



Benefits of Free Electricity to Farmers In Agriculture Sector

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ABSTRACT

This paper presents the free electricity in the srikakulam district In India, farmers use electricity mainly for energizing irrigation pump sets to extract groundwater. The number of electric tube wells has increased tremendously over time with the availability of free electricity. Srikakulam District, which is located in the north-eastern part of Andhra Pradesh situated within the geographic coordinates of 18-20 and 19-10 of North latitude and 83-5' and 84- 50'Eastern Longitude. The district is skirted to a distance by Kandivalasa Gedda and Bahuda at certain stretches of their courses while a line of heights of the great eastern ghats run from North- East. The woes of the country's electricity sector are well-known, but the discussion of emerging groundwater crisis had remained confined to the obscurity of technical debates, till recently. Over-exploitation, and consequent depletion, of groundwater in the country is rapidly evolving into a major crisis, fuelling ever-increasing demand for free power and making farm more vulnerable and unviable.

INTRODUCTION

India is mainly an agrarian nation with more than 60% of its population being reliant directly or indirectly on agriculture. The Indian agriculture sector has made

considerable progress in the last few decades with its large resources of land, water and sunshine. India produces all main crops to reach the necessity of food, fodder, fibre, fuel and inputs for its agricultural industry. India is presently the world's largest producer of pulses and the second largest producer of rice and wheat in the world. The country is also the second largest producer of sugar, after Brazil. The Department of Agriculture and Cooperation under the Ministry of Agriculture, Govt. Of India is the nodal organization responsible for the growth of the agriculture sector in India. The organization is accountable for formulation and implementation of national policies and programmes intended at achieving quick agricultural augmentation through minimum utilization of land, water, soil and plant resources of the nation.

Farmers are the most agitated community in the state in the context of the ongoing changes in the power sector, for all the ills in the power sector are attributed to their power consumption. Many of the farmers–organizations argue that the sector does not consume the quantity of power attributed to it. This is because the duration in which they are supplied power and quality of power is such that consumption of that much power is practically impossible. They contend that the



number of pump sets, their capacity and the duration during which they are used are over estimated. Given the contribution made by the well irrigation to agriculture in the state, the number of families dependent on it and its contribution to food security they argue that there is need to continue supply of subsidized power. In this context, they also demand that power produced in the hydroelectric stations be allotted to the agriculture sector.

ROLE OF POWER IN SRIKAKULAM

Srikakulam District, which is located in the north-eastern part of Andhra Pradesh situated within the geographic coordinates of 18-20 and 19-10 of North latitude and 83-5' and 84-50' Eastern Longitude. The district is skirted to a distance by Kandivalasa Gedda and Bahuda at certain stretches of their courses while a line of heights of the great eastern ghats run from North- East. It is bound on the North by Orissa State, on the west and south by Vizianagaram District and on the east by Bay of Bengal. The total area of the District is 5837 sq.Kms

Topography

Srikakulam District, formerly known as Chicacole, is the extreme northeastern District of Andhra Pradesh, situated within the geographic co-ordinates of 18°-20' and 19°-10' N and 83°- 50' and 84°-50' E. The District is skirted to a distance by Kandivalasagedda, Vamsadhara and Bahuda at certain stretches of their courses white a line of heights of the great Eastern Ghats run from North East.

Vizianagaram District flanks in the south and west while Orissa bounds it on the north and

Bay of Bengal on the East. There are nine rivers present in the Srikakulam Dist. The Nagavali, Vamsadara, Suvarnamukhi, Vegavathim, Mahendratanaaya, Gomukhi, Champavathi, Bahuda and Kumbikotagedda are the important rivers of the dist. The Vamsadarariver rises in the Eastern Ghats of Orissa state and enters Srikakulamdist in Bhaminimandal and finally falls in to the Bay of Bengal near Kalingapatnam. The Nagavali and Suvarnamukhi rivers also originated in the Eastern Ghats while Nagavali enters in Vangaramandal. Suvarnamukhi joins Nagavali at Sangam Village in Vangaramandal and confluences in the Bay of Bengal at Kallepalli near Srikakulam. The vegavathi river rises in Pachipenta Village and flow from West to East, ultimately joining the river Suvarnamukhi. Gomukhi joins Suvarnamukhi at Sirlam Village of Vizianagaram dist. Mahendratanaaya which is a tributary of Vamsadara, joins the latter at Komanapalli Village in Hiramandalammandal. The Bahudariver also rises in the eastern ghats enter Srikakulamdist at Boddabada Village of Ichapurammandal and flow through Ichapuram and Kaviti, Mandasa and reaches into the Bay of Bengal at Donkuru Village.

The soil of the district is analyzed as sandy, clay, loamy, red loamy, black cotton clay and alluvial soil

In the Srikakulam district the area under the forest is 68,641 hectares which constitutes 12% of the total geographical area of the district. The significant products if the forest is tamarind, timber, turmeric, hill brooms, gum,

cashew, pineapple, custard-apple, adda leaves, beedi leaves, nuxvomica, soap nuts, marking nuts etc.

Review of literature

Bikash Chandra Dash and Sangita (2011)⁷⁵ examined the impact of governance reforms on efficiency, equity and service delivery in order to identifying the factors responsible for the success/failure of reforms in the power sector in Orissa. It is found from their study that the success of reforms depends not on mere change of ownership from public to private. It depends on so many factors like to what extent the stakeholders involved in the process are benefited and how the institutions implement the policies in reality.

Elumalai Kannan (2013)⁷⁶ **Do Farmers Need Free Electricity? Implications for Groundwater Use in South India**, The present study analyses farmers' perception on free farm electricity and groundwater extraction based on survey data collected from two South Indian states, viz., Karnataka and Tamil Nadu. The study is impelled by lack of pragmatic substantiation on farmers' perception on free power and groundwater over use and its connection with public policy formulation. The study reveals that benefit from free electricity differed for different groups of farmers, and at the same time most farmers reported excess use of electricity leading to over-exploitation of groundwater. A high proportion of farmers did not want free electricity due to its poor quality and frequent power cuts, and hence expressed willingness to pay for its use.

Need of the study

The woes of the country's electricity sector are well-known, but the discussion of emerging groundwater crisis had remained confined to the obscurity of technical debates, till recently. Over-exploitation, and consequent depletion, of groundwater in the country is rapidly evolving into a major crisis, fuelling ever-increasing demand for free power and making farm more vulnerable and unviable. Persistent power-supply deficit, high level of losses, theft and corruption, inability of the power sector to fully finance the needed investments, poor quality supply and the budgetary burden imposed by the sector is a formidable list of challenges.

India can ill-afford these twin crises. Several attempts in the past to manage the power and groundwater crisis have been costly and yielded little. Reliable supply.

Objectives of the study

1. To discuss the role of the power industry in Srikakulam district
2. To examine the free electricity to farmers
3. To offer suggestions and recommendation.

Methodology of the study

This study is both the quantitative and qualitative mix of the study. The data collected from the primary sources like interviewing the respondents and distributed questionnaire to the respondent and also through the secondary data the researcher collects from the journals reports from the electricity reforms in India. The statistical

tools are applied for the study are Percentage method. With the sample size of 300

Table 1: The use of free electricity is profitable for agro-production

Sl.N o.	Opinion	Frequency	Percentage
1.	Yes	100	100
2.	No	0	0
Total		300	100

Source : Primary Data

The above table represents the use of free electricity is profitable for agro-production. 100% of the respondents said that yes the use of free electricity is profitable for agro-production.

Table 2: Hours of domestic power supply does the farmer get per day

Sl.N o.	Opinion	Frequency	Percentage
1.	Full Time	216	72.0
2.	Night Time	84	28.0
Total		300	100

Source : Primary Data

The above table represents the hours of domestic power supply does the farmer get per day. 72% of the respondents have said that full time of domestic power supply to get the farmer per day, 28% of the respondents have said that Night time of domestic power supply to get the farmer per day.

Table 3: Number of hours of free electricity is sufficient to agriculture purpose

Sl.N o.	Opinion	Frequency	Percentage
1.	Yes	261	87.0
2.	No	39	13.0
Total		300	100

Source : Primary Data

The above table represents the hours of domestic supply does the farmer get per day. 87% of the respondents said yes that the electricity is sufficient to agriculture purpose, 13% of the respondents said no that the electricity is not sufficient to agriculture purpose

Table 4: Opinion on get extra hours of free electricity then what will you do

Sl.N o.	Opinion	Frequency	Percentage
1.	Irrigate more than of land	201	67.0
2.	Change my cropping pattern	99	33.0
Total		300	100

Source : Primary Data

The above table represents the extra hours of free electricity they get. 67% of the respondents opined that they get extra hours

of free electricity to irrigate more than of land, 33% of the respondents.

Table 5: The electricity are available for agriculture supply come according to schedule

Sl.No.	Opinion	Frequency	Percentage
1.	Yes	96	32.0
2.	Generally	159	53.0
3.	Rarely	45	15.0
Total		300	100

The above table represents the free electricity are available for agriculture supply come according to schedule 32% of the respondents are opined yes that they get the electricity are available for agriculture supply come according to schedule, 53% of the respondents are opined generally that they get the electricity are available for agriculture supply come according to schedule, 15% of the respondents are opined rarely that they get the electricity are available for agriculture supply come according to schedule.

Findings of the study

1. It is found that 100% of the respondents said that yes the use of free electricity is profitable for agro-production.
2. It is found that 72% of the respondents have said that full time of domestic power supply to get the farmer per day, 28% of the respondents have said that Night time of domestic power supply to get the farmer per day.
3. It is found that 87% of the respondents said yes that the electricity is sufficient to

agriculture purpose, 13% of the respondents said no that the electricity is not sufficient to agriculture purpose.

4. It is found that 67% of the respondents opined that they get extra hours of free electricity to irrigate more than of land, 33% of the respondents.

5. It is found that 53% of the respondents are opined generally that they get the electricity are available for agriculture supply come according to schedule, 15% of the respondents are opined rarely that they get the electricity are available for agriculture supply come according to schedule.

Suggestions of the study

1. At present, spot billing system is followed. But the said system is so defective as they are not taking accurate meter reading./So billing should be according to meter reading.
2. Some times the farmers themselves are arranging fuses, for transformers. The department should look after this.
3. Some the farmers have paid the amount for arrangement of transformers and=electricity connections. But there was too much delay in the arrangement of transformers and connections. As a result, the farmers are trying to take illegal connections to their motors directly.
4. In summer season, the prescribed 7 hours of uninterrupted power should be supplied to agriculture.
5. Government has to encourage the people to convert from



nonconventional resources to the conventional resources i.e. especially using solar source by providing subsidies. It has to encourage the private sector to establish thermal power plants by giving land and dealing with the villagers to meet the tremendous future demands of power.

Conclusion

In India, farmers use electricity mainly for energizing irrigation pump sets to extract groundwater. The number of electric tube wells has increased tremendously over time with the availability of free electricity. The raise in tube wells needed more power connections which gradually affecting the economical condition of the state electricity boards. The propagation of tube wells has led to competitive extraction of groundwater by farmers with almost zero cost of pumping. The over-extraction of groundwater results in decrease of ground water tables and eventually leads to well failure. Further, the externalities of electricity subsidy are not equally shared by different sections of the farming community and accrue to those who have electricity connections to run the tube wells.

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