiveness of Communitisation can also be evaluated in terms of service delivery under the programme. Service delivery has been as-

essed by the factors like service quality in terms of stable power supply, field staff responsiveness, proper training facilities etc. VEMBs' Perceptions on Service Delivery after Communitisation is shown in Table 2.

Table 2
VEMBs' Perceptions on Service Delivery after Communitisation

Statements	SA	A	N	D	SD	WS
Duration of power failure in the village has decreased after Communitisation		15	26	32	27	2.29
Getting new connection in the village is much easier under Communitisation	10	21	32	17	20	2.84
The field staffs of the Power Department are co-operative and helpful	1	66	22	11		3.57
Trainings are conducted regularly by the department for effective functioning of SPM system		15	30	30	25	2.35
Total Weighted Score						11.05
Total No. of Respondents						90

Source: Field Survey

Note: SA: Strongly Agree A: Agree N: Neutral SD: Strongly Disagree D: Disagree WS: Weighted Score
Weights: SA-5, A-4, N-3, D-2, SD-1.

Table 2 shows that service delivery in villages has not been very impressive. It can be seen from Table 2 that 59% of the respondents disagreed on the statement that 'duration of power failure in the village has decreased after Communitisation'. And the weighted score of the perception of the VEMBs on this statement is 2.29 (out of the best score of 5); this shows that there has been no improvement in the quality of power supply. Furthermore, many respondents feel that proper trainings should be provided regularly. The weighted score of the VEMBs' perceptions on the training conducted is 2.35, which shows that most of the respondents (55%) disagree with the statement.

Nevertheless, it was observed that getting new connections of electric supply in villages has become somewhat easier after Communitisation. It was also observed that the field staffs of the Department were co-operative and helpful.

Conclusion and Suggestions

The study reveals that Communitisation programme has been effective in achieving the objectives in terms of revenue collection, control of power theft, and reduction of technical and commercial losses in villages. However, it is evident from the study that there has been no improvement in service delivery in terms of stable and quality supply of power in villages even after the implementation of Communitisation programme.

Capacity building and skill development of the VEMBs are important issues for better functioning of SPM system. The main problem reported by the VEMBs is the improper training facilities. Majority of the VEMBs were of the view that the success of the board depends upon their social skill and their capacity to undertake responsibility associated with the assigned work. The Department of Power should therefore provide trainings regularly on various technical aspects as well as commercial, social and managerial aspects. Existing Capacity building exercise should also include training on team building, management and administration associated with their job, their role in socio-economic development of village, and energy efficiency measures.

Currently, community involvement in power management is in the area of revenue management only, including prevention and control of power theft in villages; the Department of Power should extend the responsibility of management to distribution of power within the villages as well. The Department of Power should also begin the process of community involvement and ownership in operation and maintenance activities. The State Government should begin the process by transferring the ownership of existing as well as the new micro/mini hydro projects to the VEMBs and make them responsible for operation and maintenance of the projects.

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