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## POWER SUBSIDIES – A THREAT FOR SUSTAINABILITY OF AGRICULTURE AND STATE FINANCES IN HARYANA

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**Abstract:** *The present paper is an attempt to study the impact of subsidized power on sustainability of agriculture in Haryana. Power subsidies provided to agriculture sector are major subsidies at state level in India. Free electricity or negligibly charged electricity for agriculture remained a major tool for buying votes at the time of elections. Now, It is posing a threat for sustainability of agriculture. The current paper seeks to measure the extent of power subsidies in Haryana. It further tries to get insight into how power subsidies have impacted the agricultural development. It is observed that subsidized electricity has not only increased the financial burden of state electricity boards and government. Beside this economic cost, subsidized electricity is posing great threat to ground water level and for environment.*

**Keywords:** *Agriculture, environment, electricity, subsidy*

### INTRODUCTION

Subsidies provided by state governments have remained one of the major items of their revenue expenditure. Subsidies, particularly, agricultural subsidies are frequently discussed for increasing the financial burden of state governments instead of increasing the farmer' welfare. A number of subsidies have been providing to agriculture sector at state level, from input subsidies to minimum price supports. But the major portion of these subsidies goes to the power sector. Gulati (1989) and Ambirajan (1999) mentioned in their studies that input subsidies particularly power subsidies provided to agriculture sector are major subsidies at state level in India. Power subsidies were initially given to support green revolution through cheaper irrigation. So that India can be made food sufficient. But later, these subsidies were used as political tools by the leaders. Free electricity or negligibly charged electricity for agriculture remained a major tool for buying votes at the time of elections. In subsequent years, it created serious environmental and economic implications. It became a threat for



sustainability of agriculture. The current paper attempts to measure the extent of power subsidies in Haryana. It further tries to get insight into how power subsidies have impacted the agricultural development. Time period taken for analysis is from 2009-10 to 2016-17. The analysis is completely based on secondary data sourced from annual report of Planning Commission, reports on the Performance of State Power Utilities and Statistical Abstract of Haryana.

## **AGRICULTURAL DEVELOPMENT - SUBSIDY NEXUS**

Since the green revolution in late sixties, Haryana made a remarkable progress in agriculture. In post green revolution period, the productivity for the major food grains, mainly wheat and rice increased significantly due to the benefits arising out of scientific developments in plant breeding, use of chemical fertilizers and installation and use of irrigation infrastructure which replaced the traditional local farming practices and brought increase in productivity and production significantly. However, agricultural development in Haryana has been in favor of food crops. In food crops also, wheat and rice constitute a major share. Wheat and rice collectively constitute the 86% area of total area under food grains. Thus, it can be said that agricultural development in Haryana is mainly confined to wheat and rice.

With the development in agriculture, it is also required to pay attention towards other aspects of this development. The existing wheat rice cropping pattern has caused environmental degradation due to excessive use of chemical fertilizers and over exploitation of natural resources like soil and water. It resulted in declining soil and land fertility and falling water table. These factors aggravated the problem of environmental degradation and have questioned the sustainability of existing cropping pattern in Haryana. It should be mentioned here that government policy has played a major role in promoting the existing cropping pattern. State government's major policy that promotes the production of these water intensive crops is subsidized electricity for agriculture.

## **EXTENT OF POWER SUBSIDY IN HARYANA**

The extent of electricity subsidy given by state government can be measured by the difference between the average tariff for agriculture and cost of supply of electricity. Figure 1 depicts the difference between the two variables. Figure reveals that difference between



the average tariff for agriculture and cost of supply of electricity in Haryana has widened significantly during the 2000s. It was mainly due to the increasing cost of electricity supply while tariffs were almost constant. It indicates that the level of recovery came down in Haryana particularly since 1999-00.

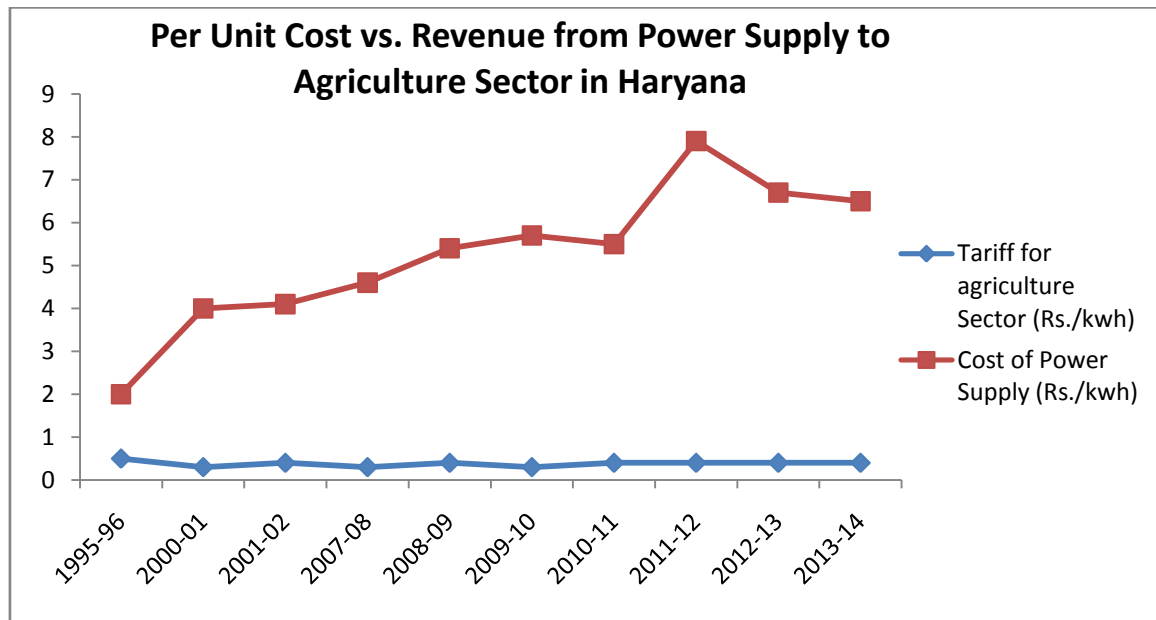


Figure: 1

Source: 1. Annual Reports on Working of State Electricity Boards and Electricity Departments, Planning Commission, Government of India.

2. Reports on "The Performance of State Power Utilities", Power Finance Corporation Ltd.

Low tariffs for electricity in agriculture consumption incentivize the groundwater irrigation. It is revealed by the Figure 2 that area under tube well irrigation has increased while that of canal irrigation came down, particularly during 2000s. Due to spread of tubewell irrigation, area under wheat and rice increased significantly which resulted in depletion of groundwater tables due to overuse of water for irrigation.

Overuse of water for irrigation further increases the electricity consumption. Since additional electricity is required to extract ground water as water tables have gone down. The depth of ground water was 9.19 in 1974 which increased to 17.75 in 2015. Moreover, subsidised electricity also caused over-exploitation of groundwater by making the groundwater extraction cheaper. As a result, groundwater extraction has increased to such an extent that water tables have gone down considerably.

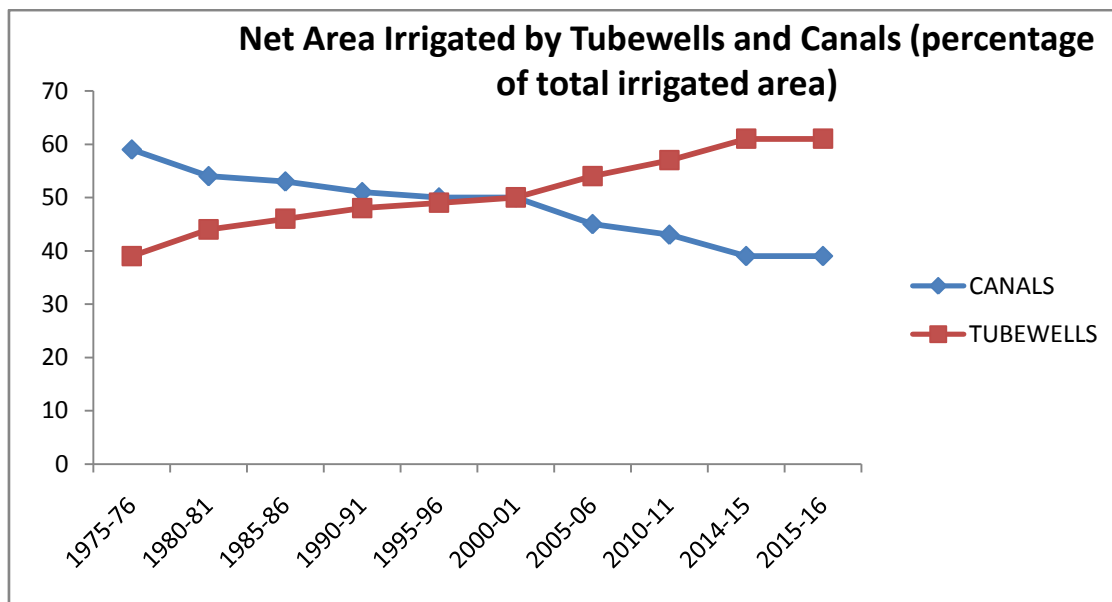


Figure: 2

Source: State Statistical Abstract

Minimum support prices (MSP) provided by the Government also affects farmer's decision. High correlation of 0.9 is found between MSP for wheat and rice and area under these two crops. So, government should incentivize farmers to opt less water intensive crops by increasing MSP of such crops. It would be helpful in reducing ground water depletion as well as losses of power utilities.

### Impact of Power Subsidies on State's Fiscal Position

As shown by the Table 1, power subsidies to agriculture sector constituted 6-13 per cent of total revenue receipts of the state government. Such a huge amount of subsidies has some serious implications for state finances.

Table - 1

	Power Subsidy as percentage to Total Revenue Receipts	Power Subsidy as percentage to Fiscal Deficit
2009-10	12	27
2010-11	12	40
2011-12	6	46
2012-13	12	38
2013-14	13	58
2014-15	13	42
2015-16	12	21
2016-17	11	26

Source: Author's Calculations.



To define this problem clearly, power subsidies are presented as a ratio of the fiscal deficit. It is depicted in the Table that a major portion of about 40 per cent (even more than it during some years) of fiscal deficit of Haryana was due to power subsidies. It clearly points out that power subsidy is a major factor causing heavy fiscal burden for the state. The proportion of subsidies in total expenditure as well as in fiscal deficit did not come down even after implementation of FRBMA Act. It infers the reluctance of state governments to cut their unproductive expenditure to achieve the targets for fiscal consolidation. The resources spent on power subsidies could be utilized for making quality expenditure on education, health which will reflect in improved HDI indices.

It is clear from the Table that electricity subsidies are causing a substantial proportion of the fiscal deficit. If tariffs are charged equal to even half of the cost of power supply, fiscal deficit can become half of its current level. In spite of higher recoveries, higher user charges will reduce the demand for electricity. The financial burden on state electricity boards and state governments will come down. So time to time it has been argued by the scholars that user charges should be imposed on agricultural consumers which can reflect the scarcity value of electricity. Imposition of proper user charges will also bring efficiency in ground water use. It may incentivize farmers for shifting to other crops which have low water requirement from wheat-rice cropping pattern.

## **CONCLUSION**

It may be concluded that government policies have played major role in encouraging the farming of water intensive crops in Haryana. The major policy is that of subsidized electricity for agriculture. It has not only increased the financial burden of state electricity boards and government but also questioned the sustainability of existing cropping pattern in Haryana. Beside this economic cost, subsidized electricity is posing great threat to ground water level and for environment. So it may be inferred that government should have a look at these costs of free or subsidized electricity instead of using it just as tool for buying votes.

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