

ROLE OF ELECTRICITY TO THE DEVELOPMENT OF SOCIAL SECTOR IN KERALA**JILL CR NEWBIGIN, MA., M. Phil***

Abstract:

Electricity has been considered one of the most important developments of the 20th century. It has become an essential factor in improving the social condition and welfare of the people. Electricity helps in achieving greater prosperity and comfort. The growth of the electricity in Kerala took an unprecedented pace after the formation of the Kerala State Electricity Board. It can be said that electric energy has played an important role in improving the quality of life of the people of the state. The reliable electricity services result in increasing productivity in agriculture and improvement in the delivery of health and education.

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INTRODUCTION

Electricity is one of our most widely used forms of energy. It helps us in many ways and is considered clean and cheaper than other alternative sources. Most of the comforts of modern life would not be there, if there is no electricity. Electricity and the associated system and organization have been considered one of the most important developments of the 20th century. In addition, electricity has become an essential factor in improving the social condition and welfare of the people. Thus, electricity is an input essential to the integrated economy of the country. Electricity, therefore, acts with a multiplier effect. The role electricity plays in the lives of the people by enhancing their productivity, comfort, safety, health and economy is obvious. People live with the benefits of electricity everyday. The availability of a reliable and quality power at competitive rates is very crucial to sustain the growth of all the sectors of the economy. In the earliest days of civilization, human beings used their own strength or muscles in moving and carrying loads, trapping or in hunting animals for their food. In the Stone Age, man discovered the magic 'Shakti' of fire by rubbing together two pieces of stones. This revolutionary discovery was reported to be the first attempt of man to use energy from a source outside his own body.

OBJECTIVES OF THE STUDY

To highlight the contributions of the important pioneers of electricity and the early discoveries which led to the invention of electricity. To undertake a comprehensive and detailed analysis of the electricity sector in Kerala. To access the role of electricity on rural development in Kerala and to chart out the impact of electricity on agriculture, industry, health, education, public lighting, household and communication.

METHODOLOGY

The method adopted for the study is both descriptive and analytical. Besides this, 'unstructured interview' technique has also been adopted to collect supplementary data. The primary sources for the preparation of this paper are the administration reports of the KSEB, proceedings of the Board, standing orders of the Board, proceedings of the planning Board, proceedings of the Government of Kerala and Government orders related to the KSEB, Travancore Government Gazetteer, Economic Survey of the Government of India, Report and publications of the Central Electricity Authority, Review of public enterprises in Kerala. The primary sources are also supplemented by secondary sources.

REVIEW OF LITERATURE

The book *Cost of power generation, transmission and distribution* by P.K. Ghosh and G.S. Gupta, reveals the significance of administrative overhead cost which led to positive increase in both the categories of cost and relative importance of several other technical factors and operational variables determining the two types of operational cost. Asha Hans in her book entitled *The Power Sector in India* gives a clear idea of the need for complete overhaul in the structure as well as a change in the functioning of the power industry. According to her, it was

better not to stress only huge power projects, but to concentrate on smaller units and the distribution system with a larger financial outlay.

BACKGROUND OF THE STUDY

FIRST KNOWLEDGE OF ELECTRICITY

It is believed by historians that the ancient man knew of the existence of a strange force which is known today as electricity. But his superstitions put limitations upon his imagination and kept him from trying to study the force and put it to work for his good. Centuries ago traders shipped amber from the shores of the Baltic Sea to Southern Europe. This clear yellow-brown material is fossilized resin. The ancient Greeks knew that rubbing of amber vigorously made it acquire the power to attract bits of straw, leaves or feathers. Now, man knows that the amber is charged with electricity by the friction or rubbing. Ancient records give credit for the discovery of this phenomenon to Thales, (a Greek philosopher, born at Miletus in Ionia, 546 BC). Thales was the first to record his findings.

ELECTRICITY IN INDIA

Under the Indian Constitution, the subject-matter of electricity has been included in the list-III-concurrent list at serial No. 38 under the Seventh Schedule. Hence, the Central as well as the State Governments have authority to enact legislation in regard to the power sector¹. The Central Government has power to make policy, planning, guiding, assisting, evaluating and coordinating the work of the state ministries and the State Governments focus on specific issues².

ELECTRICITY IN KERALA

Kerala is one of the four Southern States of India, but the smallest one among them. The state has received much attention from scholars due to its unique development experience. Power is the prime mover of the economic development of a state and one of the major infrastructure requirements for industrial, rural and agricultural development and it helps in linking rural population with the fast changing technological world³. The State could achieve tremendous progress in the social and health fronts and the Kerala model is often referred to as a good model in these fronts. Palakkad, a district in Kerala became the first fully electrified district of the country⁴. The coordinated development of the generation, transmission and distribution of electricity in Kerala is carried out by Kerala State Electricity Board.

ELECTRICITY AND AGRICULTURE

Agricultural performance is fundamental to economic and social development. Agriculture has traditionally depended on animal and human power for its operations but is rapidly moving towards mechanization and energized ground water irrigation based on commercial energy⁵. Electric energy is important for the enhancement of agriculture through irrigation (water collection, distribution), agro- processing and conservation. The Kerala cultivators, using electric pump sets, could cultivate relatively more areas and their agricultural operations have appreciably improved⁶. Additional efforts are made at bringing more area under pump set irrigation for increasing agricultural production and productivity in the state⁷.

ELECTRICITY AND INDUSTRY

In Kerala micro enterprise such as wood processing, retail shops, restaurants, welding shops etc. depend on electricity services for lighting, running machines, running machines, entertaining customers, refrigeration etc. Micro industries like rice and flour mills, saw mills, match works, oil mills, engineering units (making nuts, screws, bolts) etc. depend on electricity service for grain grinding, oil processing and running motors⁸. Other types of industries such as rubber, power-loom, bricks, tiles etc. also use electricity to undertake their activities⁹. The introduction of electricity has brought about remarkable change in the industrial scenario of the panchayats. It has helped in the diversification of economic activities and the second generation of benefits, in terms of the generation of additional wealth, income and employment in the non-farm sector including trade and commercial sector¹⁰.

ELECTRICITY AND HOUSEHOLD

With the growth of population and increase in the use of modern facilities in life, the uses of electricity for domestic purposes have tremendously increased in recent times¹¹. The typical use of electricity has been for lighting purposes, although there is growing preference for the same for fan, television, tape-recorder, refrigerators, air-condition, lifting of water from wells etc. Electric lighting extends the time available for the many activities that need good lighting, thus enabling a rearrangement of tasks to evening hours. Household members can then continue their enterprise work and domestic duties¹². It brings about rapid transformation in the standard of living in terms of better amenities luxuries and recreation facilities.

ELECTRICITY AND EDUCATION

The main channels through which electrification may affect education are; In rural schools, electricity improves the quality of schools, either through the provision of electricity dependent equipment, or increases teacher quantity and quality¹³. Since the invention of electricity, the number of books and periodicals released has been noticeably increasing. Time allocation at home, with increased study time, children in electricity houses have higher education levels than those without electricity¹⁴.

ELECTRICITY AND PUBLIC LIGHTING

'Light' is a basic aspect of human environment. It irradiates the peak movement of traditional living. Light dispels darkness and brings man to a new world. In the beginning men used oil, for lit up the light. But in the changing world, people's life style also changed and these old oil lamps are not sufficient for their style¹⁵. Due to the progress of science, new sources of power like coal, gas, electricity were discovered, and among these, electricity marked the beginning of a new civilization. Electricity provides more and better lighting at lower cost than the net available alternative lamps¹⁶.

ELECTRICITY AND HEALTH

Modern energy services are key to improving the health of the people in rural areas. The use of traditional solid fuels such as fuel wood and crop residual exposes people especially

women and youth children to indoor air pollution, with consequent health risks¹⁷. The health benefits from rural electrification operate through a number of channels. Better health from cleaner air as house holds reduce use of polluting fuels from light and heating. In health clinics, access to electricity provides for well-equipped maternity facilities and medical equipment and safe storage for vaccines¹⁸.

ELECTRICITY AND COMMUNICATION

Electric power runs the world, with governments, corporations and financial institutions relying on it daily for communication, commerce and even direct trading¹⁹. Another area in our life on which electricity has a great influence is the media both in communication and entertainment. Take telephone, they need electricity to operate. Similarly, television enables everyone to update information around the world and see what is happening at the other side of the global simultaneously²⁰.

CONCLUSION

The viable and reliable electricity services result in increased productivity in agriculture and labour, improvement in the delivery of health and education, access to communications, improved lighting after sunset, the use of time and energy-saving mills, motors, and pumps, and increased public safety through outdoor lighting. About 82% of the households in Kerala have access to electricity connection. In this regard, the state is one among a few major states, which could extend electricity connections to more than four-fifths of its households. As per the definition of Rural Electrification Corporation, Kerala is one of the nine fully electrified states in India and Palakkad became the first fully electrified district in India.

REFERENCES

1. Planning Board, *Five year Plan- Plan progress in brief*, Thiruvananthapuram, 1986, p. 5.
2. *Kerala State Administrative Report*, Government of Kerala, Thiruvananthapuram, 2003, p.17.
3. Government of Kerala, *Report of the committee to study the development of Electricity*, Thiruvananthapuram, 1997, p.43.
4. KSEB, *Report of Neo- Pallivasal hydro electric project*, Thiruvananthapuram, 1999, p.56.
5. KSEB, *Power System Statistics*, Thiruvananthapuram, 2002, p.32.
6. KSEB, *Annual Administrative Report*, Thiruvananthapuram, 1988, p.14.
7. KSEB, *Annual Administrative Report*, Thiruvananthapuram, 1998, p.98.
8. KSEB, *Annual Administrative Report*, Thiruvananthapuram, 2008, p.25.
9. KSEB, *Annual Administrative Report*, Thiruvananthapuram, 2009, p.67.
10. Centre for Development Studies, *Kerala Research Programme on local level development*, Report-5, Thiruvananthapuram, 2010, p.67.
11. Centre for Development Studies, *Kerala Research Programme on local level development*, Report-5, Thiruvananthapuram, 2010, p.43.
12. Centre for Development Studies, *Kerala Research Programme on local level development*, Report-7, Thiruvananthapuram, 2011, p.78.
13. Centre for Development Studies, *Kerala Research Programme on local level development*, Report-9, Thiruvananthapuram, 2012, p.15.

14. Central Electricity Authority, *Progress report of village electrification*, New Delhi, 2000,p.76.
15. Central Electricity Authority, *Progress report of village electrification*, New Delhi, 2001,p.87.
16. Central Electricity Authority, *Progress report of village electrification*, New Delhi, 2012, p.88.
17. Bhatia, R., *Energy and rural development in India- some issues in agriculture and energy*, Academic press, New York, 1977, p.54.
18. Byres, J., *The Indian economy*, Oxford University Press, Mumbai, 1999, p. 23.
19. Chaudhuri, *Power Resources of India*, Oxford and IBH publishing co., New Delhi, 1970, p. 86.
20. Douglas. F. Barnes., *Electric power for rural growth- How electricity affects rural life in Developing Countries*, West view Press, USA, 1988, p. 98.