

**PATTERN AND SHIFTS IN CONSUMPTION OF SORGHUM IN INDIA**

**(Revised -Draft).**

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## PATTERN AND SHIFTS IN CONSUMPTION OF SORGHUM IN INDIA

### INTRODUCTION

Expenditure on cereals dominates food expenditure in India. Rice ranks first followed by wheat and coarse grains. Among the coarse grains, sorghum (locally known as jowar) is an important cereal, consumed by millions of rural poor in the Deccan Plateau. However, its importance as staple in these regions is waning over time. National data on consumption indicates that, in general, there has been a secular shift in the consumption of this coarse cereal. This shift is particularly pronounced in urban areas. Regional data (state wise) attest the decline in consumption with the national data. Surveys conducted periodically by National Sample Survey Organization (NSSO) lend support to these contentions. However, some farm level studies conducted by NRCS –ICRISAT, and sorghum utilization survey (Dayakar et al., 1996) reveal that in the case of small households, the per capita consumption of sorghum has not only remained constant from the past 5-10 years but has also increased in a few cases. These findings were vindicated by a similar study conducted by Chung (1995) which observed that in the districts of Akola and Solapur, sorghum consumption (quantity and quality) exhibited direct relationship with the income. Thus, it is possible that consumption patterns that emerged from both the national and state level data could have obscured the possibly different trends and patterns at district level. Generalizations based on evidence from aggregate data therefore may not reveal the real picture. Implications emanating from analyses at dis-aggregated level may be closer to truth.

Sorghum is a subsistence crop produced and consumed locally in the “rural” peninsular India. It is of interest to know the consumption patterns of the “urban poor” especially with special reference to sorghum’s role in their diet. Recently conducted pilot study on urban consumption (component of NRCS-NRI-ICRISAT collaborative project on “Factors Affecting Sorghum Utilization in India.”), among the poorest in four slums of urban Hyderabad revealed that sorghum contributes 20-25% of the total cereal diet. (oral communication). Greater details in this regard would be of utmost value in drawing meaningful conclusions.

Sorghum is considered to be an inferior cereal in relation to rice and wheat. It is a poor man’s diet. Besides being the staple and firmly embedded in the cultural ethos its consumption is highest at the lowest income levels (ICRISAT, Mid Term Plan Report). This endures the economic theory of the inverse relationship between income levels and consumption of inferior goods. Suryanarayana.(1995) in his study, has also confirmed the above theory which is illustrated by negative expenditure elasticity for sorghum. A study by Food and Agriculture Integrated Development Action (FAIDA), observed that even the local culture of the poor fail to arrest the changes in food habits due to which consumption patterns change very fast. The dynamic nature of income levels underpin such changes.

Sorghum is grown both in kharif and rabi seasons. For all purposes, one can consider them to be separate crops for many reasons. One reason could be the variation in the quality of grain from these two different seasons. Rabi grain is far superior than kharif grain and is of better quality as it matures in the cold environment. The latter is vulnerable to many pest and disease attacks, worst among them being grain molding causing blackening of grain. This then fetches a premium to the rabi grain.

With this backdrop, the present study intends to test the general hypothesis that sorghum is still a poor man's crop. Specifically, the paper addresses the following (i) the trends in sorghum consumption and how it is changing over time, (ii) the variations in trends between state level and district level (iii) shifts in consumption pattern across various income groups and, (iv) influence of quality/price on consumption levels.

### Data Sources and Methodology

An intensive effort was made to procure the household data from NSS for estimation of per-capita consumption/expenditure at district level<sup>1</sup>.

Three states, namely, Andhra Pradesh, Karnataka and Maharashtra have been purposively selected for the present study. From these states, those districts which had a minimum per capita consumption (PCC) of sorghum of one kg per month<sup>2</sup> during the base year (1987-88) formed the criterion for district selection. Thus 10 districts out of 22 in Andhra Pradesh, 10 out of 20 in Karnataka and 23 out of 28 in Maharashtra, were finally selected for analysis (Table-1).

Table 1: CONSUMPTION PATTERNS IN THE SELECTED DISTRICTS FOR RURAL CONSUMERS

State	Total no. of Districts in the state	No. of short Listed districts	Trends in per capita consumption	
			Decreasing	Remained constant
Andhra Pradesh	23	10	8	2
Karnataka	20	10	4	6
Maharashtra	29	23	16	7
Total	72	43	28	15

<sup>1</sup> Basic unit of the data obtained from the NSSO was the household. This was then aggregated to the district level for the rural areas. However, the NSSO officials were uncomfortable with dis-aggregation below the state level. This concern was heeded to in the case of urban areas as there were serious impediments for aggregation. Hence for urban consumers, we limit our analysis to the state level.

<sup>2</sup> 10% of total cereal consumption was considered as cutoff point to shortlist the districts for the present study and is not based on any previous studies

Based on the trends in PCC of sorghum between two consumption rounds, these districts were grouped into two categories; viz., districts where the consumption

1. Decreased
2. Remained more or less constant with a fluctuation range of plus or minus 20 %<sup>3</sup>.

Processed data contained consumption levels across 12-15 expenditure classes which were finally pooled into three expenditure/income classes (income is taken as proxy for expenditure) viz., lower income class (lowest 30% of expenditure classes), middle income class (middle 40% of expenditure classes), and upper income class (upper 30% of expenditure classes). In the discussion that follows, the latter two classes are referred to as non-poor while the former class as poor group. The NSS data was subject to simple tabular analysis to find out the consumption trends both at state and district levels.

Percentage change in consumption was calculated taking the year 1987-88 as the base year, as follows:

$$\% \text{ change over } 1987-88 = \frac{\text{Actual value (1993-94)} - \text{Actual Value (1987-88)}}{\text{Actual Value (1987-88)}} * 100$$

### **Trends and Shifts in Sorghum Consumption Across States**

The data for the two successive five yearly NSS rounds (i.e) 43rd (1987-88) and 50th (1993-94) has been selected for the present study. One clear fact that comes to the fore is that there has been a discernable shift in consumption of sorghum across states (Maharashtra, Karnataka and Andhra Pradesh), sectors (rural and urban) and income levels (lower/middle/upper).

#### **Changes in Urban consumption**

The per capita consumption of sorghum in urban areas was higher in Karnataka (2.33 kg/month in 1987-88 and 1.76 kg/month in 1993-94) followed closely by Maharashtra (2.3 kg/month in 1987-88 and 1.54 kg/month in 1993-94) A.P came a poor third with (0.55 kg/ month in 1987-88 and 0.33 kg/month in 1993-94). In fact, all the three states registered a decline in the total cereal consumption.

In urban A. P., the fall in PCC of sorghum is striking in lower and middle income groups while it remained constant in upper income groups. The latter group witnessed an unusual albeit slight decline in the consumption of rice and wheat. There has been a steep plunge (-40 %) in the quantity of sorghum consumed between the two rounds. However, the levels of consumption of sorghum in AP are meager compared to states like Karnataka

<sup>3</sup> In the absence of time series data, the data had to be compared across two points of time which is only five years apart. To overcome this limitation, an increase/decrease of 20% was considered to be constant

and Maharashtra, hence not significant. Nevertheless, this observation can be ascertained only after observing the trends in the rural areas and district level data.

In Karnataka, there is a general downward shift in per capita consumption of sorghum. While the consumption of sorghum in lower income group remained more or less constant, it declined in case of non poor group. Considering the fact that the majority would fall in this category, it appears that sorghum still has an important place in the diet of urban poor in Karnataka. Sorghum consumption in this state, especially in the northern belt, has been associated with affordability and cultural factors.

Consumption levels of sorghum plummeted in Maharashtra across all the income groups. Magnitude of decline was low in the poor than the non poor group. With decline in sorghum consumption, Maharashtra registered an increase in rice consumption. Neil (1998) has also shown that the per capita rice consumption in Urban Maharashtra increased from 1.5 kg in 1972-73 to 3.2 kg in 1993-94.

Table 2: Changes in Urban Per Capita Consumption of Major Cereals Over Two Periods of Time

State	Cereal	Quantity (kg)		Value (Rs)		Prices (Rs/kg)		% change over 1987-88		
		1987-88	1993-94	1987-88	1993-94	1987-88	1993-94	quantity	value	prices
Andhra Pradesh	Rice	10.56	10.27	35.56	67.74	3.37	6.60	-2.75	90.49	95.87
	Wheat	0.74	0.77	2.58	4.84	3.49	6.29	4.05	87.60	80.29
	Jowar	0.55	0.33	1.18	1.21	2.15	3.67	-40.00	2.54	70.90
	Total	11.97	11.45	39.57	74.14	3.31	6.48	-4.34	87.36	95.87
Karnataka	Rice	6.08	6.52	23.98	49.37	3.94	7.57	7.24	105.88	91.99
	Wheat	1.58	1.59	5.41	10.34	3.42	6.50	0.63	91.13	89.93
	Jowar	2.33	1.76	5.30	6.90	2.27	3.92	-24.46	30.19	72.35
	Total	11.23	11.10	37.19	70.65	3.31	6.36	-1.16	89.97	92.20
Maharashtra	Rice	2.93	3.23	12.30	26.37	4.20	8.16	10.24	114.39	94.48
	Wheat	4.65	4.52	15.19	28.23	3.27	6.25	-2.80	85.85	91.19
	Jowar	2.31	1.54	4.91	5.62	2.13	3.65	-33.33	14.46	71.69
	Total	10.23	9.57	33.16	61.28	3.24	6.40	-6.45	84.80	97.55

Note: Total includes other cereals.

Source: NSSO, Dept. of Statistics, Ministry of Planning and Implementation, New Delhi.

With the consumption levels of rice and wheat remaining constant, the decline in total cereal consumption can be largely attributed to the drop in consumption of sorghum. Since average per capita consumption of sorghum in Karnataka and Maharashtra are relatively higher than that of Andhra Pradesh, changes in sorghum consumption levels in Maharashtra and Karnataka will have greater influence on changes at the national level.

### Changes in Urban Expenditure

In all the three states, sorghum's contribution to the expenditure on total cereals, in general, was found to be low as compared to other cereals like rice. From Table-3, it is evident that, in 1993-94, it ranged from 1.63% (A.P.) to 9.31% (Karnataka) while in

1987-88, it was from 2.98%(A.P) to 14.81% (Maharashtra). It is observed that on an average, the lower income class spends seven times the amount spent by upper class on jowar.

This decreased contribution of sorghum to the total cereal expenditure could be due to increased contribution from preferred finer cereals especially rice and wheat which relatively bear higher prices. While the price of rice ranged from Rs.6.60 per kg in A.P to Rs. 8.16 per kg in Maharashtra, the prices of sorghum remained low at Rs. 3.67 per kg to Rs. 3.92 per kg. The changes in expenditure are mainly due to differential price variations for various cereals and is not because of changes in consumption levels as already stated in the earlier section.

In both the periods, sorghum's contribution to the total cereals expenditure is higher amongst poor group compared to the non-poor groups. Following reasons provide explanations. First, the lower income group cannot afford the preferred cereals due to relatively higher prices in the open market. Second, though the public distribution system (PDS) does offer preferred cereals at subsidized prices, the quantity supplied is highly inadequate for sorghum to be replaced completely by rice/wheat. In fact, except in AP, PDS has had little impact on consumption patterns. (Neil, 1998). Also, one needs to bear in mind that not all possess ration cards. This is all the more true in the case of the poorest of the poor as they have no permanent residence.

Table 3: Proportion of Expenditure on Urban Per Capita Consumption of Jowar to Total Expenditure on Consumption of Cereals

State	Cereal	Value as % to total							
		1987-88				1993-94			
		Income Class				Income Class			
	Lower	Middle	Upper	All	Lower	Middle	Upper	All	
Andhra Pradesh	Rice	90.39	90.64	87.58	89.87	93.22	92.30	88.33	91.37
	Wheat	3.29	6.76	11.46	6.52	2.97	5.99	10.54	6.53
	Jowar	5.28	2.14	0.71	2.98	3.14	1.21	0.82	1.63
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Karnataka	Rice	60.30	66.45	68.09	64.48	60.07	70.48	73.58	69.88
	Wheat	10.22	15.12	21.19	14.55	9.38	13.55	17.10	13.95
	Jowar	21.76	11.73	5.79	14.25	18.81	8.21	3.29	9.31
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Maharashtra	Rice	27.21	39.34	41.00	37.09	34.88	43.37	45.57	43.03
	Wheat	35.46	45.85	52.91	45.81	37.51	44.84	49.97	46.07
	Jowar	32.50	12.78	5.13	14.81	23.60	9.68	3.81	9.17
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Total includes other cereals.

Source: NSSO, Dept. of Statistics, Ministry of Planning and Implementation, New Delhi.

**Changes in sorghum price:** In general, it was observed that the lower income groups do pay lower price for sorghum compared to middle and upper income group in all the states and in both the periods except in A. P. In A. P., during 1987-88, it was observed that the



lowest price was paid by the upper income groups i.e Rs 2.06/kg while the highest price was paid by the middle income groups (Rs 2.20/kg). Existence of quality differences in sorghum and other cereals was reflected from different prices being paid to the same commodity by the various income groups. In general, the poor group prefers low quality due to their low purchasing power unlike some exceptions like A. P as stated before.

Across the states, highest price was paid by upper income class in Maharashtra in both the time periods (Rs 2.56/kg and Rs. 4.88/kg respectively in 1987-88 and 1993-94), while the lowest price was paid by the lower income group from the same state (Rs1.96/kg and Rs. 2.93/kg during 1987-88 and 1993-94 respectively). It would be unwise to infer whether quality has influenced the price (in both higher and lower classes) especially in the absence of district level estimates for urban areas.

Prices of rice and wheat (actual values) are much higher than sorghum in all the three states. It is in order to note that the price of rice and wheat is inclusive of the subsidy component in the PDS. This only reflects the demand for rice and wheat compared to sorghum in both the periods.

### Changes in Rural Consumption

Concerning, per capita consumption in the rural areas, Maharashtra recorded the highest (6.59 kg/month in 1987-88 and 4.82 kg/month in 1993-94) followed closely by Karnataka (4.79 kg/month and 4.03 kg/month for the corresponding years), while in rural A.P. it was quite low (1.5 kg/month in 1987-88 and 0.99 kg/month in 1993-94).

Table 4: Changes in Rural Per Capita Consumption of Major Cereals over Two Periods of Time

State	Cereal	Quantity (kg)		Value (Rs)		Price (Rs/kg)		% Change over 1987-88		
		87-88	93-94	87-88	93-94	87-88	93-94	Quantity	Value	Price
Andhra Pradesh	Rice	11.56	11.65	34.34	65.03	2.97	5.58	0.78	194.76	89.37
	Wheat	0.15	0.19	0.60	1.35	4.00	7.11	26.67	215.79	125.00
	Jowar	1.50	0.99	2.83	3.14	1.89	3.17	-34.00	185.86	10.95
	Total	14.34	13.37	39.75	71.37	2.77	5.34	-6.76	197.31	79.55
Karnataka	Rice	5.15	5.46	18.48	35.46	3.59	6.49	6.02	238.46	91.88
	Wheat	0.82	0.86	2.59	4.52	3.16	5.26	4.88	201.16	74.52
	Jowar	4.79	4.03	9.71	13.25	2.03	3.29	-15.87	140.94	36.46
	Ragi	2.75	2.54	5.10	7.53	1.85	2.96	-7.64	100.79	47.65
	Total	13.97	13.21	36.73	61.73	2.63	4.67	-5.44	178.05	68.06
Maharashtra	Rice	2.84	3.00	9.87	19.86	3.48	6.62	5.63	229.00	101.22
	Wheat	2.32	2.23	6.45	11.37	2.78	5.10	-3.88	189.24	76.28
	Jowar	6.59	4.82	11.77	13.32	1.79	2.76	-26.86	144.19	13.17
	Bajra	1.03	1.19	2.09	3.76	2.03	3.16	15.53	75.63	79.90
	Total	13.02	11.52	30.70	49.25	2.36	4.28	-11.52	166.49	60.42

Note: Total includes other cereals.

Source: NSSO, Dept. of Statistics, Ministry of Planning and Implementation, New Delhi.



In AP, the share of sorghum to total cereals consumption formed < 35% for all the groups and <31% for the poor group excepting districts like Adilabad and Rangareddy, where it was 55.9% and 50.26% respectively. On the other hand, in Karnataka, sorghum share ranged from 6% to 72% across all groups and 12% to 73% for the poor group. In Maharashtra, the figures were 17% to 80% across all groups and 10% to 89% for the poor group

Consumption of sorghum in general has declined in all the states during the past 5-6 years, the period considered for this study. Highest decrease in terms of percentage change, was observed in A.P. (-34%), followed by Maharashtra (-27%), a heart land for sorghum, and Karnataka (-16%) (Table-4). Although the price increase has been the highest in Karnataka, the decline in sorghum consumption has been the least in a relative sense. This reinforces the fact that in parts of northern Karnataka, consumption of sorghum is driven by cultural and social factors.

In rural AP, with decline in sorghum consumption, there was simultaneous increase in rice and wheat consumption amongst the poor group and only wheat consumption amongst non-poor group. In Karnataka, the consumption of ragi also declined for the poor group. Rice consumption increased for all the groups. In rural Maharashtra, consumption of bajra increased for the poor and consumption of rice increased for the non-poor.

#### **Changes in Rural Consumption Expenditure**

In 1987-88, sorghum contributed highest (38%) to the total expenditure on cereals in rural Maharashtra followed by Karnataka (26%), the expenditure on rice being the biggest item. In A.P., the expenditure on sorghum was only 7% which is negligible as compared to rice. Whereas in the second round (1993-94), sorghum slipped to second position (27%, while rice was 40%) in the state of Maharashtra. In Karnataka and A.P. sorghum's contribution to the total expenditure for the cereals basket remained the same i.e., second only to rice. While the obvious reason for shrinking expenditure on sorghum is decline in actual consumption itself, another plausible reason is the relatively slow price rise in case of sorghum (11-36%) compared to rice (90-100%). Despite these reasons, the lower income groups in Maharashtra spend highest on sorghum compared to other cereals.

**Changes in sorghum price:** In all the three states, lowest price was paid by the poor during both the periods. The sorghum price was highest in Karnataka (Rs. 2.03/kg in 1987-88 and Rs. 3.29/kg in 1993-94) for both the periods.

Table 5: Proportion of Expenditure on Jowar to Total Consumption Expenditure of Cereals

(Value as % to total)

State	Cereal	1987-88				1993-94			
		Income Class				Income Class			
		Lower	Middle	Upper	All	Lower	Middle	Upper	All
Andhra Pradesh	Rice	80.18	87.90	90.02	86.39	86.97	92.07	92.43	91.12
	Wheat	0.41	1.04	3.08	1.51	0.54	1.36	3.20	1.89
	Jowar	10.78	7.03	4.05	7.12	7.93	4.37	2.45	4.40
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Karnataka	Rice	36.92	52.57	58.69	50.31	41.38	57.68	66.98	57.44
	Wheat	4.46	6.05	10.56	7.05	6.45	6.12	9.20	7.32
	Jowar	34.92	25.33	20.66	26.44	33.75	21.52	13.86	21.46
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Maharashtra	Rice	26.14	33.42	36.27	32.15	29.45	40.51	47.22	40.32
	Wheat	14.94	20.30	27.77	21.01	16.74	21.91	28.31	23.09
	Jowar	47.39	38.53	29.42	38.34	39.85	27.60	18.18	27.05
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Total includes other cereals.

Source: NSSO, Dept. of Statistics, Ministry of Planning and Implementation, New Delhi.

### Trends and Shifts in Sorghum Consumption Across Districts

District-wise estimates were computed from the household data supplied by the NSSO (for rural areas only) in the selected states of Andhra Pradesh, Maharashtra and Karnataka. In majority of the districts the consumption of sorghum has declined (66% of total short listed districts). However, in about 34% of the districts, sorghum consumption has more or less remained constant and is as important cereal even now as it used to be 5 – 6 years ago.

A closer look at the data indicates that in Karnataka, 6 out of 10 districts showed constant levels of consumption, while there was a decline in sorghum consumption in the typical sorghum districts (16/23) of Maharashtra. Trends in both the above states explode the myth that apart from a general trend of “declining sorghum consumption”, some districts like Chikmagalur, Shimoga, Mysore, Bidar and Chitradurga in Karnataka and Amaravati in Maharashtra exhibit the contrary.

In Andhra Pradesh, of the 10 selected districts, except two districts viz., Rangareddy and Adilabad, all others recorded precipitous decline in sorghum consumption. Districts where sorghum is an important staple with significant levels of sorghum consumption (in the base period) like Kurnool, Mahabubnagar, Medak and Khammam, also exhibited similar trend during these 5-6 years period. From among these districts, except for Mahabubnagar, there was a simultaneous increase in the consumption of rice and wheat coinciding with the decline in sorghum consumption. However, increase in rice consumption was not equivalent to that of decline in sorghum's consumption. In Nizamabad district, sorghum consumption which was of the tune of 0.57 kg/month in

1987-88 (below the state average) rose to 1.63 kg/month in 1993-94 (above state average).

In Karnataka, the per capita consumption of sorghum in six out of ten selected districts, consumption remained the same. In these districts one can observe that shifts in the consumption of rice are marginal/negligible. Especially, the level of wheat consumption in both the periods are very low indicating that perhaps it is not an important substitute for sorghum. Even rice which is replacing sorghum in the cereal diet in other regions does not appear to be a strong substitute. This hypothesis is reinforced in districts like Bidar, Raichur, Dharwad and Mysore, where the increase in rice consumption has not matched the steep decline in sorghum consumption. The consumption levels of sorghum in six districts namely Shimoga, Chitradurga, Gulbarga, Bidar, Bijapur and Belgaum is above the state average. Incidentally, these are rabi sorghum growing districts. The quality of grain produced in this region especially, in districts like Bijapur, commands a premium in the market due to its superior quality. As in A.P, here too a couple of districts like Chikmagalur and Uttara Kannada (not short-listed) which had sorghum per capita consumption of less than one kg per month in 1987-88, exceeded even the state average in 1993-94.

In Maharashtra, consumption of sorghum declined in the typical sorghum consuming districts. Among the 23 selected districts, constant levels of sorghum consumption was observed in only 11 districts, of which Amaravati, Chandrapur, Wardha, Akola, Buldhana, Yavatmal, Satara etc. are prominent (most of these being kharif districts). It is important to note that historically and culturally, sorghum was the most important staple cereal in many of these districts. But gradually changes in consumers tastes and preferences have occurred either due to urbanisation or rural-urban migration (Neil--). Even the traditionally sorghum consuming districts like Jalna, Ahmednagar, Bid, Sangli, Pune, Jalgaon, Nanded etc., which are typical rabi districts and some of the typically kharif districts showed declining consumption trend. In most cases, where sorghum consumption has decreased, rice and wheat has jointly substituted sorghum in their cereal diet. In some other districts like Pune and Ahmednagar, consumption of rice and wheat could not register gains, inspite of sharp decline in sorghum consumption. In spite of the steep decline in these districts, the present levels of per capita consumption of sorghum are still comparable with some top sorghum consuming districts in the country.

It appears that the quality of grain has no bearing with the shift in sorghum consumption. This is evident in Maharashtra where the declining trend was observed irrespective of the fact that they are kharif or rabi sorghum districts.

### **Shifts in Sorghum Consumption Across Income Classes**

Sorghum is considered as an inferior cereal and with increases in income the % of sorghum in the cereal basket falls (Neil, 1998). That sorghum consumption exhibits negative income elasticity is evident from the data. As income levels increased, the share of sorghum to total cereal consumption decreased from 14.62% to 6.17% in AP, 40.88% to 28.99% in Karnataka and 59.10% to 40.93% in Maharashtra during 1987-88. Similar trends were observed during

1993-94 also (Refer Table 6). In Andhra Pradesh for both the periods, in the districts of Adilabad and Nalgonda, the sorghum consumption per capita, both in absolute terms and as percentage to total cereals, was highest in poor income groups. While a similar trend was observed in Khammam and Anantapur in 1987-88, the situation in 1993-94, has altered i.e., non-poor group recorded highest sorghum consumption. Conversely, in the districts of Prakasam and Rangareddy sorghum consumption was highest among non-poor groups in 1987-88 but in 1993-94, it was highest among poor groups.

Table 6: Proportion of Rural Per Capita Consumption of Jowar to Total Cereals

(Quantity as % to Total)

State	Cereal	1987-88				1993-94			
		Income Class				Income Class			
		Lower	Middle	Upper	All	Lower	Middle	Upper	All
Andhra Pradesh	Rice	72.04	82.67	86.82	80.61	80.25	88.34	90.48	87.14
	Wheat	0.32	0.76	2.28	1.05	0.44	1.05	2.61	1.42
	Jowar	14.62	10.36	6.17	10.46	12.29	6.92	4.50	7.40
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Karnataka	Rice	25.40	39.07	45.99	36.86	26.89	41.59	52.51	41.33
	Wheat	3.63	5.26	9.21	5.87	5.80	5.51	8.38	6.51
	Jowar	40.88	32.99	28.99	34.29	42.54	30.21	21.33	30.51
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Maharashtra	Rice	16.82	23.12	25.85	21.81	16.55	27.26	34.30	26.04
	Wheat	12.17	17.57	25.12	17.82	11.88	18.92	27.36	19.36
	Jowar	59.10	50.19	40.93	50.61	55.99	40.71	28.96	41.84
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

However, in the districts of Mahabubnagar, Medak, Kurnool and Cuddapah, the highest level of sorghum consumption was recorded among non-poor groups in both the periods.

Data for Karnataka indicates that in districts like Mysore and Bellary, highest consumption of sorghum, in absolute terms, was recorded amongst the non-poor groups in 1987-88 while in 1993-94 this trend reversed. While in the districts like Chitradurga, Bellary, Bijapur, Bidar, Gulbarga and Raichur, in both the periods, the non-poor group consumed highest quantity per capita, of sorghum. Poor income group always consumed more than non-poor group during this 5 – 6 year period of study in Shimoga.

In eight districts of Maharashtra, viz., Solapur, Sangli, Nasik, Dhule, Aurangabad, Nagpur, Yavatmal, Amravati, which are known traditionally for sorghum consumption, the consumption was highest in lower income group during both the periods. While other districts which had recorded highest sorghum consumption among non-poor groups in

1987-88 had reversed the trend -- now the poor consume more of sorghum than the non-poor. Nanded, Parbhani, Latur, Wardha and Chandrapur districts belong to this category. Sorghum consumption, in absolute terms, remained highest among non-poor group in both the periods as observed in Bid, Buldana, Akola, Osmanabad, Ahmednagar, Pune and Kolhapur.

From the above analysis, it is clear that higher consumption levels of sorghum (in absolute terms) is not restricted to poor households only, defying the popular belief that sorghum is a poor man's crop. However, sorghum consumption in terms of its share to total cereal consumption is definitely higher amongst poor households than the non poor (Table 6), proving the fact that it is still the main staple food for the poor. Perhaps we can safely generalize that in those regions where sorghum is dominantly grown, sorghum is consumed across all income groups. The implication being that sorghum is far more important for the poor than the non-poor—but only in a relative sense.

### **Influence of Sorghum Price on Consumption**

Across the states, sorghum prices varied from Rs.1.79/kg in Maharashtra to Rs. 2.03/kg in Karnataka during 1987-88. By 1993-94, the increase in sorghum prices was higher in Karnataka (36%) while quite nominal in Maharashtra (13%) and A.P (11%). On the contrary, the prices of rice during 1993-94 was much higher ranging from Rs. 5.58/kg to Rs. 6.62/kg registering an increase of 89% in A.P, 92% in Karnataka and 101% in Maharashtra.

Among the states, higher prices were paid by the upper income group in Karnataka (Rs2.10/kg) while the lowest price was paid by the poor income groups of Maharashtra (Rs.1.69/kg) during 1987-88. This relatively higher prices in Karnataka could be due to better grain quality obtained during post rainy season (Rabi). Generally, low prices are offered for poor quality grain which contains foreign material, small size grains, broken grain or blackened grain. This grain blackening or molding which is caused due to fungal attack, occurs when the rainfall coincides with harvesting. Similarly the low value for grain in Maharashtra could be due to frequent recurrence of grain molding in kharif sorghum districts. This results in deterioration of the quality of the grain and hence poor price realization.

Higher increase in prices of sorghum over 1987-88 Karnataka over other two states demonstrates the fact that the grain obtained in Karnataka was superior and that this demand has been sustained. Blanket acceptance of these conclusions may be unwise as the trends at district levels give greater insight and an opportunity to confirm whether they hold true.

District-wise price data reveal that increase in sorghum prices ranged from 26% to 134% in A.P, 34% to 132% in Karnataka and 20% to 131% in Maharashtra over 1987-88

In some districts like Bid, Sangli (Maharashtra), Bidar (Karnataka) the price rise in sorghum was on par with that of rice prices over 1987-88. This could be due to

diversification of erstwhile typical kharif districts to districts where both kharif and rabi sorghum are grown (the value of rabi grain is in general higher than kharif grain). In 1993-94, this reason could possibly have made sorghum dearer. It is no wonder that the price increases (in percent terms) are on par with that of corresponding increases in prices of rice.

No clear pattern emerged out of the district-wise price data on sorghum except that higher sorghum prices were generally observed in rabi districts or where both kharif and rabi are grown and not in mainly kharif sorghum growing districts in Karnataka and Maharashtra. Highest sorghum prices (actual prices) in 1987-88 were recorded in districts of Gulbarga and Bijapur (mainly rabi) and Belgaum (both kharif and rabi sorghum districts). Again in 1993-94, Gulbarga, Bijapur (rabi) and Belgaum and Bidar (both kharif and rabi sorghum districts) recorded highest price hikes in the state. Even though sorghum prices are among the highest, its consumption in these districts has not declined over 1987-88. However, sorghum consumption remained same in Chitradurga and Shimoga though the prices were low.

Unlike Karnataka districts, in Maharashtra higher sorghum prices were observed in the districts with reduced sorghum consumption than in the districts where sorghum consumption remained unaltered. However, in some exceptional cases like Nanded and Parbhani, even though sorghum became cheaper, its consumption tapered. Likewise, in the districts of Kolhapur and Satara consumers expended more on sorghum grain when actually sorghum consumption remained more or less constant. All these trends emphasize the fact that there is no set pattern of consumer behavior in relation to prices as observed from the district wise estimates compared to the state-wise estimates.

### Kharif vs Rabi Grain

The consumption is strongly influenced by the variety. As Pushpamma (1993) notes, "varietal preferences vary from region to region within the same state depending on the form in which the grain is consumed...in areas where it is consumed as annam, yellow (kharif) sorghum varieties are preferred; where it is prepared as roti, white (rabi) sorghum is preferred". Generally, rabi grain is considered to be superior than kharif grain as it matures in cold environment.

The district level data clearly brings out certain differences between the kharif sorghum regions and the rabi sorghum districts. Price of rabi grain in general has been higher than the kharif grain. While the prices for rabi sorghum during 1993-94 are in the range of Rs. 2.38/kg to Rs. 4.22/kg in kharif sorghum districts it is less at Rs. 1.91/kg to Rs. 3.80/kg. In the both periods, the absolute price of rabi grain was closer to that of wheat, while the kharif grain price was not so. The price increases of rabi grain were lesser than that of kharif grain price increases. While all the rabi sorghum districts, except Bidar, recorded price increases (over 1987-88) of less than 50%, in kharif sorghum districts, the price increases have been in the range of 65% to 99% except in the districts of Adilabad, Raichur and Aurangabad. Higher price increases for kharif grain despite its inferior quality may be due to lower absolute price level for kharif grain during 1987-88. However, price increases were comparable to that of rice and wheat in rabi districts.



Generally, the level of consumption, both in absolute terms and as % to total cereal consumption is less in rabi districts than kharif districts, perhaps leaving more grain for the market.

## CONCLUSIONS

The main message from the study is that implications flowing from analyses at different levels of aggregation may differ significantly. It is clear from the present study that district level analysis varies distinctly from state level analysis based on which policies are framed. While the state level analysis reveals a general declining trend in sorghum consumption across two point period for all the three states, the district level analysis gives a slightly different picture. In about one-third of the sample districts, the consumption levels had remained constant. Districts like Chikmagalur, Shimoga and Chitradurga, which, hitherto, have been chiefly rice and ragi consuming districts have registered a slight increase in sorghum consumption. Similarly, in Maharashtra, Chandrapur follows the suite. These districts are apart from the conventionally sorghum consuming districts like Bidar, Belgaum, Dharwad and Raichur in Karnataka and Buldana, Nanded, Amaravathi, Bid, Osmanabád, Latúr etc., in Maharashtra, where sorghum is still an important cereal which could be due to cultural reasons.

The study has clearly captured the fact that decline in consumption levels have been prominent in non-poor group than poor group. However, in absolute terms, sorghum consumption has been highest in the non-poor group in more than 50% of the sample districts. This partially defies the hypothesis that sorghum is a poor mans' crop.

Though at the state level, it is clear that poor consume low priced/quality grain, no such clear pattern emerges from the district level data. Policy making with regard to sorghum utilization will be more effective and productive if regional realities are internalized rather than aggregate facts like at the state level. One can perhaps attribute non-price factors to play a critical role in shaping the demand for sorghum. It appears that in some cases, institutional factors like culture, tradition, beliefs display stronger effects than mere market forces. These factors need to be accounted for in future strategies relating to sorghum consumption.

Absence of district wise estimates for sorghum consumption in "urban areas" restricted the study in arriving at broad trends only. Nevertheless, these initial findings could be used as a base data to conduct field level surveys to understand the sorghum consumption patterns in the urban regions in a better way.



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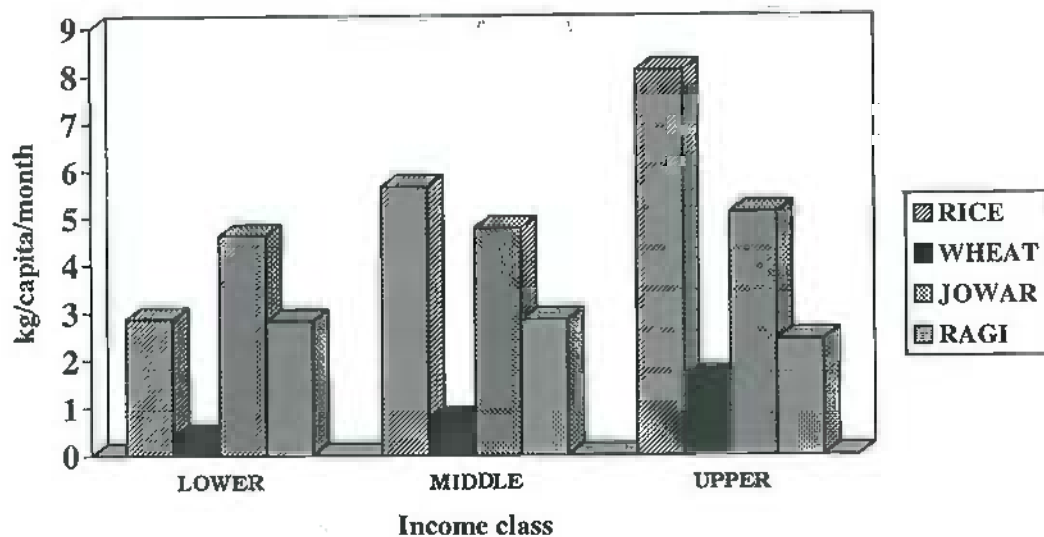
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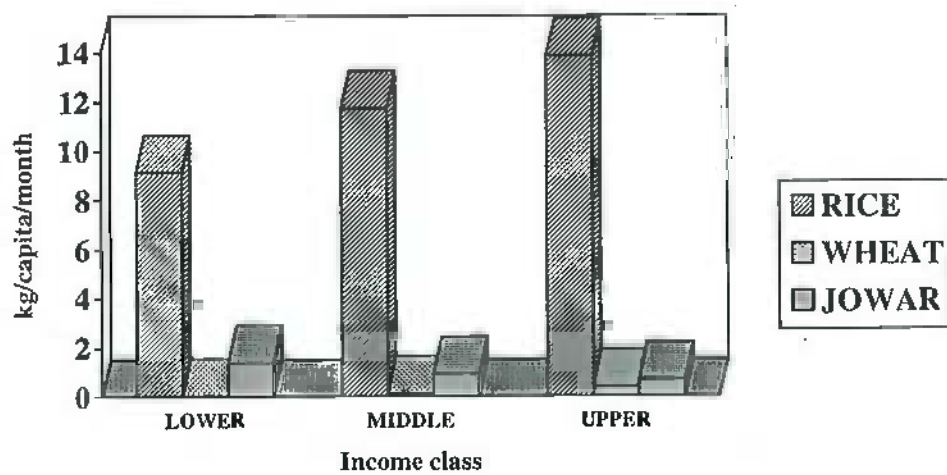
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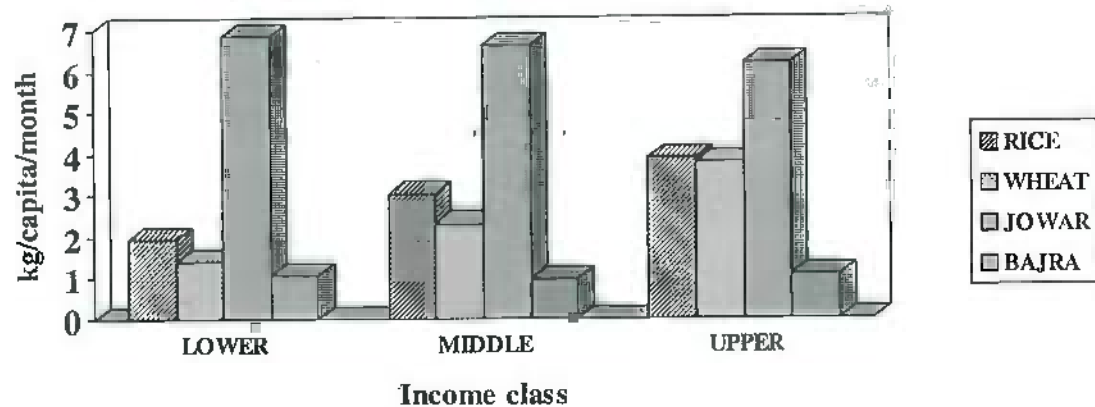
**Per capita Consumption of Major Cereals in Rural  
Andhra Pradesh -1987-88**



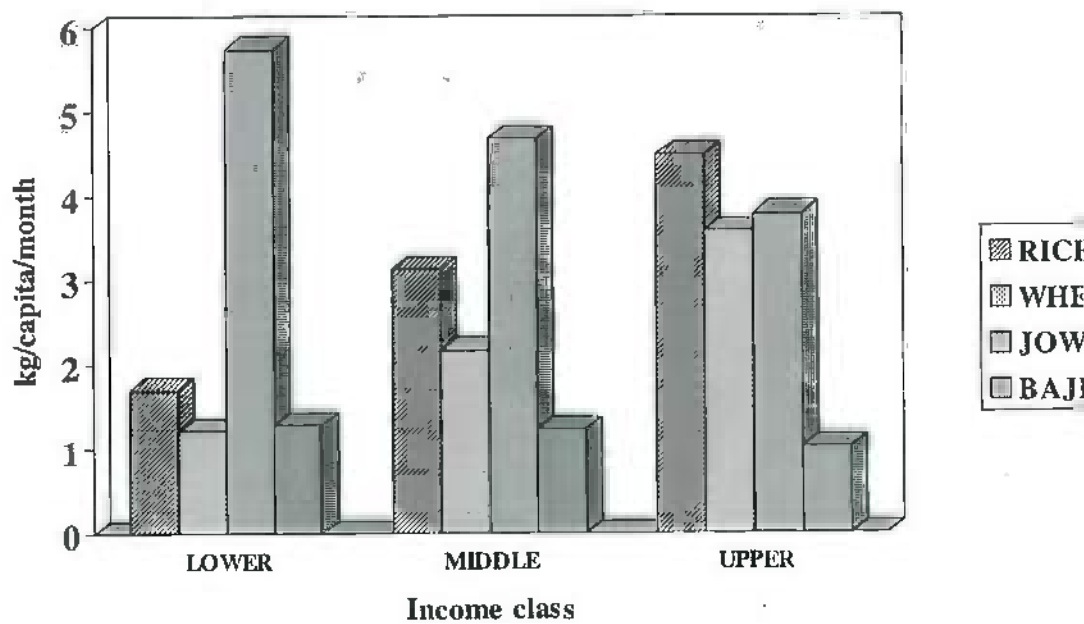
**Per capita Consumption of Major Cereals in Rural  
Andhra Pradesh (1993-94)**



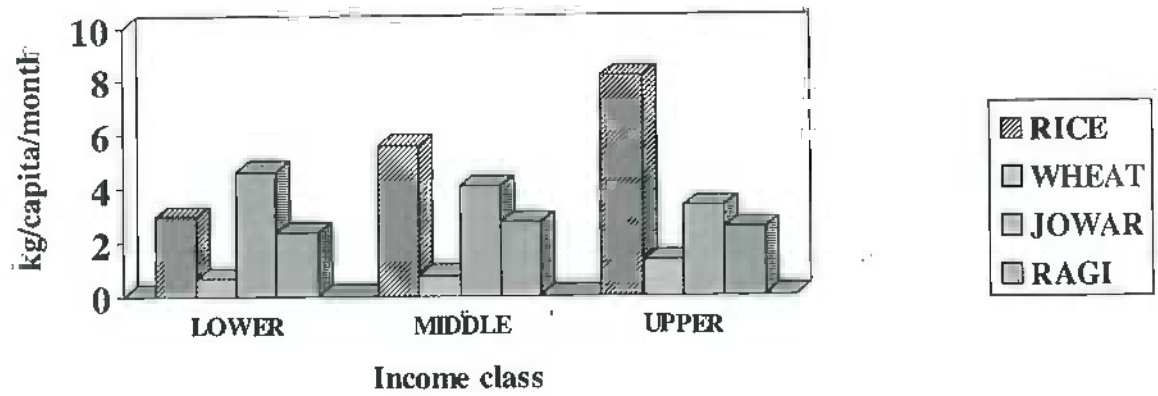
### Per Capita Consumption of Major Cereals in Rural Maharashtra-1987-88



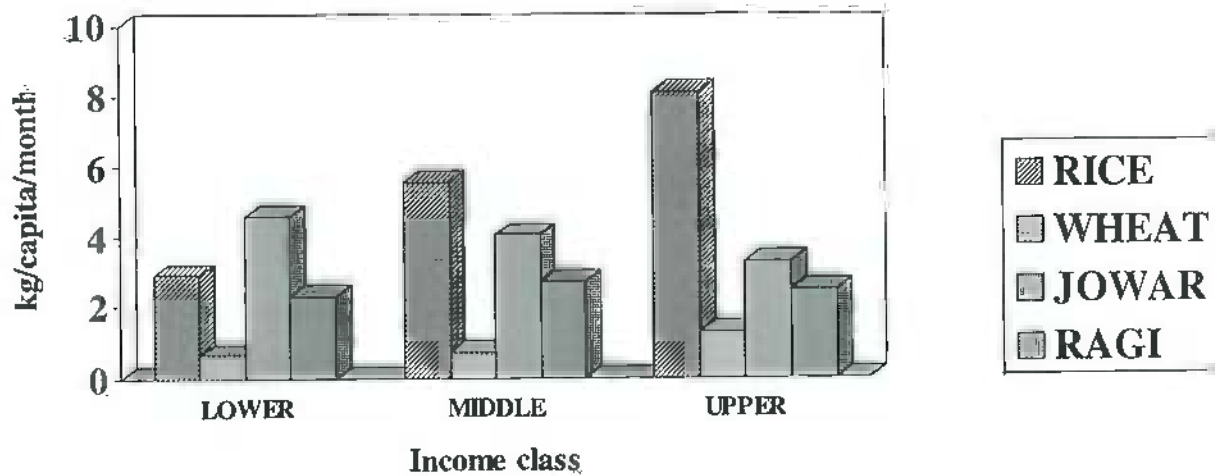
### Per Capita Consumption of Major Cereals in Rural Maharashtra-1993-94



**Per Capita Consumption of Major Cereals in Karnataka -  
1987-88**



**Per Capita Consumption of Major Cereals in Rural Karnataka  
1993-94**



**TABLE - I****STATE WISE ESTIMATES (RURAL) ON MONTHLY PERCAPITA CONSUMPTION / EXPENDITURE  
OF MAJOR CEREALS IN SELECTED STATES (1987-88)****ANDHRA PRADESH**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	9.02	11.97	14.49	11.56	25.37	35.51	45.08	34.34	2.81	2.97	3.11	2.97
WHEAT	0.04	0.11	0.38	0.15	0.13	0.42	1.54	0.60	3.25	3.82	4.05	4.00
JOWAR	1.83	1.50	1.03	1.50	3.41	2.84	2.03	2.83	1.86	1.89	1.97	1.89
TOTAL	12.52	14.48	16.69	14.34	31.64	40.40	50.08	39.75	2.53	2.79	3.00	2.77

**KARNATAKA**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	2.87	5.65	8.09	5.15	9.61	20.17	30.46	18.48	3.35	3.57	3.77	3.59
WHEAT	0.41	0.76	1.62	0.82	1.16	2.32	5.48	2.59	2.83	3.05	3.38	3.16
JOWAR	4.62	4.77	5.10	4.79	9.09	9.72	10.72	9.71	1.97	2.04	2.10	2.03
RAGI	2.82	2.85	2.43	2.75	5.19	5.34	4.52	5.10	1.84	1.87	1.86	1.85
TOTAL	11.30	14.46	17.59	13.97	26.03	38.37	51.90	36.73	2.30	2.65	2.95	2.63

**MAHARASHTRA**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	1.95	3.04	3.89	2.84	6.37	10.39	14.51	9.87	3.27	3.42	3.73	3.48
WHEAT	1.41	2.31	3.78	2.32	3.64	6.31	11.11	6.45	2.58	2.73	2.94	2.78
JOWAR	6.85	6.60	6.16	6.59	11.55	11.98	11.77	11.77	1.69	1.82	1.91	1.79
BAJRA	1.08	0.95	1.06	1.03	2.20	1.89	2.26	2.09	2.04	1.99	2.13	2.03
TOTAL	11.59	13.15	15.05	13.02	24.37	31.09	40.01	30.70	2.10	2.36	2.66	2.36

TABLE II

## STATE WISE ESTIMATES (RURAL) ON MONTHLY PERCAPITA CONSUMPTION AND EXPENDITURE OF MAJOR CEREALS IN SELECTED STATES (1993-94)

## ANDHRA PRADESH

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	9,14	11,74	13,88	11,65	46,85	64,31	82,93	65,03	5,13	5,48	5,97	5,58
WHEAT	0,05	0,14	0,40	0,19	0,29	0,95	2,87	1,35	5,80	6,79	7,18	7,11
JOWAR	1,40	0,92	0,69	0,99	4,27	3,05	2,20	3,14	3,05	3,32	3,19	3,17
TOTAL	11,39	13,29	15,34	13,37	53,87	69,85	89,72	71,37	4,73	5,26	5,85	5,34

## KARNATAKA

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	2,92	5,59	8,15	5,46	18,22	35,83	54,36	35,46	6,24	6,41	6,67	6,49
WHEAT	0,63	0,74	1,30	0,86	2,84	3,80	7,47	4,52	4,51	5,14	5,75	5,26
JOWAR	4,62	4,06	3,31	4,03	14,86	13,37	11,25	13,25	3,22	3,29	3,40	3,29
RAGI	2,33	2,73	2,50	2,54	6,81	8,14	6,47	7,5	2,92	2,98	2,59	2,95
TOTAL	10,86	13,44	15,52	13,21	44,03	62,12	81,16	61,73	4,05	4,62	5,23	4,67

## MAHARASHTRA

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	1,70	3,14	4,50	3,00	10,13	20,17	31,88	19,86	5,96	6,42	7,08	6,62
WHEAT	1,22	2,18	3,59	2,23	5,76	10,91	19,11	11,37	4,72	5,00	5,32	5,10
JOWAR	5,75	4,69	3,80	4,82	13,71	13,74	12,27	13,32	2,38	2,93	3,23	2,76
BAJRA	1,29	1,23	1,02	1,19	3,58	4,01	3,18	3,72	2,78	3,26	3,12	3,13
TOTAL	10,27	11,52	13,12	11,52	34,40	49,79	67,51	49,25	3,35	4,32	5,15	4,28

TABLE III

## STATE WISE ESTIMATES (URBAN) ON MONTHLY PERCAPITA CONSUMPTION OF MAJOR CEREALS IN SELECTED SORGHUM STATES - 1987-88

## ANDHRA PRADESH

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	9,71	11	11,84	10,56	29,64	38,07	45,7	35,56	3,05	3,46	3,86	3,37
WHEAT	0,34	0,84	1,6	0,74	1,08	2,84	5,98	2,58	3,18	3,38	3,74	3,49
JOWAR	0,81	0,41	0,18	0,55	1,73	0,9	0,37	1,18	2,14	2,20	2,06	2,15
TOTAL	11,03	12,34	13,67	11,97	32,79	42	52,18	39,57	2,97	3,40	3,82	3,31

## KARNATAKA

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	4,99	6,74	7,47	6,08	18,82	26,68	31,49	23,98	3,77	3,96	4,22	3,94
WHEAT	1	1,79	2,65	1,58	3,19	6,07	9,8	5,41	3,19	3,39	3,70	3,42
JOWAR	3,07	2,02	1,07	2,33	6,79	4,71	2,68	5,3	2,21	2,33	2,50	2,27
RAGI	1,1	1,25	1,02	1,15	2,19	2,57	2,14	2,33	1,99	2,06	2,10	2,03
TOTAL	10,29	11,88	12,28	11,23	31,21	40,15	46,25	37,19	3,03	3,38	3,77	3,31

## MAHARASHTRA

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	1,88	3,26	3,56	2,93	6,99	13,18	16,77	12,3	3,72	4,04	4,71	4,20
WHEAT	3,27	4,88	5,82	4,65	9,11	15,36	21,64	15,19	2,79	3,15	3,72	3,27
JOWAR	4,25	1,9	0,82	2,31	8,35	4,28	2,1	4,91	1,96	2,25	2,56	2,13
BAJRA	0,55	0,28	0,13	0,32	1,2	0,66	0,34	0,74	2,18	2,36	2,62	2,31
TOTAL	9,97	10,33	10,35	10,23	25,69	33,5	40,9	33,16	2,58	3,24	3,95	3,24



**TABLE IV****STATE WISE ESTIMATES (URBAN) ON MONTHLY PERCAPITA CONSUMPTION OF MAJOR CEREALS IN SELECTED SORGHUM STATES - 1993-94****ANDHRA PRADESH**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	9.7	10.6	10.51	10.27	54.87	70.14	82.17	67.74	5.66	6.62	7.82	6.60
WHEAT	0.31	0.73	1.49	0.77	1.75	4.55	9.81	4.84	5.65	6.23	6.58	6.29
JOWAR	0.52	0.24	0.19	0.33	1.85	0.92	0.76	1.21	3.56	3.83	4.00	3.67
TOTAL	10.63	11.68	12.25	11.45	58.86	75.99	93.03	74.14	5.54	6.51	7.59	6.48

**KARNATAKA**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	5.05	6.85	7.72	6.52	35.36	51.1	62.91	49.37	7.00	7.46	8.15	7.57
WHEAT	0.95	1.64	2.26	1.59	5.52	10.3	15.91	10.34	5.81	6.28	7.04	6.50
JOWAR	2.98	1.53	0.7	1.76	11.07	6.24	3.06	6.9	3.71	4.08	4.37	3.92
TOTAL	10.04	11.48	11.76	11.1	55.35	72.5	85.5	70.65	5.51	6.32	7.27	6.36

**MAHARASHTRA**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	2.25	3.38	3.63	3.23	15.4	25.66	33.29	26.37	6.84	7.59	9.17	8.16
WHEAT	3.21	4.56	5.23	4.52	16.56	26.53	36.5	28.23	5.16	5.82	6.98	6.25
JOWAR	3.56	1.35	0.57	1.54	10.42	5.73	2.78	5.62	2.93	4.24	4.88	3.65
BAJRA	0.52	0.32	0.11	0.28	1.75	1.22	0.45	1.03	3.37	3.81	4.09	3.68
TOTAL	9.54	9.62	9.54	9.57	44.15	59.17	73.05	61.28	4.63	6.15	7.66	6.40

Note: Total includes other cereals.

Source: NSSO, Dept. of Statistics, Ministry of planning and Implementation, New Delhi

**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN ANDHRA PRADESH (1987-88)**

**PRAKASAM**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	NCOME CLASS				NCOME CLASS				NCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	7.19	12.37	14.16	10.33	21.67	39.67	46.21	32.64	3.01	3.21	3.26	3.16
WHEAT	0.00	0.05	0.10	0.04	0.00	0.17	0.39	0.13	0.00	3.40	3.90	3.25
JOWAR	1.71	1.63	2.29	1.80	3.16	2.79	4.08	3.21	1.85	1.71	1.78	1.78
TOTAL	14.91	17.00	20.17	16.66	33.03	46.85	55.91	42.25	2.22	2.76	2.77	2.54

**KHAMMAM**

RICE	8.45	12.86	13.91	11.67	22.67	37.60	43.10	34.13	2.68	2.92	3.10	2.92
WHEAT	0.01	0.07	0.60	0.20	0.02	0.23	1.93	0.64	2.00	3.29	3.22	3.20
JOWAR	3.09	2.34	1.07	2.23	4.73	4.28	1.89	3.75	1.53	1.83	1.77	1.68
TOTAL	12.95	15.38	15.57	14.61	29.50	42.27	46.92	39.28	2.28	2.75	3.01	2.69

**NALGONDA**

RICE	10.75	13.24	15.68	12.94	29.78	37.92	45.79	36.91	2.77	2.86	2.92	2.85
WHEAT	0.01	0.20	0.40	0.18	0.03	0.61	1.63	0.64	3.00	3.05	4.08	3.56
JOWAR	1.49	1.29	0.79	1.24	2.36	2.00	1.18	1.93	1.58	1.55	1.49	1.56
TOTAL	12.77	15.14	17.02	14.75	33.04	41.14	48.84	40.10	2.59	2.72	2.87	2.72

**MAHABOBNAGAR**

RICE	6.57	8.70	11.97	8.32	17.07	25.16	40.54	24.19	2.60	2.89	3.39	2.91
WHEAT	0.00	0.08	0.57	0.13	0.00	0.27	2.08	0.45	0.00	3.38	3.65	3.46
JOWAR	5.57	5.97	5.61	5.74	10.75	11.55	11.00	11.12	1.93	1.93	1.96	1.94
TOTAL	12.95	15.56	18.56	14.93	29.23	38.32	54.31	37.02	2.26	2.46	2.93	2.48

**RANGA REDDY**

RICE	7.20	8.84	11.82	8.88	18.65	24.43	35.96	24.80	2.59	2.76	3.04	2.79
WHEAT	0.05	0.16	0.58	0.21	0.39	0.79	2.46	1.00	7.80	4.94	4.24	4.76
JOWAR	4.29	5.27	4.23	4.69	7.56	8.86	7.39	8.07	1.76	1.68	1.75	1.72
TOTAL	11.70	14.51	17.23	14.07	26.81	34.56	47.09	34.43	2.29	2.38	2.73	2.45

**MEDAK**

RICE	7.90	10.11	10.87	9.18	21.25	29.39	32.42	25.99	2.69	2.91	2.98	2.83
WHEAT	0.02	0.15	0.36	0.11	0.06	0.35	1.17	0.31	3.00	2.33	3.25	2.82
JOWAR	3.53	3.19	4.09	3.45	6.61	6.35	8.62	6.73	1.87	1.99	2.11	1.95
TOTAL	12.13	14.47	16.33	13.60	29.07	37.94	44.02	34.55	2.40	2.62	2.70	2.54

**NIZAMABAD**

RICE	10.37	11.44	14.45	11.91	28.60	32.69	46.02	35.03	2.76	2.86	3.18	2.94
WHEAT	0.01	0.03	0.42	0.14	0.05	0.12	1.38	0.47	5.00	4.00	3.29	3.36
JOWAR	0.76	0.66	0.22	0.57	1.51	1.32	0.56	1.17	1.99	2.00	2.55	2.05
TOTAL	11.69	12.76	16.38	13.41	31.16	35.13	50.50	38.13	2.67	2.75	3.08	2.84

**ADILABAD**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	NCOME CLASS				NCOME CLASS				NCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	6.73	9.11	12.79	8.46	18.45	26.30	43.10	24.92	2.74	2.89	3.37	2.95
WHEAT	0.04	0.12	0.45	0.13	0.14	0.33	1.72	0.46	3.50	2.75	3.82	3.54
JOWAR	6.06	3.87	1.37	4.62	11.51	7.17	2.41	8.69	1.90	1.85	1.76	1.88
TOTAL	12.86	13.39	14.62	13.31	30.16	34.36	47.26	34.27	2.35	2.57	3.23	2.57

**ANANTAPUR**

RICE	6.31	8.58	11.26	8.61	16.33	24.76	35.38	25.06	2.59	2.89	3.14	2.91
WHEAT	0.12	0.36	0.94	0.45	0.47	1.42	3.94	1.85	3.92	3.94	4.19	4.11
JOWAR	2.27	1.67	1.08	1.70	3.97	3.07	2.08	3.08	1.75	1.84	1.93	1.81
TOTAL	14.52	15.01	17.21	15.49	31.61	37.77	48.49	38.87	2.18	2.52	2.82	2.51

**KURNOOL**

RICE	5.37	7.14	8.52	6.91	16.01	23.13	34.76	23.79	2.98	3.24	4.08	3.44
WHEAT	0.02	0.08	0.23	0.10	0.08	0.40	1.14	0.49	4.00	5.00	4.96	4.90
JOWAR	5.18	6.05	5.91	5.72	10.89	12.90	13.11	12.28	2.10	2.13	2.22	2.15
TOTAL	13.71	15.91	16.07	15.22	33.86	42.67	52.24	42.22	2.47	2.68	3.25	2.77

**CUDDAPAH**

RICE	8.45	10.92	14.53	10.25	25.48	35.81	53.34	33.40	3.02	3.28	3.67	3.26
WHEAT	0.14	0.14	0.74	0.24	0.41	0.51	2.90	0.84	2.93	3.64	3.92	3.50
JOWAR	1.53	1.21	1.55	1.42	2.36	2.05	2.48	2.27	1.54	1.69	1.60	1.60
TOTAL	12.20	13.99	18.51	13.81	32.12	41.73	61.80	40.08	2.63	2.98	3.34	2.90

**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN ANDHRA PRADESH (1993-94)**

**PRAKASAM**

ITEM	QUANTITY (KGS)				VALUE(RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	8.12	13.23	15.70	12.77	40.97	74.6	98.4	74.39	5.05	5.64	6.27	5.83
WHEAT	0.03	0.03	0.17	0.08	0.17	0.22	1.07	0.53	5.67	7.33	6.29	6.63
JOWAR	2.29	0.35	0.41	0.89	7.38	1.39	1.27	2.96	3.22	3.97	3.10	3.33
TOTAL	13.81	16.15	17.12	15.88	59.22	84.94	103.53	84.92	4.29	5.26	6.05	5.35

**MAHABUBNAGAR**

RICE	7.95	9.30	11.64	9.14	42.62	52.02	71.8	51.45	5.36	5.59	6.17	5.63
WHEAT	0.02	0.04	0.17	0.05	0.12	0.32	1.44	0.42	6.00	8.00	8.47	8.40
JOWAR	2.91	3.13	3.09	3.04	10.15	10.92	10.22	10.5	3.49	3.49	3.31	3.45
TOTAL	10.89	12.63	14.98	12.32	52.94	63.74	83.65	62.63	4.86	5.05	5.58	5.08

**RANGAREDDY**

RICE	5.73	8.25	11.29	8.13	26.67	43.8	63.36	42.78	4.65	5.31	5.61	5.26
WHEAT	0.03	0.07	0.25	0.10	0.19	0.34	1.42	0.54	6.33	4.86	5.68	5.40
JOWAR	5.82	4.07	2.95	4.37	16.37	13.01	9.77	13.34	2.81	3.20	3.31	3.05
TOTAL	11.58	12.39	14.55	12.62	43.23	57.15	74.72	56.7	3.73	4.61	5.14	4.49

**MEDAK**

RICE	8.52	11.00	14.26	11.19	43.3	59.34	89.77	62.83	5.08	5.39	6.30	5.61
WHEAT	0.04	0.12	0.99	0.31	0.25	0.83	5.6	1.83	6.25	6.92	5.66	5.90
JOWAR	1.33	2.16	2.06	1.94	5.29	8.3	8.13	7.55	3.98	3.84	3.95	3.89
TOTAL	10.19	13.45	17.31	13.60	50.08	68.93	103.49	72.74	4.91	5.12	5.98	5.35

**NIZAMABAD**

RICE	7.57	9.94	13.15	10.57	37	55.95	89.07	63.71	4.89	5.63	6.77	6.03
WHEAT	0.35	0.25	0.39	0.32	1.61	1.37	2.84	1.96	4.60	5.48	7.28	6.13
JOWAR	2.26	1.91	0.92	1.63	5.84	5.25	3.25	4.65	2.58	2.75	3.53	2.85
TOTAL	11.69	13.21	14.98	13.51	48.1	65.37	96.88	72.93	4.11	4.95	6.47	5.40

**ADILABAD**

RICE	4.65	9.89	12.72	7.94	20.52	51.55	81.18	42	4.41	5.21	6.38	5.29
WHEAT	0.07	0.13	0.61	0.18	0.46	1.06	3.97	1.24	6.57	8.15	6.51	6.89
JOWAR	6.75	3.30	1.25	4.55	15.79	8.07	3.29	10.84	2.34	2.45	2.63	2.38
TOTAL	12.06	13.48	14.75	13.03	38.21	61.2	88.85	55	3.17	4.54	6.02	4.22

**KHAMMAM**

ITEM	QUANTITY (KG)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	11.08	12.87	13.03	12.59	57.05	71.13	79.29	71.64	5.15	5.53	6.09	5.69
WHEAT	0.04	0.11	0.58	0.27	0.18	0.78	4.49	2.1	4.50	7.09	7.74	7.78
JOWAR	0.69	0.77	1.81	1.16	2.1	2.53	4.25	3.11	3.04	3.29	2.35	2.68
TOTAL	12.41	13.98	15.50	14.28	61.44	75.2	88.27	77.66	4.95	5.38	5.69	5.44

**NALGONDA**

RICE	10.56	13.44	15.61	13.78	56.96	72.83	88.53	76.27	5.39	5.42	5.67	5.53
WHEAT	0.06	0.16	0.43	0.25	0.24	0.73	2.48	1.36	4.00	4.56	5.77	5.44
JOWAR	1.80	0.32	0.98	0.88	6.89	1.25	2.98	3.05	3.83	3.91	3.04	3.47
TOTAL	12.42	13.94	17.03	14.93	64.08	74.87	94.06	80.73	5.16	5.37	5.52	5.41

**ANANTAPUR**

RICE	7.83	10.03	12.00	9.86	40.74	54.2	76.29	56.4	5.20	5.40	6.36	5.72
WHEAT	0.16	0.48	0.93	0.51	1.2	3.93	7.57	4.11	7.50	8.19	8.14	8.06
JOWAR	0.73	0.69	0.79	0.73	2.39	2.31	2.54	2.41	3.27	3.35	3.22	3.30
TOTAL	11.36	13.02	15.71	13.28	53.07	66.12	101.25	72.66	4.67	5.08	6.44	5.47

**KURNOOL**

RICE	7.35	10.48	12.45	9.73	39.59	61.22	82.97	57.78	5.39	5.84	6.66	5.94
WHEAT	0.03	0.11	0.68	0.20	0.19	0.67	4.7	1.36	6.33	6.09	6.91	6.80
JOWAR	3.84	4.95	4.61	4.46	13.59	17.	15.3	15.34	3.54	3.43	3.32	3.44
TOTAL	12.16	16.10	18.33	15.09	56.31	80.71	104.89	76.75	4.63	5.01	5.72	5.09

**CUDDAPAH**

RICE	10.56	12.15	13.29	12.22	54.63	73.72	85.99	74.07	5.17	6.07	6.47	6.06
WHEAT	0.02	0.27	0.33	0.24	0.12	2.24	2.8	1.99	6.00	8.30	8.48	8.29
JOWAR	0.16	0.06	0.18	0.12	0.52	0.23	0.68	0.45	3.25	3.83	3.78	3.75
TOTAL	11.99	13.27	14.39	13.40	59.47	79.03	91.78	79.46	4.96	5.96	6.38	5.93

**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN KARNATAKA (1987-88)**

**CHIKMAGALUR**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	6.22	9.05	10.17	8.84	19.58	30.75	37.34	30.66	3.15	3.40	3.67	3.47
WHEAT	0.58	0.64	0.94	0.73	1.36	1.90	3.38	2.28	2.34	2.97	3.60	3.12
JOWAR	0.48	0.23	0.12	0.24	0.84	0.36	0.20	0.40	1.75	1.57	1.67	1.67
RAGI	3.11	1.88	1.41	1.97	4.42	2.84	1.96	2.87	1.42	1.51	1.39	1.46
TOTAL	10.39	11.79	12.63	11.79	26.21	35.85	42.88	36.22	2.52	3.04	3.40	3.07

**SHIMOGA**

RICE	5.89	8.79	15.07	8.81	19.03	28.81	50.76	29.00	3.23	3.28	3.37	3.29
WHEAT	0.10	0.26	0.58	0.26	0.32	0.95	2.26	0.94	3.20	3.65	3.90	3.62
JOWAR	3.41	2.32	1.58	2.59	5.36	3.36	2.26	3.88	1.57	1.45	1.43	1.50
RAGI	1.29	2.35	1.54	1.84	1.94	3.35	1.93	2.61	1.50	1.43	1.25	1.42
TOTAL	10.69	13.73	18.77	13.49	26.64	36.46	57.21	36.44	2.49	2.66	3.05	2.70

**MANDYA**

RICE	4.32	6.92	9.41	6.14	13.52	24.53	34.33	21.17	3.13	3.54	3.65	3.45
WHEAT	0.10	0.27	0.97	0.27	0.44	0.97	3.98	1.08	4.40	3.59	4.10	4.00
JOWAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAGI	6.95	6.92	8.14	7.06	12.03	13.24	15.18	12.96	1.73	1.91	1.86	1.84
TOTAL	11.36	14.10	18.52	13.47	25.98	38.75	53.48	35.21	2.29	2.75	2.89	2.61

**MYSORE**

RICE	2.56	4.55	7.16	3.72	8.35	16.55	27.30	13.11	3.26	3.64	3.81	3.52
WHEAT	0.39	0.73	1.49	0.62	0.90	1.83	4.52	1.59	2.31	2.51	3.03	2.56
JOWAR	3.10	3.63	4.81	3.46	5.94	7.04	9.26	6.65	1.92	1.94	1.93	1.92
RAGI	5.85	6.61	4.54	5.98	11.65	13.11	8.82	11.87	1.99	1.98	1.94	1.98
TOTAL	11.91	15.51	18.01	13.78	26.83	38.52	49.90	33.23	2.25	2.48	2.77	2.41

**BELGAUM**

RICE	1.93	3.21	4.84	3.64	6.97	12.73	19.77	14.56	3.61	3.97	4.08	4.00
WHEAT	0.84	1.19	2.22	1.53	2.52	3.83	7.35	4.97	3.00	3.22	3.31	3.25
JOWAR	6.20	8.09	8.17	7.84	13.87	17.28	17.95	17.02	2.24	2.14	2.20	2.17
RAGI	0.00	0.02	0.10	0.05	0.00	0.04	0.19	0.09		2.00	1.90	1.80
TOTAL	10.38	13.75	16.12	14.15	26.06	36.59	47.00	38.98	2.51	2.66	2.92	2.75

**BELLARY**

RICE	2.46	5.60	8.49	3.75	7.98	20.04	33.86	13.20	3.24	3.58	3.99	3.52
WHEAT	0.25	0.55	2.26	0.51	0.69	1.95	6.96	1.59	2.76	3.55	3.08	3.12
JOWAR	7.62	9.98	11.59	8.53	13.97	18.04	19.87	15.45	1.83	1.81	1.71	1.81
RAGI	1.35	1.30	0.89	1.29	2.16	2.14	1.40	2.08	1.60	1.65	1.57	1.61
TOTAL	14.07	19.49	27.51	16.60	28.54	45.91	68.90	36.36	2.03	2.36	2.50	2.19

**BIDAR**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.84	1.49	2.91	1.04	2.42	5.43	9.91	3.21	2.88	3.64	3.41	3.09
WHEAT	0.69	1.36	2.31	0.86	1.88	4.57	8.92	2.61	2.72	3.36	3.86	3.03
JOWAR	6.90	14.14	7.03	7.56	12.72	29.52	18.18	14.62	1.84	2.09	2.59	1.93
RAGI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	8.59	16.99	12.24	9.60	17.36	39.52	37.01	20.73	2.02	2.33	3.02	2.16

**BIJAPUR**

RICE	0.95	1.41	2.52	1.47	3.50	5.49	10.43	5.76	3.68	3.89	4.14	3.92
WHEAT	0.76	1.13	1.86	1.15	2.35	3.61	6.82	3.79	3.09	3.19	3.67	3.30
JOWAR	8.72	12.54	13.34	11.40	17.48	25.14	27.78	23.06	2.00	2.00	2.08	2.02
RAGI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	12.02	15.88	18.58	15.09	25.96	35.51	46.70	34.41	2.16	2.24	2.51	2.28

**CHITRADURGA**

RICE	2.49	4.15	7.26	3.81	7.67	14.67	26.23	12.98	3.08	3.53	3.61	3.41
WHEAT	0.57	0.74	1.73	0.82	1.37	2.19	5.57	2.34	2.40	2.96	3.22	2.85
JOWAR	4.17	5.15	7.18	4.98	7.32	9.42	13.27	8.98	1.76	1.83	1.85	1.80
RAGI	4.28	5.22	6.69	4.98	7.57	9.60	11.67	8.89	1.77	1.84	1.74	1.79
TOTAL	12.27	16.12	23.29	15.33	25.11	37.36	57.68	34.42	2.05	2.32	2.48	2.25

**DHARWAD**

RICE	2.02	3.23	5.42	3.70	6.58	11.74	20.53	13.59	3.26	3.63	3.79	3.67
WHEAT	0.80	1.74	2.43	1.77	2.09	4.86	8.05	5.34	2.61	2.79	3.31	3.02
JOWAR	8.60	10.49	11.14	10.30	14.29	20.64	22.61	19.93	1.66	1.97	2.03	1.93
RAGI	0.00	0.00	0.05	0.02	0.00	0.00	0.07	0.02	0.00	0.00	1.40	1.00
TOTAL	12.30	16.03	19.08	16.25	24.73	38.31	51.37	39.77	2.01	2.39	2.69	2.45

**GULBARGA**

RICE	1.45	2.20	3.18	1.97	4.81	7.84	12.11	6.96	3.32	3.56	3.81	3.53
WHEAT	0.66	0.88	2.03	0.95	1.89	2.68	6.02	2.80	2.86	3.05	2.97	2.95
JOWAR	7.67	8.68	8.33	8.11	17.02	21.15	21.26	19.05	2.22	2.44	2.55	2.35
RAGI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	9.94	12.56	14.51	11.52	24.03	33.38	41.63	29.88	2.42	2.66	2.87	2.59

**RAICHUR**

RICE	2.14	3.91	5.88	2.73	7.56	13.66	22.55	9.74	3.53	3.49	3.84	3.57
WHEAT	0.22	0.68	1.51	0.40	0.63	1.93	5.17	1.20	2.86	2.84	3.42	3.00
JOWAR	7.49	10.13	10.99	8.21	16.12	21.71	22.66	17.58	2.15	2.14	2.06	2.14
RAGI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	10.92	16.05	19.70	12.47	26.17	39.46	52.81	30.47	2.40	2.46	2.68	2.44



**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN KARNATAKA (1993-94)**

<b>SHIMOGA</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	4.66	10.69	13.19	10.85	28.68	67.03	88.25	70.05	6.15	6.27	6.69	6.46
WHEAT	0.18	0.57	0.93	0.66	0.71	2.48	4.71	3.09	3.94	4.35	5.06	4.68
JOWAR	6.29	1.92	1.95	2.49	12.68	5.01	4.73	5.89	2.02	2.61	2.43	2.37
TOTAL	12.39	15.23	17.26	15.63	45.41	79.84	100.72	83.23	3.67	5.24	5.84	5.33

<b>CHIKMAGALUR</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	2.61	10.00	13.75	10.28	16.22	59.84	82.6	61.66	6.21	5.98	6.01	6.00
WHEAT	0.38	0.40	0.62	0.46	1.32	1.56	3.06	1.96	3.47	3.90	4.94	4.26
JOWAR	1.84	2.57	1.02	2.05	6.21	10.12	3.89	7.94	3.38	3.94	3.81	3.87
TOTAL	10.60	16.26	17.20	15.93	39.07	81.22	94.74	80.58	3.69	5.00	5.51	5.06

<b>MYSORE</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	3.80	6.81	9.89	6.62	24.31	43.41	68.66	43.6	6.40	6.37	6.94	6.59
WHEAT	0.22	0.33	0.78	0.41	1.31	2.1	4.22	2.38	5.95	6.36	5.41	5.80
JOWAR	2.87	1.70	1.25	1.96	8.74	5.11	2.97	5.73	3.05	3.01	2.38	2.92
TOTAL	13.20	15.71	18.80	15.68	54.37	72	98.31	72.92	4.12	4.58	5.23	4.65

<b>MANDYA</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	4.60	6.80	9.71	7.24	28.59	43.53	61.49	46.02	6.22	6.40	6.33	6.36
WHEAT	0.27	0.43	0.73	0.48	1.03	2.14	4.06	2.49	3.81	4.98	5.56	5.19
JOWAR	1.78	1.07	0.29	0.97	3.66	2.32	0.59	2.06	2.06	2.17	2.03	2.12
TOTAL	13.89	13.83	17.46	14.87	53.4	64.42	85.62	68.51	3.84	4.66	4.90	4.61

<b>CHITRADURGA</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	1.83	3.12	4.91	2.88	11.46	21.99	37.04	20.1	6.26	7.05	7.54	6.98
WHEAT	0.59	0.89	1.28	0.83	2.54	4.47	7.84	4.24	4.31	5.02	6.13	5.11
JOWAR	5.27	5.54	6.08	5.52	16.68	18.7	19.24	17.91	3.17	3.38	3.16	3.24
TOTAL	10.98	12.90	14.83	12.41	40.66	54.75	71.05	51.52	3.70	4.24	4.79	4.15

<b>BELLARY</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	3.07	5.01	5.39	4.24	19.07	34.09	36.94	28.1	6.21	6.80	6.85	6.63
WHEAT	0.55	0.69	0.81	0.64	1.99	3.83	4.99	3.2	3.62	5.55	6.16	5.00
JOWAR	6.50	5.67	6.04	6.07	20.19	16.22	17.41	18.06	3.11	2.86	2.88	2.98
TOTAL	10.58	11.52	12.24	11.21	42.49	54.58	59.34	50.09	4.02	4.74	4.85	4.47

<b>RAICHUR</b>												
ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	3.98	5.74	9.99	6.15	25.5	39.22	66.55	41.34	6.41	6.83	6.66	6.72
WHEAT	0.48	0.60	0.70	0.59	1.99	3.48	4.62	3.39	4.15	5.80	6.60	5.75
JOWAR	5.85	6.01	5.22	5.84	15.75	17.57	15.1	16.77	2.69	2.92	2.89	2.87
TOTAL	10.67	13.01	16.45	13.15	45.34	62.78	88.6	63.88	4.25	4.83	5.39	4.86

**GULBARGA**

ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	1.92	2.52	3.24	2.13	11.71	17.79	24.14	13.77	6.10	7.06	7.45	6.46
WHEAT	0.75	1.35	1.85	0.95	3.25	6.84	10.04	4.45	4.33	5.07	5.43	4.68
JOWAR	7.39	8.42	7.03	7.63	27.35	31.91	26.84	28.44	3.70	3.79	3.82	3.73
TOTAL	10.22	12.28	12.12	10.81	42.71	56.54	61.03	46.93	4.18	4.60	5.04	4.34

**BIDAR**

RICE	1.78	2.54	3.43	2.19	11.26	20.09	28.79	15.67	6.33	7.91	8.39	7.16
WHEAT	0.75	1.35	1.48	0.98	3.71	7.27	8.55	5.15	4.95	5.39	5.78	5.26
JOWAR	7.39	7.22	10.68	7.86	26.1	29.93	46.44	29.97	3.53	4.15	4.35	3.81
TOTAL	10.01	11.11	15.59	11.08	41.33	57.29	83.78	50.95	4.13	5.16	5.37	4.60

**BIJAPUR**

RICE	1.07	1.71	2.97	1.93	6.65	12.19	23.71	14.29	6.21	7.13	7.98	7.40
WHEAT	0.81	1.22	2.33	1.45	3.55	5.88	12.55	7.28	4.38	4.82	5.39	5.02
JOWAR	8.01	11.74	11.31	10.85	24.86	39.39	40.56	36.71	3.10	3.36	3.59	3.38
TOTAL	11.70	15.22	17.67	15.18	39.62	58.93	79.42	60.71	3.39	3.87	4.49	4.00

**BELGAUM**

RICE	2.18	2.69	4.36	3.20	14.26	17.81	30.52	21.79	6.54	6.62	7.00	6.81
WHEAT	0.60	1.15	2.02	1.36	2.91	5.85	11.24	7.25	4.85	5.09	5.56	5.33
JOWAR	5.98	7.47	7.45	7.16	19.77	25.76	26.75	24.92	3.31	3.45	3.59	3.48
TOTAL	11.18	13.38	15.15	13.59	44.22	55.57	72.74	59.63	3.96	4.15	4.80	4.39

**DHARWAD**

RICE	2.61	4.94	6.43	4.10	15.25	30.54	39.92	24.92	5.84	6.18	6.21	6.08
WHEAT	1.14	0.90	1.38	1.15	5.58	4.33	7.9	5.94	4.89	4.81	5.72	5.17
JOWAR	6.68	6.38	5.71	6.36	18.89	18.99	16.48	18.27	2.83	2.98	2.89	2.87
TOTAL	10.43	12.22	13.66	11.65	39.71	53.86	64.73	49.24	3.81	4.41	4.74	4.23

**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN MAHARASHTRA (1987-88)**

**AHMED NAGAR**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.60	0.78	2.43	1.12	2.11	2.89	10.06	4.37	3.52	3.71	4.14	3.90
WHEAT	2.07	2.72	5.22	3.11	5.44	7.50	15.54	8.75	2.63	2.76	2.98	2.81
JOWAR	4.96	5.47	4.36	5.02	10.89	11.63	9.64	10.89	2.20	2.13	2.21	2.17
BAJRA	3.00	3.01	2.64	2.92	5.77	5.73	5.27	5.63	1.92	1.90	2.00	1.93
TOTAL	10.64	12.12	14.92	12.29	24.25	28.02	41.18	29.93	2.28	2.31	2.76	2.44

**PUNE**

RICE	1.65	2.32	3.07	2.32	5.77	8.60	12.34	8.78	3.50	3.71	4.02	3.78
WHEAT	1.04	1.93	3.51	2.10	2.62	4.96	10.97	5.92	2.52	2.57	3.13	2.82
JOWAR	5.21	5.33	5.25	5.27	12.63	13.10	13.13	12.97	2.42	2.46	2.50	2.46
BAJRA	2.22	1.78	1.94	1.95	4.69	3.89	4.12	4.19	2.11	2.19	2.12	2.15
TOTAL	10.40	11.44	13.76	11.77	26.42	30.79	40.58	32.17	2.54	2.69	2.95	2.73

**SATARA**

RICE	1.20	1.53	2.33	1.59	4.19	5.59	9.37	5.96	3.49	3.65	4.02	3.75
WHEAT	1.14	1.58	3.10	1.77	3.15	4.70	9.87	5.33	2.76	2.97	3.18	3.01
JOWAR	5.74	6.22	6.23	6.05	13.66	15.08	15.37	14.65	2.38	2.42	2.47	2.42
BAJRA	1.49	0.98	0.88	1.13	3.64	2.32	2.95	2.92	2.44	2.37	3.35	2.58
TOTAL	9.70	10.50	12.63	10.71	24.93	28.11	37.83	29.21	2.57	2.68	3.00	2.73

**SANGLI**

RICE	1.12	1.69	2.73	2.03	3.76	6.23	10.61	7.64	3.36	3.69	3.89	3.76
WHEAT	0.69	1.49	2.83	1.92	1.73	4.41	9.20	5.96	2.51	2.96	3.25	3.10
JOWAR	9.34	9.16	8.29	8.82	16.23	16.87	17.53	17.04	1.74	1.84	2.11	1.93
BAJRA	0.16	0.13	0.15	0.14	0.25	0.30	0.30	0.29	1.56	2.31	2.00	2.07
TOTAL	11.31	12.48	14.19	13.00	21.97	27.85	38.09	31.13	1.94	2.23	2.68	2.39

**SOLAPUR**

RICE	0.31	0.69	1.15	0.73	1.14	2.45	4.20	2.63	3.68	3.55	3.65	3.60
WHEAT	1.49	2.38	3.39	2.45	3.83	6.64	9.66	6.82	2.57	2.79	2.85	2.78
JOWAR	9.00	9.00	8.24	8.78	18.89	20.53	18.22	19.46	2.10	2.28	2.21	2.22
BAJRA	0.06	0.10	0.02	0.07	0.11	0.17	0.03	0.11	1.83	1.70	1.50	1.57
TOTAL	10.86	12.17	12.83	12.04	24.00	29.83	32.27	29.10	2.21	2.45	2.52	2.42

**KOLHAPUR**

RICE	4.49	4.07	5.41	4.58	12.44	12.67	18.72	14.59	2.77	3.11	3.46	3.19
WHEAT	0.71	0.87	1.77	1.14	2.09	2.59	5.34	3.39	2.94	2.98	3.02	2.97
JOWAR	3.00	5.64	6.68	5.50	5.91	11.74	14.32	11.51	1.97	2.08	2.14	2.09
BAJRA	0.00	0.01	0.01	0.01	0.00	0.02	0.03	0.02	0.00	2.00	3.00	2.00
TOTAL	10.56	12.01	14.18	12.45	25.14	29.55	39.04	31.83	2.38	2.46	2.75	2.56

**NASHIK**

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.84	2.00	3.58	1.65	2.98	7.76	13.06	6.09	3.55	3.88	3.65	3.69
WHEAT	1.32	2.44	4.38	2.17	3.55	7.18	13.08	6.23	2.69	2.94	2.99	2.87
JOWAR	1.53	1.15	0.53	1.25	2.82	2.22	0.93	2.32	1.84	1.93	1.75	1.86
BAJRA	4.91	5.24	3.88	4.84	10.20	10.71	10.17	10.35	2.08	2.04	2.62	2.14
TOTAL	10.46	12.30	14.18	11.63	23.13	30.75	40.56	28.32	2.21	2.50	2.86	2.44

**DHULE**

RICE	0.82	1.32	1.81	1.22	2.69	4.71	6.91	4.34	3.28	3.57	3.82	3.56
WHEAT	1.02	2.44	4.34	2.25	2.22	5.78	12.41	5.69	2.18	2.37	2.86	2.53
JOWAR	5.71	4.85	4.20	5.07	9.89	8.13	7.31	8.68	1.73	1.68	1.74	1.71
BAJRA	2.80	3.73	4.87	3.58	5.93	7.37	10.14	7.35	2.12	1.98	2.08	2.05
TOTAL	10.89	12.47	15.35	12.42	21.59	26.21	37.02	26.54	1.98	2.10	2.41	2.14

**JALGAON**

RICE	0.47	0.73	1.32	0.83	1.80	2.87	5.49	3.34	3.83	3.93	4.16	4.02
WHEAT	1.34	2.18	4.05	2.49	3.53	6.23	11.55	7.02	2.63	2.86	2.85	2.82
JOWAR	7.79	8.97	6.83	7.91	12.33	13.85	10.32	12.23	1.58	1.54	1.51	1.55
BAJRA	2.04	1.11	2.96	2.00	4.06	2.30	5.93	4.03	1.99	2.07	2.00	2.02
TOTAL	11.66	12.98	15.16	13.23	21.78	25.25	33.29	26.64	1.87	1.95	2.20	2.01

**AURANGABAD**

RICE	0.26	0.39	0.67	0.36	0.90	1.47	2.87	1.36	3.46	3.77	4.28	3.78
WHEAT	0.90	2.14	3.52	1.65	2.49	6.27	10.45	4.77	2.77	2.93	2.97	2.89
JOWAR	9.54	9.50	6.78	9.11	14.54	15.83	10.93	14.35	1.52	1.67	1.61	1.58
BAJRA	2.29	3.73	5.10	3.13	4.41	7.31	10.19	6.12	1.93	1.96	2.00	1.96
TOTAL	12.99	15.76	16.08	14.24	22.34	30.89	34.44	26.60	1.72	1.96	2.14	1.87

**PARBHANI**

RICE	0.34	0.53	1.71	0.66	1.22	1.96	7.04	2.58	3.59	3.70	4.12	3.91
WHEAT	0.81	1.73	4.55	1.82	2.29	4.85	12.87	5.14	2.83	2.80	2.83	2.82
JOWAR	12.17	12.67	11.21	12.14	19.62	21.74	19.07	20.18	1.61	1.72	1.70	1.66
BAJRA	0.00	0.02	0.00	0.01	0.00	0.04	0.00	0.01	0.00	2.00	0.00	1.00
TOTAL	13.32	14.98	17.51	14.65	23.18	28.71	39.25	28.02	1.74	1.92	2.24	1.91

**BID**

RICE	0.21	0.52	1.03	0.54	0.74	1.89	4.19	2.09	3.52	3.63	4.07	3.87
WHEAT	1.64	1.93	3.30	2.19	3.79	5.12	9.04	5.69	2.31	2.65	2.74	2.60
JOWAR	10.82	9.49	11.06	10.40	18.39	18.65	22.45	19.57	1.70	1.97	2.03	1.88
BAJRA	1.44	4.54	1.93	2.71	2.78	7.93	3.74	4.92	1.93	1.75	1.94	1.82
TOTAL	14.11	16.47	17.33	15.84	25.71	33.59	39.42	32.27	1.82	2.04	2.27	2.04

NANDED				VALUE (RS.)					PRICES (RS/KG)			
ITEM	QUANTITY (KG.)				INCOME CLASS				INCOME CLASS			
	INCOME CLASS				INCOME CLASS				LOWER	MIDDLE	UPPER	ALL
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.73	1.28	2.63	1.41	2.55	4.47	10.06	5.15	3.49	3.49	3.83	3.65
WHEAT	0.62	1.52	3.15	1.59	1.59	4.06	8.96	4.36	2.56	2.67	2.84	2.74
JOWAR	12.67	12.98	13.58	13.01	17.66	20.07	19.27	18.95	1.39	1.55	1.42	1.46
BAJRA	0.03	0.04	0.01	0.03	0.04	0.05	0.02	0.04	1.33	1.25	2.00	1.33
TOTAL	14.06	15.82	19.43	16.06	21.88	28.69	38.57	28.60	1.56	1.81	1.99	1.78

## OSMANABAD

RICE	0.51	0.81	1.20	0.77	1.92	2.93	4.69	2.88	3.76	3.62	3.91	3.74
WHEAT	1.17	2.30	3.99	2.19	2.81	5.69	9.05	5.21	2.40	2.47	2.27	2.38
JOWAR	9.74	13.04	13.31	11.74	16.98	22.73	25.83	21.02	1.74	1.74	1.94	1.79
BAJRA	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.01	0.00	2.00		1.00
TOTAL	11.45	16.23	18.56	14.75	21.82	31.76	39.91	29.38	1.91	1.96	2.15	1.99

## JALNA

RICE	0.09	0.24	1.38	0.30	0.32	0.97	5.19	1.14	3.56	4.04	3.76	3.80
WHEAT	0.73	1.81	6.23	1.77	1.91	5.16	19.78	5.21	2.62	2.85	3.17	2.94
JOWAR	12.12	11.92	14.33	12.32	19.21	20.60	27.17	20.66	1.58	1.73	1.90	1.68
BAJRA	1.82	1.83	2.15	1.86	2.99	3.10	3.73	3.12	1.64	1.69	1.73	1.68
TOTAL	14.75	15.80	24.08	16.25	24.43	29.84	55.87	30.14	1.66	1.89	2.32	1.85

## LATUR

RICE	0.58	0.89	3.18	1.31	2.10	3.16	11.98	4.83	3.62	3.55	3.77	3.69
WHEAT	0.82	1.68	4.18	1.95	2.37	4.65	13.82	5.94	2.89	2.77	3.31	3.05
JOWAR	10.78	13.03	12.30	12.02	15.68	20.97	21.48	19.11	1.45	1.61	1.75	1.59
BAJRA	0.00	0.00	0.35	0.08	0.00	0.00	1.03	0.24	0.00	0.00	2.94	3.00
TOTAL	12.18	15.62	20.02	15.36	20.14	28.85	48.31	30.15	1.65	1.85	2.41	1.96

## BULDANA

RICE	0.29	0.46	0.85	0.40	1.06	1.76	3.17	1.49	3.66	3.83	3.73	3.73
WHEAT	1.32	2.31	4.61	1.96	3.38	6.35	12.59	5.23	2.56	2.75	2.73	2.67
JOWAR	9.43	10.14	10.49	9.77	13.73	14.63	15.12	14.16	1.46	1.44	1.44	1.45
BAJRA	0.00	0.10	0.00	0.03	0.00	0.18	0.00	0.06	0.00	1.80	0.00	2.00
TOTAL	11.04	13.01	15.96	12.16	18.17	22.90	30.88	20.94	1.65	1.76	1.93	1.72

## AKOLA

RICE	0.40	0.83	1.06	0.62	1.49	3.29	4.75	2.45	3.73	3.96	4.48	3.95
WHEAT	1.29	2.67	6.02	2.24	3.47	7.00	16.03	5.93	2.69	2.62	2.66	2.65
JOWAR	10.59	11.32	7.43	10.56	16.41	17.00	12.70	16.28	1.55	1.50	1.71	1.54
BAJRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	12.29	14.82	14.51	13.42	21.37	27.30	33.48	24.67	1.74	1.84	2.31	1.84



## AMRAVATI

ITEM	QUANTITY (KG.)				VALUE (RS.)				PRICES (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.79	1.25	1.56	1.19	3.10	5.19	6.88	4.96	3.92	4.15	4.41	4.17
WHEAT	2.75	5.48	6.48	4.91	6.52	14.77	18.03	13.10	2.37	2.70	2.78	2.67
JOWAR	8.54	7.56	6.63	7.64	13.45	11.48	10.86	11.92	1.57	1.52	1.64	1.56
BAJRA	0.00	0.02	0.39	0.10	0.00	0.06	0.51	0.14	0.00	3.00	1.31	1.40
TOTAL	12.08	14.31	15.06	13.83	23.07	31.51	36.28	30.12	1.91	2.20	2.41	2.18

## YAVATMAL

RICE	0.63	0.90	1.78	0.99	2.16	3.44	7.27	3.77	3.43	3.82	4.08	3.81
WHEAT	1.05	2.80	5.49	2.67	2.48	7.43	15.52	7.17	2.36	2.65	2.83	2.69
JOWAR	10.25	9.35	5.11	8.76	16.45	15.02	8.56	14.15	1.60	1.61	1.68	1.62
BAJRA	0.00	0.00	0.40	0.09	0.00	0.00	0.60	0.14	0.00	0.00	1.50	1.56
TOTAL	11.93	13.04	12.77	12.51	21.08	25.89	31.94	25.23	1.77	1.99	2.50	2.02

## WARDHA

RICE	1.56	1.40	2.12	1.59	5.64	4.95	7.58	5.68	3.62	3.54	3.58	3.57
WHEAT	2.77	2.96	6.59	3.48	7.61	7.77	18.98	9.58	2.75	2.63	2.88	2.75
JOWAR	5.94	7.95	5.38	6.68	9.46	12.69	8.64	10.66	1.59	1.60	1.61	1.60
BAJRA	0.61	0.00	0.00	0.25	1.21	0.00	0.00	0.50	1.98	0.00	0.00	2.00
TOTAL	10.87	12.31	14.09	12.01	23.92	25.40	35.20	26.42	2.20	2.06	2.50	2.20

## NAGPUR

RICE	1.96	3.48	4.47	2.99	6.82	12.14	16.92	10.64	3.48	3.49	3.79	3.56
WHEAT	2.24	4.27	4.55	3.44	6.31	11.41	12.53	9.40	2.82	2.67	2.75	2.73
JOWAR	6.38	6.07	3.87	5.84	10.33	9.75	6.58	9.47	1.62	1.61	1.70	1.62
BAJRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	10.57	13.83	12.88	12.27	23.46	33.30	36.03	29.51	2.22	2.41	2.80	2.41

## CHANDRAPUR

RICE	8.16	9.52	9.62	8.95	24.52	29.77	34.45	28.52	3.00	3.13	3.58	3.19
WHEAT	1.81	3.35	4.66	2.97	4.39	8.69	13.50	7.88	2.43	2.59	2.90	2.65
JOWAR	3.06	3.51	3.37	3.28	4.70	5.63	5.78	5.26	1.54	1.60	1.72	1.60
BAJRA	0.00	0.06	0.00	0.02	0.00	0.11	0.00	0.04	0.00	1.83	0.00	2.00
TOTAL	13.02	16.43	17.65	15.23	33.61	44.19	53.73	41.70	2.58	2.69	3.04	2.74

**DISTRICT WISE ESTIMATES ON MONTHLY PERCAPITA CONSUMPTION/EXPENDITURE  
OF CEREALS IN MAHARASHTRA (1993-94)**

**KOLHAPUR**

ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	4.88	5.73	6.92	6.23	29.94	37.34	48.52	42.13	6.14	6.52	7.01	6.76
WHEAT	0.58	1.16	2.14	1.59	3.39	6.98	13.3	9.74	5.84	6.02	6.21	6.13
JOWAR	4.52	4.63	4.70	4.65	18.04	20.04	20.19	19.94	3.99	4.33	4.30	4.29
TOTAL	11.83	12.84	14.58	13.60	56.69	68.22	84.46	75.11	4.79	5.31	5.79	5.52

**SOLAPUR**

RICE	0.60	0.88	1.49	0.95	3.72	6.19	10.92	6.65	6.20	7.03	7.33	7.00
WHEAT	1.88	2.59	3.86	2.70	8.94	13.83	20.03	13.92	4.76	5.34	5.19	5.16
JOWAR	6.77	6.76	5.63	6.47	23.15	26.96	21.5	24.34	3.42	3.99	3.82	3.76
TOTAL	10.07	10.79	11.70	10.80	38.26	48.83	54.93	47.11	3.80	4.53	4.69	4.36

**SANGLI**

RICE	1.59	2.24	3.43	2.60	10.68	14.9	24.6	18.03	6.72	6.65	7.17	6.93
WHEAT	1.31	2.66	4.50	3.16	7	15.62	27.82	19.02	5.34	5.87	6.18	6.02
JOWAR	6.11	5.17	4.86	5.20	26.67	23.78	21.15	23.21	4.36	4.60	4.35	4.46
TOTAL	9.76	10.56	12.85	11.33	47.12	56.26	73.8	61.68	4.83	5.33	5.74	5.44

**SATARA**

RICE	1.90	2.07	2.89	2.35	13.67	14.87	21.94	17.29	7.19	7.18	7.59	7.36
WHEAT	1.13	1.92	3.10	2.21	5.62	10.13	17.02	11.82	4.97	5.28	5.49	5.35
JOWAR	5.43	6.12	5.27	5.66	21.91	23.79	22.59	22.96	4.03	3.89	4.29	4.06
TOTAL	8.47	10.52	11.89	10.62	41.2	50.49	64.15	53.77	4.86	4.80	5.40	5.06

**PUNE**

RICE	2.72	1.88	2.16	2.19	18.69	12.94	16.24	15.55	6.87	6.88	7.52	7.10
WHEAT	0.66	1.37	2.59	1.62	3.51	7.59	15.16	9.25	5.32	5.54	5.85	5.71
JOWAR	2.99	3.64	2.80	3.18	11.43	15.13	11.66	12.97	3.82	4.16	4.16	4.08
TOTAL	10.09	10.61	11.00	10.61	47.22	49.16	55.07	50.77	4.68	4.63	5.01	4.79

**AHMEDNAGAR**

RICE	0.59	0.90	1.27	0.90	4.46	6.81	10.08	6.95	7.56	7.57	7.94	7.72
WHEAT	1.05	2.04	2.99	1.98	5.22	10.38	16.68	10.44	4.97	5.09	5.58	5.27
JOWAR	0.98	2.60	1.64	1.84	3.89	10.92	7.22	7.76	3.97	4.20	4.40	4.22
TOTAL	9.32	10.34	11.81	10.41	33.73	42.99	52.45	42.61	3.62	4.16	4.44	4.09

**OSMANABAD**

RICE	0.57	0.77	2.08	1.15	4.32	5.38	16.27	8.68	7.58	6.99	7.82	7.55
WHEAT	0.81	1.57	3.95	2.14	4.28	7.9	20.88	11.16	5.28	5.03	5.29	5.21
JOWAR	8.21	10.04	11.33	9.94	25.33	29.32	33.67	29.62	3.09	2.92	2.97	2.98
TOTAL	10.71	12.59	17.52	13.68	36.63	43.65	72.69	51.25	3.42	3.47	4.15	3.75



**LATUR**

ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.52	1.14	2.14	1.22	3.45	8	15.34	8.58	6.63	7.02	7.17	7.03
WHEAT	0.78	1.55	3.56	1.89	3.88	8.19	18.28	9.74	4.97	5.28	5.13	5.15
JOWAR	10.18	9.92	8.75	9.65	17.87	18.33	21.1	19.04	1.76	1.85	2.41	1.97
TOTAL	11.50	12.65	14.51	12.80	25.38	34.82	55.54	37.78	2.21	2.75	3.83	2.95

**AURANGABAD**

RICE	0.23	0.47	1.08	0.38	1.44	3.41	7.57	2.59	6.26	7.26	7.01	6.82
WHEAT	1.00	4.27	4.10	2.27	4.38	17.77	19.03	9.75	4.38	4.16	4.64	4.30
JOWAR	6.97	5.23	2.76	6.07	13.44	9.21	6.78	11.56	1.93	1.76	2.46	1.90
TOTAL	10.22	13.02	11.96	11.22	23.88	37.87	43.73	29.9	2.34	2.91	3.66	2.66

**JALNA**

RICE	0.15	0.48	0.73	0.34	1.08	3.5	6.35	2.71	7.20	7.29	8.70	7.97
WHEAT	0.86	2.22	7.57	2.62	3.95	10.11	39.51	13.06	4.59	4.55	5.22	4.98
JOWAR	5.22	4.35	5.83	5.19	13.01	15.81	15.17	14.02	2.49	3.63	2.60	2.70
TOTAL	8.82	9.96	15.22	10.46	24.12	35.34	65.05	35.38	2.73	3.55	4.27	3.38

**NAGPUR**

RICE	1.92	3.42	4.45	3.09	12.96	22.41	31.17	20.94	6.75	6.55	7.00	6.78
WHEAT	2.51	5.19	6.66	4.51	12.31	25.9	34.54	22.78	4.90	4.99	5.19	5.05
JOWAR	7.00	4.40	2.14	4.84	18.34	13.34	6.72	13.62	2.62	3.03	3.14	2.81
TOTAL	11.42	13.01	13.24	12.45	43.61	61.66	72.43	57.34	3.82	4.74	5.47	4.61

**WARDHA**

RICE	1.35	1.27	1.87	1.43	9.23	8.55	13.7	9.87	6.84	6.73	7.33	6.90
WHEAT	2.12	3.66	4.82	3.30	10.05	17.68	24.07	16.04	4.74	4.83	4.99	4.86
JOWAR	6.68	6.61	6.56	6.63	15.63	14.77	14.01	14.94	2.34	2.23	2.14	2.25
TOTAL	10.15	11.54	13.25	11.36	34.91	40.99	51.78	40.86	3.44	3.55	3.91	3.60

**JALGAON**

RICE	0.53	1.05	1.62	0.95	3.72	7.93	13.42	7.33	7.02	7.55	8.28	7.72
WHEAT	1.29	3.02	5.31	2.78	5.96	14.03	24.47	12.87	4.62	4.65	4.61	4.63
JOWAR	5.74	6.15	3.62	5.36	12.7	14.61	9.36	12.49	2.21	2.38	2.59	2.33
TOTAL	9.34	11.70	12.74	10.88	26.9	40.54	53.21	37.39	2.88	3.46	4.18	3.44

**NASIK**

RICE	1.21	1.63	1.82	1.51	7.47	11.07	13.87	10.21	6.17	6.79	7.62	6.76
WHEAT	1.11	2.13	4.92	2.28	4.69	9.8	19.68	9.74	4.23	4.60	4.00	4.27
JOWAR	0.00	0.00	0.00	0.00	0	0	0	0				
TOTAL	7.54	9.11	12.03	9.07	28.87	39.41	52.34	37.82	3.83	4.33	4.35	4.17

**DHULE**

RICE	0.88	1.49	1.58	1.20	5.5	9.48	11.62	7.75	6.25	6.36	7.35	6.46
WHEAT	1.00	2.84	4.60	2.12	4.01	12.46	21.22	9.23	4.01	4.39	4.61	4.35
JOWAR	3.91	3.47	1.73	3.51	8.77	9.19	4.28	8.49	2.24	2.65	2.47	2.42
TOTAL	9.31	10.86	10.61	10.08	29.1	41.3	45.44	35.77	3.13	3.80	4.28	3.55

**NANDED**

ITEM	QUANTITY (KGS)				VALUE (RS)				PRICE (RS/KG)			
	INCOME CLASS				INCOME CLASS				INCOME CLASS			
	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL	LOWER	MIDDLE	UPPER	ALL
RICE	0.71	1.81	2.75	1.50	4.71	12.8	20.54	10.68	6.63	7.07	7.47	7.12
WHEAT	0.83	1.85	3.50	1.75	4.2	9.34	17.77	8.89	5.06	5.05	5.08	5.08
JOWAR	9.43	9.01	8.97	9.21	16.63	17.01	16.13	16.6	1.76	1.89	1.80	1.80
TOTAL	10.99	12.70	15.23	12.48	25.7	39.39	54.55	36.32	2.34	3.10	3.58	2.91

**BID**

RICE	0.25	0.56	1.02	0.51	1.65	3.65	7.58	3.52	6.60	6.52	7.43	6.90
WHEAT	1.38	1.94	2.99	1.89	6.45	8.49	14.65	8.79	4.67	4.38	4.90	4.65
JOWAR	5.42	5.34	6.55	5.62	17.88	17.63	26.36	19.49	3.30	3.30	4.02	3.47
TOTAL	11.43	13.04	13.51	12.39	37.47	44.44	62.89	44.93	3.28	3.41	4.66	3.63

**PARBHANI**

RICE	0.55	0.78	2.76	1.02	3.69	5.38	20.9	7.33	6.71	6.90	7.57	7.19
WHEAT	1.27	2.53	9.06	3.04	5.91	12.17	44.54	14.68	4.65	4.81	4.92	4.83
JOWAR	8.71	8.47	7.35	8.40	16.65	16.62	13.51	16.05	1.91	1.96	1.84	1.91
TOTAL	10.54	11.81	19.18	12.47	26.29	34.29	79.16	38.16	2.49	2.90	4.13	3.06

**YAVATMAL**

RICE	0.82	1.50	1.98	1.29	5.52	10.06	14.69	8.92	6.73	6.71	7.42	6.91
WHEAT	1.85	3.05	5.54	2.97	7.76	14.7	26.9	13.86	4.19	4.82	4.86	4.67
JOWAR	9.61	8.02	5.42	8.25	18.31	15.81	10.78	16	1.91	1.97	1.99	1.94
TOTAL	12.28	12.56	12.95	12.51	31.59	40.57	52.4	38.79	2.57	3.23	4.05	3.10

**AMARAVATI**

RICE	0.58	1.20	1.68	1.04	3.88	8.38	13.48	7.54	6.69	6.98	8.02	7.25
WHEAT	1.05	3.02	5.82	2.76	4.55	13.87	27.4	12.66	4.33	4.59	4.71	4.59
JOWAR	10.18	9.12	6.18	9.01	20.88	17.46	12.07	17.83	2.05	1.91	1.95	1.98
TOTAL	11.81	13.35	13.67	12.81	29.31	39.73	52.96	38.04	2.48	2.98	3.87	2.97

**AKOLA**

RICE	0.38	0.58	0.75	0.49	2.49	3.82	5.43	3.34	6.55	6.59	7.24	6.82
WHEAT	1.07	1.55	3.74	1.63	5.42	7.58	18.76	8.14	5.07	4.89	5.02	4.99
JOWAR	8.37	8.99	7.99	8.49	15.98	17.72	27.25	18.25	1.91	1.97	3.41	2.15
TOTAL	9.83	11.11	12.48	10.62	23.89	29.12	51.44	29.73	2.43	2.62	4.12	2.80

**BULDANA**

RICE	0.26	0.44	1.01	0.39	1.98	3.54	8.22	3.13	7.62	8.05	8.14	8.03
WHEAT	0.85	1.97	6.19	1.77	3.95	10.15	30.13	8.66	4.65	5.15	4.87	4.89
JOWAR	9.00	9.67	7.40	9.03	17.73	19.86	14.35	18.02	1.97	2.05	1.94	2.00
TOTAL	10.11	12.08	14.62	11.20	23.66	33.55	52.73	29.81	2.34	2.78	3.61	2.66

**CHANDRAPUR**

RICE	5.83	8.37	9.90	6.89	30.17	48.59	55.77	37.42	5.17	5.81	5.63	5.43
WHEAT	1.38	2.24	4.19	1.90	6.36	11.16	20.15	9.02	4.61	4.98	4.81	4.75
JOWAR	5.00	2.85	0.71	4.01	15.59	7.62	2.21	12.2	3.12	2.67	3.11	3.04
TOTAL	12.21	13.46	14.80	12.80	52.12	67.37	78.13	58.64	4.27	5.01	5.28	4.58

**CHANGE IN THE PER CAPITA CONSUMPTION OF MAJOR CEREALS AT TWO  
POINTS OF TIME - ANDHRA PRADESH**

DISTRICT	1987-88				1993-94				% CHANGE OVER 1987-88			
	RICE	WHEAT	JOWAR	TOTAL	RICE	WHEAT	JOWAR	TOTAL	RICE	WHEAT	JOWAR	TOTAL
PRAKASAM	10.33	0.04	1.80	16.66	12.77	0.08	0.89	15.88	23.62	100.00	-50.56	-4.68
KHAMMAM	11.67	0.20	2.23	14.61	12.59	0.27	1.16	14.28	7.88	35.00	-47.98	-2.26
NALGONDA	12.94	0.18	1.24	14.75	13.78	0.25	0.88	14.93	6.49	38.89	-29.03	1.22
MAHABOOB NAGAR	8.32	0.13	5.74	14.93	9.14	0.05	3.04	12.32	9.86	-61.54	-47.04	-17.48
RANGA REDDY	8.88	0.21	4.69	14.07	8.13	0.10	4.37	12.62	-8.45	-52.38	-6.82	-10.31
MEDAK	9.18	0.11	3.45	13.60	11.19	0.31	1.94	13.60	21.90	181.82	-43.77	0.00
ADILABAD	8.46	0.13	4.62	13.31	7.94	0.18	4.55	13.03	-6.15	38.46	-1.52	-2.10
ANANTAPUR	8.61	0.45	1.70	15.49	9.66	0.51	0.73	13.28	14.52	13.33	-57.06	-14.27
KURNOOL	6.91	0.10	5.72	15.22	9.73	0.20	4.46	15.09	40.81	100.00	-22.03	-0.85
CUDDAPAH	10.25	0.24	1.42	13.81	12.22	0.24	0.12	13.40	19.22	0.00	-91.55	-2.97

**CHANGE IN THE PER CAPITA CONSUMPTION OF MAJOR CEREALS AT TWO  
POINTS OF TIME - KARNATAKA**

DISTRICT	1987-88				1993-94				% CHANGE OVER 1987-88			
	RICE	WHEAT	JOWAR	TOTAL	RICE	WHEAT	JOWAR	TOTAL	RICE	WHEAT	JOWAR	TOTAL
SHIMOGA	8.81	0.26	2.59	13.49	10.85	0.66	2.49	15.63	23.18	153.85	-3.86	15.86
MYSORE	3.72	0.62	3.46	13.78	6.62	0.41	1.96	15.68	77.96	-33.87	-43.35	13.79
BELGAUM	3.64	1.53	7.84	14.15	3.20	1.36	7.16	13.59	-12.09	-11.11	-8.67	-3.96
BELLARY	3.75	0.51	8.53	16.60	4.24	0.64	6.07	11.21	13.07	25.49	-28.84	-32.47
BIDAR	1.04	0.86	7.56	9.60	2.19	0.98	7.86	11.08	110.58	13.95	3.97	15.42
BIJAPUR	1.47	1.15	11.40	15.09	1.93	1.45	10.85	15.18	31.29	26.09	-4.82	0.60
CHITRADURGA	3.81	0.82	4.98	15.33	2.88	0.83	5.52	12.41	-24.41	1.22	10.84	-19.05
DHARWAD	3.70	1.77	10.30	16.25	4.10	1.15	6.36	11.65	10.81	-35.03	-38.25	-28.31
GULBARGA	1.97	0.95	8.11	11.52	2.13	0.95	7.63	10.81	8.12	0.00	-5.92	-6.16
RAICHUR	2.73	0.40	8.21	12.47	6.15	0.59	5.84	13.15	125.27	47.50	-28.87	5.45

**CHANGE IN THE PER CAPITA CONSUMPTION OF MAJOR CEREALS AT TWO  
POINTS OF TIME - MAHARASHTRA**

DISTRICT	1987-88				1993-94				% CHANGE OVER 1987-88			
	RICE	WHEAT	SORGHUM	TOTAL	RICE	WHEAT	SORGHUM	TOTAL	RICE	WHEAT	SORGHUM	TOTAL
KOLHAPUR	4.58	1.14	5.50	12.45	6.23	1.59	4.65	13.60	36.03	39.47	-15.45	9.24
SOLAPUR	0.73	2.45	8.78	12.04	0.95	2.70	6.47	10.80	30.14	10.20	-26.31	-10.30
SANGLI	2.03	1.92	8.82	13.00	2.60	3.16	5.20	11.33	28.08	64.58	-41.04	-12.85
SATARA	1.59	1.77	6.05	10.71	2.35	2.21	5.66	10.62	47.80	24.86	-6.45	-0.84
PUNE	2.32	2.10	5.27	11.77	2.19	1.62	3.18	10.61	-5.60	-22.86	-39.66	-9.86
AHMEDNAGAR	1.12	3.11	5.02	12.29	0.90	1.98	1.84	10.41	-19.64	-36.33	-63.35	-15.30
JALGAON	0.83	2.49	7.91	13.23	0.95	2.78	5.36	10.88	14.46	11.65	-32.24	-17.76
NASIK	1.65	2.17	1.25	11.63	1.51	2.28		9.07	-8.48	5.07	-100.00	-22.01
DHULE	1.22	2.25	5.07	12.42	1.20	2.12	3.51	10.08	-1.64	-5.78	-30.77	-18.84
NANDED	1.41	1.59	13.01	16.06	1.50	1.75	9.21	12.48	6.38	10.06	-29.21	-22.29
BID	0.54	2.19	10.40	15.84	0.51	1.89	5.62	12.39	-5.56	-13.70	-45.96	-21.78
PARBHANI	0.66	1.82	12.14	14.65	1.02	3.04	8.40	12.47	54.55	67.03	-30.81	-14.88
OSMANABAD	0.77	2.19	11.74	14.75	1.15	2.14	9.94	13.68	49.35	-2.28	-15.33	-7.25
LATUR	1.31	1.95	12.02	15.36	1.22	1.89	9.65	12.80	-6.87	-3.08	-19.72	-16.67
AURANGABAD	0.67	3.52	6.78	16.08	0.38	2.27	6.07	11.22	-43.28	-35.51	-10.47	-30.22
JALNA	0.30	1.77	12.32	16.25	0.34	2.62	5.19	10.46	13.33	48.02	-57.87	-35.63
NAGPUR	2.99	3.44	5.84	12.27	3.09	4.51	4.84	12.45	3.34	31.10	-17.12	1.47
WARDHA	1.59	3.48	6.68	12.01	3.09	4.51	4.84	12.45	94.34	29.60	-27.54	3.66
YAVATMAL	0.99	2.67	8.76	12.51	1.29	2.97	8.25	12.51	30.30	11.24	-5.82	0.00
AMRAYATI	1.19	4.91	7.64	13.83	1.04	2.76	9.01	12.81	-12.61	-43.79	17.93	-7.38
AKOLA	0.62	2.24	10.56	13.42	0.49	1.63	8.49	10.62	-20.97	-27.23	-19.60	-20.86
BULDANA	0.40	1.96	9.77	12.16	0.39	1.77	9.03	11.20	-2.50	-9.69	-7.57	-7.89
CHANDRAPUR	8.95	2.97	3.28	15.23	6.89	1.90	4.01	12.80	-23.02	-36.03	22.26	-15.96