

**AGRICULTURAL INPUT SUBSIDIES IN KARNATAKA:  
QUANTUM OF SUBSIDIES TO SC/ST FARMERS**

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## CONTENTS

Preface

Acknowledgement

- Chapter I : Introduction
- Chapter II : Agricultural Input Subsidies in  
Karnataka: An Overview
- Chapter III : Agro- Economic Profile of the  
Selected Districts and Sample  
Farmers
- Chapter IV : Utilisation of Agricultural Subsidies:  
Evidence from Field Survey
- Chapter V : Effects of Input Subsidies on  
Agriculture
- Chapter VI : Summary and Conclusions

References

## **PREFACE**

Subsidies to the agricultural sector have been one of the important points under debate in the recent past, especially in the context of increasing fiscal deficits and misuse of the financial resources. It is also alleged that subsidies have a crowding-out effect on the farm investment. Above all, the arguments brought out very sharply in the literature relate to the misuse of subsidies by the rural power groups other than the targeted groups. It is very categorically argued that subsidies are pocketed by a few better-off farmers and influential rural elites. Keeping these points in view, a research project was initiated by the Ministry of Agriculture on assessing quantum of subsidies reaching to the farmers belonging to Scheduled Castes and Scheduled Tribe groups. This research project was co-ordinated by the Agro-Economic Research Centre, University of Delhi and the coordinators provided a complete design for the project. The present study was carried out by Dr M.Mahadeva, Associate Professor, at the Agricultural Development and Rural Transformation (ADRT) Unit. The study provides estimates of the quantum of subsidies going to Scheduled Castes and Scheduled Tribe farmers both through the direct route and indirectly in terms of utilizing the subsidy resources. The study clearly brings out that all is not well in the field. The subsidies do not reach in the adequate quantum to the farmers belonging to Scheduled Castes and Scheduled Tribes. The study also brings out the pattern of utilisation of subsidy and subsidy inputs across the irrigated and rainfed farmers. On the whole, the study clearly brings out an urgent need to have a look at the present policy of subsidies, if these need to impact welfare of the poor. I am sure that this study will be of significant use to the policy makers and researchers in the field.

**July 3, 2004**

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Notwithstanding the role of the input subsidies in increasing agricultural production and productivity over the years, it has been realised that these subsidies have contributed to a great extent in increasing fiscal indiscipline, in general, and growing incidence of fiscal deficits of the governments of national and state, in particular. Also, at the same time, concerns have been expressed that a large part of input subsidies are being garnered by the well-to-do farming families. As a result, the overall purposes of helping the vulnerable farming families to increase production and productivity and thereby crossing poverty as well as improving the living standard have been defeated. Thus, in the context of new economic policies as part on input reforms better targeting of agricultural input subsidies was sought to be achieved to redesign the input subsidies to make them available to the only vulnerable farming families. But, at this stage, it was also realised that retargeting measures could not be undertaken indiscriminately with out assessing the plausible ramifications and implications on the families who were cultivating at subsistence level. As the Scheduled Caste and Scheduled Tribe farming families being the most vulnerable, depended only on subsistence level of cultivation, it was decided to assess the extent to which these families were benefited from agricultural input subsidies and the problems they faced in availing these subsidies.

This study was conducted in two different agro-climatic districts of Karnataka, to study and analyse the utilisation pattern of input subsidies by different sizes of farming communities and to assess the share of Scheduled Caste and Scheduled Tribe farming families in the total input subsidies. Also, the study intended to capture the effects of input subsidies on agriculture with help of two hundred sample farming families spread over equally between the irrigated and dry areas. The Ministry, in terms of the sample design, questionnaire, methodology and analysis including the chapter design, wholly guided this study. At this stage, it is important to note that it was decided not to include the review of literature as the ADRT Unit of the institute had already documented the same in a very great detail in its report in the year 2002. Moreover, there were hardly any studies dealing with the subject matter in recent times. In view of this, any similar attempt to examine the same issue was considered as duplication of work.

I am indeed grateful to Professor R.S. Deshpande for his overall guidance and support for the study. But for his constant encouragement, this study would not have been possible. I have benefited by the academic guidance of my colleagues in the unit for which I am indebted to all of them. Thanks are also due to my colleagues Dr L Venkatachalam, Mr. M K Mohan Kumar, Irana Gouda Patil, Mr. Rajeev Kumar, Mr. N Praveen and Mr. M Lingaraju for their help at various stages of the report. Comments and Suggestion are welcome on the report since the author alone is responsible for the mistakes.

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# CHAPTER I

## INTRODUCTION

Indian agriculture for long has been characterized for its subsistence cultivation by a large segment of farming community and especially the marginal and small farmers who form the majority. This is largely due to a large number of uneconomic holdings, lack of access to new cultivation methods that comes with technological innovations and lack of institutional support. However, ever since the initiation of development planning efforts have been made to induce the farming community particularly, the lower strata of farmers to cross the threshold of subsistence cultivation and then increase access to the adoption of new techniques of production through various development programmes. In fact, over the years, growing more with new techniques has been seen as food security and thereby arresting deprivation. One of the institutional supports to agriculture development in India has been that of fiscal incentives in the form of input subsidies (Mundle and Rao 1991). This strategy was necessitated in order to achieve higher growth in the production front and then bring about equity in fiscal incentives. In fact, the latter has been given more emphasis in order to help the marginal and small farmers to come out of poverty besides ensuring food security. Unfortunately, what is yet to be established in literature is how fiscal incentives like input subsidies have been able to arrest poverty and bring about food security in them (Parikh and Suryanarayana,1992). Similarly, the impact of fiscal incentives on the living standard improvement among the marginal and small farmers belonging to Scheduled castes and Scheduled tribes.

One of the greatest challenges that India faced during the late seventies and early eighties following the severe drought in the preceding years was the adoption of new agricultural production technology for which the farming community was not prepared owing to its huge capital requirement. Since then India realizing the need for increasing the agricultural productivity, it adopted the strategy of input subsidies as one of the facilitating instruments (Deshpande and Reddy 1992). The input subsidies are being provided to the farmers explicitly and implicitly with two prominent intentions (Gulati 1989). One, to meet a part of the cost of the input and other being, increasing access to inputs by the disadvantaged farming groups. Under explicit subsidy, inputs like high yielding or improved variety of seeds, agricultural implements, plant protection chemicals and equipment are being supplied at less than market prices, whereas under implicit subsidy, which is hidden

in nature, the prices of such inputs have been kept lower than their economic costs. While receiving such subsidies the users are always under the impression that they are paying towards such subsidies without being aware of the fact that these inputs are under-priced or the prices that they have paid is less than their costs. Therefore, it goes without saying that the factors (fertilizers, water, electricity, credit and others) costs have been under-priced deliberately to protect the farmers from their high costs in the market and to increase adoption of new technology (Gulati NS Sharma 1991).

At the state level, there have been a number of schemes to provide subsidies, in general and input subsidies, in particular, to the farming community. These schemes ranged from providing quality (certified) seeds (wheat, paddy, cotton, maize, ragi, paddy, bajra, jowar, sugarcane etc) to educational tour of the farmers to expose them to new practices of cultivation both within the state or in any part of the country. Equipment for sowing, cultivation, plant protection, micro protection material, quality cultivation, bio-fertilizers, seed treatment are being provided to the most disadvantaged farmers. Insurance premiums are being provided to the companies on behalf of the vulnerable farmers. That apart, bio-pesticides, weed pesticides, neem pesticides are being provided besides supplying green leaves for compost making in the state. Towards all the above components of input subsidies the government has incurred a total expenditure of RS 18.18 crores in the financial year 1999-2000 (Deshpande *et al* 2002).

Food subsidy is yet another important fiscal incentive aimed at supplying certain food items at subsidised prices to the poorer sections including the farming community. Two objectives have been sought to be achieved by supplying food at concessional rates. First, support the producers with market support prices and then ensure minimum level of food security to the poorer section. Food subsidy is the difference between the economic costs of food items and their issue prices. Under the essential commodities act, food items like wheat, sugar, rice, kerosene and many other items are being supplied through public distribution system to the various target groups.

There are four types of studies available on agricultural subsidies starting from estimation of subsidies, subsidy policy, impact of subsidies to beneficiaries of subsidies (Deshpande *et al* 2002:4-8). With regard to the last issue of who benefits from subsidies though policy makes no discrimination between the users of subsidies, but at the implementation level, it has been clearly identified that only affluent farmers garnered the

benefits owing to their large holding size. These farmers have obviously garnered a large share in irrigation, fertilizers and other subsidies. However, though the issue of cross-sectional (by social groups and by farming holdings) impact of input subsidy is very crucial under different agro-climatic conditions none of these studies has attempted to examine the issue. In fact, such an analysis would have assisted policy corrections if there were any flaws in the implementation and would have helped for better targeting of input subsidies. Surprisingly the study of Deshpande *et al* (2002), which is a comprehensive state level one has also not attempted to study the cross-sectional impact of the input subsidies. In view of the need for such an analysis, the present study has been initiated. Following are the specific objectives of the present study.

### **Objectives**

- (I) To examine the utilization pattern of subsidies by different categories of farmers.
- (II) To assess the share of SC/ST farmers in the total amount of subsidies given.
- (III) To analyze the overall impact of differences in the levels of input subsidy used by various categories of farmers on crop pattern, cropping intensity, adoption of improved technology, input use, crop productivity and returns.

### **Methodology**

The present study has covered both direct and indirect input subsidies largely based on the field data. One district from each of the two different agro-climatic regions was selected to administer the questionnaire. Levels of irrigation being the principal criterion for the selection of the field area, Shimoga and Gulbarga were selected as the irrigation area to the gross cropped area was more than 30 per cent in Shimoga and the same was very less in the case of Gulbarga. Shimoga recorded the highest area under irrigation with 49.74 per cent of the GCA (cultivable waste + net cropped) as against 11.08 per cent in Gulbarga, which was lowest in the entire state (GOK 2001). On the basis of availability of different categories of SC/ST cultivators, villages were carefully selected in consultation with field level departmental functionaries. In all, primary data were collected from 200 farmers representing all sizes of farming, @ 100 farmers from each district representing 100 farmers from SC/ST categories and the remaining 100 farmers from other communities. Similarly, on the basis of the proportion to the total number of farmers and

farming sizes, farmers were selected through stratified sampling method. Thus the analysis is based on the responses of 58 marginal farmers (29 per cent), 69 or 34.5 per cent small, 41 or 20.5 per cent semi- medium, 27 or 13.5 per cent medium and 5 or 2.5 per cent large farmers spread over in two different study areas

The total direct and indirect subsidies during kharif and Rabi seasons have been collected separately in rupee terms for SCs/STs and other farmers both in irrigated and dry areas. Similarly, the food subsidies in terms of the total food item by total quantity consumed by farmers by their farming sizes and by social groups have been calculated. With regard to the problems faced by the farmers in availing subsidies, the difficulties have been identified on the basis of selected parameters by the size of farming and by areas. Finally, to assess the effectiveness of various subsidies, per hectare utilization pattern of subsidies across social categories of farmers, farming size, by crops separately for fertilizers, irrigation, and power. Costs and return of subsidies per hectare and by crops have also been worked out for the year 1999- 2000.

## CHAPTER II

### AGRICULTURAL INPUT SUBSIDIES IN KARNATAKA: AN OVERVIEW

Public Provision of agricultural input subsidies is directly related to the development focus of the agricultural sector. Cropping pattern, use of high yielding varieties including fertilizers, development of irrigation, consumption of power and several other factors determine the quantum of agricultural subsidies. Like in any other states of the country, Karnataka has also been a state, which believed in incentive based agriculture promotion for several decades. This chapter throws light on the schemes and pattern of agricultural input subsidies (both direct and indirect) during the year 1999-2000.

#### **Direct Subsidies**

Both the central and state governments under the various schemes of agricultural development provide direct subsidies. These subsidies are aimed at popularising cultivation of certain crops and adoption of new technologies available for the purpose (Deshpande 2002). Since late nineties was known as the era of promotion of agricultural produces on large scale for export purposes with the help of application of new cultivation methods, direct subsidies were provided to comply with the focus of development in the state. It is evident from the fact that under the direct subsidy, great emphasis has been laid on the development of horticultural crops especially for the popularization of certain crops, over the agricultural food crops. Table 2.1 clearly indicates the two different streams of direct subsidy. Under the direct subsidy, a total amount of Rs 71.14 crores was provided during the period under review. Out of this, an amount of Rs 46.91 crores was invested in the horticulture stream, which accounted for 65.94 per cent in the total and the rest of Rs 24.23 crores or 34.06 per cent in the agriculture stream. If development of different specific horticulture crops was the main focus of the direct subsidy in the Horticulture stream, in the case of agriculture, meeting the regular needs of different varieties of seeds and agricultural equipments of farmers was the purpose. Development of bio- fertilizers and pesticides was also emphasized to some extent in the state. Significantly, the Central Government had played a critical role in the supply of direct subsidy in the Horticulture and agriculture streams. It is evident from the fact that of the total direct subsidy of Rs 71.14

crores, Central Government had provided a total amount of Rs 43.37 crores or 60.96 per cent as against the State share of Rs 27.77 crores or 39.04 per cent.

## **Horticulture**

In the horticulture stream, as mentioned already, development of a variety of crops was emphasized. On cost sharing basis crops like spices, cocoa, tropical and arid zone fruits, cashew, and oil palm were developed by and large on 75:25 per cent basis between the central and the state governments. Crops, such as mushroom, vanilla, grapes and several other crops including commercial floriculture were encouraged purely by the state government. Out of the total amount of Rs 9.47 crores, Central and State Governments had respectively shared Rs 6.32 and Rs 3.15 crores as direct subsidies. Secondly, development of horticulture gardens was an integral part of the overall action plan, on cost sharing basis. Under the programme, development of coconut was given top priority under the wholly financed programme of the central government. The crop accounted for a total subsidy of Rs 1.32 crores, which was in turn, accounted for over 68 per cent in the respective total. Similarly, on the same line, the development of nutritional garden in rural areas with the sole support of national horticulture board was implemented at the cost of Rs 7 lakhs. In case of all other schemes, the state government played an important role. However, the disheartening fact was that the state government's role in the development of horticulture gardens appeared to be half-hearted as is clear from the Table that it was only 28 per cent of the total cost. Finally, under the other programmes, drip irrigation and pest and diseases control measures were prominent, by and large, at equal cost sharing basis by the central and state governments. Especially, development of drip irrigation was given the exemplary importance owing to its dire necessities of the horticulture crops in the state. It may not be surprising that drip irrigation accounted for Rs 33.62 crores or 94.68 per cent in the total amount of Rs 35.51 crores and account to around 73 per cent in the direct subsidy of the horticulture stream. Further, the other schemes, which were implemented on equal cost sharing basis, were the special component and tribal sub-plans in the horticulture wing, whose subsidy amount was negligible. The total direct subsidy incurred on implementation of SCP and TSP was only in the order of Rs 0.84 crore or 1.79 per cent of the entire direct subsidy provided in the horticulture stream.

## **Agriculture**

Seeds and equipment distribution, development of bio-fertilizers and pesticides and others are the important avenues of providing direct subsidy in the agricultural activities in the state. Meeting the regular needs of various varieties of seeds of the farming community perhaps accorded priority. The subsidy in the form of certified seeds have been provided (a) purely by central assistance (Variety wheat, paddy, oil and maize seeds) (b) purely by state assistance (green leaves, fertilizers and seeds) and (c) sharing of the cost by both the governments (paddy, maize, ragi, jowar and cotton seeds). The central government has heavily shared the responsibility of subsidy. It is clear from the table that, of the total direct subsidy of Rs 8.41 crores meant for distribution of variety seeds, Central government had provided a major chunk of Rs 7.68 crores (91.32 per cent). Against this, the state had provided only Rs 0.73 crore (8.68 per cent). However, in the case of distribution of equipment for agricultural operations, which was the second avenue of subsidy distribution state had increased its role and its share in the total cost. A total amount of Rs 6.94 crores has been provided for the distribution of different equipment, in which the state government incurred to the tune of Rs 3.33 crores (or 48 per cent). What is significant was that the sugar based equipment alone garnered a major chunk of Rs 2.60 crores out of the state government investment. Thirdly, the state government implemented bio-fertilizers and pesticides including compost pits, and the neem pesticides plants being the second largest avenue. Unfortunately, these schemes were implemented with insignificant amount of subsidy. The total subsidy provided was only in the order of Rs 0.80 crore to implement these schemes, which was eight times lower than the centrally sponsored scheme, namely, Distribution of Micro Protection Materials at the cost of Rs 6.40 crores. Finally, the education tour of farmers and payment of insurance on insured crops, which together accounted for Rs 1.68 crore were implemented solely by the state. Between the two schemes priority was laid on the payment of premium.

### **Indirect subsidy**

Indirect subsidy on agricultural inputs is the difference between the cost of delivering inputs and the actual payment received from the users or farmers. Indirect subsidy is as similar as financial losses incurred by different authorities/suppliers on account of lower payment, which is less their cost of production. It could also be termed as un-recovered capital and variable cost of the inputs supplied, which would have incurred

higher costs in their production. It is important to note that the rate of recovery of the cost of major inputs has been less than 1 per cent in the state. Especially, it was only 0.88 per cent in the irrigation sector (Raju and Amarnath 2002) and was Rs 0.31 per Kwh of power (Vivekananda 2002). For the year 1999-2000, the state government had provided Rs 3,822.79 crore as indirect subsidy in the agriculture sector for the provision of fertilizers, irrigation and power (Table 2.2). Out of the total indirect input subsidy, irrigation cost alone accounted for Rs 1,779.99 crore (46.56 per cent), followed by power sector to the tune of Rs 1,630.64 crore (42.66 per cent) and very lowest in the fertilizers front with 412.07 crores (10.78 per cent). Rs 93.77 lakhs being the total consumers of indirect input subsidies, the average subsidy per farmer and per hectare worked out to Rs 4,077/- and Rs 3,157/- respectively in the state. However, it can be noted that there has been uneven distribution of indirect subsidy by each input. The average fertilizers, power and irrigation subsidy per farmer were in the order of Rs 662/- Rs 13,991/- and Rs 8,940/- and similarly it was Rs 3,403/-, Rs 1,347/- and 1,470/- per hectare respectively.

### **Total Subsidy**

After having analysed the direct and indirect subsidies separately for the year 1999-2000, it has been attempted to review the total input subsidy including per hectare and per farmer in the state. It is clear from Table 2.3 that indirect subsidy in the form of unrecovered cost or financial loss was very huge to the tune of over 98 per cent in the total input subsidy. It is further evident that the same worked out to Rs 3,157/- per hectare and Rs 6,1425/- per farmer as against a mere Rs 58/- and Rs 114/- respectively in the case of direct subsidy. Together (direct and indirect), the average input subsidy per hectare and per farmer was in the order of Rs 3,215/- and Rs 6,259/- respectively in the state.

**Table 2.1: Agricultural Input Subsidies in Karnataka (Direct) – 1999-2000**

(Rupees in Crores)

Agriculture				Horticulture			
Scheme	Central	State	Total	Scheme	Central	State	Total
<b>Seeds Distribution</b>				<b>Development of Specific Crops</b>			
- Provision of Seeds (C+S) (Paddy, Maize, Ragi & Jowar)	0.15	0.30	0.45	-Spices, Cocoa, Tropical & Arid Zone Fruits (75:25)	4.00	1.33	5.33
- Variety Wheat Seeds ©	0.01	-	0.01	-Mushroom	-	0.28	0.28
- Variety Paddy Seeds ©	0.22	-	0.22	-Cashew (75:25)	0.89	0.30	1.19
- Certified Cotton Seeds (c+s)	0.75	0.24	0.99	-Coconut (50: 50 CBD)	0.18	0.18	0.36
- Green Leaves Fertilizers Seeds (s)	-	0.19	0.19	-Oil Palm (75:25)	1.25	0.42	1.67
- Oil Seeds (c)	6.40	-	6.40	-Vanilla	-	0.10	0.10
- Maize Quality Seeds (c)	0.15	-	0.15	-Grapes (Exportable)	-	0.02	0.02
<b>Total</b>	<b>7.68</b>	<b>0.73</b>	<b>8.41</b>	- Mini Kits in Fruits & Vegetables	-	0.25	0.25
<b>Equipment Distribution</b>				- Commercial Floriculture	-	0.27	0.27
- Sugar Based (s)	-	2.60	2.60	<b>Total</b>	<b>6.32</b>	<b>3.15</b>	<b>9.47</b>
- Cultivators, Sowings, Plant Protection etc (75:25)	1.50	0.50	2.00	<b>Development of Horticulture Garden</b>			
-Seeds and Manure Planting Quality Equipment (90:10)	2.11	0.23	2.34	- Integrated Farming in Coconut	1.32	-	1.32
<b>Total</b>	<b>3.61</b>	<b>3.33</b>	<b>6.94</b>	- Organic Farming in Horticulture	-	0.21	0.21
<b>Bio- Fertilizers &amp; Pesticides</b>				-Namma- Mane Namma- Thota	-	0.26	0.26
- Bio –Fertilizers (s)	-	0.08	0.08	-Karnataka Floriculture Village	-	0.05	0.05
- Quality Compost & Pits( s)	-	0.17	0.17	-Nutritional Garden in Rural Areas (NHB)	0.07	-	0.07
- Bio-Pesticides & Neem Pesticides Plants (s)	-	0.55	0.55	- Aromatic and Medicinal Plant	-	0.02	0.02
Micro Protection Materials ©	6.40	-	6.40	<b>Total</b>	<b>1.39</b>	<b>0.54</b>	<b>1.93</b>
<b>Total</b>	<b>6.40</b>	<b>0.80</b>	<b>7.20</b>	<b>Others</b>			
<b>-Others</b>				- Integrated Control of Pests & Diseases in Horticulture Crops	0.74	0.31	1.25
- Education Tour of Farmers	-	0.50	0.50	- Special Component Plan	0.23	0.23	0.46
- Insurance Premium on Crops	-	1.18	1.18	- Tribal Sub- Plan	0.19	0.19	0.38
<b>Total</b>		<b>1.68</b>	<b>1.68</b>	- Drip Irrigation	16.81	16.81	33.62
<b>Grand Total</b>	<b>17.69</b>	<b>6.54</b>	<b>24.23</b>	<b>Total</b>	<b>17.97</b>	<b>17.54</b>	<b>35.51</b>
				<b>Grand Total</b>	<b>25.68</b>	<b>21.23</b>	<b>46.91</b>

**Table 2.2: Agricultural Input Subsidies in Karnataka (Indirect) – 1999-2000**

(Rupees in Crores)

Inputs	Quantity	Total Subsidy (Rupees in Crores)	Total Consumers	Average Subsidy Per Farmer	Average Subsidy Per Hectare
Fertilizers (In Tonnes)	1,2539,11	412.07 (10.78)	6,221,000	662	3,403
Power Sale for Agriculture/ Irrigation (MKWh)	6,309	1,630.64 (42.66)	1,165,485	13,991	1,347
Irrigation	-	1,779.99 (46.56)	1,991000	8,940	1,470
<b>Total</b>	<b>-</b>	<b>3,822.79</b>	<b>9,377485</b>	<b>4,077</b>	<b>3,157</b>

Source: *Subsidies for Agriculture in Karnataka* (2002), Agricultural Development and Rural Transformation Unit, ISEC, Bangalore.

**Table 2.3: Total Agricultural Input Subsidies in Karnataka (Direct+ Indirect) – 1999-2000**

(Rupees in Crores)

Input Subsidies	Total Amount (Rupees in Crores)	Average Subsidy Per Hectare (In Rupees)	Average Subsidy Per Holding (In Rupees)
<b>Direct</b>	<b>71.14(01.83)</b>	<b>58.75</b>	<b>114.36</b>
<b>Indirect</b>	<b>3,822.79(98.17)</b>	<b>3,157.07</b>	<b>6,145.18</b>
<b>Total</b>	<b>3,893.93</b>	<b>3,215.82</b>	<b>6,259.53</b>

Source: *Subsidies for Agriculture in Karnataka*, (2002), Agricultural Development and Rural Transformation Unit, ISEC, Bangalore.

## CHAPTER III

### AGRO-ECONOMIC PROFILE OF THE SELECTED DISTRICTS AND SAMPLE FARMERS

#### I

Shimoga and Gulbarga are the two important districts in the State known for their diversities economically and agriculturally. Shimoga is situated in the mid-south- western part of the State. It is bestowed with mountainous terrain in the western area, while on the eastern side is a largely forested- hilly region known for heavy rainfall. A part of this district is endowed with open region. The district is situated between 13' 27' and 14' 39' north latitude and between 74' 38' and 76' 4 east longitude. Its greatest length from north to south is 128.8 kilometres and east to west is 152.9 kilometres. It is bounded on the east by Chitradurga district, on the south by Chickmagalur district, on the west by North and South Kanara districts and on the north by Dharwar and Chitradurga districts. Gulbarga district is situated in the northern part of the State and is one of the three districts in the Hyderabad-Karnataka region. The district occupies a central place with Bidar and Raichur districts to its north and south respectively. It lies between longitude 76' 04' and 77' 42' and latitude 16' 12' and 17' 46'. It is bounded on the north by Bidar district of Karnataka and Osmanabad district of Maharashtra States, on the east by Medak and Mehboobnagar districts of Andhra Pradesh, on the south by Raichur district and on the west by Bijapur district of Karnataka State and Sholapur district of Maharashtra State.

Geographically, these districts account for 4.41 and 8.56 per cent of the total area and 3.23 and 5.74 per cent of the total population in the State, respectively (1991 Census). Notwithstanding the low geographical area, Shimoga district has registered higher density of 172 persons per square kilometre as against 159 persons in Gulbarga. Males predominate in both the districts. Over one three-fourth of the population (76.38 per cent) live in rural areas which is higher than the State average of 69.09 per cent and as compared to 67.56 per cent in Shimoga. As with the rest of the State, both the districts registered a drop in average rainfall during the last three years. At the State level although the rainfall drop was only 49 mm (1,265 mm in 1998-99 to 1,216 mm in 2000-01), it was over two and five times respectively in Shimoga (99 mm) and Gulbarga (254 mm). Gulbarga accounted to around 6 per cent of the total work force as against just 3 per cent in Shimoga with main workers constituting a majority. Though in terms of agricultural

workers as percentage of total workers were more in these districts as compared to State, Gulbarga accounted for over 41 per cent, which was around 15 per cent and over 10 per cent more than the State and Shimoga averages, respectively. However, in the case of cultivators, Shimoga was a little ahead of the State, in particular, leave alone Gulbarga (Table 3.1).

As far as land use pattern was concerned, both the districts has diversities. About 31 per cent of the total usable land in Shimoga were under forest, which was 9 per cent of the total forest area in the State, whereas Gulbarga had only around 4 per cent of its usable land under forest and accounted for only 2 per cent in the State. This could be a sufficient indicator for the agricultural backwardness of Gulbarga district along with drastic drop in rainfall over the years. Though the net area being sown was higher in Gulbarga (around 77 per cent) as compared to the State average of 59 per cent and just 28 per cent in Shimoga, over 19 per cent of the land in Gulbarga was fallow, uncultivated and not available for cultivation as against 40 and over 26 per cent in Shimoga and in the State respectively. At this juncture, it can be said that larger sown area in Gulbarga had hardly any effect in containing the backwardness of the district. Net area irrigated is less in Gulbarga (11.67 per cent in net sown area) as against about 52 per cent in Shimoga and a little over 20 per cent in the entire State. Only around 17 per cent of it had been sown more than once, which was even more than the State average. Further, with varying extent of irrigation in Shimoga, Gulbarga and in the State, there existed diversity across the sources. Though canal is the main source of irrigation in the case of Gulbarga (like the State Scenario), tanks played a pivotal role in Shimoga with over 50 per cent. But other importantly notable source was the wells that occupied the second position in Gulbarga, though it fell short of the State average. However, a disappointing reality was with regard to bore wells source in which Gulbarga's position was far below the State level performance.

With regards to farm size and its average, the distribution was unbalanced between the State and two districts. Gulbarga registered an average holding of 2.3 hectares, which was 0.36 and 0.67 hectares more than the State and Shimoga averages. Also, between the different sizes, Gulbarga registered a smallest portion of the marginal holdings (<1hectare) than large holdings (<more than 10 hectares) in Shimoga. This apart, Gulbarga had a large number of medium holdings (4-10hectares)(32.84 per cent), followed by semi-medium (2-4 hectares) (28.91per cent), large holdings (> 10 hectares)(17.54 per cent) and small

holdings (1-2 hectares) (17.25 per cent), whereas, Shimoga had semi-medium holdings in large numbers, followed by medium, small and marginal holdings.

As far as the cropping pattern was concerned, it is important to note that all the crops that were generally grown in the State and classified under cereals and other millets, pulses and commercial categories were also grown in the selected districts except bajra in Shimoga district. But, at the same time, it should be noted that the source of water and its share in the crop cultivation did play a deciding role. Thus, under the cereals and other millets, it was imperative from the fact that a large share of irrigation in the net sown area had prompted the farmers to grow paddy as a major crop in Shimoga district. Similarly, as a major crop jowar was being grown in Gulbarga as the district was rainfed largely. Though ragi and maize were the next important crops in Shimoga, bajra was a second important crop in Gulbarga apart from paddy with the help of the irrigation sources available. Three different pulses (gram, tur and others) were grown commonly in these districts as well as in the State with different sizes of area. Also, three different and common commercial crops (groundnut, sugarcane and cotton) were grown.

Notwithstanding the common cropping pattern (cereals and minor millets, pulses and commercial crops) of these districts *vis-a-vis* the rest of the State, there existed a wide range of difference in the yield per hectare. Before the crop wise yield per hectare is discussed, it is worth noting that irrigation had an edge over increasing yield per hectare than rainfed. It is clear from the fact that Shimoga district with more irrigation facility had registered higher yield per hectare than the State average (all cereals and other millet crops) let alone Gulbarga, in which case the yield was less than State average. In other words, the yield difference between irrigated and rain fed area was 1.48 quintals (Shimoga and Gulbarga) and is 0.7 quintal (State average and Gulbarga). But to certain crops this argument might not hold good as there was some difference in yield owing to the climatic condition. For example, ragi though generally considered as a dry land crop, per hectare yield in Shimoga was less than the State average. Similarly, wheat in the district was grown in a negligible piece of land. But in certain other crops like jowar the influence of irrigation was highly encouraging, which is very clear from the fact that the yield difference was 0.79 quintal (State average and Shimoga). If this was the scenario in general, the comparison between irrigated/Shimoga and rainfed/Gulbarga was certainly not justified as there existed huge difference in the yield for the crops referred. The argument hold good for commercial crops in reference. However in the case of pulses the yield difference was marginal

whether in irrigated or rainfed area. This might be due to the dry nature of crops or for change in climatic conditions.

The total fertilizer (Nitrogen (N), Phosphate (P) and Potash (K)) distribution in the entire State was in the order of 1,271,881 tonnes by the year 1999-2000. Of this total, Shimoga and Gulbarga districts respectively consumed 47,938 and 45,251 tonnes, which worked out to 3.77 and 3.56 per cent. It could only be said that irrespective of irrigated or rainfed, the consumption pattern of fertilizer was by and large same as the difference between Shimoga and Gulbarga is only a marginal i.e., 2,687 tonnes. This was especially true in the case of Nitrogen. The difference was again only 221 tonnes more in Shimoga district, whereas in the case of Phosphate, the consumption far exceeded in Gulbarga to the tune of 7,030 tonnes than in Shimoga. Similar was the case with Potash, whose consumption was more in Shimoga to the order of 9,496 tonnes than in Gulbarga district.

Table 3.1: Selected Indicators of Shimoga and Gulbarga Districts

Particulars	Selected Districts		State
	Shimoga (Irrigated)	Gulbarga (Rain Fed)	
Population	<b>1,452,259</b>	<b>2,582,169</b>	<b>44,977,200</b>
Male	739,561	1,316,088	2,29,51,916
Female	712,698	1,266,081	22,025,284
<b>Rural</b>	<b>981,171</b>	<b>1,972,366</b>	<b>31,069,412</b>
Urban	471,088	609,803	1,390,788
<b>Area (Square Kms)</b>	<b>8,465</b>	<b>16,224</b>	<b>191,791</b>
<b>Rain fall (MM.)(Actual)</b>			
1998-99	2,063	1,059	1,265
1999-00	2,014	637	1,200
2000-01	1,957	805	1,216
<b>Total Workers</b>	<b>581,754</b>	<b>1,112,191</b>	<b>18,796,797</b>
Main	542,419	1,039,922	17,202,116
Marginal	39,335	72,269	1,594,681
Agri. Labourers (%)	30.92	41.45	26.60
Cultivators (%)	32.70	28.45	31.47
<b>Land Use Pattern</b>	<b>882,311</b>	<b>1,847,341</b>	<b>20,873,310</b>
Forest	276,855	68759	3,062,769
Land not available for cultivation	101,295	127,406	2,094,679
Other uncultivated land	214,252	51,248	1,735,327
Fallow Land	41,772	179,779	1,667,841
Area Sown	248,137	1,420,149	12,311,594
<b>Farm Size (Hectares)</b>	<b>387,457</b>	<b>1,391,114</b>	<b>12,108,667</b>
Marginal (<1 hect)	62,981	48,008	1,248,282
Small (1-2 Hect)	98,331	240,027	2,479,903
Semi- Medium(2-4 Hect)	103,855	402,204	3,298,412
Medium(4-10 Hect)	90,990	456,913	3,489,168
Large (>10 Hect)	31,300	243,962	1,592,902
<b>Average Size of Holding</b>	<b>1.63</b>	<b>2.30</b>	<b>1.94</b>
<b>Area Sown</b>			
<b>Net sown Area</b>	<b>248,130</b>	<b>1,420,149</b>	<b>12311594</b>
Area Sown More than once & %	34,524 (13.91)	237,133 (16.70)	1,822,374 (14.80)
Net Irrigated Area &% in Net Sown Area	128,733 (51.88)	165,813 (11.67)	2,491,871 (20.24)

(Contd)

Particulars	Selected Districts		State
	Shimoga (Irrigated)	Gulbarga (Rainfed)	
<b>Sources of Irrigation (%)</b>			
Canals	35.14	72.98	38.21
Tanks	50.49	4.63	10.23
Wells	1.58	17.42	19.22
Bore wells	4.89	2.82	18.05
Lift	1.24	0.21	3.94
Others	6.66	1.94	10.35
<b>Crop Pattern (Hectares) &amp; Yield Per Hectare</b>			
<b>Cereals &amp; Minor Millets</b>			
Paddy	158,633(2.42)	22,202 (1.86)	1,426,805(2.56)
Ragi	8,702 (1.44)	5 (0.80)	1,030,679(1.68)
Jowar	2,215 (1.68)	375,976 (0.63)	1,849,867(0.89)
Bajra	—	74,628 (0.64)	417,113 (0.68)
Maize	8,295 (3.87)	2,021 (2.90)	512,368(3.26)
Wheat	4 (0.50)	21,882 (0.50)	268,981(0.81)
Other	139 (0.52)	1,996(0.43)	89,977(0.46)
Total	177,988 (2.43)	363,983 (0.95)	5,595,790(1.65)
<b>Pulses &amp; Commercial Crops</b>			
Gram	332 (0.56)	119,488 (0.52)	355,326(0.57)
Tur	508 (0.46)	273,391 (0.45)	475,396(0.46)
Others	1,120 (0.21)	2,136 (0.16)	108,023(0.29)
Total	1960	395,015	9,38745
<b>Groundnut</b>	5,399(1.20)	118,005(0.68)	1,230,022(0.97)
Sugarcane	11,233(111.15)	8,658(95.0)	338,761(102.64)
Cotton	18,011 (2.35)	20,113 (1.92)	6,364,959(1.53)
<b>Gross Cropped Areas (In Hect)</b>			
Cereals & Millets (Paddy,Ragi,Jowar,Bajra, Wheat & Others)	177,988 (3.18)	4,98710 (0.09)	5,595,790
Pulses (Gram, Tur & Others)	110,61(0.61)	538,969(29.61)	1,819,963
Commercial (Groundnut, Sugarcane,Cotton & Mulberry)	34,643 (1.54)	146,776 (6.66)	2,205,278
<b>Fertilizer Consumption</b>	<b>47,938</b>	<b>45,251</b>	<b>1,271,881</b>
Nitrogen (N)	21,957	21,736	681,414
Phosphate (P)	14,176	21,206	374,401
Potash (K)	11,805	2,309	216,066

Sources: 1. Karnataka At A Glance, 1998-99,1999-2000 and 2001-02.

2. Shimoga and Gulbarga At A Glance, 1998-99,1999-2000 and 2001-02.

The total population of the sample households in these districts together worked out to 1,464. Male population being the large segment with 508, women and children respectively formed 32 and 33 per cent in the composition. Incidentally, every third person was a child. SCs and STs being the large segment in the total constituted 42 and 12 per cent, respectively. Though the composition among SCs was by and large was the same with the general scenario, but it slightly varied in the case of STs. Women and children were more in size among ST families with 34 and 38 per cent respectively. As a result, the male population formed only 28 per cent. Though, the average size of the family was over 7 persons it was even more in the case of SC families (over 8 persons) as against ST and other families which was lower than the average size. Gulbarga being agriculturally rainfed area accounted for more population per 100 families. 821 being the total population children constituted a major segment with 42 per cent followed by males (30 per cent) and female (28 per cent). The average family size was higher with 8.21 persons in Gulbarga. However, SC and ST families registered even more size per family. Much against this scenario, Shimoga as irrigated area accounted for only 643 population per 100 families and a little over 6 persons per family. Like in the case of Gulbarga, the SC families continued to have more persons per family at 7.50, which was above the average by 2 persons in the district.

As far as the population and family size across holding sizes were concerned, at the outset it could be said that lower the holding size higher was the population and *vice-versa*, except in the case of small farming in Shimoga in which case the population was slightly more as compared to other categories of farming sizes. In Shimoga, the average size of family was more among semi-medium, medium and small categories by 3.3, 0.86 and 0.33 persons respectively. Further it was highest among SC medium and semi-medium farmers with 6.07 and 5.74 persons, respectively. Whereas in Gulbarga, it was only a case with medium, large and semi-medium farmers by 4.12, 3.46 and 1.85 persons and SC semi-medium, medium and large farmers continue to have 6.99, 5.12 and 4.79 persons more than the district as well as the respective size's averages. In the case of ST medium farmers also it holds good as it is over by 5.79 persons (Table 3.2).

The farm level workers as proportion of the total population in the farming families worked out to only around one-third in the study areas except for the large and semi-medium holdings, in which case, the total farm work force was more. In the case of Semi-

medium the total farm workers, it worked out to over 4 persons and it was more by 16 persons in the case of large holdings. As can be seen in Table 3.3, it is significant to note that the farm workers (both male and female) were more among ST families as compared to SCs and others. Non-farm workers constituted around only two persons, with no persons from the ST families. Though the scale of farm workers was more in Shimoga (34.53 per cent), it was only 30.21 per cent in Gulbarga. But the interesting feature was its composition. Though in irrigated district, women workers constituted lower share, in dry district, the same constituted a little over one-third. Similarly, across different castes, the share of farm workers was more in ST families than among others under both the conditions. SC workers came next in order a bit more than average in Shimoga, and in Gulbarga with a bit less than average. Thus, the farm workers among non-SC/ST families were the lowest in these districts. Again, the share of women workers was more among ST families followed by SC families. Across different farming sizes, family farm workers were more than the average in large holdings, and in other holdings, the increasing share was marginal in Shimoga, whereas in Gulbarga, excepting semi-medium farming family farm workers, they were lower than average in all other holdings. Similarly, by male-female across holding sizes, ST women workers continued to maintain higher share in all sizes excepting large sizes in Gulbarga and in marginal as well as in small farm holdings in Shimoga. It was also true in the case of SC women workers of semi-medium and large holdings in Gulbarga and in semi- medium holdings in Shimoga.

Higher incidence of illiteracy was one of the striking features in the study areas, although Shimoga had fared well in the levels of educational achievement. About 10 per cent of the heads of the farming households had studied up to high school level followed by primary (7 per cent), middle school (3.75 per cent) and metric level (1.75 per cent). Also four per cent of the households included those who had studied various degrees. Further, the incidence of illiteracy was extreme not only among SC households with 30 per cent as against 25 and 18 amongst the ST and other households but also against the average of 24 per cent in the study areas. The incidence was even more among the marginal farmers at 29 per cent. By district, while a majority of the farmers were educated in Shimoga, whereas in Gulbarga most of them were uneducated (Table 3.4). This was

Table 3.2: Size of Families and Distribution of Workers in Irrigated and Dry Areas

Farm Size	Caste	Irrigated Area						Dry Area						Irrigated and Dry areas					
		No. of HHHs	Male	Female	Children	Total	Ave. F. Size	No. of HHHs	Male	Female	Children	Total	Ave. F. Size	No. of HHHs	Male	Female	Children	Total	Ave. F. Size
Marginal	SC	20	47	38	22	107	5.35	14	23	24	49	96	6.86	34	70	62	71	203	6.11
	ST	2	4	3	0	7	3.50	7	13	14	20	56	8.00	9	17	17	20	63	5.75
	OT	22	51	39	27	117	5.32	21	35	37	51	123	5.86	43	86	76	78	240	5.59
	<b>TO</b>	<b>44</b>	<b>102</b>	<b>80</b>	<b>49</b>	<b>231</b>	<b>5.25</b>	<b>42</b>	<b>71</b>	<b>75</b>	<b>129</b>	<b>275</b>	<b>6.55</b>	<b>86</b>	<b>173</b>	<b>155</b>	<b>178</b>	<b>506</b>	<b>5.90</b>
Small	SC	16	52	44	29	125	7.81	10	20	16	31	67	6.70	26	72	60	60	192	7.26
	ST	2	4	6	4	14	7.00	6	13	17	21	51	8.50	8	17	23	25	65	7.75
	OT	19	40	49	22	111	5.84	13	49	29	33	111	8.54	32	89	78	55	222	7.19
	<b>TO</b>	<b>37</b>	<b>96</b>	<b>99</b>	<b>55</b>	<b>250</b>	<b>6.76</b>	<b>29</b>	<b>82</b>	<b>62</b>	<b>85</b>	<b>229</b>	<b>7.90</b>	<b>66</b>	<b>178</b>	<b>161</b>	<b>140</b>	<b>479</b>	<b>7.33</b>
Semi-Medium	SC	6	29	26	18	73	12.17	5	24	21	31	76	15.20	11	53	47	49	149	13.69
	ST	1	3	2	0	5	5.00	2	4	5	4	13	6.50	3	7	7	4	18	5.75
	OT	4	11	11	7	29	7.25	10	25	25	32	82	8.20	14	36	36	39	111	7.73
	<b>TO</b>	<b>11</b>	<b>43</b>	<b>39</b>	<b>25</b>	<b>107</b>	<b>9.73</b>	<b>17</b>	<b>53</b>	<b>51</b>	<b>67</b>	<b>171</b>	<b>10.06</b>	<b>28</b>	<b>96</b>	<b>90</b>	<b>92</b>	<b>278</b>	<b>9.90</b>
Medium	SC	2	8	7	10	25	12.50	3	12	11	17	40	13.33	5	20	18	27	65	12.92
	ST	1	1	2	2	5	5.00	2	9	11	8	28	14.00	3	10	13	10	33	9.50
	OT	4	6	7	8	21	5.25	4	13	13	17	43	10.75	8	19	20	25	64	8.00
	<b>TO</b>	<b>7</b>	<b>15</b>	<b>16</b>	<b>20</b>	<b>51</b>	<b>7.29</b>	<b>9</b>	<b>34</b>	<b>35</b>	<b>42</b>	<b>111</b>	<b>12.33</b>	<b>16</b>	<b>49</b>	<b>51</b>	<b>62</b>	<b>162</b>	<b>9.81</b>
Large	SC	-	-	-	-	-	-	1	4	2	7	13	13.00	0	0	0	0	0	0
	ST	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0
	OT	1	3	1	0	4	4.00	2	5	6	11	22	11.00	3	8	7	11	26	7.50
	<b>TO</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>4.00</b>	<b>3</b>	<b>9</b>	<b>8</b>	<b>18</b>	<b>35</b>	<b>11.67</b>	<b>4</b>	<b>12</b>	<b>9</b>	<b>18</b>	<b>39</b>	<b>7.84</b>
Total	SC	44	136	115	79	330	7.50	33	83	74	135	292	8.85	77	219	189	214	622	8.18
	ST	6	12	13	6	31	5.17	17	39	47	62	148	8.71	23	51	60	68	179	6.94
	OT	50	111	107	44	282	5.64	50	127	110	144	381	7.62	100	238	217	188	663	6.63
	<b>TO</b>	<b>100</b>	<b>259</b>	<b>235</b>	<b>149</b>	<b>643</b>	<b>6.43</b>	<b>100</b>	<b>249</b>	<b>231</b>	<b>341</b>	<b>821</b>	<b>8.21</b>	<b>200</b>	<b>508</b>	<b>466</b>	<b>490</b>	<b>1464</b>	<b>7.32</b>

**Table 3.3: Proportion of Workers to Total Population in Irrigated and Dry Areas**

Farm Size	Caste	Irrigated Area						Dry Area						Irrigated and Dry areas					
		Farm-Workers-M	Farm-Workers-F	Farm-w Workers-T	Non-Farm Workers-M	Non-Farm Workers-F	Non-Farm Workers-T	Farm-Workers-M	Farm-Workers-F	Farm-Workers-T	Non-Farm Workers-M	Non-Farm Workers-F	Non-Farm Workers-T	Farm-Workers-M	Farm-Workers-F	Farm-Workers-T	Non-Farm Workers-M	Non-Farm Workers-F	Non-Farm Workers-T
Marginal	SC	31.80	3.74	35.54	0.00	0.00	0.00	15.63	6.25	21.88	0.00	0.00	0.00	23.72	4.99	28.71	0	0	0
	ST	57.14	42.86	100.0	0.00	0.00	0.00	19.64	10.71	30.36	0.00	0.00	0.00	38.39	26.79	65.18	0	0	0
	OT	29.91	1.71	31.62	0.00	0.00	0.00	24.39	8.94	33.33	0.81	0.19	1.00	27.15	5.33	32.48	0.40	0.09	0.50
	TO	31.60	3.90	35.50	0.00	0.00	0.00	20.36	8.36	28.73	0.36	0.20	0.56	28.86	6.13	32.12	0.18	0.10	0.28
Small	SC	26.40	8.00	34.40	0.80	0.00	0.80	17.91	8.96	26.87	0.00	0.00	0.00	22.16	8.48	30.64	0.40	0	0
	ST	21.43	21.43	42.86	0.00	0.00	0.00	21.57	23.53	45.10	0.00	0.00	0.00	21.50	22.48	43.98	0	0	0
	OT	24.32	9.91	34.23	0.00	0.00	0.00	16.22	2.70	18.92	8.11	0.00	8.11	20.27	6.31	26.58	4.05	0	4.05
	TO	25.20	9.60	34.80	0.40	0.00	0.40	17.90	9.17	27.07	3.93	0.00	3.93	21.55	9.39	30.94	2.16	0	2.17
Semi-medium	SC	20.55	16.44	36.99	1.37	1.37	2.74	25.00	18.42	43.42	3.95	0.00	3.95	22.78	17.43	40.21	2.66	0.68	2.16
	ST	60.00	0.00	60.00	0.00	0.00	0.00	15.38	15.38	30.77	0.00	0.00	0.00	37.69	15.38	45.39	0	0	1.37
	OT	20.69	3.45	24.14	0.00	0.00	0.00	25.61	10.98	36.59	2.44	0.10	2.54	23.15	7.21	30.36	1.22	0.05	1.27
	TO	22.43	12.15	34.58	0.93	0.93	1.87	24.56	14.62	39.18	2.92	1.00	3.92	23.50	13.39	36.88	1.93	0.96	2.89
Medium	SC	28.00	4.00	32.00	0.00	0.00	0.00	17.50	10.00	27.50	7.50	0.65	8.15	22.75	7.00	29.75	3.75	0.32	4.07
	ST	20.00	0.00	20.00	0.00	0.00	0.00	17.86	17.86	35.71	0.00	0.00	0.00	18.93	8.93	27.86	0	0	0
	OT	14.29	4.76	19.05	0.00	0.00	0.00	18.60	6.98	25.58	2.33	0.23	2.66	16.45	5.87	13.02	1.16	0.11	1.33
	TO	21.57	3.92	25.49	0.00	0.00	0.00	18.02	10.81	28.83	3.60	0.10	3.70	19.80	7.36	27.16	1.80	0.05	1.85
Large	SC	0	0	0	0	0	0	15.38	15.38	30.77	0.00	0.00	0.00	15.38	7.69	30.77	0	0	0
	ST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OT	75.00	0	75.00	0.00	0.00	0.00	13.64	4.55	18.18	0.00	0.00	0.00	44.32	2.28	46.59	0	0	0
	TO	75.00	0	75.00	0.00	0.00	0.00	14.29	8.57	22.86	0.00	0.00	0.00	44.65	4.29	48.93	0	0	0
Total	SC	26.97	8.18	35.15	0.61	0.30	0.91	18.84	10.96	29.79	2.05	0.65	2.70	22.91	9.57	32.49	1.33	0.47	1.80
	ST	35.48	19.35	54.83	0.00	0.00	0.00	19.59	16.89	36.49	0.00	0.00	0.00	27.54	18.12	45.66	0	0	0
	OT	26.24	5.32	31.56	0.00	0.00	0.00	21.00	7.09	28.08	3.41	0.52	3.93	23.62	6.21	29.82	1.71	0.26	1.96
	TO	27.06	7.47	34.53	0.31	0.16	0.47	19.98	10.23	30.21	2.31	1.17	3.48	23.52	8.85	32.37	1.31	0.66	1.97

very clear from the fact that in Shimoga only 27 per cent of the farmers were uneducated as against 68 per cent in Gulbarga. By castes, uneducated farmers were more in SC community in both the districts as the incidence was more by 16.85 and 9.36 per cent over and above the averages in Gulbarga and Shimoga respectively. ST farmers in Gulbarga and non-SC/ST farmers in Shimoga, with 14.35 and 3 per cent, respectively follow this, whereas, the incidence was less among the farmers of general and ST communities respectively in Gulbarga and Shimoga. Across farming sizes, it is important to note that uneducated persons were more in the marginal, small and semi-medium farmers in Gulbarga as against just marginal and medium farmers in Shimoga. Equally important was that the ratio of uneducated persons was very high in the case of SC farmers in all sizes of both the districts and especially it was cent per cent in the case of small and semi-medium holdings. Also ST farmers in small and semi-medium in Gulbarga and medium farmers in Shimoga were cent per cent uneducated. In contrast to this, the incidence of uneducated farmers among the non-SCs/STs was below the average of all holdings and was cent per cent nil in the case of semi-medium, medium and large farmers in Shimoga. With this backdrop, it is significant to throw some light on the levels of educational advancement of farmers as it is very useful from the point of view of adaptation in farming activities. In Shimoga, a large number of farmers (35 per cent) had studied up to high school level followed by primary (14 per cent), middle (10 per cent) and 2 per cent up to PUC level. Interestingly, 12 per cent of the farmers were degree holders, whereas in Gulbarga, the farmers who were educated up to primary level constituted a majority (14 per cent), followed by high school (6 per cent), PUC (5 per cent) and 3 per cent up to the middle level. Only 4 per cent of the farmers had obtained their degrees. Across castes, all ST farmers in the marginal and small categories had studied up to high school. Similarly, the semi-medium farmers had studied up to middle level. Though similar advancement was not possible among SC farmers, non-SC/ST farmers in the large holding category had achieved the distinction in the sense that all of them were degree holders.

The total agricultural land works out to 394.23 hectares in these districts with an average size of 1.97 hectares. Of the total land, 3.6 hectares had been leased in and 6.44 hectares had been leased out. Of the total land owned, farmers other than SCs/ STs owned a large chunk of 54 per cent and the rest held by SCs (34 per cent) and STs (12 per cent). Importantly, SCs were the ones who often leased out their lands for others to meet the household expenditure, social obligations and such other compulsions. Like that, about 4.84 hectares of lands of SCs had been leased out. It is also evident that (Table 3.5) other

farmers always leased in lands (3.20 hectares) though the incidence of leasing out was prevalent even among them but not on the same scale as it existed among SCs. But the SCs were in a disadvantaged position even in the average size of holdings. It was rather very low not only as compared to the other groups of the farmers but also to the average. SCs' average size of holdings was less by 0.36 hectares of other group of farmers and 0.21 hectares less than the average. Further, in all size by landholdings, SCs were in a disadvantaged position especially in terms of averages of respective holdings. However, it was not the case with other farmers, who had obviously owned more in all sizes of holdings except medium size. Semi- medium, Medium and Marginal farmers of the SC group who had leased out their lands by sizes. Similarly, other farmers in the small and medium categories had leased out their lands. By district, the scenario was quite opposite. With 186.29 hectares of land in Shimoga, a large part of it was owned by non-SC/ST farmers. The average size of holding was 1.86 hectares, which was a bit (0.11 hectare) less by the overall average. However, it was not the case with Gulbarga district. The district accounted for 207.94 hectares with slightly higher size of average at 2.08 hectares. Significantly, in both cases, the average holdings of SC farmers were far below their district as well as other group of farmers. With regard to land leasing, the incidence was more in Irrigated areas than in the dry areas. Of the total leased out land, irrigated areas accounted for 88 per cent. It was the SC farmers who had leased out their land in large quantities in Shimoga along with a small portion by non-SC/ST farmers. By sizes, small holdings formed a majority with around 33 per cent followed by medium (22.32 per cent), semi-medium (19.16 per cent), marginal (16.81 per cent) and the large holdings (8.81 per cent), whereas in Gulbarga, medium holdings constituted the majority (24.05 per cent) followed by semi-medium (23.47 per cent), by small (22.67 per cent), large (15.77 per cent) and marginal holdings (14.05 per cent). As mentioned already, the average size of holding of SC families was lower than the respective averages except for semi-medium in Shimoga and small holding in Gulbarga. Also, it was with ST medium farming in both districts, whereas non-SC/ST farmers had shown higher averages in all holdings except in semi-medium in Shimoga and medium in Gulbarga.

With regard to the important crops grown both in the kharif and rabi seasons of the study areas it is necessary to note the marking difference although a few common crops (paddy and groundnut) were grown. Water resource being the determining factor, paddy is the important crop in irrigated area. Sugarcane next in importance is grown in comparatively in less number of hectares. Ragi and groundnut are the less important crops.

However, during the rabi season only paddy is being grown. Importantly, a large part the areas are under high yielding varieties in irrigated area. The areas under important crops worked out to respectively 151.57 and 105.61 hectares during kharif and rabi with around 93 and 88 hectares under HYV (Table 3.6). In the total areas, paddy was grown in 78 per cent areas followed by 19 per cent for sugarcane, 2.45 per cent for ragi and only a negligible part under groundnut (0.53 hectare). Except for the SC small farmers, no other farmer had grown groundnut. Except for the common crops grown in two different regions, green gram and tur are the other crops grown in the dry areas during kharif season. Jawar and bajra are the important crops grown in the rabi season. Unfortunately, high yielding varieties are grown in a negligible part of the area during kharif only. The area under important crops was in the order of over 200 and 120 hectares respectively in kharif as well as in rabi and only in a little over 4 hectares (2.05 per cent) HYV were grown. If green gram was grown as a major crop in about 62 per cent of the areas followed by tur in about 31 per cent areas during kharif, jowar was grown in 98 per cent of area in the rabi season (See, Table 3.7).

There are three forms of major farm assets in the study area – Equipment, Animals and Farm sheds and Buildings. In the total worth of Rs 110.77 lakhs in the study districts, farm equipment accounted for a majority with Rs 74.47 lakhs followed by Rs 34 lakhs and Rs 2.46 lakhs of animals of various kinds and farm sheds and buildings, respectively. In percentage, it worked out to 67.23, 30.56 and 2.22, respectively. Because of the economic soundness and easy access to resources, farmers other than SCs/STs owned most of the farm assets. At the same time, resourceslessness and deprivations were clearly reflected among SC/ST farmers. It is evident that other farmers were owning over 54 per cent of farm equipment in the study areas, followed by 62 per cent of animals and 74 per cent of farm sheds and buildings. In other words, SC/ST farmers have had only limited controlled over the farm assets in the sense that they control about anything less than Rs 13.83 lakhs, which was about 35 per cent in the total value. It is important to note that the farmers with lower size of holdings were owning more number of animals than others though the same was not the case with regard to equipment and farm shed and buildings, by and large. Further, across the districts, there existed a huge gap in terms of the total farm assets and their value. Shimoga district accounted for a majority in the total value of Rs 87.06 lakhs as against Rs 23.72 lakhs in Gulbarga., which was less than one-third of Shimoga district. The average value of farm assets per farming household for these districts was about Rs 87,000/- and Rs 23,720 /-, respectively.

Table 3.4: Educational Status of Heads of Households in Irrigated and Dry Areas

(Per cent)

Farm Size	Caste	Irrigated Area						Dry Area						Irrigated and Dry areas					
		Un-educated	Primary	Middle	High School	PUC	Degree	Un-educated	Primary	Middle	High School	PUC	Degree	Un-educated	Primary	Middle	High School	PUC	Degree
Marginal	SC	45.00	15.00	10.00	20.00	0.00	10.00	78.57	21.43	0.00	0.00	0.00	0.00	61.78	18.21	5.00	10.00	0	5.00
	ST	0.00	0.00	0.00	100.00	0.00	0.00	85.71	14.29	0.00	0.00	0.00	0.00	42.86	7.15	0	50.00	0	0
	OT	40.91	9.09	4.55	36.36	0.00	9.09	66.67	14.29	4.76	9.52	4.76	0.00	53.79	11.69	4.65	22.94	2.38	4.56
	TO	40.91	11.36	6.82	31.82	0.00	9.09	73.81	16.67	2.38	4.76	2.38	0.00	57.36	14.02	4.60	18.29	1.19	4.54
Small	SC	25.00	12.50	25.00	31.25	0.00	6.25	100.00	0.00	0.00	0.00	0.00	0.00	62.50	6.25	12.50	15.63	0	3.13
	ST	0.00	0.00	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	50.00	0	0	50.00	0	0
	OT	5.26	21.06	10.53	42.11	5.26	15.79	46.15	30.77	0.00	7.69	15.38	0.00	25.70	25.92	5.26	24.90	10.32	7.90
	TO	13.51	16.22	16.22	40.54	2.70	10.81	75.86	13.79	0.00	3.45	6.90	0.00	44.08	30.01	8.11	21.99	4.80	5.41
Semi-medium	SC	33.33	16.67	0.00	33.33	0.00	16.67	100.00	0.00	0.00	0.00	0.00	0.00	66.66	8.34	0	16.67	0	8.84
	ST	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	50.00	0	50.55	0	0	0
	OT	0.00	25.00	0.00	50.00	0.00	25.00	50.00	10.00	10.00	10.00	10.00	10.00	25.00	17.50	5.00	30.00	5.00	17.50
	TO	18.18	18.18	9.09	36.36	0.00	18.18	70.59	5.88	5.88	5.88	5.88	5.88	44.38	12.03	7.49	21.12	2.94	12.03
Medium	SC	50.00	50.00	0.00	0.00	0.00	0.00	66.67	33.33	0.00	0.00	0.00	0.00	58.33	41.66	0	0	0	0
	ST	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	50.00	0	0	25.00	25.00	0
	OT	0.00	0.00	0.00	50.00	25.00	25.00	25.00	0.00	25.00	0.00	0.00	50.00	12.50	0	12.50	25.00	12.50	37.50
	TO	28.57	14.29	0.00	28.57	14.29	14.29	33.33	11.11	11.11	11.11	11.11	22.22	30.95	7.70	5.56	19.84	12.70	18.25
Large	SC	0	0	0	0	0	0	0.00	100.00	0.00	0.00	0.00	0.00	0	50.00	0	0	0	0
	ST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OT	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	50.00	0.00	50.00	0	0	0	25.00	0	75.00
	TO	0.00	0.00	0.00	0.00	0.00	100.00	0.00	33.33	0.00	33.33	0.00	33.33	0	16.67	0	16.67	0	66.66
Total	SC	36.36	15.91	13.64	25.00	0.00	9.09	84.85	15.15	0.00	0.00	0.00	0.00	60.61	15.53	6.82	12.50	0	4.54
	ST	16.67	0.00	16.67	66.67	0.00	0.00	82.35	5.88	0.00	5.88	5.88	0.00	49.51	2.94	8.33	36.28	2.94	0
	OT	20.00	14.00	6.00	40.00	4.00	16.00	52.00	16.00	6.00	10.00	8.00	8.00	36.00	15.00	6.00	25.00	6.00	12.00
	TO	27.00	14.00	10.00	35.00	2.00	12.00	68.00	14.00	3.00	6.00	5.00	4.00	47.50	14.00	6.50	20.50	3.50	8.00

Table 3.5: Land Ownership in Irrigated and Dry Areas

(In Hectares)

Farm Size	Category	Irrigated Area				Dry Areas				Irrigated and Dry Areas			
		Land Owned	Land Leased in	Land Leased Out	Ave. Size of Land	Land Owned	Land Leased in	Land Leased Out	Ave. Size of Land	Land Owned	Land Leased in	Land Leased Out	Ave. Size of Land
Marginal	SC	13.32	0.00	0.92	0.67	9.60	0.00	0.00	0.69	22.92	0	0.92	0.68
	ST	0.80	0.00	0.00	0.40	4.62	0.00	0.00	0.66	5.42	0	0	0.53
	OTH	17.20	1.20	0.00	0.78	14.99	1.60	0.00	0.71	32.19	1.80	0	0.75
	<b>TO</b>	31.32	1.20	0.92	0.71	29.21	1.60	0.00	0.70	60.53	1.80	0.92	0.71
Small	SC	26.39	0.40	0.00	1.65	16.80	0.00	0.00	1.68	43.19	0.40	0	1.67
	ST	3.00	0.00	0.00	1.50	8.93	0.00	0.00	1.49	11.93	0	0	1.49
	OTH	31.88	0.00	0.00	1.68	21.40	0.40	0.80	1.65	53.28	0.40	0.80	1.66
	<b>TO</b>	61.27	0.40	0.00	1.68	47.13	0.40	0.80	1.63	108.40	0.80	0.80	1.65
Semi-Medium	SC	20.75	0.00	2.20	3.46	13.20	0.00	0.00	2.64	33.93	0	2.20	3.05
	ST	2.40	0.00	0.00	2.40	5.60	0.00	0.00	2.80	8.00	0	0	2.60
	OTH	12.55	0.00	0.00	3.14	30.00	0.00	0.00	3.00	52.55	0	0	3.07
	<b>TO</b>	35.70	0.00	2.20	3.25	48.80	0.00	0.00	2.87	84.50	0	2.20	3.06
Medium	SC	9.24	0.00	1.72	4.62	13.60	0.00	0.00	4.53	22.84	0	1.72	4.58
	ST	6.51	0.00	0.00	6.51	16.80	0.00	0.00	8.40	23.31	0	0	7.46
	OTH	25.84	0.00	0.80	6.46	19.60	0.00	0.00	4.90	45.44	0	0.80	5.68
	<b>TO</b>	41.59	0.00	2.52	5.98	50.00	0.00	0.00	5.56	91.59	0	2.52	5.77
Large	SC	0	0	0	0	10.80	0.00	0.00	10.80	10.80	0	0	10.80
	ST	0	0	0	0	0	0	0	0	0	0	0	0
	OTH	16.41	0.00	0.00	16.41	22.00	0.00	0.00	11.00	38.41	0	0	13.71
	<b>TO</b>	16.41	0.00	0.00	16.41	32.80	0.00	0.00	10.93	49.29	0	0	13.67
Total	SC	69.70	0.40	4.84	1.58	64.00	0.00	0.00	1.94	133.70	0.40	4.84	1.76
	ST	12.71	0.00	0.00	2.12	35.95	0.00	0.00	2.11	48.66	0	0	2.12
	OTH	103.88	1.20	0.80	2.08	107.99	2.00	0.80	2.16	211.87	3.20	1.60	2.12
	<b>TO</b>	186.29	1.60	5.64	1.86	207.94	2.00	0.80	2.08	394.23	3.60	6.44	1.97

Table 3.6: Area Under Important Crops In Irrigated Area (Shimoga)

(In Hectares)

Farm Size	Caste	Kharif				Total	Area Under HYV	Zaid	Area Under HYV
		Paddy	Sugar-cane	Ragi	Ground nut			Paddy	
Marginal	Sc	11.24	0.00	0.60	0.00	11.84	9.20	10.05	9.20
	St	1.80	0.00	0.00	0.00	1.80	1.80	1.80	1.80
	Oth	16.55	0.00	0.00	0.00	16.55	16.55	13.55	13.55
	Tot	29.59	0.00	0.60	0.00	30.19	27.55	25.40	24.55
Small	Sc	20.80	2.40	1.11	0.80	25.11	23.20	15.20	12.20
	St	1.80	1.20	0.00	0.00	3.00	1.80	1.80	1.80
	Oth	28.50	2.99	0.00	0.00	31.49	28.50	26.50	24.00
	Tot	51.10	6.59	1.11	0.80	59.60	53.50	43.50	38.00
Semi-Medium	Sc	13.14	2.40	2.00	0.00	17.54	15.54	12.34	9.00
	St	1.80	0.60	0.00	0.00	2.40	1.80	1.80	1.40
	Oth	5.54	3.88	0.00	0.00	9.42	9.42	5.54	5.54
	Tot	20.48	6.88	2.00	0.00	29.36	26.76	19.68	15.94
Medium	Sc	2.20	3.60	0.00	0.00	5.80	5.80	2.20	2.20
	St	0.00	3.60	0.00	0.00	3.60	3.60	0.00	0.00
	Oth	9.52	2.88	0.00	0.00	12.40	12.40	9.52	7.60
	Tot	11.72	10.08	0.00	0.00	21.80	21.80	11.72	9.80
Large	Sc	0	0	0	0	0	0	0	0
	St	0	0	0	0	0	0	0	0
	Oth	5.31	5.31	0.00	0.00	10.62	10.62	5.31	5.31
	Tot	5.31	5.31	0.00	0.00	10.62	10.62	5.31	5.31
Total	Sc	47.38	8.40	3.71	0.80	60.29	53.74	39.79	32.40
	St	5.40	5.40	0.00	0.00	10.80	9.00	5.40	5.00
	Oth	65.42	15.06	0.00	0.00	80.48	77.49	60.42	56.00
	Tot	118.20	28.86	3.71	0.80	151.57	140.23	105.61	93.40

Table 3.7: Area Under Important Crops In Dry Area (Gulbarga)

(In Hectares)

Farm Size	Caste	Kharif					Area Under HYV	Zaid			Area Under HYV
		Green gram	Tur	Paddy	Ground nut	Total		Jowar	Bajra	Total	
Marginal	Sc	7.00	2.20	0.40	0.00	9.60	0.40	7.00	0.00	7.00	0.00
	St	3.00	1.62	0.00	0.00	4.62	0.00	3.00	0.00	3.00	0.00
	Oth	12.43	3.00	0.52	0.00	15.95	0.52	10.79	0.00	10.79	0.00
	Tot	22.43	6.82	0.92	0.00	30.17	0.92	20.79	0.00	20.79	0.00
Small	Sc	12.20	3.80	0.00	0.80	16.80	0.00	11.20	0.00	11.20	0.00
	St	6.13	1.60	0.40	0.80	8.93	0.40	6.13	0.00	6.13	0.00
	Oth	13.80	7.20	0.00	0.00	21.00	0.00	10.20	0.00	10.20	0.00
	Tot	32.13	12.60	0.40	1.60	46.73	0.40	27.53	0.00	27.53	0.00
Semi-Medium	Sc	6.80	3.60	0.80	0.00	11.20	0.80	8.00	0.00	8.00	0.00
	St	4.88	1.60	0.00	0.00	5.60	0.00	4.00	0.00	4.00	0.00
	Oth	18.00	12.00	0.00	0.00	30.00	0.00	18.00	0.00	18.00	0.00
	Tot	28.80	17.20	0.80	0.00	46.80	0.80	30.00	0.00	30.00	0.00
Medium	Sc	7.60	5.60	0.00	0.40	13.60	0.00	7.60	0.00	7.60	0.00
	St	7.20	5.60	0.00	1.60	14.40	0.00	6.40	0.00	6.40	0.00
	Oth	10.80	7.60	0.00	0.80	19.20	0.00	11.20	0.00	11.20	0.00
	Tot	25.60	18.80	0.00	2.80	47.20	0.00	25.20	0.00	25.20	0.00
Large	Sc	2.40	4.00	2.00	1.60	10.00	2.00	2.40	0.00	2.40	0.00
	St	0	0	0	0	0	0	0	0	0	0
	Oth	12.80	3.20	0.00	4.00	20.00	0.00	12.80	2.00	14.80	0.00
	Tot	15.20	7.20	2.00	5.60	30.00	2.00	15.20	0.00	15.20	0.00
Total	Sc	36.00	19.20	3.20	2.80	61.20	3.20	36.20	0.00	36.20	0.00
	St	20.33	10.42	0.40	2.40	33.55	0.40	19.53	0.00	19.53	0.00
	Oth	67.83	33.00	0.52	4.80	106.15	0.52	62.99	2.00	64.99	0.00
	Tot	124.16	62.62	4.12	10.00	200.90	4.12	118.72	2.00	120.72	0.00

While both districts were having more number of animals, Shimoga had less number of farm equipment as compared to Gulbarga. Across castes, non-SC/ST farmers accounted for 63 per cent of the animal value and 56 per cent of equipment value in Shimoga, followed by SC farmers with 30 and 32 per cent, respectively, and the rest was held by ST farmers. Though the same was the scenario as far as animal value of non-SC/ST farmers were concerned in Gulbarga, the ST farmers had overtaken all farmers let alone SCs in terms of the total equipment value. They accounted for 43 per cent of the total, whereas SC farmers held the second position in terms of animal value worth 23.48 per cent next to non-SC/ST farmers. Similarly, across sizes of farming, it was the small, semi-medium and medium farmers in both districts are holding higher share in the total value of the equipment. In the case of the value of animals, excepting for the large farmers in both districts, all other farmers were holding relatively higher shares. Especially marginal and small farmers' share in the total value of animals worked out to 69 per cent in Shimoga and 49 per cent in Gulbarga. It is not surprising that there was a tendency to own more number of animals by marginal and small farmers as their holdings were highly limited and they could not afford to own equipment. Farm sheds and buildings were generally created in the field to have temporary shelter and to keep the belongings. Also these assets were maintained if the farm fields were away from the main core villages and to avoid inconvenience in transporting farming equipment. At the same time, it should not be mistaken that every farmer owned the farm shed and building in his farm. Rather, these assets were owned by farmers with large and medium holdings. Even if other farmer owned these assets, the money values were comparatively low. With this backdrop, it is important to note that farm sheds and buildings were owned by all types of farmers in Shimoga and Gulbarga. The total farm sheds and buildings in these districts were in the order of 20 and 11, and respectively the total value worked out to be Rs 184, 900/- and Rs 62,000/-.

Levels of prosperity being the other consideration with regard to owning these assets, the average value per unit was Rs 9,245/- in Shimoga as compared to Rs 5,636/- in Gulbarga. However, per unit value largely varied across different sizes of farmers and once again Shimoga far exceeded Gulbarga excepting in the case of semi-medium farmers. The average farm shed and building value worked out to Rs 37,000/- for large, Rs 11,167/- for medium, Rs 6,800/- for semi-medium, Rs 5,800/- for small and Rs 5,967/- for marginal farmers in Shimoga as against Rs 13,000/-, Rs 5,500/-, Rs 11,000/-, Rs 3,333/- and Rs 3,000/- in Gulbarga, respectively. If this was the general scenario, the position was still

disappointing in the case of SC/ST farmers. The average farm shed and building value of SC/ST farmers was only Rs 2,500/- and Rs 3,000/- in Gulbarga and Rs 8,500/- and Rs 7,333/- in Shimoga as compared to Rs 6,750/- and Rs 9,727/- of non-SC/ST farmers, respectively (See, Table 3.8). Further, with regard to per farm asset value, the average was in the order of Rs 0.55 lakhs, which was 1.58 fold less than the average asset per farm in the irrigated areas. However disappointing the scenario was with regard to farm asset per family was more than 50 per cent less than the average in the dry areas. ST farming families owned more value assets than even the other families. The total average value of farm assets of ST family was Rs 0.65/-lakhs as against Rs 0.63 lakhs for others. However, the lowest asset value was low only in the case of SC families, which was only Rs 0.42 lakhs. The same was also far below than their respective totals in irrigated and dry areas.

**Table3.8: Farm Assets in Irrigated and Dry Areas**

*(Rs in Lakhs)*

Farm Size	Per Farm Value of Assets			Caste	Irrigated Areas					Dry Areas					Irrigated and Dry Areas							
	Irrigated	Dry Areas	Irrigate+ Dry Areas		No.of Animals	Value	Farm Equipment	Value	Farm Shed & Bld.	value	No.of Animals	Value	Farm Equipment	Value	Farm Shed & Bld.	value	No.of Animals	Value	Farm Equipment	Value	Farm Shed & Bld.	Value
Marginal	0.14	0.05	0.10	SC	50	1.49	8	1.25	0	0	15	0.63	5	0.06	0	0	65	2.12	13	1.31	0	0
	0.07	0.06	0.06	ST	3	0.13	0	0	0	0	6	0.29	10	0.13	0	0	9	0.42	10	0.13	0	0
	0.31	0.11	0.21	OTH	120	5.12	11	1.53	3	0.18	59	2.02	21	0.22	2	0.06	179	7.14	32	1.75	5	0.24
	0.22	0.08	0.15	TOT	173	6.74	19	2.78	3	0.18	80	2.94	36	0.41	2	0.06	253	9.68	55	3.19	5	0.24
Small	0.51	0.18	0.38	SC	74	2.89	19	5.26	0	0	18	0.98	29	0.76	1	0.02	92	3.87	48	6.02	1	0.02
	0.24	0.20	0.21	ST	5	0.39	0	0	2	0.09	35	0.96	14	0.22	0	0	40	1.35	14	0.22	2	0.09
	0.95	0.25	0.66	OTH	85	3.22	28	14.55	3	0.20	68	2.27	33	0.92	2	0.08	153	5.49	61	15.47	5	0.28
	0.24	0.21	0.50	TOT	164	6.50	47	1.98	5	0.29	121	4.20	76	1.90	3	0.10	285	10.7	123	21.71	8	0.39
Semi-Medium	2.13	0.26	1.28	SC	30	1.11	18	11.60	1	0.07	21	0.86	18	0.45	0	0	51	1.97	36	12.05	1	0.07
	2.39	0.19	0.92	ST	1	0.02	4	2.37	0	0	5	0.27	8	0.10	0	0	6	0.29	12	2.47	0	0
	1.59	0.42	0.76	OTH	27	0.94	15	5.16	4	0.27	67	2.85	44	1.27	1	0.11	94	3.79	59	6.43	5	0.38
	1.96	0.35	0.98	TOT	58	2.07	37	19.13	5	0.34	93	3.98	70	1.82	1	0.11	151	6.05	107	20.95	6	0.45
Medium	1.83	0.35	0.94	SC	14	0.35	7	3.20	1	0.10	18	0.74	17	0.29	1	0.03	32	1.09	24	3.49	2	0.13
	5.98	2.02	3.34	ST	12	0.75	7	5.10	1	0.13	16	0.82	11	3.19	1	0.03	28	1.57	18	8.29	2	0.16
	3.33	0.41	1.87	OTH	55	1.99	24	10.88	4	0.44	27	1.00	20	0.48	2	0.16	82	2.99	44	11.36	6	0.60
	3.28	0.75	1.86	TOT	91	3.09	28	19.18	6	0.67	61	2.57	48	3.95	4	0.22	152	5.66	76	23.13	10	0.89
Large	-	0.26	0.26	SC	0	0	0	0	0	0	9	0.23	8	0.03	0	0	9	0.23	8	0.03	0	0
	-	-	-	ST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6.31	0.61	2.51	OTH	21	0.84	8	5.10	1	0.37	15	0.72	13	0.37	1	0.13	36	1.56	21	5.47	2	0.50
	6.31	0.49	1.95	TOT	21	0.84	8	5.10	1	0.37	24	0.95	21	0.40	1	0.13	45	1.79	29	5.50	2	0.50
<b>Total</b>	0.59	0.15	0.42	SC	168	5.84	52	21.31	2	0.17	81	3.43	77	1.58	2	0.05	249	9.27	129	22.89	4	0.22
	1.50	0.35	0.65	ST	21	1.29	11	7.47	3	0.22	62	2.33	43	3.64	1	0.03	83	3.62	54	11.11	4	0.25
	1.02	0.25	0.63	OTH	308	12.10	86	37.21	15	1.45	236	8.86	131	3.25	8	0.54	544	20.96	217	40.46	23	1.99
	0.87	0.24	0.55	TOT	497	19.23	148	65.99	20	1.84	379	14.62	251	8.48	11	0.62	876	33.85	399	74.47	31	2.46

## CHAPTER IV

### UTILISATION OF AGRICULTURAL SUBSIDIES: EVIDENCE FROM FIELD SURVEY

This chapter examines the scale of agricultural subsidies across different sizes of farmers, castes and crops on the basis of the field data collected from Shimoga and Gulbarga districts of Karnataka. This chapter is divided into five sections. The first section deals with the analysis of direct subsidies, second with indirect subsidies, third with total agricultural subsidies, fourth section discusses about the food subsidies and finally in the last section, the problems in accessing to subsidies have been presented for irrigated and dry areas separately.

#### **Direct Subsidies: Kharif**

In Shimoga district, paddy, sugarcane, groundnut and ragi are the popular crops grown in khariff season, whereas in rabi season only paddy is being grown. Therefore, it is obvious to say that input subsidies are made available for all these crops across all categories of farmers. Input subsidies are in the form of seeds, fertilizers and pesticides. Before an analysis on hectare-wise utilisation of input subsidies is attempted, it is indeed necessary to note that not all farmers irrespective of the size of holdings grow the stated crops commonly. Instead, each farmer according to his/her convenience and need would have preferred to grow particular crop/s across kharif/rabi season. Also, many a time, availability of good quality of input and subsidies decides the crop/s to be grown. Especially, it is more so in the case of marginal and small farmers.

The input subsidy during kharif season was in the order of RS 14.62 lakhs in the study areas (Table 4.1) Small farmers, large in numbers, accounted for a little over thirty per cent in the total, followed by 24 per cent by the medium farmers, though their numbers were small as compared to small farmers and around 21 per cent by semi-medium farmers. Unfortunately, the numerical strength among the marginal farmers had not led to garnering more subsidies. Marginal farmers being the second largest group could only account for about 13 per cent of the total subsidy. Interestingly, large farming community, very less in number, could garner about 12 per cent of the subsidy in the areas. Further, the pattern of distribution of subsidy between the irrigated and dry areas was deplorable in the sense that there existed a marked difference in the scale of utilization. Irrigated areas had accounted

for the large part of the subsidies. The total subsidy that the irrigated area garnered was Rs 11.10 lakhs, which was around 76 per cent. By size, as in the case of overall scenario, small farmers were the most advantaged group to account for about one-third of the total subsidies, although their numbers were far less than the small farmers. It was followed by medium farmers with over 23 per cent, and semi-medium with 21 per cent. However, marginal farmers being large in numbers were able to garner about 12 per cent of the direct subsidy in the kharif season. Importantly, one single large farmer had been able to acquire a total subsidy of RS 1.27 lakhs. Perhaps, it was the highest average in the entire study area with 12 per cent in the total but was about 9 per cent in the total subsidies during the kharif season.

Furthermore, it was interesting to note that across SC/ST and other farmers there had been a wide range of difference in the utilisation pattern in the subsidies. At the outset, SC/ST farmers continued to suffer as they accounted for a relatively small segment of subsidies as compared to the other farmers. If uneconomic holdings of the SC/ST farmers had a control over the utilisation pattern of subsidies, surplus holdings of the other farmers led to garnering of a large segment in the total. This was evident from the fact that SC/ST farmers together accounted for Rs 6.61 lakhs as against Rs 8.01 lakhs by other farmers. By size, it was needless to say that small farmers had a greater say in the total subsidies excepting the ST farmers in which case the medium farmers garnered the benefits mostly (over 52 per cent). However, at the same time it was the ST marginal farmers who have had very little share in the total with around 7.50 per cent.

The argument of more lands more subsidies and *vice-versa* was further strengthened with average subsidies per farmer. The average subsidies per farmer being Rs 7,311/- in the study areas, excepting the marginal and small farmers whose averages were even less, the average subsidies were over and above the average in case of all others especially among the medium and large farmers. It was just Rs 3,261/- in the case of marginal farmers, which was less than half of the average followed by Rs 6,455/- of the small farmers. However, it was significant to note that the average subsidies were one and half and more than four and half times among the medium and large farmers, respectively. The average subsidy per farmer was the lowest among SC farmers with Rs 5,746/- as against Rs 8,011/- in the case of other farmers. However, the average was as high

Table 4.1: Direct Subsidies in Irrigated and Dry Areas (Khariff)

( In Rupees)

Area & Farm Size	Scheduled Castes			Scheduled Tribes			Others			Total		
	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%
<b>Irrigated Areas</b>												
Marginal	20	47,905	12.76	2	4,195	3.41	22	81,175	13.28	44	133,275	12.01
Small	16	141,810	37.76	2	29,555	24.01	19	187,170	30.62	37	358,535	32.30
Semi-Medium	6	104,355	27.79	1	18,545	15.07	4	106,740	17.46	11	229,640	20.69
Medium	2	81,450	21.69	1	70,790	57.51	4	109,050	17.84	7	261,290	23.54
Large	-	-	-	-	-	-	1	127,150	20.80	1	127,150	11.46
<b>Total</b>	<b>44</b>	<b>375,520</b>	<b>33.83</b>	<b>6</b>	<b>123,085</b>	<b>11.09</b>	<b>50</b>	<b>611,285</b>	<b>55.08</b>	<b>100</b>	<b>1,109,890</b>	<b>75.91</b>
<b>Dry Areas</b>												
Marginal	6	15,145	13.42	1	8,740	17.63	7	31,980	16.85	14	55,865	15.86
Small	13	32,375	28.68	3	15,040	30.33	16	39,425	20.77	32	86,840	24.66
Semi-Medium	12	15,890	14.08	3	6,730	13.57	15	51,780	27.28	30	74,400	21.12
Medium	8	33,460	29.64	2	19,075	38.47	10	37,050	19.53	20	89,585	25.43
Large	2	16,000	14.18	-	-	-	2	29,550	15.57	4	45,550	12.93
<b>Total</b>	<b>41</b>	<b>112,870</b>	<b>32.04</b>	<b>9</b>	<b>49,585</b>	<b>14.08</b>	<b>50</b>	<b>189,785</b>	<b>53.88</b>	<b>100</b>	<b>352,240</b>	<b>24.09</b>
<b>Irrigated + Dry Areas</b>												
Marginal	26	63,050	12.90	3	12,935	7.49	29	113,155	14.13	58	189,140	12.94
Small	29	174,185	35.67	5	44,595	25.83	35	226,595	28.29	69	445,375	30.46
Semi-Medium	18	120,245	24.62	4	25,275	14.64	19	158,520	19.78	41	304,040	20.79
Medium	10	114,910	23.53	3	89,865	52.04	14	146,100	18.24	27	350,875	24.00
Large	2	16,000	3.28	-	-	-	3	156,700	19.56	5	172,700	11.81
<b>Total</b>	<b>85</b>	<b>488,390</b>	<b>33.40</b>	<b>15</b>	<b>172,670</b>	<b>11.81</b>	<b>100</b>	<b>801,070</b>	<b>54.79</b>	<b>200</b>	<b>1,462,130</b>	<b>100</b>

as Rs 11,511/- in the case of ST farmers. By categories and size of farming also, the average subsidy varied greatly. But commonly, the average was far below the overall average among all the marginal farmers in addition to the small and semi-medium of SCs, small farmers of others and semi-medium farmers of ST categories. The average subsidies were in the order of Rs 2,425/- among the marginal SC farmers, followed by small (Rs 6,006/-), semi-medium (Rs 6,680/-), medium (Rs 11,491/-), and large farmers had (only Rs 8,000/-), which was far less (five and seven times) than other two categories of large farmers. In the case of ST farmers, the average subsidies were Rs 4,312/-, Rs 8,919/-, Rs 6,319/- and Rs 29,955/- for different sizes respectively. Similarly, it was Rs 3,902/-, Rs 6,474/-, Rs 8,343/-, Rs 10,435/- and finally, Rs 52,233/- for different sizes in the case of other farmers.

Notwithstanding the mal-distribution of subsidies as stated above, it is significant to note disappointing reality with regard to the average subsidies per farmer by irrigated and dry areas. At the outset, it is pathetic in the case of dry areas as it could garner only about less than one-fourth of the total direct subsidies during kharif season, as mentioned earlier. The average subsidies per farmer worked out to Rs 3,522/-, which reflected the relative position of the dry areas. Excepting the large farmers, the average subsidies of all the other farmers were far below, which ranged from a highest of Rs 4,479/- (medium) to lowest of Rs 2,480/- (semi-medium), whereas the situation with regard to irrigated area was contrarily opposite. The area with a huge share in the total subsidies had the average subsidy working out to Rs 11,099/- per farmer. The highest average ranged from Rs 1,27,150/- (large) to the lowest of Rs 3,029/- (marginal).

### **Direct Subsidies: Rabi**

Before we discuss the quantum and utilisation of subsidies in the rabi season it is necessary to say a few words about rabi or late agricultural activities. No doubt farmers do grow food crops in rabi season, if not the main crops. What is important to note, is that not all farmers grow crops and not the same amount of land is cultivated during the season as in the case of kharif. This is more so in the rainfed areas owing to irregular rains. Eventually, the public assistance, especially the quantum of subsidies, would obviously be less as compared to the kharif season. The quantum and pattern of subsidies in the rabi season in the study areas are the evidence supporting these arguments. The two major changes that could be noticed were: (a) reduction in the number of farmers especially in the dry areas. The total number of

farmers involved in the rabi cultivation was only 70 as against 100 in the kharif season. (b) Low level of subsidies - only a little more than one-third of the subsidies of kharif season had been invested in the rabi season. Besides, the dry areas had suffered significantly in terms of the quantum of subsidies they received.

In the rabi season, the total amount of subsidies worked out to RS 5.27 lakhs (table 4.2). This was certainly a two and a half time less than what was in the kharif season. Of the total subsidies in the rabi season, over one-third was garnered by the small farmers as in the case of kharif season. Marginal farmers, the next large group, were able to receive about one-fourth of the total. It was followed by a little over 21 per cent by semi- medium farmers, around 12 per cent by medium and the rest by the large farmers. By and large with the same scenario, irrigated areas accounted for a large share of Rs 4.78 lakhs in the total subsidies in rabi. In fact the irrigated area had further increased its share to 90.65 per cent as against 75.91 per cent in the kharif. As a result, the dry area's share in the total subsidies had been in the order of Rs 0.49 lakhs and in the percentage term it declined to just 9.35 per cent, which was two and a half fold lower than the kharif level. By social group, excepting the ST farmers, the other two categories had increased their share in the total subsidies in the rabi season. For example, 'other' farmers accounted for 57.89 per cent (54.79 per cent in kharif). Similarly, SC farmers had increased their share to 35.95 per cent (33.40 per cent in the kharif). However, the same was not the case with ST farmers, as they had garnered about only 6.16 per cent of subsidies, which is 5.65 point less than the kharif level.

With regard to the average subsidy per farmer, there was marked difference not only between the irrigated and dry areas by size of farming but also between the SC/ST and other farmers. The average subsidy per farmer was in the order of Rs 3,100/- in the rabi season. By size, the average subsidy worked out to Rs 2,469/- for marginal, Rs 3,107/- for small, Rs 3,621/- for semi-medium and Rs 3,118/- for medium farmers. Perhaps, the large farmers though were small in number registered more subsidies. In fact, it is Rs 7,388/- per farmer, which was two times more than the average. The irrigated area again established dominance in the utilisation of subsidies not only from the overall but also from per farmer perspectives. The overall subsidies per farmer in the irrigated area was in the order of Rs 4,777/- and by size, it worked out to Rs 2,865/-, Rs 4,766/-, Rs 8,831/- and Rs 7,617/- respectively for marginal, small, semi-medium and medium farmers. Significantly, the average subsidy was five-fold more in the case of large farmers at Rs 24,840/-. Much against this scenario, the position of average

subsidy per farmer was the lowest in the dry areas. The overall average was in the order of just Rs 704/-, which was three times less than the average. Still worst was the situation in the case of farmers by size. Excepting the large farmers, all the other farmers had utilised the same amount of average subsidies (Table 4.2), whereas the large farmers had reportedly received Rs 1,570/-, which was exceptionally more in the dry situation. Further, the average subsidy by social group was not different to that of the situation discussed already. Excepting the SC farmers, whose average subsidy was far less than the average, the farmers of other two categories had received fairly more subsidy. It was Rs 3,606/- for ST category farmers followed by Rs 3,280/- by others and whereas the average subsidy was only Rs 2,786/- among the SC farmers.

## II

### **Indirect Subsidies: Kharif**

The total quantum of indirect subsidies was in the order of Rs 6.13 lakhs in the study areas during kharif season. The number of farmers in each category of farmers largely guided the distribution and utilisation pattern of indirect subsidy. In other words, larger the number larger the share in total subsidies and *vice-versa*. Like in the cases of direct subsidies in kharif and rabi small farmers in large number accounted to a higher share in the total, which stood at Rs 1.79 lakhs (or over 29 per cent). Marginal farmer, the next largest group garnered about Rs 1.39 lakhs (around 23 per cent), further followed by Rs 1.23 lakhs by semi-medium, Rs 1.19 lakhs by medium and finally, the rest of Rs 0.54 lakhs by Rs large farmers. Contrary to the above, the situation was largely different when it was the average subsidy per farmer. Larger the number of farmers lower the average subsidy per farmer and *vice-versa*. In other words, the average subsidy was more among the smaller group of farmers rather than the other way round. It is clear from Table 4.4 that the average subsidy was highest among the large farmers with Rs 10,874/-, followed by Rs 4,389/-, Rs 2,998/-, Rs 2,588/- and Rs 2,395/- respectively by medium, semi-medium, small and marginal farmers.

The distribution and utilisation pattern of indirect subsidy across various social groups is, by and large, the same to that of direct subsidies. Over 52 per cent of indirect subsidy or Rs 3.20 lakhs were utilised by the farmers other than the SCs and STs, whereas

**Table 4.2: Direct Subsidies in Irrigated and Dry Areas (Rabi)**

(In Rupees)

Area & Farm Size	Scheduled Castes			Scheduled Tribes			Others			Total		
	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%
<b>Irrigated Areas</b>												
Marginal	20	40,485	23.36	2	4,195	15.32	22	81,375	29.37	44	126,055	26.39
Small	16	58,215	33.60	2	8,075	29.48	19	110,055	39.73	37	176,345	36.91
Semi-Medium	6	53,285	30.75	1	7,225	26.38	4	36,640	13.23	11	97,150	20.34
Medium	2	21,295	12.25	1	7,895	28.82	4	24,130	8.70	7	53,320	11.16
Large	-	-	-	-	-	-	1	24,840	8.97	1	24,840	5.20
<b>Total</b>	<b>44</b>	<b>173,280</b>	<b>36.27</b>	<b>6</b>	<b>27,390</b>	<b>5.73</b>	<b>50</b>	<b>277,040</b>	<b>58.00</b>	<b>100</b>	<b>477,710</b>	<b>90.65</b>
<b>Dry Areas</b>												
Marginal	4	1,673	10.35	-	-	-	6	5,574	19.88	10	7,247	14.71
Small	9	4,141	25.62	1	3,710	73.32	14	5,320	18.97	24	13,171	26.73
Semi-Medium	5	4,430	27.40	2	1,350	26.68	13	9,320	33.23	20	15,100	30.64
Medium	5	4,540	28.09	-	-	-	8	4,500	16.05	13	9,040	18.35
Large	1	1,380	8.54	-	-	-	2	3,330	11.87	3	4,710	9.56
<b>Total</b>	<b>24</b>	<b>16,164</b>	<b>32.81</b>	<b>3</b>	<b>5,060</b>	<b>10.27</b>	<b>43</b>	<b>28,044</b>	<b>56.92</b>	<b>70</b>	<b>49,268</b>	<b>9.35</b>
<b>Irrigated + Dry Areas</b>												
Marginal	24	42,158	22.25	2	4,195	12.93	28	86,949	28.50	54	133,302	25.30
Small	25	62,356	32.91	3	11,785	36.32	33	115,375	37.82	61	189,516	35.96
Semi-Medium	11	57,715	30.47	3	8,575	26.43	17	45,961	15.07	31	112,251	21.30
Medium	7	25,835	13.64	1	7,895	24.32	12	28,630	9.38	20	62,360	11.83
Large	1	1,380	0.74	-	-	-	3	28,170	9.23	4	29,550	5.61
<b>Total</b>	<b>68</b>	<b>189,444</b>	<b>35.95</b>	<b>9</b>	<b>32,450</b>	<b>6.16</b>	<b>93</b>	<b>305,084</b>	<b>57.89</b>	<b>170</b>	<b>526,978</b>	<b>100</b>

**Table 4.3: Indirect Subsidies in Irrigated and Dry Areas (Kharif)**

(In Rupees)

Area & Farm Size	Scheduled Castes			Scheduled Tribes			Others			Total		
	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%
<b>Irrigated Areas</b>												
Marginal	20	18,755	35.61	2	2,280	25.84	22	22,395	36.86	44	43,430	35.53
Small	16	21,365	40.56	2	2,805	31.78	19	23,785	39.15	37	47,955	39.23
Semi-Medium	6	8,810	16.73	1	1,870	21.19	4	7,055	11.61	11	17,735	14.51
Medium	2	3,740	7.10	1	1,870	21.19	4	5,650	9.30	7	11,260	9.20
Large	-	-	-	-	-	-	1	1,870	3.08	1	1,870	1.53
<b>Total</b>	<b>44</b>	<b>52,670</b>	<b>43.08</b>	<b>6</b>	<b>8,825</b>	<b>7.22</b>	<b>50</b>	<b>60,755</b>	<b>49.70</b>	<b>100</b>	<b>122,250</b>	<b>19.93</b>
<b>Dry Areas</b>												
Marginal	6	26,395	16.74	1	15,040	20.31	7	54,030	20.84	14	95,465	19.44
Small	13	47,145	29.90	3	25,140	33.93	16	58,325	22.50	32	130,610	26.61
Semi-Medium	12	25,090	15.91	3	10,330	13.94	15	69,780	26.92	30	105,200	21.42
Medium	8	39,060	24.77	2	23,575	31.82	10	44,620	17.20	20	107,255	21.84
Large	2	20,000	12.68	-	-	-	2	32,500	12.54	4	52,500	10.69
<b>Total</b>	<b>41</b>	<b>157,690</b>	<b>32.11</b>	<b>9</b>	<b>74,085</b>	<b>15.09</b>	<b>50</b>	<b>259,255</b>	<b>52.80</b>	<b>100</b>	<b>491,030</b>	<b>80.07</b>
<b>Irrigated + Dry Areas</b>												
Marginal	26	45,150	21.46	3	17,320	20.89	29	76,425	23.88	58	138,895	22.64
Small	29	68,510	32.57	5	27,945	33.71	35	82,110	25.66	69	178,565	29.12
Semi-Medium	18	33,900	16.12	4	12,200	14.71	19	76,835	24.01	41	122,935	20.05
Medium	10	42,800	20.35	3	25,445	30.69	14	50,270	15.71	27	118,515	19.32
Large	2	20,000	9.50	-	-	-	3	34,370	10.74	5	54,370	8.87
<b>Total</b>	<b>85</b>	<b>210,360</b>	<b>34.30</b>	<b>15</b>	<b>82,910</b>	<b>13.52</b>	<b>100</b>	<b>320,010</b>	<b>52.18</b>	<b>200</b>	<b>613,280</b>	<b>100</b>

the SC/ST farmers shared the rest in the ratio of 34.30:13.52 per cent, which was in absolute terms, worked out to Rs 2.10 and Rs 0.83 lakhs, respectively. But what was significant to note was that the average subsidy was well above the averages excepting in the case of SC farmers in which case the same was far below the average. In real terms, it was higher by Rs 134/- per farmer in the other category. Similarly, it was higher by Rs 2,461/- per farmer of ST category, whereas, the SC farmers had received Rs 591/- lesser than the average subsidy per farmer. Across the various sizes of farmers, large farmers irrespective of their social background had received subsidy indirectly, which was not only more than the overall average but also the average of social categories. For example, large farmers in the other category of farmers had an average subsidy of Rs 11,457/-, which was over three and half time more than the overall average as well as the respective average. Similarly, it is four times higher in the case of SC large farmers. That apart, ST farmers of all sizes had received more indirect subsidy as compared to other two groups of farmers. It needs to be mentioned here that in the case of marginal, small and medium farmers, the average subsidy was over two times than the averages of all farmers.

With regard to the distribution of indirect subsidy by irrigated and dry areas, the latter improved their share significantly during the kharif season, as compared to the direct subsidies. It is evident from the table that of the total indirect subsidy of Rs 6.13 lakhs, the share of dry areas was in the order of Rs 4.91 lakhs or 80 per cent. Respectively, the share of the others/SC/ST farmers worked out to Rs 2.59 lakhs (52.80 per cent), Rs 1.58 lakhs (32.11 per cent) and Rs 0.74 lakhs (15.09 per cent). As a result of the increase in the total share the average subsidy per farmer was in the order of Rs 5,185/- (others) and Rs 8,232/- (ST farmers), which was certainly higher than the respective average of Rs 4,910/-. However, the same was not the case with SC farmers. The average subsidy per farmer was only in the order of Rs 3,846/- which was not only far below the overall average of the dry areas but also of the other two categories of farmers.

### **Indirect Subsidies: Rabi**

Rabi, being the last trench of sowing, agricultural activities are not taken up briskly for reasons stated already. Therefore, the investment will be poor and not all farmer sow in rabi season. It is evident from Table 4.4 that a little more than three-fourth of the farmers were sown in the rabi season and the indirect subsidy was of the order of Rs 1.82 lakhs. The average indirect subsidy per farmer was as little as Rs 1,159/- per farmer. It is indeed

necessary to say that the apathy of mal-distribution continues in the distribution even in the case of indirect subsidy in rabi season also. Though at the outset it appeared that marginal and small farmers, being in large numbers, received more subsidy in absolute terms but in real term it was not the case. The average indirect subsidy received by these two categories of farmers was in the order of Rs 930 and Rs 1103/-, which was very less than the average of Rs 1,159/-. On the other hand, the average subsidy received by other categories of farmers was in the order ranging between Rs 1,371/-and Rs 1,861/-.

Like in any other form of subsidy, even in the indirect subsidy also, non-SC/ST farmers had established dominance in terms of quantum of subsidy garnered by them. They accounted for Rs 0.93 lakhs as against Rs 0.65 and Rs 0.23 lakhs by SCs and STs, respectively. It worked out to 51.34, 35.99 and 12.67 per cent, respectively. However, when it came to the question of average subsidy, the scenario was slightly different. Practically, excepting the semi-medium farmers, all the other farmers of ST community had received higher subsidy. The average subsidy worked out to Rs 1,646/-, which was as high as Rs 487/-. Even in the case of small and medium farmers of the category, the average subsidy was far more than the respective overall average which was over and above Rs 913/- in the case of small farmers. Similarly, it was Rs 640/- in the case of medium farmers. Further, similar was the case with the non-SC/ST farmers. However, what disturbed was the lowest average subsidy per farmer by the SC farmers and especially the marginal, small and semi- medium sizes. The average subsidy was just Rs 992/- per farmer and it was the lowest in the case of marginal farmers, which stood at Rs 671/- or Rs 259/- less than the respective overall average.

Coming to the distribution of indirect subsidy between irrigated and dry areas, the dominance established by dry areas with regard to indirect subsidy in kharif season could not be sustained subsequently or irrigated areas had significantly improved their share in the total. Between these two areas, the indirect subsidy was almost equally shared at least in absolute terms as seen in the table. Dry areas had garnered about RS 0.92 lakhs (51 per cent) as against RS 0.90 lakhs (49 per cent) by irrigated areas. However, the increase on the part of irrigated areas in the share had not contributed to the increase in the average subsidy per farmer. It remained the lowest at Rs 896/- across all sizes of farmers in the irrigated areas. Contrarily, by all sizes, the average subsidy was far higher which stood at Rs 1,619/- in the case of dry areas.

Table 4.4: Indirect Subsidies in Irrigated and Dry Areas (Rabi)

(In Rupees)

Area & Farm Size	Scheduled Castes			Scheduled Tribes			Others			Total		
	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%	No.	Total Subsidy	%
<b>Irrigated Areas</b>												
Marginal	20	14,885	39.57	2	2,280	35.35	22	20,835	45.74	44	38,000	42.40
Small	16	15,155	40.30	2	1,870	28.99	19	16,950	37.22	37	33,975	37.92
Semi-Medium	6	5,700	15.16	1	935	14.50	4	4,015	8.82	11	10,650	11.89
Medium	2	1,870	4.97	1	1,365	21.16	4	2,810	6.12	7	6,045	6.75
Large	-	-	-	-	-	-	1	935	2.05	1	935	1.04
<b>Total</b>	<b>44</b>	<b>37,610</b>	<b>41.97</b>	<b>6</b>	<b>6,450</b>	<b>7.20</b>	<b>50</b>	<b>45,545</b>	<b>50.83</b>	<b>100</b>	<b>89,605</b>	<b>49.26</b>
<b>Dry Areas</b>												
Marginal	6	2,573	9.23	1	551	3.32	6	11,874	24.82	13	14,998	16.25
Small	7	7,741	27.78	3	8,210	49.45	8	10,720	22.40	18	26,671	28.89
Semi-Medium	5	8,030	28.83	2	2,250	13.56	8	14,720	30.77	15	25,000	27.08
Medium	3	7,240	25.98	2	5,590	33.67	3	6,300	13.17	8	19,130	20.72
Large	1	2,280	8.18	-	-	-	2	4,230	8.84	3	6,510	7.06
<b>Total</b>	<b>22</b>	<b>27,864</b>	<b>30.19</b>	<b>8</b>	<b>16,601</b>	<b>17.98</b>	<b>27</b>	<b>47,844</b>	<b>51.83</b>	<b>57</b>	<b>92,309</b>	<b>50.74</b>
<b>Irrigated + Dry Areas</b>												
Marginal	26	17,458	26.66	3	2831	12.28	28	32,709	35.02	57	52,998	29.13
Small	23	22,896	34.97	5	10080	43.73	27	27,670	29.63	55	60,646	33.34
Semi-Medium	11	13,730	20.97	3	3185	13.82	12	18,735	20.06	26	35,650	19.60
Medium	5	9,110	13.92	3	6955	30.17	7	9,110	9.75	15	25,175	13.84
Large	1	2,280	3.48	-	-	-	3	5,165	5.54	4	7,445	4.09
<b>Total</b>	<b>66</b>	<b>65,474</b>	<b>35.99</b>	<b>14</b>	<b>23051</b>	<b>12.67</b>	<b>77</b>	<b>93,389</b>	<b>51.34</b>	<b>157</b>	<b>181,914</b>	<b>100</b>

### **Total Agricultural Subsidies (Direct + Indirect)**

The total agricultural subsidies of both direct and indirect and for irrigated and dry areas were in the order of Rs 27.84 lakhs in the study areas as can be seen in Table 4.5. There are three important points to note. First, between the two extreme different agricultural situations, irrigated areas had garnered most of the subsidy benefits as compared with the dry areas. Second, between the types of subsidies, direct subsidy played an important role than the indirect subsidies in assisting various farmers. Finally, across different sizes of farming/ farmers, it was the small farming segment that obtained higher share in the total subsidy than the other farming segments. Irrigated areas accounted for a total of Rs 17.99 lakhs (64.63 per cent). Similarly, small farmers accounted for Rs 8.74 lakhs (31.39 per cent) and the share of the direct subsidy was in the order of Rs 19.89 lakhs (71.44 per cent). In other words, dry areas and the farmers other than small segments had only a small share in the total subsidy. Further, indirect subsidy component in the total subsidy was only one-fourth. With these main features of the agricultural subsidies, the following paragraphs provide an overall account of distribution by type of subsidies, size of farmers and by areas.

Between the kharif and rabi seasons, three- fourth of total subsidy was utilised in the kharif season. The total subsidy utilised in kharif was of the order of Ra 20.75 lakhs as against just Rs 7.09 lakhs in rabi. On this point, the pattern was the same in irrigated as well as in dry areas, excepting for variation in degrees. About Rs 12.32 lakhs were utilised in the kharif season in irrigated areas, which worked out to over 68 per cent, whereas in the dry areas, except for a meagre sum, a large quantum of subsidy was utilised in kharif season alone. The total subsidy utilised in the kharif was of the order of Rs 8.43 lakhs out of the total Rs 9.85 lakhs, which worked out to over 85 per cent. It is interesting to note that irrespective of whether kharif or rabi, the small farmers utilised higher subsidies than any other segments. They accounted for RS 6.24 lakhs in kharif and RS 2.50 lakhs in rabi, which was respectively 30 and 35 per cent in their total. Similarly, in terms of the quantum of subsidy utilised, the next category to use more subsidy was medium, semi- medium, marginal and large farmers in the kharif season, whereas in the case of rabi. It was the marginal farmers who garnered the second highest subsidy, followed by semi- medium, medium and large farmers.

Table 4.5: Total Agricultural Subsidies (Direct and Indirect) in Irrigated and Dry Areas

(In Rupees)

Area & Farm Size	Direct			Indirect			Total		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
<b>Irrigated Areas</b>									
Marginal	1.33(11.99)	1.26(26.42)	2.59(16.31)	0.43(35.53)	0.38(42.40)	0.81(38.44)	1.77(14.34)	1.64(28.93)	3.41(18.94)
Small	3.58(32.28)	1.76(36.90)	5.35(33.69)	0.48(39.23)	0.34(37.92)	0.82(38.67)	4.06(32.99)	2.10(37.07)	6.17(34.28)
Se.Medi	2.30(20.74)	0.97(20.34)	3.27(20.59)	0.18(14.51)	0.10(11.89)	0.28(13.40)	2.47(20.08)	1.08(19.00)	3.55(19.74)
Medium	2.61(23.53)	0.53(11.11)	3.14(19.82)	0.11(9.20)	0.06(6.75)	0.17(8.17)	2.73(22.12)	0.59(10.46)	3.32(18.44)
Large	1.27(11.46)	0.25(5.24)	1.52(9.57)	0.02(1.53)	0.01(1.04)	0.02(1.32)	1.29(10.47)	0.26(4.54)	1.55(8.60)
<b>Total</b>	<b>11.09(69.84)</b>	<b>4.77(30.04)</b>	<b>15.88(88.23)</b>	<b>1.32(57.70)</b>	<b>0.89(42.30)</b>	<b>2.12(11.77)</b>	<b>12.32(68.47)</b>	<b>5.67(31.53)</b>	<b>17.99(64.63)</b>
<b>Dry Areas</b>									
Marginal	0.56(15.86)	0.07(14.71)	0.63(15.72)	0.95(19.44)	0.10(16.25)	1.10(18.94)	1.51(17.94)	0.22(15.71)	1.74(17.62)
Small	0.87(24.65)	0.13(26.73)	1.00(24.91)	1.31(26.60)	0.27(28.89)	1.57(26.96)	2.17(25.78)	0.40(28.14)	2.57(26.13)
Se.Medi	0.74(21.12)	0.15(30.65)	0.90(22.29)	1.05(21.42)	0.25(27.08)	1.30(22.32)	1.80(21.30)	0.40(28.32)	2.20(22.30)
Medium	0.90(24.53)	0.09(18.35)	0.99(24.56)	1.07(21.85)	0.19(20.72)	1.26(21.66)	1.97(23.34)	0.28(19.90)	2.25(22.85)
Large	0.46(12.93)	0.04(9.56)	0.50(12.52)	0.52(10.69)	0.06(7.06)	0.59(10.12)	0.98(11.64)	0.11(7.93)	1.09(11.10)
<b>Total</b>	<b>3.53(87.73)</b>	<b>0.49(12.27)</b>	<b>4.02(40.77)</b>	<b>4.91(84.18)</b>	<b>0.92(15.82)</b>	<b>5.83(59.23)</b>	<b>8.43(85.62)</b>	<b>1.42(14.38)</b>	<b>9.85(35.37)</b>
<b>Irrigated and Dry</b>									
Marginal	1.89(12.94)	1.33(25.30)	3.22(16.21)	1.39(22.64)	0.53(29.13)	1.92(24.13)	3.28(15.81)	1.86(26.28)	5.14(18.47)
Small	4.45(30.46)	1.90(35.96)	6.35(31.92)	1.79(29.12)	0.61(33.34)	2.39(30.08)	6.24(30.06)	2.50(35.29)	8.74(31.39)
Se.Medi	3.04(20.79)	1.12(21.30)	4.16(20.93)	1.23(20.05)	0.36(19.60)	1.59(19.95)	4.27(20.57)	1.48(20.86)	5.75(20.65)
Medium	3.50(24.00)	0.62(11.83)	4.13(20.77)	1.19(19.32)	0.25(13.84)	1.44(18.07)	4.69(22.62)	0.87(12.37)	5.60(20.00)
Large	1.73(11.81)	0.30(5.61)	2.02(10.17)	0.54(8.87)	0.07(4.09)	0.62(7.77)	2.27(10.94)	0.37(5.22)	2.64(9.48)
<b>Total</b>	<b>14.62(73.51)</b>	<b>5.27(26.49)</b>	<b>19.89(71.44)</b>	<b>6.13(77.12)</b>	<b>1.81(22.88)</b>	<b>7.95(28.56)</b>	<b>20.75(74.54)</b>	<b>7.09((25.46)</b>	<b>27.84</b>

Kharif is not only known as advanced season for agricultural sowing but also for attracting more direct and indirect subsidies. This is evident from the table that out of the total direct subsidies of Rs 19.89 lakhs, an amount of Rs 14.62 lakhs was invested in kharif season alone, which worked out to over 73 per cent. Similarly, the season had further attracted about Rs 6.13 lakhs out of the total of Rs 7.95 lakhs of indirect subsidy. In other words, only a little more than 26 and around 23 per cent of indirect subsidy had been invested in the rabi season. Under the direct subsidy, the volume in absolute terms was more during kharif in irrigated as well as dry areas, but in relative terms almost ninety per cent of the subsidy was utilised in kharif only and as a result only a marginal amount was available for the rabi season. However, in the irrigated areas since agricultural activities were taken up on medium scale, the volume of the subsidy was in the order of a little less than one-third. Further, in the case of indirect subsidy, the position appeared to be improving as far as the volume of the subsidy in the irrigated areas during the rabi season was concerned. It has increased by over 12 points as against the direct subsidy of rabi season. Also, in the case of the dry areas, the volume of indirect subsidy increased by over 3 points during the rabi season and to that extent the utilisation pattern of subsidy in kharif had been reduced.

### **Per Farm and Per Hectare Subsidy**

Of the total subsidy for the study areas, a bulk of it was expected in the Kharif season. In other words, the subsidy received during the rabi used to be comparatively less as is evident from Table 4.6. It is evident further that between SCs/STs and others, these formers had relatively utilised the subsidies to full extent. Farmers other than SCs/STs accounted for a total subsidy of more than 55 per cent and 59 per cent during Kharif and rabi respectively as against 34 per cent and 36 per cent of SCs and 12 per cent and 5 per cent of STs. If the per farm subsidy (direct and indirect) for other farmers worked out to Rs 11,211/-, the same was not the case with SCs/STs. It was Rs 9,075/- for per SC farm and Rs 11,112 for ST farm during Kharif season. Against this unfavorable situation, per hectare subsidy was, by and large, comparable across all social groups of farmers during the period. However, it was not the case with regard to rabi season. SC farmers who had lower share in the Kharif season had gained during the rabi season to some extent. Per farm subsidy of SCs during rabi season was Rs 3,311/- which was far above in the case of other farmers with Rs 1,978/- and ST farmers with Rs 1,513/-.

**Table 4.6: Per Farm and Per Hectare Input Subsidies (Direct and Indirect)**

(Amount in Rupees)

Subsidy by Season	Total Amount	Schedule caste				Schedule tribes				Others			
		Total	%	Per Farm	Per Hact.	Total	%	Per Farm	Per Hact.	Total	%	Per Farm	Per Hact.
<b>Direct</b>													
<b>Kharif</b>	<b>1,462,130</b>	488,390	33.40	634343	3,653	172,670	11.81	7,507	3,548	801,070	55.79	8,011	3,781
<b>Rabi</b>	<b>526,978</b>	189,440	35.95	2460	1,417	32,450	6.16	1,411	667	305,088	57.89	3,051	1,440
<b>Indirect</b>													
<b>Kharif</b>	<b>613,280</b>	210,360	34.30	2732	1,573	82,910	13.52	3,605	1,704	320,010	52.18	3,200	1,510
<b>Rabi</b>	<b>181,914</b>	65,474	35.99	850	490	2,351	1.29	102	48	114,089	62.72	1,141	538
<b>Direct + Indirect</b>													
<b>Kharif</b>	<b>2,075,410</b>	698,750	33.67	9075	5,226	255,580	12.31	11,112	5,252	112,108	55.02	11,211	5,291
<b>Rabi</b>	<b>708,892</b>	254,914	35.96	3311	1,907	34,801	4.91	1,513	716	419,177	59.13	14,192	1,978

## IV

### Food Subsidy

In this section, we present an analysis of the utilisation pattern of food subsidy by social groups and by farming sizes in irrigated and dry areas. The quantity and the rupee values of wheat, sugar and kerosene received by farmers have been given separately.

### SC Farmers

The total food subsidy availed by SC farmer was of the order of Rs 1,677/- in the study districts. Wheat, sugar and kerosene being the food and non- food items supplied through public distribution system, a major component under the food subsidy was the non- food item (kerosene) as compared to food items. It can be noticed from Table 4.6 that a total worth of Rs 988/ or 111 litres of kerosene were availed by the farmers, which formed 60 per cent in the total subsidy. Lack of electricity as a source of lighting at the SC households prompted more consumption of kerosene. Among the food items, though wheat was distributed in large quantities (63 kgs) as against only 27 kgs of sugar, in terms of the rupee value, sugar was distributed to the extent of Rs 361/- as against Rs 338/- towards wheat. Total quantity of both wheat and sugar was about 90 kgs or Rs 669/-. Further, it is interesting to note about the average consumption of food and non-food items of subsidy among the SC farmers. It worked out to 0.74 kg for wheat, 0. 32 kg of sugar and 1.31 litres of kerosene per family. In the money term the same was Rs 3.98/-, Rs 4.25/- and Rs 11.62/- respectively. Furthermore, as usual, it was the small farmers who had higher share in the total food subsidy. They consumed a total worth of Rs 641/- (39 per cent), followed by marginal farmers (Rs 475/- or 29 per cent), semi- medium (Rs 304/- or 18 per cent), large (Rs 127/-or 7.66 per cent) and medium (Rs 108/-or 6.52 per cent). The average food subsidy per farmer was Rs 22/-, Rs 18/-, Rs 17/-, Rs 64/ and Rs 11/-, respectively. (Table.4.7)

The distribution of food subsidy between irrigated and dry areas was characterised by dis-appointments and extreme differences. Of the total food subsidy, irrigated accounted for Rs 1,594/- or 96 per cent. As a result the dry areas were left with the meagre or only Rs 83/ or 4 per cent. The average food subsidy per farmer was Rs 36.25/- in irrigated areas as against Rs 2/- only in dry areas. Though the scenario in irrigated area was reasonable good in all aspects, in the dry areas, low level consumption

Table 4.7: Food Subsidy Availed by SC Farmers in Irrigated and Dry Areas

Area & Farm Size	Wheat		Sugar		Total		Kerosene		Total Subsidy
	Kg	Value (Rs)	Kg	Value (Rs)	Kg	Value (Rs)	Liters	Value (Rs)	
<b>Irrigated Areas</b>									
Marginal	24	136	9	122	33	258	19	171	429
Small	7	39	3	41	10	80	66	594	674
Semi-Medium	14	77	8	108	22	185	10	90	275
Medium	5	27	2	27	7	54	5	45	99
Large	6	30	3	42	9	72	5	45	117
<b>Total</b>	<b>56</b>	<b>309</b>	<b>25</b>	<b>340</b>	<b>81</b>	<b>649</b>	<b>105</b>	<b>945</b>	<b>1594</b>
<b>Dry Areas</b>									
Marginal	3	5	1	13	3	18	2	18	36
Small	1	3	-	-	3	3	1	4	7
Semi-Medium	1	6	1	8	2	14	1	7	21
Medium	1	2	-	-	1	2	1	7	9
Large	1	3	-	-	1	3	1	7	10
<b>Total</b>	<b>7</b>	<b>29</b>	<b>2</b>	<b>21</b>	<b>9</b>	<b>40</b>	<b>6</b>	<b>43</b>	<b>83</b>
<b>Irrigated and Dry Areas</b>									
Marginal	27	151	10	135	37	286	21	189	475
Small	8	42	3	41	11	43	67	598	641
Semi-Medium	15	83	9	116	24	209	11	97	306
Medium	6	29	2	27	8	56	6	52	108
Large	7	33	3	42	10	75	6	52	127
<b>Total</b>	<b>63</b>	<b>338</b>	<b>27</b>	<b>361</b>	<b>90</b>	<b>669</b>	<b>111</b>	<b>988</b>	<b>1677</b>

of food items supplied through public distribution system could be observed. The total consumption of wheat was only 7 kgs. Similarly it was only about 2 kgs in the case of sugar. Preferential consumption of jowar and jaggery was said to be the reason for lowest consumption of wheat and sugar in dry areas.

### **ST Farmers**

The position with regard to utilisation of food subsidy by the ST farmers was not as precarious as SC farmers in the sense that not only had they received more quantity of food items but also in the rupee term. The total food subsidy as availed by ST farmers was in the order of Rs 949/- and the average per farmer worked out to Rs 63.26/- as against Rs 19.49/- in the case of SC farmers. However, one significant change in the composition of consumption of food subsidy was that the food quantity and their values were more than the non- food component, i.e., kerosene. It was largely due to more access to electricity as a source of lighting. ST farmers had together utilised 71 kgs of wheat and sugar. The same in the rupee term worked out to Rs 583/-. Further, only about 42 litres of kerosene was availed with a total rupee value of Rs 374/-. Across the various farming sizes, the utilisation pattern was quite different. Marginal farmers were in the forefront in the consumption of food items and non-food items through PDS. This category of farmers had together utilised about 53 kgs of food items and 24 litres of kerosene with a total value of Rs 434/ and Rs 219/- respectively. The average value per farmer was Rs 145 /- in food items and Rs 73/- in non-food items. Together they accounted for Rs 653/-, which was 69 per cent of the total food subsidy. The second group to benefit more was the small farmer, who accounted for Rs 166/- or 17 per cent in the total food subsidy. The average subsidy was Rs 33.20/- in general, Rs 13/- in food items and Rs 20.20/- in non- food items. This was followed by semi-medium farmers who had availed food subsidy benefit to the extent up to Rs 93/- with an average of Rs 23.25/- and the medium farmers with Rs 37/- and an average of Rs 12.33/-. Since all the medium farmers had access to household electricity, they had not availed the kerosene (Table 4.8).

The distribution pattern of food subsidy availed by ST farmers in the irrigated and dry districts was similar to that of SC farmers. As usual, the irrigated area accounted for a majority in the total as against dry area. Similarly, excepting the large farmers in the irrigated areas all other farmers had availed food subsidy as against a few categories of farmers in dry areas. The success in the distribution of food subsidy was largely attributed to the availability of

distribution centres and their access to the ST farmers. Scheduled tribes residing in remote/interior areas lacked distribution centers and therefore, access to food subsidy by the ST farmers was not encouraging especially in dry areas. This point could be further substantiated in the context of irrigated areas. ST farmers in irrigated areas had better access to the distribution centers and they could avail the food subsidy up to Rs 808/- (Rs 493 in food items and Rs 315 in the non- food items) in the total, which worked out to over 85 per cent. The average subsidy was in the order of Rs 135 /- (Rs 82 in food and Rs 53/-in non- food items). However the same was not the case with ST farmers in the dry areas. They accounted for only Rs 141/- (Rs 82 in food and Rs 59 /-in non- food items) and the average subsidy was as lower as Rs 16/- (Rs 9/- in food and Rs 7/- in non- food items). This alone is a clear reflection of the dismal situation of the farmers in the dry areas, in general, and especially of the ST farmers, in particular.

### **Other Farmers**

The total food subsidy as availed by the farmers other than SCs/STs was in the order of Rs 1,651/-. Unlike SC farmers, the food component in the food subsidy was more than the non-food component. Within food items, sugar was largely availed than wheat, which was little less than the total consumption of SC/ ST farmers together. Marginal and semi – medium farmers availed more food subsidy than the other farmers. Finally, as in the case of others, irrigated areas accounted for more food subsidies than dry areas. The average food subsidy per farmer being Rs 16.51/- which was not common across the different sizes of farmers. Excepting in the case of small and medium farmers, the average food subsidy was even more at Rs 25.14/- for marginal and Rs 22.42/- for semi-medium farmers, whereas in the case of small and medium farmers, the average subsidy was almost four folds less than the overall average. However, the utilisation of food subsidy was highest in the case of large farmers at Rs 95/- per farmer, which was around six times more than the average. Under the food items though wheat was consumed in large quantity to the tune of 82 kgs, but in money terms Sugar was availed more than wheat. The volume of subsidy for sugar was Rs 643/- (or Rs 6.43/- per farmer) as against Rs 418/- for wheat. On the whole, the marginal and semi- medium farmers consumed more than 65 per cent of wheat and sugar (Table 4.9).

The distribution of food subsidy availed by other farmers in irrigated and dry areas were not different from that of SC/ST farmers. For reasons mentioned earlier, irrigated areas benefited largely with the existence of distribution centres and increasing access. It is

**Table 4.8: Food Subsidy Availed by ST Farmers in Irrigated and Dry Areas**

Area & Farm Size	Wheat		Sugar		Total		Kerosene		Total Subsidy
	Kg	Value (Rs)	Kg	Value (Rs)	Kg	Value (Rs)	litres	Value (Rs)	
<b>Irrigated Areas</b>									
Marginal	30	154	15	203	45	357	20	180	537
Small	2	11	4	54	6	65	10	90	155
Semi-Medium	5	28	1	14	6	34	5	45	79
Medium	3	15	2	22	5	37	-	-	37
Large	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>40</b>	<b>208</b>	<b>22</b>	<b>293</b>	<b>62</b>	<b>493</b>	<b>35</b>	<b>315</b>	<b>808</b>
<b>Dry Areas</b>									
Marginal	5	33	3	44	8	77	4	39	116
Small	-	-	-	-	-	-	2	11	11
Semi-Medium	1	5	-	-	1	5	1	9	14
Medium	-	-	-	-	-	-	-	-	-
Large	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>6</b>	<b>38</b>	<b>3</b>	<b>44</b>	<b>9</b>	<b>82</b>	<b>7</b>	<b>59</b>	<b>141</b>
<b>Irrigated and Dry Areas</b>									
Marginal	35	187	18	247	53	434	24	219	653
Small	2	11	4	54	6	65	12	101	166
Semi-Medium	6	33	1	14	7	39	6	54	93
Medium	3	15	2	22	5	37	-	-	37
Large	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>46</b>	<b>246</b>	<b>25</b>	<b>337</b>	<b>71</b>	<b>583</b>	<b>42</b>	<b>374</b>	<b>949</b>

amply clear that out of the food subsidy as availed by others irrigated areas accounted for 96 per cent. The farmers of irrigated areas availed sugar subsidy worth of Rs 618/- (Rs 12.36/- per farmer) and Rs 402/- worth of wheat subsidy (Rs 8.04/-per farmer). A total worth of Rs 572/- (Rs 11.44/-per farmer) was availed towards kerosene. However, the distribution pattern of food subsidy was highly disappointing in the dry areas. The total food subsidy that went into dry areas was as small as just Rs 59/-, in which food component was in the order of Rs 41/- and the remaining was towards kerosene. Farmers of dry areas had availed a total quantity of just 3 kgs of wheat, 2 kgs of sugar and just 2 litres of kerosene. In money terms the total value was respectively Rs 16/-, Rs 25/- and Rs 18 /-. If this was the situation as far as food subsidy as availed by the farmers of dry land, less said the better about the average food subsidy per farmer. Further, marginal farmers were the fortunate ones to avail more food subsidy in dry areas as compared to medium and semi- medium farmers.

### **Total Food Subsidy**

Comparatively, the volume of food subsidy as availed by the farmers in the irrigated and dry areas was as meagre as Rs 4,257/-. As can be seen in Table 4.9, the total food subsidy was proportionately shared by all the social groups. SC farmers availed the food subsidy to the extent of Rs 1,657/-, ST farmers to the tune of Rs 949/- and finally, Rs 1,651/- by other farmers. In percentage terms, it worked out to 38.92, 22.29 and 38.79 respectively. Coming to the point of distribution of food subsidy by farmers across sizes, it is important to note the healthy trend set in, by and large, except for a minor deviation in the sense that large farmers had availed more food subsidy than medium farmers. The most disadvantaged farmers had higher share in the subsidy and the prosperous group with fewer subsidies. Marginal farmers, the disadvantaged group availed the benefit to the tune of Rs 1,857/-, which was over 43 per cent. Small and semi-medium, large and medium farmers followed this. But the pattern of availing food subsidy by different social groups was not common. For example, it was the small farmers who benefited largely in the case of SC farmers. However, in the case of ST and others, marginal farmers received more food subsidy.

The legacy of garnering more subsidies, be it input or food, by irrigated areas is unchecked and at the same time, dry areas were receiving a very negligible amount of subsidy. It should be made clear that dry areas had not lost their share of subsidy in favour of irrigated areas or irrigated areas had not utilised subsidy at the cost of dry areas. But one factor, which

Table 4.9: Food Subsidy Availed by Other Farmers in Irrigated and Dry Areas

Area & Farm Size	Wheat		Sugar		Total		Kerosene		Total Subsidy
	Kg	Value (Rs)	Kg	Value (Rs)	Kg	Value (Rs)	litres	Value (Rs)	
<b>Irrigated Areas</b>									
Marginal	36	181	19	258	55	439	27	243	682
Small	8	38	4	53	12	91	6	54	145
Semi-Medium	25	130	7	94	32	224	22	198	422
Medium	5	25	3	41	8	66	-	-	66
Large	5	28	12	172	17	200	8	77	277
<b>Total</b>	<b>79</b>	<b>402</b>	<b>45</b>	<b>618</b>	<b>124</b>	<b>1020</b>	<b>63</b>	<b>572</b>	<b>1592</b>
<b>Dry Areas</b>									
Marginal	2	12	1	17	3	29	2	18	47
Small	-	-	-	-	-	-	-	-	-
Semi-Medium	1	4	-	-	1	4	-	-	4
Medium	-	-	-	-	-	-	-	-	-
Large	-	-	1	8	1	8	-	-	8
<b>Total</b>	<b>3</b>	<b>16</b>	<b>2</b>	<b>25</b>	<b>5</b>	<b>41</b>	<b>2</b>	<b>18</b>	<b>59</b>
<b>Irrigated and Dry Areas</b>									
Marginal	38	193	20	275	58	468	27	261	729
Small	8	38	4	53	12	91	6	54	145
Semi-Medium	26	134	7	94	33	228	22	198	426
Medium	5	25	3	41	8	66	-	-	66
Large	5	28	13	180	18	208	8	77	285
<b>Total</b>	<b>82</b>	<b>418</b>	<b>47</b>	<b>643</b>	<b>129</b>	<b>1061</b>	<b>65</b>	<b>590</b>	<b>1651</b>

contributed for such anomaly, was levels of infrastructure – mainly the outlets. As can be seen in the table, irrigated areas accounted for over 93 per cent of food subsidies as against dry areas, which accounted for a very small segment of around 7 per cent. Interestingly, the SC and other farmers in the irrigated areas had increased their share marginally in relative terms over and above their respective averages, whereas the ST farmers had suffered a loss. Out of the total food subsidy of Rs 3,995/-, SC farmers had received Rs 1,594/- followed by Rs 1,592/- by other farmers. The same worked out to 39.91 and 39.86 per cent, respectively. The average food subsidy per farmer family was in the order of Rs 36.23/- and Rs 31.84/-. However, the same was not the case with regard to ST farmers although they had received less food subsidy as compared to the other two groups. The average food subsidy was at RS 134/-, which was six times more than the overall average. That apart, food subsidy by farming sizes in irrigated areas was the same with that of the overall scenario. However it was pathetic to note the position of the dry areas. The area accounted for only Rs 283/- but the major group which received more was ST farmers. They received about Rs 141/- as against Rs 83/-by SC farmers and Rs 59/- by other farmers. The average food subsidy per farmer was as meagre as Rs 5.66/- in general, and particularly it was Rs 15.66/- in the case of ST farmers and Rs 2.02/- and Rs 1.18/- for SC and other farmers, respectively.

## V

### **Problems in Accessing Subsidies**

This section portrays the problems faced by the farmers in the study areas in accessing subsidies. While doing so, only the views of the SC/ST farmers were considered for analysing the nature and degrees of various problems encountered by them in availing various forms of subsidies in the study areas. Bad quality of inputs, high prices of inputs, irregular supply of inputs, uncertainty, long distance and bad access to input subsidies are the important problems accounted by them. Before examining the problems that were faced by them it is important to note that not all farmers had felt the problems and certainly these problems had not completely stopped availing the benefits of input subsidies. In other words, input subsidies were availed despite the problems listed. Measure to address these problems would further facilitate the farmers to use input subsidies effectively and efficiently.

## **SC Farmers**

As mentioned earlier, only about less than half of the SC farmers (46 per cent) had felt the problems and underwent difficulties in availing input subsidies. Among all the problems, uncertainty in the supply of subsidies was felt by a large number (65 per cent) of SC farmers. Bad quality (55 per cent), poor access (52 per cent), irregular (46 per cent) and high price (40 per cent) followed this. Lastly, only about 19 per cent of the farmers felt the long distance of the location of facility. Though these problems had been experienced by all sizes of farmers, only large number of small and marginal farmers had felt these problems. If on the one side, all the small farmers had experienced all the problems in varying degrees, the majority of the marginal farmers had also undergone these problems. In other words, the problems experienced by the semi-medium and medium farmers were not as intensive as marginal and small farmers as they could withstand these problems and could afford to overcome them (Table 4.11). Further between irrigated and dry areas, the degree and extent of these problems by different sizes of farmers were, by and large, the same except for minor variations. In irrigated areas, about 50 per cent of the SC farmers had undergone and experienced all the problems. However, uncertainty in the distribution of input subsidy was felt more than the other problems, followed by bad quality and access, irregularity and high prices, whereas in the case of dry areas, only 42 per cent of farmers had felt the problems of bad quality, uncertainty and bad access the prominent. Irregular supply and high prices had also been experienced by a good number of farmers. As compared to all the other farmers, small farmers had faced problems largely.

## **ST Farmers**

Notwithstanding the commonality of problems faced by all the farmers, the intensity of facing problems was more in the case of ST farmers. Location disadvantage being the known reason, over 53 per cent of the ST farmers had experienced problems, which was more than the SC farmers. Bad quality, high price, and bad access were the major problems experienced by them. In fact, 60 per cent of the ST farmers mentioned that they had undergone difficulties. Following this, irregularity and uncertainty were experienced by 53 per cent of farmers and finally, one-third of them had faced the problem of long distance. Since there was only a thin layer of difference in the number of farmers by sizes experiencing problems, it is convenient to say that all ST farmers had faced all the problems irrespective of their size of holdings. It was especially true in the case of irrigated

**Table 4.10: Total Food Subsidies Availed by SC, ST and Other Farmers in Irrigated and Dry Areas (in Rupees)**

Area & Farm Size	Scheduled Castes			Scheduled Tribes			Others			Total		
	Total	%	Per HH	Total	%	Per HH	Total	%	Per HH	Total	%	Per HH
<b>Irrigated Areas</b>												
Marginal	429	26.91	21.45	537	66.46	268.50	682	42.84	31.00	1648	41.26	37.45
Small	624	42.28	39.00	155	19.18	77.50	145	9.11	7.63	974	24.39	26.32
Semi-Medium	275	17.25	45.83	79	9.78	79.00	422	26.51	105.50	776	19.43	70.55
Medium	99	6.21	49.50	37	4.58	37.00	66	4.14	16.50	202	5.06	28.86
Large	117	7.35	-	-	-	-	277	17.40	277.00	394	9.86	394
<b>Total</b>	<b>1594</b>	<b>39.91</b>	<b>36.23</b>	<b>808</b>	<b>20.23</b>	<b>134.67</b>	<b>1592</b>	<b>39.86</b>	<b>31.84</b>	<b>3994</b>	<b>93.38</b>	<b>39.94</b>
<b>Dry Areas</b>												
Marginal	36	43.37	2.57	116	82.27	16.50	47	79.66	1.11	199	70.32	4.73
Small	7	8.44	0.70	11	7.80	18.3	-	-	-	18	6.36	0.62
Semi-Medium	21	25.30	4.20	14	9.93	7.00	4	6.78	0.40	39	13.78	2.29
Medium	9	10.84	3.00	-	-	-	-	-	-	9	3.18	1.00
Large	10	12.05	10.00	-	-	-	8	13.56	8.00	18	6.36	6.00
<b>Total</b>	<b>83</b>	<b>29.34</b>	<b>2.51</b>	<b>141</b>	<b>49.82</b>	<b>8.29</b>	<b>59</b>	<b>20.84</b>	<b>1.18</b>	<b>283</b>	<b>6.62</b>	<b>2.83</b>
<b>Irrigated And Dry Areas</b>												
Marginal	475	28.67	13.97	653	68.81	72.55	729	44.16	16.95	1857	43.62	21.59
Small	641	38.68	24.65	166	17.49	20.75	145	8.78	4.53	952	22.36	14.42
Semi-Medium	306	18.47	27.81	93	9.80	31.00	426	25.80	30.42	825	19.38	29.46
Medium	108	6.52	21.60	37	3.90	12.33	66	4.00	8.25	211	4.96	13.18
Large	127	7.66	-	-	-	-	285	17.26	95.00	412	9.68	103.00
<b>Total</b>	<b>1657</b>	<b>38.92</b>	<b>21.51</b>	<b>949</b>	<b>22.29</b>	41.26	<b>1651</b>	<b>38.79</b>	<b>16.51</b>	<b>4257</b>	<b>100</b>	<b>21.28</b>

Table 4.11: Problems in Access to Subsidies: SC and ST Farmers (Total)

Area & Farm Size	<i>Bad Quality</i>		High Price		Irregular		Uncertainty		Long Distance		Bad Access	
	No	%	No	%	No	%	No	%	No	%	No	%
<b>Irrigated Areas</b>												
Marginal	14	50.00	6	27.27	7	30.43	16	43.24	3	20.00	14	50.00
Small	8	28.59	9	40.91	14	60.87	14	37.84	10	66.67	9	32.14
Semi- Medium	5	17.86	4	18.18	2	8.70	6	16.22	2	13.33	4	14.29
Medium	1	3.57	3	13.64	-	-	1	2.70	-	-	1	3.57
Large	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>28</b>	<b>56.00</b>	<b>22</b>	<b>44.00</b>	<b>23</b>	<b>46.00</b>	<b>37</b>	<b>74.00</b>	<b>15</b>	<b>30.00</b>	<b>28</b>	<b>56.00</b>
<b>Dry Areas</b>												
Marginal	5	17.86	6	28.57	5	21.74	8	30.77	1	16.67	8	32.00
Small	9	32.14	10	47.62	12	52.18	10	38.46	2	33.33	11	44.00
Semi- Medium	10	35.71	2	9.52	3	13.04	3	11.54	2	33.33	2	8.00
Medium	4	14.29	3	14.29	3	13.04	4	15.38	-	-	4	16.00
Large	-	-	-	-	-	-	1	3.85	1	16.67	-	-
<b>Total</b>	<b>28</b>	<b>56.00</b>	<b>21</b>	<b>42.00</b>	<b>23</b>	<b>46.00</b>	<b>26</b>	<b>52.00</b>	<b>6</b>	<b>12.00</b>	<b>25</b>	<b>50.00</b>
<b>Irrigated and Dry Areas</b>												
Marginal	19	33.93	12	27.91	12	26.09	24	38.10	4	19.05	22	41.51
Small	17	30.36	19	44.19	26	56.52	24	38.10	12	57.14	20	37.74
Semi- Medium	15	26.79	6	13.95	5	10.87	9	14.28	4	19.05	6	11.32
Medium	5	8.92	6	13.95	3	6.52	5	7.94	-	-	5	9.43
Large	-	-	-	-	-	-	1	1.58	1	4.76	-	-
<b>Total</b>	<b>56</b>	<b>56.00</b>	<b>43</b>	<b>43.00</b>	<b>46</b>	<b>46.00</b>	<b>63</b>	<b>63.00</b>	<b>21</b>	<b>21.00</b>	<b>53</b>	<b>53.00</b>

areas. All farmers had faced the problems in regard to bad quality, high price, uncertainty and bad access. Irregularity and long distance were experienced by only a few of the farmers. Further, in dry areas, the extent of problems was even worse as most farmers had faced most problems.

### **SC/ST Total**

Though the extent and the degree of problems faced by the SC/ST farmers were already accounted separately, consolidated scenario of the problems in accessing the agricultural input subsidies was an eye-opener for further improvement despite the fact that such attempt lead to some degree of repetition. Uncertainty being the major problem, 63 per cent of the farmers did subscribe to the same. A majority of the small and marginal farmers held the view that they were not sure of getting subsidised inputs in their place of habitation as most of the outlets did not provide any information about their availability. Bad quality and bad access being the problem in the sequence, over fifty per cent of the farmers had felt the same. Adulteration in the fertilizers was commonly reported by all sizes of farmers. If irregular supply of the inputs was the case of 46 per cent of the farmers, high prices of inputs was equally experienced by a good number of farmers. At this juncture, it is important to say that, for people who always struggled to earn a decent livelihood from agricultural sector, even a small hike in prices of agricultural input affected them seriously and to cope up with the same they would have resorted to foregoing some amount of consumption or to raise loans from the local moneylenders. Though the incidence of high price of input was felt in both irrigated and dry areas, marginal and small farmers had to make greater sacrifice. The last but the important problem in accessing subsidies was the long distance (Table 4.12). Though, a small number of farmers felt the problem, its impact was more on the farmers of small holdings as this did not have any conveyance carry the inputs form long distance. Most of the farmers were of the opinion that they had to procure the inputs from a distance of 2 to 3 kilometres from their villages and in the process they had not only invested labour but also had to meet the transportation costs.

Table 4.12: Problems in Access to Subsidies: SC and ST Farmers in Each Category

Area & Farm Size	<i>Bad Quality</i>		High Price		Irregular		Uncertainty		Long Distance		Bad Access	
	SCs	STs	SCs	STs	SCs	STs	SCs	STs	SCs	STs	SCs	STs
<b>Irrigated Areas</b>												
Marginal	13	1	5	1	6	1	15	1	2	1	13	1
Small	7	1	8	1	13	1	13	1	9	1	7	2
Semi- Medium	4	1	3	1	2	-	5	1	2	-	3	1
Medium	-	1	2	1	-	-	-	1	-	-	-	1
Large	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>24</b>	<b>4</b>	<b>18</b>	<b>4</b>	<b>21</b>	<b>2</b>	<b>33</b>	<b>4</b>	<b>13</b>	<b>2</b>	<b>23</b>	<b>5</b>
<b>Dry Areas</b>												
Marginal	4	1	5	1	4	1	7	1	-	1	7	1
Small	8	1	8	2	10	2	9	1	-	2	10	1
Semi- Medium	8	2	1	1	1	2	2	1	2	-	1	1
Medium	3	1	2	1	3	1	3	1	-	-	3	1
Large	-	-	-	-	-	-	1	-	1	-	-	-
<b>Total</b>	<b>23</b>	<b>5</b>	<b>16</b>	<b>5</b>	<b>18</b>	<b>6</b>	<b>22</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>21</b>	<b>4</b>
<b>Irrigated and Dry Areas</b>												
Marginal	17	2	10	2	10	2	22	2	2	2	20	2
Small	15	2	16	3	23	3	22	2	9	3	17	3
Semi- Medium	12	3	4	2	3	2	7	2	4	-	4	2
Medium	3	2	4	2	3	1	3	2	-	-	3	2
Large	-	-	-	-	-	-	1	-	1	-	-	-
<b>Total</b>	<b>47</b>	<b>9</b>	<b>34</b>	<b>9</b>	<b>39</b>	<b>8</b>	<b>55</b>	<b>8</b>	<b>16</b>	<b>5</b>	<b>44</b>	<b>9</b>

## CHAPTER V

### EFFECTS OF INPUT SUBSIDIES ON AGRICULTURE

#### Introduction

The major objective of providing subsidy to the farmers belonging to weaker sections of society is embedded in the social welfare objective of the state and union governments of India. Agricultural sector, in general, is highly susceptible for various kinds of factors and the existing socio-economic, institutional, political, geographical, climatic factors are said to work against the interest of the farmers especially in the Indian context. Though agricultural productivity has increased manifold in the agricultural sector during the Green Revolution period, the inequality in production as well as consumption, marginalisation of farmers, etc., have also played a role in making a large number of farmers vulnerable. It should be noted that the input subsidies have been designed as a form of institution that is aimed at improving the production and productivity thereby maximising the welfare of the farmers. Through input subsidy, the difference between the cost of production and the selling price of the inputs is being met with by the government sector. Though the aim is welfare-oriented, the real impact depends on whether the targeted group is benefited out of subsidy and if so, whether the entire benefits of subsidy reach the target group.

The main focus of this chapter is to analyse whether the input subsidy provided to the farmers has really been utilised effectively by the SC/ST farmers. To understand this particular aspect, we make a comparative analysis of the subsidy utilised by the SC/ST farmers compared to other farmers. It should be noted that the farmers in our analysis have been classified into three different categories, based on their level of utilisation of subsidy. The three categories are: Low Subsidy Utilising Group (LSUG) which utilises subsidy less than Rs. 1,500; Medium Subsidy Utilising Group (MSUG) with the utilisation of subsidy between Rs. 1,501- Rs.2,500; and the High Subsidy Utilising Group (HSUG) with subsidy utilisation above Rs.2,500. This classification is, however, based on a crude method of classification but still provides a definite framework to analyse and compare the subsidy levels between different groups of farmers.

**Table 5-1: Distribution of Sample Farmers by Subsidy Utilisation Levels**

Subsidy Utilisation	Irrigated Area		Dry Area		Irrigated + Dry Areas	
	SCs/STs (%)	Others (%)	SCs/STs (%)	Others (%)	SCs/STs (%)	Others (%)
<b>LSUG</b>	19 (38)	15 (30)	22 (44)	19 (38)	41 (41)	34 (34)
<b>MSUG</b>	13 (26)	16 (32)	18 (36)	22 (44)	31 (31)	38 (38)
<b>HSUG</b>	18 (36)	19 (38)	10 (20)	9 (18)	28 (28)	28 (28)
<b>Total</b>	50 (100)	50 (100)	50 (100)	50 (100)	100 (100)	100 (100)

Source: Computed from Primary data.

Table 5.1 indicates the distribution of farmers by caste and by subsidy level. It should be noted as far as the SC/St farmers were concerned, the results regarding the subsidy utilisation levels were mixed in nature. For example, the extreme two categories, namely, LSUG and HSUG constituted more or less same percentage in terms of subsidy utilisation in the total share. An important aspect to be noted here is that the MSUG was much below compared to the other categories in terms of subsidy utilisation. When we make comparisons between irrigated and dry areas, we find some interesting results. For example, the percentage of LSUG farmers in SC/ST category was greater in dry areas than that in the irrigated area. Though SC/ST farmers in the HSGU category constituted a larger percentage in the irrigated areas, it declined by half in the case of dry area. In the case of both irrigated and dry areas, the LSUG farmers in the SC/ST category constituted the major portion and the while the LSGU of SC/ST constituted less than 30 per cent. The overall implication of the results was that utilisation level of subsidy among the SC/ST farmers, in general, was low compared to other categories. Is there any answer for this kind of phenomenon? There may be some specific answers for this, but, in general, the following answers may be provided: (i) the general literacy level among the SC/ST farmers, in general and the LSGU category, in particular, may be very less compared to other farmers; (ii) lack of information or awareness about the availability of subsidy may be another reason which may have caused this phenomenon; and (iii) the general tendency among the poor farmers in rural areas is to buy inputs from the upper castes and relatively rich people rather than buying them from the government agencies. This may be because of the reason that the non-availability of money on time to buy subsidised inputs and other transaction costs involved in buying input from the government agencies may force the poorer farmers to opt for other high cost options. Therefore, we conclude that these are all some of the factors which may be the reasons for the low level of utilisation of subsidy especially among the Sc/ST farmers. (Table 5.2)

**Table 5.2: Cropping Pattern of Sample Farmers by Subsidy Level- Irrigated Districts**

(In Percentages)

Subsidy Level	Caste	Paddy	Sugarcane	Groundnut	Ragi	Green gram	Others	CGA
Low	SCs	44.5	7.5	16	11.1	13.1	7.8	100 <b>(18.60)</b>
	STs	36.51	8.6	13	29	9	3.89	100 <b>(22.30)</b>
	SCs & STs	40.5	7.8	14.5	20.1	11.5	5.6	100 <b>(40.90)</b>
	All	50.3	10.2	15	4.5	10	10	100 <b>(80.60)</b>
Medium	SCs	56.5	12.4	3.6	20	5.6	1.9	100 <b>(77.00)</b>
	STs	61.3	16.7	5	7.9	6.6	2.5	100 <b>(79.40)</b>
	SCs & STs	58.9	14.7	4.4	15.6	6.4		100 <b>(156.40)</b>
	All	65	10	8	7	4.5	5.5	100 <b>(231.60)</b>
High	SCs	80.5	11	3	6.5	0	0	100 <b>(88.60)</b>
	STs	61.6	-	20			19.4	100 <b>(123.70)</b>
	SCs & STs	80.2	10	8	1.8			100 <b>(212.00)</b>
	All	63.2	8		6	12	10.6	100 <b>(384.20)</b>

Source: Computed from Primary Data.

### Cropping Pattern

Let us move on to compare the cropping pattern of different categories of sample farmers belonging to various categories. Our aim here is to understand the cropping pattern of the farmers in the irrigated areas compared to dry areas and moving onto compare the situation both in irrigated and dry areas for all categories of farmers. The entire comparative analysis has been made on the basis of the percentage of Gross Cropped Area (GCA) under various crops. The whole objective of the present comparative analysis is to understand the relative subsidy utilisation level among different categories of farmers. It is argued that if a larger percentage of GCA is under paddy and sugarcane crops which are 'high-input' crops, it means that a higher percentage of input subsidies goes to the farmers. For example, paddy and sugarcane requires relatively large amount of subsidy compared to other dry crops in the irrigated areas (such as groundnut, ragi, etc). When the farmers use more amount of subsidised fertilizers to these high-input crops, their subsidy utilisation level and the benefits associated with it would increase proportionately. Alternatively interpreted, higher level of input subsidy provided would lead to higher level of input use in the cultivation which is reflected in terms of percentage of GCA brought under the high-input crops.

When we looked at the percentage of GCA under paddy and sugarcane, what we found was that the SCs in the LSUG category cultivated paddy and sugarcane in around 53 percent of the total CGA. The STs in the same category cultivated those crops in around 45 per cent of the

GCA. In the combined case (i.e. both SCs and STs), the figure stood at 48 per cent. However, when we looked at all categories of farmers in the LSUG group, the percentage of CGA coming under paddy and sugarcane cultivation stood at 60.5 per cent.

Similarly, the SCs in the MSUG cultivated paddy and sugarcane in around 69 per cent of the cases, while similar kind of figure for STs stood at 77 per cent. All farmers in the MSUG group cultivated the two crops in around 75 per cent of the GCA. In the case of HSUG, it was the SCs and STs who had brought a larger percentage of CGA – almost 90 per cent - under the two high-input crops. However, if we looked at all farmers then the percentage of the GCA brought under these two crops stood only at 71.2 per cent. What is the implication of all these results? The implication is that since more than 60 per cent of the irrigated CGA was brought under high-input crops, there subsidy utilisation level among the farmers was also supposed to be high, in general. In the case of SC/ST farmers, the results suggest that a substantial amount of subsidy was utilised mainly by the farmers belonging to HSUG category, in the irrigated areas. However, this leads to the question of whether a similar kind of situation can also be expected in the dry areas as well. We investigate this point in the following section.

**Table 5.3: Cropping Pattern of Sample Farmers by Subsidy Level - Dry Areas**

(In Hectares)

Subsidy Level	Caste	Paddy	Ground Nut	Ragi	Green gram	Black gram	Others	CGA
<b>Low</b>	SC	31	16.4	12	6.3	25.8	8.5	100( <b>22.10</b> )
	ST	34	6	16	16	19	9.5	100 ( <b>18.40</b> )
	SC & STs	32	11	12	17	20	8.5	100( <b>40.70</b> )
	All	68	9.4		6	6	10.6	100( <b>60.80</b> )
<b>Medium</b>	SC	45	12.4	3.6	20	5.6	13.9	100( <b>64.00</b> )
	ST	54	16.7	5	7.9	6.6	2.5	100 ( <b>71.00</b> )
	SC & STs	50	16.5	4.5	15	8	6	100( <b>77.00</b> )
	All	79.5	11	3	6.5	0	0	100( <b>135.00</b> )
<b>High</b>	SC	73	8	19			0.4	100( <b>112.00</b> )
	ST	75	10	12	2.8			100 ( <b>189.00</b> )
	SC & STs	63	14		12.2	8	2.8	100( <b>201.60</b> )
	All	64	14		7	9	6	100( <b>364.70</b> )

Note: Figures in bold numbers represent GCA in hectares.

Table 5.3 reveals the cropping pattern and the percentage of GCA cultivated in the dry region. It should be noted that unlike the irrigated area, the percentage of GCA under high-input crop like paddy was relatively less especially in the case of LSUG category. This is obvious from the fact that only less than 34 per cent of the GCA had been brought under paddy cultivation by the SC/ST farmers. Similar figure for all the farmers stood at 68 per cent which

implied that the non-SC/ST farmers had a relatively larger stake over the utilisation of subsidy. However, a relatively better situation was observed in both MSUG and HSUG. For instance, in the case of SC/ST farmers in this category, it is observed that 45-54 per cent of the CGA was brought under paddy cultivation. When we looked at all farmers in this category, what we found was that around 80 per cent of the GCA was cultivated with paddy which is an indication that subsidy utilisation was relatively high among these farmers. The results provide somewhat contrasting picture, as far as the HSUG was concerned. For example, in this group SCs and STs cultivated 73 per cent and 75 per cent, respectively of the GCA with the paddy crop while all farmers together cultivated only 64 per cent of the GCA with the same crop. Therefore, the point to be noted here is that in the case of dry areas, the SC/ST farmers belong to HSUG have got benefited more than that of the farmers in other categories. However, we are interested in understanding the scenario in both irrigated and dry areas.

**Table 5.4: Cropping Pattern of Sample Farmers by Subsidy Level - Irrigated and Dry Districts**

(In Hectares)

Subsidy Level	Caste	Paddy	Sugarcane	Ground nut	Ragi	Green gram	Black gram	Others	CGA
<b>Low</b>	<b>SCs</b>	31	10	6.4	12	6.3	25.8	8.5	100( <b>40.70</b> )
	<b>STs</b>	34	16	6	2	10	22.5	9.5	100( <b>40.70</b> )
	<b>SCs &amp; STs</b>	32	12	11	2	15	20	8.5	100( <b>81.40</b> )
	<b>All</b>	45	16	12.4	3.6	10	7	6	100( <b>141.00</b> )
<b>Medium</b>	<b>SCs</b>	54	6	10.7	6.4	7.9	8	7	100( <b>150.00</b> )
	<b>STs</b>	50	6.5	10	4.5	15	8	6	100( <b>291.00</b> )
	<b>SCs &amp; STs</b>	79.5	5	6	3	6.5	0	0	100( <b>165.00</b> )
	<b>All</b>	73	9	8	10			0.4	100( <b>237.50</b> )
<b>High</b>	<b>SCs</b>	75	8	10	6	2.8			100( <b>402.50</b> )
	<b>STs</b>	68	10	9.4		6	6	0.6	100( <b>347.00</b> )
	<b>SCs &amp; STs</b>	63	8	14		4.2	8	2.8	100 ( <b>427.00</b> )
	<b>All</b>	64	7	7		7	9	6	100( <b>774.00</b> )

Note: Figures in bold numbers represent GCA in hectares.

Table 5.4 gives the overall picture about the percentage of GCA under various crops by different categories of farmers. It reveals that among all categories of farmers in the SC/ST group, it was the MSUG and the HSUG were the most beneficial farmers.

### **Fertiliser Consumption by Different Categories of Farmers**

We now examine the fertiliser consumption on the basis of the value of fertiliser consumed by the sample formers in different categories of subsidy utilisation level. It should be

noted that in the irrigated area, the average per hectare value of the fertiliser consumed by the LSUG category stood at Rs. 825 while the same figure for the STs stood at Rs. 765. The average per hectare value of fertiliser consumed by both SC and ST stood at Rs. 816, the value for all castes stood at Rs. 1,338. It should be noted that the results imply that the non-SC/ST category farmers were in a better position in terms of consumption of fertilisers.

**Table 5.5: Fertilizer Consumption by Subsidy Utilisation Levels for Irrigated and Dry Areas**

Subsidy level	Fertilizer Consumption (Rs/Ha/Year)			
	SC	ST	SC and STs	All
<b>Irrigated Areas</b>				
Low	825	765	816	1,338
Medium	1,225	1,875	2,164	1,743
High	3,321	3,128	3,338	2,754
<b>Dry Areas</b>				
Low	1,323	1,119	1,236	1,476
Medium	1,995	2,036	1,833	1,865
High	2,950	2,546	2,996	2,987
<b>Irrigated and Dry</b>				
Low	1,025	899	927	1,998
Medium	2,225	2,095	2,130	2,459
High	3,389	2,989	3,348	2,876

Source: Computed from primary data.

One of the interesting aspects to be noted is that the SC farmers in the dry areas were in a better position in terms of fertiliser use compared to LSUG and the HSUG (Table-5.5). This is somewhat a contradictory result since average per hectare use had been found to be greater in the dry area rather than the irrigated area.

**Table 5.6: Fertilizer Consumption by Subsidy Utilisation Levels for Irrigated and Dry Areas – Crop-wise.**

(Per Hectare)

Subsidy Level	SCs/STs				Other			
	Paddy	Groundnut	Sugarcane	Others	Paddy	Groundnut	Sugar cane	Others
<b>Irrigated Area</b>								
Low	98			2	56		34	10
Medium	69.5		8	22.5	82		12	6
High	84.5		6.5	9	76		12	12
<b>Dry Areas</b>								
Low	19.5	29.5		51	12	5	32	51
Medium	22.4	32		45.6	23	22	15	40
High					19	16	43	22
<b>All</b>								
Low	23.6	34.2	8.5	33.7	16	24	33	27
Medium	54.5	5.5		40	66	12	18	4
High	88		4.2	7.8	67	18		15

Source: Computed from Primary Data.

It will be interesting to see how the fertiliser consumption and the associated subsidy utilisation is spent on different kinds of crops by different categories of farmers. It should be noted that a larger percentage of fertiliser consumption related to paddy crop in the irrigated area (Table-5.6). Obviously, this was because of the reason that the paddy is 'high-input' high yielding variety crop that requires relatively larger amount of fertiliser for its growth. Even within the irrigated areas, the SC/STs belonging to LSUG category utilised almost 98 per cent of the total fertiliser for paddy crop. However, the situation is different for the SC/STs in MSUG category which utilises approximately 70 per cent of the total fertiliser to paddy crops leaving the rest of the use to other crops. The situation was entirely different when we considered the dry areas. It should be noted that a maximum of up to 22 per cent of the total fertiliser used went to the paddy crops in dry areas. Similar kind of phenomenon was also observed in the case of non-SC/ST farmers in both irrigated and dry areas. On an average, it was the MSUG and the HSUG categories which utilised a relatively higher percentage of fertiliser for paddy cultivation in both irrigated and dry areas. This implies that out of all crops and among all categories of farmers, a larger percentage of fertiliser was used for paddy cultivation compared to the rest of the crops.

### **Irrigation Use**

The expenditure incurred by different kinds of farmers on irrigation use is an indicator of the subsidy utilisation in the irrigation input. In the case of canal irrigation, the individual

farmers do not incur any major expenditure since the provision of irrigation infrastructure is with the government sector. However, the level of cess charged by the irrigation authorities and paid by the farmers provides a lower bound value of the irrigation water used by the farmers. In the case of well irrigation, the expenditure includes cost of electricity, diesel, and depreciation of motor/oil pumpsets. Since power is highly subsidised and constitutes a substantial proportion of the total input subsidy, we deal with that in a separate section. In the case of diesel use, none of our sample farmers used diesel pumpsets and therefore, the question of expenditure on diesel did not arise. The only expenditure that is taken care of here is the expenditure on canal irrigation.

**Table 5.7: Irrigation Use by Subsidy Utilisation Levels for Irrigated Areas**

Subsidy level	Irrigated Use (Rs/Ha/Year)			
	SC	ST	SC and STs	All
	Irrigated Areas			
Low	97	63	87	213
Medium	282	123	216	223
High	284	197	334	498

Source: Computed from Primary Data.

We are concerned only about the irrigated area. It should be noted that the ST farmers belonging to all the three categories of subsidy utilisation spent lesser amount of money on irrigation compared to other farmers in all these categories. From Table 5.7, it is clear that a considerable amount of expenditure was incurred by non-SC/ST categories of farmers on irrigation. Therefore, the results imply that it is the Non-SC/ST farmers as well as the SC/ST farmers in the HSUG category who reported higher use of irrigation, thereby, utilising higher level of irrigation subsidy.

**Table 5.8: Irrigation Use by Subsidy Utilisation Levels for Irrigated – Crop-wise.**

Subsidy Level	SC/ST			Others		
	Paddy	Sugarcane	Others	Paddy	Sugarcane	Others
Low	68	-	32	23	36	41
Medium	25	28	47	42	32	26
High	56	23	21	76	10	14

Source: Computed from the primary data.

If we make a comparison of irrigation use distributed among different crops for different kinds of farmers, we get a picture as depicted in Table 5.8. It may be noted that in the case of SC/ST farmers belonging to LSUG category, 68 per cent of the irrigation use went to the paddy crop and the rest went to other crops. However, the SC/ST farmers in the MSUG category utilised only 25 per cent of irrigation to the paddy crop leaving the remaining for sugarcane and other crops. In the case of non-SC/ST farmers, the LSUG utilised only 23 per cent of irrigation to paddy crops, 36 percentage to sugarcane and the rest of irrigation utilisation to other crops.

## Power Consumption

In this section, we estimate the average value of the power consumed on per hectare basis and use the resulting figure for comparison purpose. Table 5.9 reveals the average per hectare value of power utilisation by different categories of farmers in the study area. It should be noted that the LSUG in the irrigated area did not use power because of the obvious reason that they were not using motor pumpsets. Since the initial investment in installing the tube-wells in dry areas was enormous and unaffordable, many of the farmers belonging to this particular category had not opted for the tube-wells. However, the SC/ST farmers belonging to both MSUG and HSUG spent Rs. 116 and Rs.234 respectively on power consumption per hectare. But compared to all the farmers which included non-SC/ST as well, the figures were much lower indicating that the other caste farmers were in a better position to utilise the subsidy on power.

**Table 5.9: Power Consumption by Subsidy Utilisation Levels for Irrigated and Dry Areas**

Subsidy level	Power Use (Rs/Ha/Year)			
	SC	ST	SC and STs	All
Irrigated Areas				
Low	-	-	-	-
Medium	126	99	116	233
High	164	178	234	339
Dry Areas				
Low	95	69	65	98
Medium	142	122	135	269
High	-	-	-	-
Irrigated and Dry				
Low	145	98	105	298
Medium	194	89	194	189
High	166	76	196	218

Source: Computed from Primary data.

**Table 5.10: Power Consumption by Subsidy Utilisation Levels for Irrigated and Dry Areas**

Subsidy Level	SC/ST				Others			
	Paddy	Groundnut	Sugarcane	Others	Paddy	Groundnut	Sugarcane	Others
Irrigated Areas								
<b>Low</b>	-	-	-	-	-	-	-	-
<b>Medium</b>	65	25		10	68	22	8	2
<b>High</b>	68	20	10	2	62	20	16	2
<b>Dry Area</b>								
<b>Low</b>	24	35	15	26	46	25	25	24
<b>Medium</b>	56	24	15	5	58	20	13	9
<b>High</b>								
<b>Irrigated and Dry</b>								
<b>Low</b>	57	26	15	2	58	25	5	12
<b>Medium</b>	62	16	14	8	52	16	24	8
<b>High</b>	61	18	11	10	70	16	4	10

Source: Computed from Primary data.

When we looked at the proportion of power consumption going to different crops, we found that a larger proportion, namely 65-68 per cent of total power consumed in the irrigated area, went to the paddy crops as far as the SC/ST farmers were concerned. (Table 5.10) A similar kind of picture was obtained for the non-SC/ST farmers as well. However, in the dry area it is noticed that only 24 per cent of the power consumption went to paddy cultivation as far as the SC/ST in the LSUG category. But the SC/ST farmers in the MSUG utilised around 56 per cent of power consumption towards the paddy crop. In the combined case, from 57 to 62 per cent of the power consumed went to paddy cultivation by SC/ST farmers, while similar figure for the non-SC/ST farmers ranged from 58 to 70 per cent. This indicates that in terms of power consumption also, the non-SC/ST farmers were in a better position to enjoy the benefits of power subsidies.

### **Input Subsidies**

The impact of total input subsidy is measured in terms of per hectare paid-out cost for all categories of farmers. It should be noted that the average per hectare paid out cost incurred by SC/ST farmers in the LSUG category in the irrigated areas was substantially lower than that of the same category of farmers in dry areas. In the case of both irrigated and dry areas, the situation was that except the LSUG category, SC/ST farmers belonging to other groups were in a better-off position in relative terms.

**Table 5.11: Total Input Used by Subsidy Utilisation Levels for Irrigated and Dry Areas**

Subsidy level	Input Use (Rs/Ha/Year)			
	<i>SCs</i>	<i>STs</i>	<i>SCs and STs</i>	<b>All</b>
Irrigated Areas				
<b>Low</b>	45	77	66	89
<b>Medium</b>	116	89	106	173
<b>High</b>	126	188	184	219
Dry Areas				
<b>Low</b>	115	129	135	168
<b>Medium</b>	123	142	141	222
<b>High</b>	-	-	-	-
Irrigated and Dry				
<b>Low</b>	135	148	145	318
<b>Medium</b>	212	146	204	249
<b>High</b>	284	109	216	329

Source: Computed from Primary Data.

In the case of subsidy utilisation of the total, the non-SC/ST farmers had a stake over a considerable level of utilisation of input subsidies compared to the SC/ST farmers. The last column in Table 5.11 indicates the level of input subsidy utilisation by all the farmers. The difference between the average per hectare value of the SC/ST farmers and that of all categories of farmers reveals the amount of benefits that went to non-SC/ST farmers which was substantial.

### **Per Hectare Total Subsidies (Direct and Indirect)**

In this section, we discuss the absolute value of total subsidy, consisting of direct and indirect subsidies, on a per hectare basis for all categories of farmers. It should be noted that per hectare subsidy level ranged from Rs. 736 to Rs.3,459 among the sample farmers. Obviously, the SC/St farmers in the LSUG category were the one who utilised a relatively less amount of subsidies in terms of per hectare basis, while the non-SC/ST farmers were those who had got higher stake over the total subsidy. Another interesting point to be noted is that in many cases, the farmers in the dry areas compared to the irrigated areas were relatively in a better off position in terms of per hectare utilisation of the subsidy. This was because of the reason that in dry areas, the subsidy provided to electricity played a crucial role in enhancing the farmers to capture a larger amount of benefit.

Table 5.12: Total Input Used by Subsidy Utilisation Levels for Irrigated and Dry Areas (%).

Subsidy Level	SCs/STs				Others			
	Paddy	Groundnut	Sugarcane	Others	Paddy	Groundnut	Sugarcane	Others
<b>Irrigated Areas</b>								
Low	56	12	20	12	68	12	10	10
Medium	59	11	20	10	64	11	15	10
High	68	13	10	9	72	11	10	7
<b>Dry Area</b>								
Low	66	14	0	20	62	18	15	5
Medium	69	21	0	10	74	11	10	5
High	69	12	10	8	72	14	9	5
<b>Irrigated and Dry</b>								
Low	69	13	8	10	73	5	10	12
Medium	68	12	12	8	68	6	18	8
High	71	16	7	6	71	6	15	8

Source: Computed from Primary data.

Table 5.13: Per Hectare Total Subsidies for All Categories of farmers by Subsidy Utilisation Level

Subsidy level	Total Subsidy Use (Rs/ha/Year)			
	SCs	STs	SCs and STs	All
<b>Irrigated Areas</b>				
Low	726	737	736	1097
Medium	1316	1088	1306	1373
High	2126	1988	2084	2249
<b>Dry Areas</b>				
Low	1015	1209	1235	1268
Medium	1236	1462	1461	1392
High	-	-	-	-
<b>Irrigated and Dry</b>				
Low	1350	1248	1295	1718
Medium	2232	2146	2204	3269
High	2874	2909	2960	3459

Source: Computed from Primary Data.

**Table 5.14: Per Hectare Gross Returns, Costs and Net Returns for Paddy (in Rs.).**

Size of Farming	SCs			STs			SCs and STs			All		
	Gross Returns	Costs	Net Returns	Gross Returns	Costs	Net Returns	Gross Returns	Costs	Net Returns	Gross Returns	Costs	Net Returns
<b>Irrigated</b>												
Low	7823	5,224	2,599	6,986	4,976	2,010	7,654	5,432	2,222	8,976	5,987	2,989
Medium	9,987	6,524	3,463	7,843	5,473	2,370	8,965	5,987	2,978	12,345	8,352	3,993
High	10,224	6,334	3,890	10,396	7,563	2,833	8,976	5,678	3,298	13,245	9,453	3,792
<b>Dry</b>												
Low	10,223	8,333	1,890	10,345	7,987	2,358	10,872	7,865	3,007	12,345	8,906	3,439
Medium	12,564	9,639	2,925	11,234	8,997	2,237	10,566	8,123	2,443	13,245	9,546	3,699
High	12,989	9,878	3,111	12,098	9,876	2,222	10,859	8,123	2,736	13,789	9,987	3,802
<b>Irrigated and Dry</b>												
Low	12,396	9,564	2,832	10,986	8,765	2,221	12,345	8,964	3,381	12,346	8,976	3,370
Medium	13,927	9,875	4,052	11,870	8,543	3,327	12,543	8,698	3,845	13,967	10,871	3,096
High	13,999	9,863	4,136	12,956	9,876	3,080	13,456	9,124	4,332	13,789	8,765	5,024

Source: Computed from Primary Data.

### Per Hectare Gross Returns, Costs and Net Returns by Subsidy Utilisation Level

Table 5.14 reveals the scenario regarding costs and returns. Costs here, as we have already seen, are the paid out costs. The estimation of the costs and returns is based on a simple methodology which utilised the productivity of all the crops and then multiplied with the price of that particular output. Then the entire values have been aggregated into one figure to arrive at the costs and returns. In the table above, it is obvious that the net returns for the SC/ST farmers belonging to all the LSUG, MSUG and HSUG categories were lower than that of the farmers in the overall category. Even within the SC/ST farmers, it was the ST farmers who were relatively worse-off compared to the SC farmers in terms of gross and net returns. When we made comparison between the irrigated and dry areas, what we found was that, in general, the net returns in the dry area were somewhat greater than that in the irrigated areas. One of the important aspects to be noted was that the type of crop cultivated in both irrigated and dry areas did matter. Though paddy was the dominant crop in the irrigated area, some of the commercially viable crops in the dry areas provided high returns to the farmers. Overall, what we found was that the fluctuations in the returns for various kinds of farmer groups could be attributed to reasons such as crop failure, high cost inputs used, etc.

In this chapter, we have analysed the effects of various kinds of input subsidies in terms of subsidy utilisation level by different categories of farmers. One of the major findings is that the SC/ST farmers clustered towards low subsidy utilisation group, while the non-SC/ST farmers were in a better position to utilise the subsidies. The cropping pattern in both dry and irrigated

areas clearly reflected the subsidy utilisation levels. In other words, by making higher level of subsidy available to the farmers, the farmers would tend to cultivate those crops which were 'high-input' crops in nature. Another important aspect that we found was that there was an inverse relationship between the quantum of subsidy utilised and the crop intensity. This might be attributed to the fact that the SC/ST farmers belonged to small and marginal categories with limited land and financial resources, who were constrained in terms of going in for intensive cultivation of land. The use of specific input subsidies like power, irrigation and fertiliser subsidies might have a positive relationship with the subsidy utilisation. Altogether, we found that the non-SC/ST farmers were better-off in terms of subsidy utilisation level compared to the SC/ST farmers. It was found that it was the paddy crop which was susceptible for subsidy and the net returns from paddy was greater than that of other crops in the study area. Therefore, the results suggest that the effect of subsidy on the input use was higher than the net return from agriculture which was also high, in the study area.

## CHAPTER VI

### SUMMARY AND CONCLUSIONS

Ever since the self-sufficiency in food production was sought to be achieved in India, input subsidies and output price support programmes started playing an important role in increasing production of agricultural commodities. If at all there were no such supporting instruments in agricultural production front it would have been impossible to meet the food requirement of the country. Thanks to the input subsidies and output price support strategies, more than achieving the self sufficiency in food production ensuring food security for the vulnerable farming community and bringing about equity through transfers have also been the avowed objectives of public policies supporting incentives based production. However, notwithstanding the positive impact of the input subsidies (fertilizers, irrigation, power and credit) there have been a number of concerns to contain the levels of subsidies as they have had a direct bearings on fiscal indiscipline in the country. Especially during the late nineties, there were attempts to bring in reforms in input segment so as to contain the fiscal deficit. Notwithstanding the concern to contain the fiscal deficit, on the one hand, and the critical role played by the incentives on the other, there was no second word or thought that there has been a positive relation between the increase in production of agricultural produces and input subsidies. As long as the national goals of bringing equity and social justice are achieved, fiscal incentives like input subsidies to the agricultural sector to facilitate the vulnerable farming community ought to be provided. Moreover, these subsidies go a long way in protecting the interest of the marginal and small farmers as hitherto the affluent farmers mostly garnered the benefits. The major findings of the study as presented below strengthen this argument.

#### **Major Findings of the Study**

1. Shimoga and Gulbarga being the study areas represent two different agro-climatic conditions in the state. Shimoga with about one third of its land under forest has brought about over fifty per cent under irrigation. Tanks and Canals are the critical source of irrigation, which have helped to grow paddy as a major food crop and sugarcane as a cash crop, which, in turn, has paved the way for utilising more fertilizers. Gulbarga, on the other hand, is known for dry land cultivation, grew largely jowar, bajra, wheat and paddy. However, growing largely the dry crops in Gulbarga never restrained the utilisation pattern

of fertilizers as the difference in fertilizer utilisation level was very narrow as compared to irrigated areas.

2. Out of the total direct subsidy of RS 14.62 lakhs during the kharif in the study areas, over three-fourth (Rs 11.10 lakhs) were garnered by the irrigated areas and the remaining (Rs 3.52 lakhs) by the dry areas. By size of farmers, the small holdings benefited largely to the extent of over 30 per cent than any other size. This situation was, by and large, the same in both irrigated as well as dry areas. Similarly, by social groups, the farmers other than SCs/STs garnered the subsidy benefits up to 55 per cent, whereas, the SCs obtained the subsidy benefit to the tune of one third and STs to around 12 per cent. Though the utilisation level appeared similar in the study areas the same was slightly more in the case of STs in dry areas.
3. The situation was even worse in the utilisation level of direct subsidy in rabi season although remained the same with regard to size of farming. Irrigated areas continued to utilise around 91 per cent of the total. Besides, non- SC/ST farmers had further increased their share to around 58 per cent and as a result of the share of SC/ST farmers dropping correspondingly. Among all the other differences, utilisation of the subsidy by the ST farmers was conspicuous in irrigated areas was conspicuous. It was below the threshold level as against the same level in dry areas.
4. Quite contrary to the expected trend, dry areas had significantly improved their level of indirect subsidy utilisation especially in the kharif season. Dry areas accounted for a large sum of subsidy (80 per cent) although the pattern remained the same in regard to distribution across different sizes of farming and by social groups. However, it is important to note the higher share of the indirect subsidy utilisation by the SC farmers in irrigated areas was far above the respective average total. Similar was the case with the ST farmers in dry areas, whose share of the subsidy was well above the respective average total.
5. In the distribution of indirect subsidy during the rabi season the supremacy established by the dry areas during the early season was sustained. By and large, the distribution pattern in the subsidy was equal between the irrigated and dry areas. This was not the case with the SC/ST farmers. If SC farmers had utilised more indirect subsidy in rabi season in irrigated areas, the STs were also far ahead of their average in dry areas. But one

common fact to observe was that irrespective of their size by social groups, it was the small farmers who had benefited more from the subsidy followed by marginal, semi-medium, medium and large farmers.

6. Out of the total subsidy (direct and indirect) of Rs 27.84 lakhs, a little less than two-third was garnered by the irrigated areas and three-fourth of the same was invested only during kharif season. Similarly, direct subsidy accounted for around 72 per cent. Though the average total subsidy per farmer was in the order of Rs 13,920/-, the same was Rs 17,990/- in the irrigated areas as compared to Rs 9,850/- in dry areas. Similarly, the average direct subsidy per farmer was in the order of Rs 9,945/- as against just Rs 4,676/- indirect subsidy. Furthermore, it is clear from the fact that utilisation of subsidy was more during kharif at Rs 10,375/- than Rs 3,545/- during rabi season.
7. In the total food subsidy availed by the farming families in the study areas, there existed a wide range of difference in the utilisation pattern between the irrigated and dry areas. As in the case of input subsidies, over 93 per cent of the total food subsidy had been utilised in irrigated areas alone. Dry areas accounted for only the remaining 7 per cent of the total food subsidy. With regard to utilisation pattern across the farming sizes, the study established that highly deserving and vulnerable farmers had their due share in the food subsidy. Marginal, small and semi-medium farmers together accounted for over 85 per cent of food subsidy. These farmers accounted for over 90 per cent of food subsidy in dry areas.
8. SC farmers had utilised the food subsidy to the tune of around 39 per cent in the total and conformed to the overall utilisation pattern both across different farming sizes and by areas. Vulnerable farmers accounted for over 85 per cent of the total although the medium and large farmers' share was more (22.89 per cent) in dry areas than the average share. Importantly, Dry areas had better consumption share in the total food subsidy as compared to the overall situation.
9. ST farmers too had increased their share in the total food subsidy as compared to input subsidies. They accounted for over 22 per cent of the total. Though, in absolute terms, the total food subsidy as consumed by ST farmers was more in irrigated areas, dry areas had garnered around 50 per cent of the respective total subsidy. Further, vulnerable farmers had higher share in the utilisation pattern.

10. Unlike the input subsidies, the total food subsidy consumed by the Non- SC/ST farmers dropped to around 39 per cent. As was the case, the irrigated areas had received more subsidy than dry areas. Excepting small and medium farmers, all other categories of farmers had their due share in the utilisation pattern of food subsidy. Unfortunately, small and medium farmers together accounted to around 13 per cent in the total food subsidy. It was also true in the case of irrigated areas.
11. Ever since the introduction of input subsidies, farmers, irrespective of the size of holdings, continued to face the problems in availing subsidy benefits. In this connection, the study has accounted a number of problems such as bad quality, high price, irregularity, uncertainty, long distance and bad access. Quite a number of farmers, especially the marginal and small, had experienced these problems. These problems were commonly experienced both in irrigated and dry areas although there existed a marginal degree of difference. The incidence of long distance and uncertainty was more in the irrigated areas as compared to dry areas. Further, over half of the SC/ST farmers had faced the problem of bad quality of fertilizers and uncertainty in its availability in their place of habitation. Similarly, bad access and high price of the input had strained the farmers.
12. With regard to the effectiveness of the utilisation of input subsidies, the study classified farmers of all social groups under three categories as low subsidy utilisation group (LSUG) with less than Rs 1,500, Medium Subsidy Utilisation Group (MSUG) with subsidy between Rs 1,500 and Rs 2,500 and finally, High Subsidy Utilisation Group (HSUG) with more than Rs 2,500. It is important to note that SC/ST farmers in large numbers fell into LSUG both in the irrigated and dry areas and only a small segment of the farmers fell into HSUG for reasons stated therein, whereas in the case of other farmers a majority fell into HSUG in irrigated areas.
13. Paddy and sugarcane being the high input crops the utilisation of subsidies by the SC/ST farmers was lower at 48 per cent of the gross cropped areas, which had been classified under the LSUG, as compared to 61 per cent by all categories under the group. Similarly, under MSUG, these two crops accounted for 75 per cent of GCA as against 90 per cent under HSUG. Therefore it is obvious to say that a substantial amount of subsidies had been utilised mainly by the farmers belonging to HSUG category in irrigated and dry areas. However, the position was slightly different in dry areas as far as LSUG and MSUG were

concerned, as the paddy cultivation to total GCA was only 34 per cent and 45- 54 per cent respectively.

14. By and large, the situation was the same with regard to the utilisation of fertilizers was concerned. SC/ST farmers continued to utilise less fertilizer subsidy under LSUG followed by MSUG categories, which were substantially lower than the average subsidy per hectare per year of all farmers. In other words, farmers of HSUG had utilised more fertilizers subsidy, which was far more than the LSUG and MSUG but also much higher than the average of all farmers. By crops, paddy being the high input crop, emerged as the principal high fertilizer-consuming crop. Most SC/ST farmers had used 98 per cent of the fertilizers to cultivate paddy under LSUG and 70 per cent under MSUG in irrigated areas, whereas in the dry areas, paddy cultivation consumed only 22 per cent of the fertilizers.
15. The study has found that the cess charged on canal irrigation provided a lower bound value of water used by the farmers. Going by the levels of utilisation of canal irrigation, SC/ST farmers had paid lesser amounts as compared to non- SC/ST farmers. This only indicated that SC/ST farmers under LSUG and MSUG had utilised lower subsidy on irrigation. It also indicates that non-SC/ST farmers as well as SC/ST farmers under HSUG had reportedly used more irrigation and had obviously utilised higher level of irrigation subsidy. By crop, 68 and 56 per cent of irrigation was used to grow paddy by the SC/ST farmers of LSUG and HSUG categories respectively, whereas the other crops used only limited irrigation subsidy. The non-SC/ST farmers in the HSUG and MSUG had used irrigation on a very large scale to grow paddy and sugarcane and thereby, utilised higher irrigation subsidy.
16. Subsidy utilisation on account of power consumption by the SC/ST farmers was relatively less especially in the LSUG and HSUG categories as compared to the Non- SC/ST farmers as their consumption level was less. At the same time, it is important to note that SC/ST farmers under LSUG category in dry area used power only to the extent of 24 per cent for paddy cultivation, which was the lowest as compared with other farmers in the same category.
17. Under total input subsidies, it was found that, except the LSUG category, SC/ST farmers in other categories were found to be in a better position in both dry and irrigated areas. It should be noted that non- SC/ST farmers were those who had high stake over the total

input subsidies in absolute terms. Interestingly, farmers in the dry areas were in a better position relatively in terms of per hectare utilisation of subsidies compared to the irrigated areas.

18. It was found that per hectare input subsidies (Direct and Indirect) worked out to Rs 1,718/- under LSUG, Rs 3,269/- under MSUG and Rs 3,459/- for HSUG by all farmers in both dry and irrigated areas. However, per hectare subsidy as received by the SC/ST farmers were far less than the average. Further, among SCs/STs, SC farmers under Low and Medium SUG categories per hectare got subsidy little higher than the same categories of ST farmers. As against this, per hectare subsidy as received by the ST farmers under HSUG was far more than the SC farmers of similar category.
19. The study has found that per hectare net return worked out to Rs 3,370/-, Rs 3,096/- and Rs 5,024 for LSUG, MSUG and HSUG respectively for all farmers in both dry and irrigated areas. In the case of SC/ST farmers together, the net return worked out even more in the case of LSUG and MSUG but less in the case of HSUG, whereas under all the three categories, SC farmers posted higher return per hectare as compared to ST farmers. It is also significant to note that in the case of farmers under LSUG and MSUG in dry areas and MSUG in irrigated areas, per hectare net return was far below the average. Also, it was true in the case of SC/ST farmers of all the three categories in irrigated and dry areas.

Given the challenging socio- economic conditions of the farming community, on the one hand, and the long term goals of both eradicating poverty and achieving higher living standard in the rural areas, on the other, the existing incentive based production in the agricultural sector should be continued. In fact, these incentives have yet to go a long way in arresting poverty among the farming community and to bring about improvement in their living standard. That apart, the fiscal incentives have yet to ensure food security among the vulnerable groups in the agricultural sector. Added to this, continuous monsoon failures jeopardized agricultural activities, in general, and increased food insecurity among the marginal and small farmers, in particular. Therefore, any attempt to withdraw the existing fiscal incentives available to the agricultural sector and withdrawal of input subsidies would only further marginalise the farming communities, in general, and SC/ST farming families, in particular, as most of them are subsistence level cultivators. Thus, in order to realise the long cherished dream of improving the living standard of the farming communities in rural areas the ongoing input subsidies should not only be continued but also be increased if possible. But, at the same time, mere

continuation of the existing input subsidies alone do not bring about the needed change and ensure equity in distribution. They should be re-targeted in such a way as to eliminate those who could afford to buy these inputs in the market and thereby redirect these subsidies to only the vulnerable farming families. Also, it is the need of the hour to protect the interest of the farming communities in the dry areas. The existing scheme of subsidies administration has favoured largely the interest of irrigated areas than dry areas. In view of this, new methods of improving the farming community in dry regions need to be worked out in the days to come. Following are some of the specific recommendations made towards that direction.

1. Given the high level of illiteracy and ignorance about the subsidies among the farming communities, educative programmes on various fiscal incentives available for the agricultural sector, in general, and input subsidies, in particular, needs to be organised. Every village panchayat should be made to disseminate information with the help of village level official machineries. It must also be ensured that the agricultural department at the block level deposits all such information in every village panchayat office for further dissemination.
2. Among the major problems faced by SC/ST farmers, uncertainty, bad access and bad quality of subsidies were important. Long distance and high prices had also been noticed. In order to put an end to these problems the existing fair price shops should be made use of as outlets for the distribution of input subsidies. Such a proposition would also increase the business volume.
3. The existing biases in the implementation of input subsidies, especially indirect subsidies towards irrigated areas need to be narrowed down in order to ensure equity. All the agricultural needs of families in the dry areas need to be assessed and then they should be met. Such a strategy will go a long way in ensuring the vulnerable and the most deserving families to improve agricultural production and productivity and further facilitate them to cross the poverty line and improve the quality of living.
4. Since most farmers belonging to SC/ST communities are marginal and small, who always cultivate to meet their food requirements of their families, they should be given additional incentives for increasing agricultural productivity and thereby facilitating them to improve their living standard.

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