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APPLICATION OF FRISH'S METHODOLOGY IN DERIVING DIRECT AND CROSS PRICE ELASTICITIES OF DEMAND FOR FOODGRAINS IN DIFFERENT REGIONS OF ANDHRA PRADESH

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ABSTRACT

Using Frish's methodology and time series and cross section data the study derived direct and cross price elasticitics of demand for foodgrains in different regions of Andhra Pradesh. The expenditure elasticities indicated that the commodities are mostly normal. The expenditure elasticity coefficients were higher in rural areas as compared to urban areas. Among regions, Coastal Andhra had lower clasticity coefficients compared to other regions. It was observed that people were more sensitive to changes in the prices of rice compared to other items, particularly in Coastal Andhra Pradesh. The study assumes significance in the light of the emphasis on regional planning.

Studies on consumption patterns at a disaggregate level, on a regional basis, assume greater importance in light of the emphasis on regional planning. A systematic analysis of demand requires a combination of time series and cross section data. Generation of such data at regional levels for specific commodities is a formidable task. Besides, the direct estimation of own price and cross price elasticities of demand for different commodities is a complicated process since it involves large number of parameters to be estimated.

Frisch[3] developed a procedure, which, under the assumption of want independence[4] and given budget shares, income-elasticities and money flexibility, would

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3. Ragnar Frisch, 'A Complete Scheme for Computing all Direct and Cross Demand Elasticities in a model with many sectors', *Econometrica*, 27(2) : 177-196, 1959.

4. When the marginal utility derived from consuming commodity was independent of the quantities of commodity consumed, the wants are independent.

allow one to calculate a complete matrix of own and cross-price elasticities. This is based on the technique of two stage budgeting, which assumes that consumer's spend their income in two different stages in which it will be first allocated to major commodity groups based on general level of prices and then to optimum quantities on the basis of complete knowledge of their prices. In empirical analysis, this approach overcomes the limitations associated with the application of classical theory of consumer behaviour like the presence of many parameters in demand equations. The present study attempts to explain the utility of Frisch's methodology in deriving the direct and cross price elasticities of demand for foodgrains like rice, jowar, total pulses and other cereals and total non-food in three different regions of Andhra Pradesh namely, Coastal Andhra, Rayalaseema and Telangana.

Thus, Frisch's methodology is an integrated approach to study the consumption pattern under two-stage consumer budgeting process. It is highly useful in the estimation of own price and cross price elasticities in situations where the consumer expenditure data : (i) do not show any price variability (eg. cross section only but not time series), (ii) are inadequate, (iii) are not available and when the demand pattern at a diaggregate level is to be examined under these data limitations. In other words, it considerably reduces the burden of estimating large number of parameters otherwise required by normal demand equations. On the other hand, the elasticity estimates from Frisch's methodology comply with the common properties of demand systems namely Engel/Cournot aggregation, homogenity condition and symmetry relation.

Methodology

The consumer expenditure data for different population groups of Andhra Pradesh for 32nd round of National Sample Survey Organisation (1977-78) were obtained from the Centre for Economic and Social Studies (CESS), Hyderabad. Using this cross section information, the present study examines the income effect initially, based on which the price effect is isolated. A number of Engel functions were fitted and the best fit was selected based on the $\bar{R}^2$ and significance of coefficients[5]. Frisch's scheme requires budget shares, income elasticities and money flexibility to calculate own and cross price elasticities of demand. For this purpose, the following computational formulae have been used. Own price elasticity is given by

$$n_{ii} = -n_{io}\left(a_i - \frac{1 - a_i n_{io}}{\omega}\right)$$

5. For brevity and limitation of space, these particulars are not given. For details, see J. Krishnaiah and S. Krishnamoorthy, 'Estimation of Engel elasticities for grain in Andhra Pradesh', *Margin*, 20(2) : 31-38, 1988.

Cross price elasticity is given by

$$n_{ij} = -a_j\, n_{io} \left(1 + \frac{n_{jo}}{\omega} \right)$$

Where, n_{ii} and n_{ij} are the direct and cross price elasticities of commodity i with respect to commodity j, n_{io} and n_{jo} are the income elasticities of commodities i and j, a_i and a_j are the budget proportions of the commodities i and j in the order of mention and ω is the money flexibility coefficient.

The money flexibility for each population group and expenditure level is given by

$$\omega = - \frac{m}{m - \sum_{j=1}^{n} C_j P_j}$$

Where, ω = money flexibility coefficient

m = mean level of percapita monhly total expenditure in rupees

C_j = threshold level of consumption of commodity

P_j = price in rupees of j^{th} commodity group at mean level

$j = 1, 2, \ldots\ldots n$ are number of individual commodities within an expenditure class.

The values of C_j, P_j and m were based on NSS data on consumer expenditure for rounds 17 to 28 for five expenditure classes and nine commodity groups for rural and urban population groups[6] and money flexibility was predicated at the mean levels of C_j, P_j and m. To obtain regional money flexibility coefficient, the approximate relationship between income levels and money flexibility coefficients using graphical approach was employed. The interpolated value of money flexibility, corresponding to the percapita monthly total expenditure of 32nd round of National Sample Survey data on Consumer expenditure in each region of Andhra Pradesh was predicted to be the money flexibility coefficient of the respective region and for each population group. The inverse matrix of the direct and cross price elasticities is interpreted as the price flexibility[7].

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6. An unpublished research study by S. Indrakant, Department of Economics, Osmania University, Hyderabad.
7. K.N. Murthy and R. Radhakrishna, "Agricultural prices, income distribution and demand patterns in a low income country" *in* computer applications in food production and agricultural engineering edited by R. Kalman and J. Martine, North Holland Publishing Company, IFIP, 1982.

Results and Discussion

The total monthly percapita expenditure (m), the threshold levels of expenditure (C_j), prices of commodities (P_j) for each expenditure class for rural and urban areas of Andhra Pradesh based on the consumer expenditure data for rounds 17 through 28 are presented in Table-1. The expenditure on any commodity is viewed as the sum of two parts : a committed expenditure and a portion of the supernumarary income. So, a consumer allocates his money income, first, to commodities, which he considers very important and purchases minimum quantities of the same. If some income is still left over, then he allocates it for other items of consumption. Thus, the threshold level of expenditure/consumption refers to that committed level which reflects the consumer's prefered quantities. The money flexibility coefficient is interpreted as the elasticity of marginal utility of money. From Table 1, it is evident that there are differences in the coefficients of money flexibility for rural and urban population groups. These results imply that one per cent increase in income would result in a decrease of marginal utility of money by 4.8 per cent

Table 1. The Total monthly per capita expenditure and coefficient of money flexibility for rural and urban areas of Andhra Pradesh [Rounds 17 to 28]

Expcnditure Class	m	$\sum_{j=1}^{9} c_j p_j$	$m - \sum_{j=1}^{9} c_j p_j$	$\omega = \frac{m}{m - \sum_{j=1}^{9} c_j p_j}$
Rural				
1. Rs. 0-13	8.9075	7.0719	1.8356	—4.8526
2. Rs. 13-21	16.9827	6.9084	10.0743	—1.6857
3. Rs. 21-34	24.7920	12.5829	12.2091	—2.0306
4. Rs. 34-55	38.3379	26.9580	11.3799	—3.3689
5. Rs. 55 and above	90.6168	45.0033	45.6135	—1.9866
Urban				
1. Rs. 0-13	9.1408	2.9656	6.1752	—1.4802
2. Rs. 13-21	15.7896	5.1058	10.6838	—1.4779
3. Rs. 21-34	25.0169	13.7377	11.2792	—2.2259
4. Rs. 34-55	39.9300	23.9370	15.9930	—2.4967
5. Rs. 55 and above	80.8211	40.7757	40.0454	—2.0182

Note : The National Sample Survey organisation (NSSO) expenditure classes have been stratified into five groups separately for rural and urban areas on the basis of monthly expenditure classes of 17th round (1961-62). These groups are Rs. 0-8 forming first; Rs. 8-11, 11-13 forming second; Rs. 13-15, 15-18, 18-21 formirg third; Rs. 21-24, 24-28, 28-34 forming fourth; Rs. 34-43, 43-55, 55-75, 75 and above forming fifth. Since the data used in this study pertains to rounds 17 through 28, the class boundaries do change over rounds, Hence, the class boundaries shown above are adopted.

Table 2. Budget proportions for rice, jowar, total pulses, other cereals, total cereals, total food and total non-food in different regions of Andhra Pradesh

Particulars	Budget Proportions								
	Rural			Urban			(Rural + Urban)		
	Telangana	Rayalaseema	Coastal Andhra	Telangana	Rayalaseema	Coastal Andhra	Telangana	Rayalaseema	Coastal Andhra
Rice	0.2370	0.3310	0.3540	0.2380	0.3020	0.2990	0.2370	0.3160	0.3260
Jowar	0.1200	0.0290	0.0040	0.0940	0.0210	0.0010	0.1070	0.0250	0.0020
Total pulses	0.0151	0.0080	0.0360	0.0400	0.0130	0.0340	0.0450	0.0105	0.0350
Other cereals	0.0350	0.1420	0.0520	0.0210	0.0800	0.0210	0.0280	0.1110	0.0365
Total cereals	0.3920	0.5020	0.4090	0.3530	0.4030	0.3210	0.3725	0.4525	0.3650
Total food	0.7080	0.7340	0.8090	0.7030	0.6810	0.7890	0.7055	0.7075	0.7990
Total non-food	0.2920	0.2660	0.1910	0.2970	0.3190	0.2110	0.2940	0.2925	0.2010

Note : Since the present study does not cover the complete basket of consumer's items and Frisch's methodology does not require all the budget proportions, this information is confined to rice, jowar, total pulses, other cereals, total cereals, total food (which includes cereals, milk products edible oils, sugar and jaggery, other food) and total non-food. The expenditure allocation of the chosen commodities is treated as dependant on the related items of the commodity group and total non-food such that the sum of the budget proportions of total food and total non-food add upto unity.

and 1.99 per cent respectively for the lowest and highest expenditure classes of rural population. In case of urban population, the marginal utility of money decreases by 1.48 per cent and 2.02 per cent for the lowest and highest expenditure classes respectively. In case of the middle expenditure classes of both rural and urban population groups, the money flexibility and income show a direct relationship. The budget proportions for rice, jowar, total pulses, other cereals and total non-food for different population groups i.e. rural, urban and total population in different regions of Andhra Pradesh based on 32nd round of National Sample Survey data on consumer expenditure are shown in Table 2. It is evident from the table that the budget proportions were maximum for total non-food and minimum for rice in case of rural and urban Telangana and urban Rayalaseema. The opposite trend (i.e., the budget proportion being maximum for rice and minimum for total non-food) was observed in other regions for different population groups. However, the budget proportions for jowar, pulses and other cereals did not exhibit a definite perceivable trend. The interpolated values of money flexibility coefficients (ω) corresponding to the monthly total expenditure of 32nd round of NSS data for rural, urban and total population groups in coastal Andhra, Rayalaseema and Telangana regions of Andhra Pradesh are presented in Table 3. From the table, it can be inferred that (ω) ranges from —2.00 to —2.09 in case of rural, —3.14 to —3.28 in case of urban and —2.75 to —2.90 in case of total population in different regions of the State. This implies, *Ceteris Paribus* that one per cent increase in income would decrease the marginal utility of money by about two per cent in rural areas and by about three per cent for urban and total population groups in each of the three regions of Andhra Pradesh.

Ragnar Frisch opined that the money flexibility coefficient of middle income and slightly better off but still poor segment of the population would be between —2 and —4. The observation of Radhakrishna and Murthy[8] for Gujarat (—1 70 for

Table 3. Regionwise percapita total expenditure and estimated money flexibility coefficients for different population groups

Particulars	Percapita total monthly expenditure [Rs.]			Money flexibility coefficient		
	Rural	Urban	[Rural+ Urban]	Rural	Urban	[Rural+ Urban]
Telangana	51.46	72.90	56.62	—3.2625	—2.0875	—2.8500
Rayalaseema	51.38	68.75	54.71	—3.2750	—2.1250	—2.9000
Coastal Andhra	55.49	80.26	60.91	—3.1375	—2.0000	—2.7500

rural and —2.12 for urban) and Janvry, Beiri and Nunez[9] for Argentina (—2.2 to —2.6) confirm this. From Table-I, it can be observed that this coefficient is —2.03 for rural and —2.23 for urban areas in case of middle expenditure class.

Direct and cross price elasticities :

The region-wise and commodity-wise expenditure elasticity as well as the estimated direct and cross price elasticities for rural, urban and total population groups in Andhra Pradesh are furnished in Tables 4 to 6.

Table 4. Regionwise and commoditywise total expenditure elasticity, direct and cross price elasticities for rural Andhra Pradesh

Commodity	Elasticities of demand in respect of prices of of commodities					Total expenditure elasticity
	Rice	Jowar	Total pulses	Other cereals	Total non-food	
			Telangana Region			
Rice	—0.9121	—0.0680	—0.0414	—0.0250	—0.1246	0.8887
Jowar	—0.2014	—0.4480	—0.0544	—0.0328	—0.1637	1.1681
Total pulses	—0.0492	—0.0220	—0.1007	—0.0080	—0.0400	0.2853
Other cereals	—0.1106	—0.0494	—0.0230	—0.2147	—0.0900	0.6415
Total non-food	—0.2925	—0.1307	—0.0783	—0.0477	—0.7577	1.6963
			Rayalaseema Region			
Rice	— 0.4389	—0.0165	—0.0037	—0.1068	—0.0994	0.7885
Jowar	—0.2278	—0.2957	—0.0042	—0.1228	—0.1143	0.9063
Total pulses	—0.3462	—0.0289	—0.4271	—0.1866	—0.1738	1.3778
Other cereals	—0.0379	—0.0032	—0.0007	—0.0665	—0.0190	0.1508
Total non-food	—0.4328	—0.0361	—0.0080	—0.2333	—0.7430	1.7221
			Coastal Andhra Region			
Rice	—0.3545	—0.0023	—0.0141	—0.0195	—0.1060	0.5851
Jowar	—0.0062	—0.0070	—0.0005	—0.0007	—0.0039	0.0217
Total pulses	—0.2983	—0.0041	—0.3561	—0.0346	—0.1882	1.0389
Other cereals	—0.3231	—0.0045	—0.0271	— 0.3961	—0.2038	1.1250
Total non-food	—0.0465	—0.0006	—0.0039	—0.0054	—0.0809	0.1618

8. R. Radhakrishna and G.V.S.N. Murthy, 'An application to estimate complete set of demand elasticities based on two stage budgeting : with an application to the pattern of Gujarat demand , *Anvesak*, 3(10): 165-176, 1973.
9. A. de Janvry, J. Beiri and A. Nunez, 'Estimation of demand parameters under consumer budgeting : An application to Argentina', *American Journal of Agricultural Economics*, 54 (1): 422-430, 1972.

Table 5. Regionwise and commoditywise total expenditure elasticity, direct and corss price elasticities for urban Andhra Pradesh

Commodity	Elasticities of demand in respect of prices of commodities					Total expenditure elasticity
	Rice	Jowar	Total pulses	Other cereals	Total non-food	
			Telangana Region			
Rice	—0.4283	—0.0768	—0.0172	—0.0058	—0.1186	0.6683
Jowar	0.0753	0.2763	0.0119	0.0040	0.0356	—0.4651
Total pulses	—0.1209	—0.0859	—0.3771	—0.0065	—0.0572	0.7472
Other cereals	—0.1981	—0.1407	—0.0314	—0.5714	—0.0937	1.2242
Total non-food	—0.2507	—0.1781	—0.0400	—0.0134	—0.8609	1.5496
			Rayalaseema Region			
Rice	—0.1107	—0.0056	—0.0019	—0.0286	—0.0356	0.3658
Jowar	—0.1454	—0.2825	—0.0050	—0.0454	—0.0565	0.5814
Total pulses	—0.3155	—0.0193	—0.6004	—0.0986	—0.1227	1.2617
Other eereals	—0.0124	—0.0008	—0.0003	—0.0272	—0.0048	0.0496
Other non-food	—0.3694	—0.0225	—0.0078	—0.1154	—0.8389	1.4774
			Coastal Andhra Region			
Rice	—0.1904	—0.00025	—0.0046	—0.0026	—0.0290	0.2500
Jowar	0.00013	0.00025	0.000009	0.00005	0.000085	—0.0005
Total pulses	—0.2372	—0.00091	—0.0093	—0.0093	—0.1051	0.9066
Other cereals	—0.2665	—0.0010	—0.0181	—0.5198	—0.1181	1.0187
Total non-food	—0.2359	—0.0009	—0.0168	—0.0093	—0.5552	0.9015

From a perusal of the tables, it can be inferred that the expenditure elasticities indicate that the commodities are mostly normal. For jowar, this parameter is negative in Telangana and Coastal Andhra regions of Andhra Pradesh indicating that they are not normally preferred by the urban population. The expenditure elasticity coefficients are higher in rural areas compared to urban areas indicating that there are differences in the tastes and preferences of these population groups. Among regions, Coastal Andhra has lower elasticity coefficients compared to other regions. This is in confirmity with the hypothesis that expenditure on food decreases with increase in income.

The values of direct price elasticities are observed to be more than those of cross price elasticities for all commodities in all the regions for all population groups. The elasticity coefficients of rural population are higher in magnitude in all the regions for rice and jowar compared to urban population, while opposite is true in case of total pulses, other cereals and total non-food. When a comparison is made

across the regions, these elasticities are higher in Telangana region followed by Rayalaseema and Coastal Andhra region for rice, jowar and total non-food for the total population. In case of total pulses, Rayalaseema recorded maximum elasticity followed by Coastal Andhra and Telangana and Telangana recorded maximum elasticity for other cereals followed by Coastal Andhra and Rayalaseema. By and large, it can be inferred that the consumers are most responsive to change in the price of total non-food followed by other cereals, total pulses, rice and jowar. These results imply that jowar is least preferred by the consumers while total pulses are the most preferred items of consumption in all the regions. It is interesting to note that the consumers response to price changes in rice is the lowest in Coastal Andhra where its production was maximum.

Table 6. Regionwise and commoditywise total expenditure elasticity, direct and cross price elasticities for total population [rural+urban] in Andhra Pradesh

Commodity	Elasticities of demand in respect of prices of commodities					Total expenditure elasticity
	Rice	Jowar	Total pulses	Other cereals	Total non-food	
			Telangana Region			
Rice	—0.4015	—0.0682	—0.0282	—0.0147	—0.0956	0.7659
Jowar	—0.0827	—0.2099	—0.0176	—0.0092	—0.0596	0.4772
Total pulses	—0.0900	—0.0462	—0.2012	—0.0010	—0.0658	0.5191
Other cereals	—0.1556	—0.0800	—0.0330	—0.2806	—0.1120	0.8978
Total non-food	—0.2843	—0.1461	—0.0134	—0.0315	—0.7802	1.6402
			Payalaseema Region			
Rice	—0.3413	—0.0121	—0.0035	—0.0608	—0.0755	0.5701
Jowar	—0.1113	—0.1605	—0.0027	—0.0468	—0.0580	0.4385
Total pulses	—0.3311	—0.0277	—0.4575	—0.1392	—0.1726	1.3040
Other cereals	—0.0284	—0.0024	—0.0007	—0.0505	—0.0148	0.1168
Total non-food	—0.3805	—0.0335	—0.0096	—0.1695	—0.7577	1.5878
			Coastal Andhra Region			
Rice	—0.2640	—0.0003	—0.0094	—0.0092	—0.0609	0.4120
Jowar	—0.0053	—0.0070	—0.0004	—0.0004	—0.0028	0.0192
Total pulses	—0.2674	—0.0019	—0.3727	—0.0215	—0.1426	0.9647
Other cereals	—0.2974	—0.0021	—0.0244	—0.4141	—0.1586	1.0732
Total non-food	—0.2016	—0.0015	—0.0165	—0.0162	—0.3721	0.7275

Price flexibility

The price flexibility matrices for rural urban and total population groups in different regions of Andhra Pradesh are presented in Table 7. These elements

Table 7. The price flexbibility matrix for rural urban and total population groups in different regions of Andhra Pradesh

	Rice	Jower	Total pulses	Other cereals	Total non-food
1	2	3	4	5	6
RURAL :					
		Telangana			
Rice	—1.1943	0.1154	0.2960	0.0778	0.1466
Jowar	0.3436	—2.4674	0.8231	0.2157	0.4075
Total pulses	0.3437	0.3265	—10.6169	0.2151	0.4079
Other cereals	0.3553	0.3367	0.4514	—4.8611	0.4224
Total non-food	0.3436	0.3259	0.8209	0.2164	—1.5157
		Rayalaseema			
Rice	—2.9163	0.0890	0.0134	3.4847	0.2842
Jower	1.2376	—3.5246	0.0129	3.4868	0.2845
Total pulses	1.2367	0.0896	— 2.3640	3.4831	0.2847
Other cereals	1.2360	0.0924	0.0129	—18.2239	0.2834
Total non-food	1.2372	0.0894	0.0130	3.4855	—1.6173
		Coastal Andhra			
Rice	—3.5480	0.6902	0.0858	0.1095	4.1400
Jowar	1.8190	—143.9185	0.0772	0.1019	4.1183
Total pulses	1.8145	0.6975	—2.9347	0.1093	4.1406
Other cereals	1.8143	0.7213	0.0857	—2.6791	4.1377
Total non-food	1.8173	0.5889	0.0858	0.1099	—15.2469
URBAN :					
		Telangana			
Rice	—2.6443	—0.4888	0.0682	0.0147	0.3374
Jower	0.6649	3.8706	0.0852	0.0183	0.0736
Total pulses	0.6070	—0.6198	—2.7078	0.0187	0.0679
Other cereals	0.6349	—0.6480	0.0899	—1.7638	0.0710
Total non-food	0.6068	—0.6195	0.0869	0.0185	—1.2793
		Rayalaseema			
Rice	—11.9438	0.1713	0.0256	10.3455	0.4324
Jower	4.4525	—3.6361	0.0150	1.1324	0.0473
Total pulses	4.4823	0.0189	—1.6811	1.1464	0.0478
Other cereals	4.4735	0.0254	0.0059	—41.7288	0.0464
Total non-food	4.4828	0.0184	0.0032	1.1437	—1.3905

1	2	3	4	5	6
		Coastal Andhra			
Rice	—5.6931	—4.4212	0.0440	0.0226	0.2838
Jowar	2.2970	4003.5640	0.0425	0.0211	0.2857
Total pulses	2.2726	—4.3839	—2.1286	0.0217	0.2792
Other cereals	2.3109	—4.2815	0.0413	—1.9412	0.2840
Total non-food	2.3077	—4.4070	0.0450	0.0222	—1.9354
RURAL+URBAN					
		Telangana			
Rice	—2.9255	0.6560	0.3183	0.1006	0.2675
Jower	0.7948	—5.3178	0.3193	0.1015	0.2677
Total pulses	0.8430	0.6941	—5.1547	—0.0804	0.2833
Other cereals	0.9515	0.7861	0.3796	—3.6766	0.3196
Total non-food	0.8643	0.7131	—0.1026	0.0942	—1.4471
		Rayalasecma			
Rice	—3.5629	0.1618	0.0158	3.1964	0.2681
Jower	1.1597	—6.4968	0.0117	2.3209	0.6767
Total pulses	1.5250	0.1621	—2.2089	3.2040	0.2677
Other cereals	1.5237	0.1661	0.0195	—22.7320	0.2669
Total non-food	1.3774	0.1685	0.0158	3.3363	—1.5476
		Coastal Andhra			
Rice	—4.4565	0.0151	0.0782	0.0687	0.6700
Jower	2.2367	—143.1204	0.0640	0.0594	0.6610
Total pulses	2.2122	0.5039	—2.7735	0.0682	0.6680
Other cereals	2.2118	0.4990	0.0774	—2.4946	0.6679
Total non-food	2.2117	0.4862	0.0770	0.0681	—3.1116

show the impact of one per cent increase in the supply of an item on prices. From the table, it can be inferred that the diagnol elements are negative for all commodities in all regions and for all population groups. These results imply that an increase in the supply of any item reduces its own price and raises the prices of other items. More specifically, when one considers rural population, the supplies of total pulses in Telangana, other cereals in Rayalaseema and jowar in Coastal Andhra have signtficant impact on prices. In case of urban population also, the same trend is observed except that rice supply has more impact on prices. When one considers the total population, it can be observed that one per cent increase in the supply of rice, jowar, total pulses, other cereals and total non-food reduce their own prices by 2.93 per cent, 5.32 per cent, 5.15 per cent, 3.68 per cent and 1.45 per cent while the prices of other related items increases by less than one per cent. In case of

Rayalaseema, one per cent incrcase in supply of rice is accompanied by a reduction in its price by 3.56 per cent and an increase of other cereal prices by 3.2 per cent. Similar trend is observed when their supplies are increased. By and large, it can be said that increased supply of these commodities step up the prices of mostly other cereals in this region. In case of Coastal Andhra, one per cent increase in the supply of rice reduces own price by 4.46 per cent but raised the prices of other related committees by less than one per cent. It is very interesting to note that an increase of one per cent in the supply of jowar, total pulses, other cereals and total non-food significantly raise only the prices of rice by about 2 per cent. Thus, it can be said that the people are more sensitive to changes in the prices of rice compared to other items.