Agricultural Subsidies In Karnataka: An Analysis Of Its Impact On Farmars

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Abstract - **India ranks second worldwide in farm output. Agriculture and allied sectors like forestry, logging and fishing accounted for 17% of the GDP and employed 51% of the total workforce in 2012. As Indian economy has diversified and grown, agriculture's contribution to GDP has steadily declined from 1951 to 2011, yet it is still the largest employment source and a significant piece of the overall socio-economic development of India. Agriculture is a very integral part in the socio-economic fabric in influencing the deprived and the economically backward sections of the society. The support extended by the Government of India in providing the agricultural subsidies, in fact is a very significant support system to the farmers. The agricultural subsidy has revived the agricultural sector but the absolute contribution to the SC/ST farmers in comparison with the other sections is still to be explored and issues of social justice and equity be ensured. The present study considers subsidies direct subsidy and indirect subsidy in the districts of Bagalkot and Vijayapur. It throws light on the gaps in the existing disbursal system and the recommendations to better the present system.**

keywords - **Subsidy, Social Security, Cost, Retune, subsidy level, Land holding farmer.**

Introduction:

Agriculture plays a pivotal role in the Indian economy. Although its contribution to Gross Domestic Product (GDP) is now around eighteen, (2014) it provides employment to 50 per cent (2014) of the Indian workforce. Also, the forward and backward linkage effects of agriculture growth increase the incomes in the non-agriculture sector. The growth of some commercial crops has significant potential for promoting exports of agricultural commodities and bringing about faster development of agro-based industries. Thus agriculture not only contributes to overall growth of the economy but also reduces poverty by providing employment and food security to the majority of the population in the country and thus it is the most inclusive growth sectors of the Indian economy. The 12th Five Year Plan Approach Paper also indicates that agricultural development is an important component of faster, more inclusive sustainable growth approach.

However, there have been exclusion problems in the country. In other words, real development in terms of growth shared by all sections of the population has not taken place. We have problems of poverty, unemployment, inequalities in access to health and education and poor performance of agriculture sector. One of the excluded sectors during the reform period was agriculture which showed low growth and experienced more farmers' suicides. The agriculture subsidies are integral part of the farmer's life in India. The agriculture subsidies plays very important role in agriculture sector in every country. The every year's government of India spends lot of money in various agriculture subsidies for growth of agriculture sector. The total arable & permanent cropland is 1, 69,700 thousand hectors in India.

Agricultural development is a condition precedent for the overall development of the economy. A progressive agriculture serves as a powerful engine of economic growth. It helps in initiating and sustaining the development of other sectors of the economy by providing necessary capital, labour, raw material, wage goods and foreign exchange (Kumar, 2007).

In view of this, after independence tremendous efforts were made to boost the economy through agriculture as one of the tools for development. The Government of India adopted a positive approach and hence a well defined policy of integrated production programmes with defined targets and a proper distribution programmes was adopted along with other measures for the overall economic development of the country. Specific programmes like new agriculture technology were introduced to convert agriculture into a successful and prosperous business, to bring more land under cultivation and to raise agriculture production (Singh, 1994).

In India, the adoption of new agricultural technique was costly than that of traditional method of cultivation. In traditional method, inputs were least expensive, on the other hand, inputs in modern technology like high yielding varieties of seeds, fertilizers, farm mechanization and irrigation were very costly and Indian farmers being poor were not in a position to buy these expensive inputs. On the recommendations of food grain price committee (Jha Committee), the Government of India started the scheme of subsidies on purchase of various agriculture inputs to facilitate the farmers (Singh, 1994).

Subsidies have occupied agricultural economists for a long time because they are pervasive in agriculture, even though they are often applied in ways that benefit mostly richer farmers, cause inefficiencies, lead to a heavy fiscal burden, distort trade, and have negative environmental effects. Agricultural subsidies can play an important role in early phases of agricultural development by addressing market failures and promoting new technologies (Fan, 2008).

Review of Literature

Impact of investment on agricultural growth and rural development Goswami and Saikia, 1972, Sinha and Kumar, (1996) (Kalla, 1978, Sharma, 1987). While few other researchers found that comparatively higher investment on progressive farms was made on irrigation structures and modern farm equipments while, in back ward areas the investment was mainly on livestock and traditional farm assets (Desai, 1969, Shah, 1972, Singh and patel, 1972, Garg*et al.*, 1996, Bhuvaneshwari and Alagumani, 1996). Chond (2001) and Roy and Pal (2002) Since the major emphasis of the present study is to analyse the behavior of agricultural investment at macro-level, therefore, the studies that examined the behavior and determinants of agricultural investment and its impact on agricultural growth and development. Agricultural production is increases. Sirohi (1984) and Thorat (1986) and Acharya and Jogi (2004) and Singh (2005) Since the major emphasis of the present study is to analyze the behavior of agricultural production examined the behavior and determinants of agricultural production and its impact on agricultural growth and development. Subsidies are often criticized for their financial burden. Some researchers assert to the extent that these should be withdrawn in a phased manner, such a step will reduce the fiscal deficit. Few researchers found that Sant (1996) and Modi (2006) and Pachauri (2006) and Jakhar (2008).All study conducted my study will focused on the beneficiary non beneficiary farmer and size of land holding size of farming, location, climate, rainfall, soil type, land utilization pattern, operational land holdings, cropping pattern, marketing, infrastructural facilities cast wise, age wise, season wise Rabi and kharif, Education, irrigated non irrigated area etc. pratapgajendra (2011**)** examined in article Domestic subsidies, the agriculture subsidies can be broadly discussed under two categories one is export subsidy & another is domestic subsidy, he also focused on following issues -Subsidies pro-poor in the developed country and subsidy impact on the Indian economy.

Objective of the study

1. To study the impact of direct and indirect subsidy on farmers;
2. To compare and contrast the fertilizer and power subsidy between general farmers and SC/ST farmers in levels of agricultural productivity of Karnataka;
3. To analyze the overall effect of differences in the levels of input subsidy used by various categories of frames on crop pattern, cropping intensity, adoption of improved technology, input use, crop productivity and cost returns
4. To validate the data and offer constructive suggestions.

Methodology

The present study is based on primary as well as secondary data. The districts of have been divided into three regions on the basis of levels of agricultural productivity. Average productivity is estimated by aggregation of the output of ten major crops of the state for the year 2015-16. Keeping in view the differences in agro-climate conditions and to avoid the geographical contiguity of sampled districts, it is deemed fit to select Bagalkot from irrigated non irrigated area and vijapur from district. There are four village of Bagalkot, four of Bijapur each. Following random sampling, two villages from each Hobali is selected, thus twelve villages are selected from two districts. Sampled farmers have been divided into three categories on the basis of their farm size, small size category farmers are those who own land up to five acres, medium size category farmers own land between five to ten acres and large size category farmers own land above ten acres. A detailed questionnaire is prepared for collecting information about the agriculture subsidies. Standard statistical tools like, percentages have been used while carrying out tabular analysis.

In addition to primary data, secondary data is used in this study. The main sources of secondary data are Karnataka State Electricity Board, Statistical Abstract of Karnataka, Economic Survey of Karnataka, Karnataka Human Development Report, Karnataka State Electricity Regulatory Commission etc.

Research Methodology

Designing a suitable methodology and selection of analytical tools are important for a meaningful analysis of any research problem. In this section an attempt has been made to describe the methodology of the present study. It includes nature of data, primary data source of secondary data, study area, period of study, sampling size, tools of collection of data, tools of analysis and measurement of variables.

Nature and Source of Data

The present study will be based on the primary. The primary data will be used in this study. The main sources of secondary data relating to the location, climate, rainfall, soil type, land utilization pattern, operational land holdings, sources of irrigation, area, cropping pattern, marketing, infrastructural facilities and the like were collected for the district and the taluk levels from the district collectorate, Bagalkot and Vijayapur the statistical office at Bagalkot district. State Planning Board Census report, District at a Glance, Karnataka state Agricultural department, Statistical Abstract of Karnataka, Economic Survey of Karnataka, Agriculture census, State Budget etc. Personal interview method has been adopted to collect primary data regarding the farm structure, size of holding, cropping pattern, costs and returns, subsidies enjoyed and other aspects relating to the overall objectives of the study.

Study Area

Bagalkot and vijayapur districts are located in the northern part of Karnataka state in India. The district is one of the most important districts in Karnataka where there has been significant agricultural development particularly, the annual crops, Sugarcane and Maize. In spite of these production Jowar and Bengal Gram is main perennial in this districts. Here, the soil and climatic conditions are highly suitable and favorable for these crops cultivation. As per records, a majority of farmers are utilizing major subsidies at all levels of agricultural activities. These are the main reasons for selecting Bagalkot and vijayapur districts as the study area for the present analysis.

Period of Study

The field investigation was carried out from September 2015 to March 2016. The reference period of the survey is 2015-16.

Sampling and Size

Stratified multi-stage proportionate random sampling technique has been adopted for the study, taking Bagalkot and vijayapur districts. As the selecting 200 respondent, 4taluka, in the 8 village as the primary unit of sampling and the subsidy farmer all crops cultivating farmers as the ultimate unit.

Importance of The Present study

Subsidies are often criticized for their financial burden. Some researchers assert to the extent that these should be withdrawn in a phased manner, such a step will reduce the fiscal deficit, improve the efficiency of resources use, funds for public investment in agriculture. On the other hand, there is a fear that agriculture production and income of farmers would decline if subsidies are curtailed. These are very important issues, which need serious investigation.

1. **Total Agricultural Subsidies**

When direct and indirect subsidies were combined together, it was noticed that in irrigated area the amount per hectare of gross cropped area was quite higher for indirect subsidy than the direct subsidy. This was also true for dry area. In this area the average amount of indirect subsidy was Rs.589 as compared to Rs.423 in the case of direct subsidy. The total picture for all the districts combined was such that the amount of indirect subsidy per hectare was Rs.722 as compared to Rs.550 for direct subsidy. Caste wise difference was such that the subsidy for farms of other castes people was Rs.1, 489 as compared to Rs.909 for farms of SC/ST farmers. The total for irrigated and dry area also confirms the fact that the subsidy amount increased with the size of farms in the case of other castes farmers. However, there was no such phenomenon in the case of farms of SC/ST.

Table: 1 Total agricultural subsidies utilised by sample farmers.

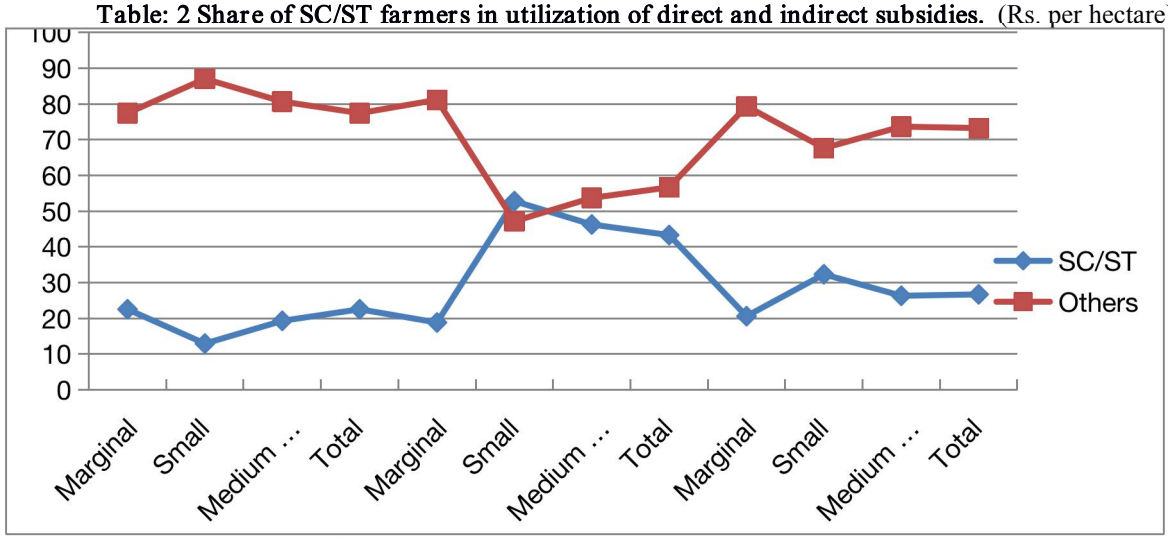
(Rs. per hectare of gross cropped area)

Farm Size	Direct			Indirect			Total		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
Irrigated area									
Marginal	56	396	291	732	809	785	788	1,205	1,076
Small	63	1,349	785	667	746	725	730	2,095	1,510
Medium + Large	38	984	658	796	850	831	834	1,834	1,489
Total	42	933	637	778	832	814	820	1,765	1,451
Dry area									
Marginal	434	841	730	442	587	547	876	1,428	1,277
Small	2,005	432	951	541	642	610	2,546	1,074	1,561
Medium + Large	262	236	249	531	652	593	793	888	842
Total	482	376	423	525	639	589	1,007	1,015	1,012

2. **Share of SC/ST in Agricultural Subsidies**

The government is interested in extending the benefits of subsidies to the weaker sections of the society and in particular to farmers of SC/ST. It will be of interest to note as to in the total subsidy given to all of farmers where do the farmers of SC/ST stand as compared to farmers of others. It was noted that in the irrigated area the share of subsidy amount enjoyed by the farmers of other castes was 81.24 per cent as compared to 18.76 per cent by farmers of SC/ST. In the case of dry area the situation was much better. The percentage of subsidy enjoyed by farms of SC/ST was 43.32 as compared to 56.68 by farms of others. For the combined picture of irrigated and dry area the percentage share for farms of other castes was 73.28 as compared to 26.72 for farms of SC/ST. This clearly shows that farms of other castes enjoyed much higher percentage of share in the total subsidy than the farms of SC/ST. It was also noted that the difference in percentage of subsidy enjoyed by other farmers in irrigated area was very significant as compared to that in dry area.

Table: 2 Share of SC/ST farmers in utilization of direct and indirect subsidies. (Rs. per hectare)



3. **Costs and Returns : With and Without Subsidy**

In this paragraph we are studying economic benefits obtained by farmers who have enjoyed subsidies against those who have not enjoyed it. There were in all eight farmers who did not enjoy the subsidy during the year. Among the irrigated area there were five such farmers two of whom belonged to SC/ST. Three farmers belonged to other castes. In dry districts there were three farmers who did not enjoy the subsidy. Of these one belonged to SC/ST and the remaining two belonged to other.

It was noted that the net return per hectare for those enjoying subsidies Rs.14, 508 and for those who did not enjoy subsidies was Rs.12,032. Thus, the net return of the farmers enjoying subsidies was 37 per cent more than those not enjoying subsidies. The net return was higher in the cases of SC/ST farmers as well as other farmers than their compatriots without enjoying subsidies. The net return was much higher for irrigated area than the dry area in both the groups with subsidy and without subsidy.

Table: 3 Gross return, cost and net return on sample farms with and without subsidy

(Rs. per hectare)

Area	Gross return			Cost			Net return		
	SC/ST	Others	All	SC/ST	Others	All	SC/ST	Others	All
With subsidy									
Irrigated	25,133	29,142	27,809	9,169	11,810	10,932	15,964	17,332	16,877
Dry	16,562	19,401	18,159	6,229	7,657	7,032	10,333	11,744	11,127
Irrigated + Dry	21,021	25,525	23,833	7,759	10,268	9,325	13,262	15,257	14,508
Without subsidy									
Irrigated	16,647	18,895	18,181	4,969	6,276	5,861	11,678	12,619	12,320
Dry	14,423	16,990	16,499	4,631	5,983	5,724	9,792	11,007	10,775
Irrigated + Dry	16,377	18,488	17,868	4,928	6,213	5,836	11,449	12,275	12,032

4. Distribution of Sample Farmers by Levels of Subsidy Use

It is observed that of the 200 selected farmers 65.50 per cent are classified as (LSU) or low subsidy users. Another 25.00 per cent are those who are (MSU) or medium subsidy users and the remaining 9.50 per cent are categorised as (HSU) or high subsidy users. Among the SC/ST farmers 70.27 per cent are LSU, 17.57 per cent MSU and 12.16 per cent HSU. Among the other castes farmers the percentage of less subsidy users was bit smaller than the SC/ST farmers. On the other hand the percentage of other castes farmers in the MSU was quite higher than the SC/ST farmers. It is thus evident that among other castes farmers the percentage of LSU was less than SC/ST farmers and MSU was higher than the SC/ST farmers. However, the percentage of SC/ST farmers in HSU was higher than the other castes farmers.

It was also observed that the percentage of LSU in dry area was higher than the irrigated districts. The percentage was lower in the case of MSU but higher in the HSU. Thus, we can conclude that the dry districts farmers have higher percentage of farmers in the LSU group and lower in MSU group.

4 Distributions of Sample Farmers by Levels of Subsidy (Rs. per hectare)

Subsidy level	Irrigated area			Dry area			Total		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
LSU (< Rs.1000/hect.)	72.97	52.38	60.00	67.57	73.01	71.00	70.27	62.70	65.50
MSU (1000=2000/hect.)	21.62	39.68	33.00	13.51	19.05	17.00	17.57	29.36	25.00
HSU (> Rs.2000/hectare)	5.41	7.94	7.00	18.92	7.94	12.00	12.16	7.94	9.50
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

5. Costs and Returns by Level of Subsidy

In the earlier chapter we have studied the gross return, cost and net return per hectare by size of farms. Here, we have studied the same by level of subsidy. It was observed that in the irrigated districts the average net return was Rs.16,741 per hectare. It was highest in the case of MSU (Rs.21,853) and in HSU Rs.18,503. Thus the difference between the two was of about Rs.3,000. In the case of dry districts the average net return was Rs.11,124 per hectare. It was highest (Rs.22,233) in the HSU followed by MSU (Rs.12,324). Thus the difference between the HSU and MSU was very significant (Rs.10,000). In both irrigated and dry districts the net returns were higher for other castes farmers than the SC/ST castes farmers. The results of combination of irrigated and dry districts showed that the average net return was Rs.14, 452. It was highest in MSU (Rs.19, 406) followed closely by HSU (Rs.19,264). However, the net returns were higher on other farms than the SC/ST farms in the combination of district also.

Table: 5. Gross return, costs and net return by level of subsidy (Rs. per hectare)

Subsidy level	Irrigated area								
	Gross return			Costs			Net return		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
LSU	22,536	24,361	23,506	9,021	9,825	9,448	13,515	14,536	14,058
MSU	34,258	34,974	34,818	13,266	12,882	12,965	20,992	22,092	21,853
HSU	33,291	30,277	30,572	13,060	11,961	12,069	20,231	18,316	18,503
Total	90,085	89,612	88,896	35,347	34,668	34,482	54,738	54,944	54,414
Subsidy level	Dry area								
	Gross return			Costs			Net return		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
LSU	14,589	16,485	15,635	4,903	6,521	5,796	9,686	9,964	9,839
MSU	27,401	23,421	24,205	13,595	11,365	11,881	13,806	12,056	12,324
HSU	25,801	47,194	34,834	12,385	12,897	12,601	13,416	34,297	22,233
Total	67,791	87,10	87,034	30,883	30,783	30,278	36,908	56,317	44,396

FINDINGS

1. When direct and indirect subsidies were combined together, it was noticed that in irrigated districts the amount per hectare of gross cropped area was quite higher for indirect subsidy than the direct subsidy. This was also true for dry districts. The subsidy amount increased with the size of farms in the case of other castes farmers. However, there was no such phenomenon in the case of farms of SC/ST. The amount of subsidy on other castes was more than double that of farms of SC/ST.
2. The net return of the farmers enjoying subsidies was 37 per cent more than those not enjoying subsidies. The net return was higher in the cases of SC/ST farmers as well as other castes farmers than their compatriots without enjoying subsidies. The net return was much higher for irrigated districts than the dry districts in both the groups with subsidy and without subsidy. This shows that the subsidy has an important role in increasing the net return of the farmers for all the castes as well as irrigated and dry districts
3. In the irrigated districts the average cost of canal irrigation per hectare came to Rs.61. It was highest in the case of MSU followed by LSU. Among different castes the cost incurred by SC/ST farmers was more than double that of other castes farmers. Paddy was the most irrigated crop and shared 79.97 per cent of the total cost incurred on different crops.
4. Agricultural subsidy is viewed as an excellent mechanism with the Indian Economy. government's initiative is successful in benefiting the farmer community. The agricultural Input Subsidy is existing for a very long time and this has been revived to be able to change with the demands of the times.
5. The Agricultural Subsidy has been able to influence the farmers to use it to optimum levels. Complexity of the Agricultural Subsidy to be in consonance with the quantum of land holding is conceded by the respondents in Bagalkot and Vijayapur. Allocation of the Agricultural Input Subsidy is questionable.
6. The Agricultural direct and in direct Subsidy which has to be useful to the needy small and marginal farmers is failing in the primary objectives of ensuring equity among the farmers.
7. The Agricultural Input Subsidy exhibits a huge gap where it fails to fulfill the objectives of the Policy.
8. The existing Agricultural Subsidy Policy has many critical gaps. It is evident that the farmers strongly contend that the Agricultural Input Subsidy is to be structured and customized through the Need based Subsidy by scrapping the present Agricultural Subsidy distribution.

Policy Implications & Suggestions

1. Subsidies in agriculture are meant to help the small and marginal farmers and weaker sections of the society like the Scheduled Castes and Scheduled Tribes farmers. For these classes of farmers the use of improved inputs and resources such as irrigation and power become burdensome and out of their reach. Due to paucity of financial backing they are deprived of improved and costly inputs. It is for this reason that government subsidises inputs like seed, fertilizers, irrigation and power. This gives them the opportunity to use the modern inputs to be in line with the other classes of better off farmers.
2. This basically needs the knowledge on the part of the weaker sections of the society, the will to use the inputs and also zeal among the field workers to help the farmers of weaker sections to have an excess to knowledge of subsidies, supply of inputs and know how to use the inputs. On the basis of the available field data it was observed that the work done so far on all these aspects has not been satisfactory. The farmers are poor, devoid of knowledge of subsidies and the overall disinterest among the officials to help them through financial institutions is evident. It is therefore, suggested that the poor farmers should be educated with regard to knowledge about recent advances in agriculture, the various subsidies in operation for different purposes and necessary funding that could be provided to them.
3. The use of indirect subsidies on the farms of small, marginal and SC/ST farmers was far less than the other castes farmers and farmers having larger size of holdings. It is a well known fact that purchase and use of improved of HYV seed was more common on larger farm sizes. This is because of the fact that the improved and HYV seed also need higher doses of fertilizers and irrigation. Resources do not allow the farmers to use these inputs of their

own. They need help of the institutional credit on easier terms. Then only they will be able to use the inputs and avail the subsidies.

4. Timely supply of inputs is of crucial importance not only for small, marginal and SC/ST farmers but for the farmers at large. Irrigation is of crucial importance for the adoption of modern recommended practices of inputs. Steps should, therefore, be immediately taken to increase the irrigation potential of the small and marginal farms and until they are provided with irrigation facilities they should be brought in the gamut of schemes such as watershed development for rain fed areas. Here also subsidies play an important role in the adoption of watershed development programmes.
5. Tremendous progress needs to be made in the crop groups of pulses, oilseeds and fibers so that their productivity is increased and the only way to do this is to implement rigorously the production programmes of these crop groups. These, of course, will need direct subsidy schemes with quite a higher allotment of funds.
6. The field survey shows that low subsidy users (less than Rs. 1,000) are small and marginal farmers and belonging to SC/ST classes go in for cultivation of food grain crops to satisfy the household requirements and also because of the small size of holdings do not offer them much scope for diversification of crops specially to commercial crops. If the policy makers decide to reduce the subsidy level on these farms these classes will face the danger of providing food security to them.

Conclusion

It can be concluded that the Agricultural Input Subsidy is an essential factor in the Indian agricultural scenario. The Agricultural Input Subsidy is instrumental in increasing the exports and reducing the imports. The farmers are getting benefitted through the scheme with huge gaps yet to be fulfilled. There is a universal and uniform way of distributing the subsidy. The large farmers are treated on par with the small and marginal farmers causing regression in the sect oral development. The Agricultural Input Subsidy has always enjoyed an important role of being .Backbone of the Agricultural sector in India and has elevated the Indian Economy. An ideal subsidy distribution based on the economic levels, size of the holdings, and fertility of the soil can bring the lamenting small and marginal farmers belonging to the neglected section of the society to the main stream. The individual social responsibility of the large farmers may result insuring thinning the small farmers so that the issues related to the small and marginal farmers belonging to SC/ST get a proper focus. It is the economically weaker category farmers who suffer and get worst affected in the instances of shortage of the agricultural subsidies. A different Slab rate which is in fact, a meticulous way to work out the subsidy distribution is missing and the present policy is largely benefiting the large farmers. The funds are also lacking with the poor farmers making them incapacitated to use power subsidy which calls for the Pump sets and other infrastructure. Power subsidy can be worthy to the small and marginal farmers only if it is backed by the Parallel incentives.

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