Cost of Living Indexes for Rural Labourers in Pakistan

by

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INTRODUCTION

The purpose of this paper is to provide estimates of the changes in the cost of living for rural labourers during the period 1966/67 to 1973. It is well known that throughout this period, and particularly in the recent years, prices have been rising. The Central Statistical Office (CSO) publishes consumer price indices for urban workers, but no index for rural workers is available. Thus, it is not known whether inflation has affected rural and urban workers uniformly. If changes in the cost of living have been different, then separate price indexes must be used in estimating the real income levels of the two groups. As development policies in Pakistan are increasingly aimed at alleviating poverty in the rural sector, the need for a separate price index applicable to rural labourers becomes obvious.

The construction of price indices in developing countries presents several problems of a theoretical and a practical nature. Apart from the standard "index number problem" that prevents any unambiguous measure of welfare changes, price indexes cannot easily incorporate changes in product quality, which may be an important source of welfare improvement (or decline). Moreover, where markets are fragmented, prices for the same product may vary considerably within a region—the rural sector for example—with the result that a price index for the region is only a very approximate measure of the cost-of-living for the different groups within the region. Finally, of course, there is the problem of data. When data on prices and expenditure patterns are available in developing countries, they are frequently available only for urban areas. In spite of these difficulties, however, there are still compelling reasons to attempt a calculation of cost-of-living indices for rural labourers not the least

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of which is that such calculations may stimulate interest in the improvements of the data on the rural sector.

II. DATA SOURCES AND ASSUMPTIONS

The main source of data, underlying our calculations was various CSO publications from which the price data for our study was taken. The household income and expenditure surveys for 1966/67, 1968/69, 1969/70 and 1970/71 served as the source of consumption patterns for rural workers, which in turn determined the weighting system.

In the absence of any detailed occupational information about rural population, definition of a rural worker[1] would always be arbitrary. For the purposes of this study, all rural households with gross monthly incomes, at the prevailing prices of that year, below rupees 149 have been classed as constituting the rural labour force. Thus our definition unnecessarily encompasses some rural poor whose main occupation may be farming but whose incomes are low because of the smallness of their land holdings. It, however, is conceivable that these will form only an insignificant proportion of this income bracket. Also the choice of Rs. 149 as the dividing line between landowners and the labourers is not as completely arbitrary as it may appear. The data in Table I lend support to this belief.

TABLE I

Average Monthly Income of Rural Labourers Households

Monthly Income Groups	1966/67	1968/69	1969/70	1970/71
A. **Less than Rs. 50**				
1. Average monthly income	41.20	40.00	37.31	41.62
2. No. of sampled households	22	35	32	13
B. **Rs. 50- Rs. 99**				
1. Average monthly income	80.37	79.68	79.38	80.97
2. No. of sampled households	432	406	344	306
C. **Rs. 100 - Rs. 149**				
1. Average monthly income	123.45	124.85	124.13	124.62
2. No. of sampled households	684	766	769	739
D. **Weighted average for the above three income groups**				
1. Average monthly income	105.51	107.28	108.26	110.98
2. No. of sampled households	1138	1207	1145	1058
3. No. of total households	2589	2702	2764	2856
4. Labourer's households as percent of total rural households (D2÷D3)	43.9	44.7	41.4	37.0

Source: Calculations based on CSO data. All incomes and wages are valued at the prices prevailing in the corresponding years.

[1]Our definition of rural workers possibly includes agricultural landless labourers, shop-keepers, barbers, cobblers, blacksmiths, carpenters, masons and also some industrial workers who reside in rural areas.

Two sources may be cited in support of this dividing line. First, as Table I reveals, rural labour households, according to our definition, constituted about 44 per cent of total rural households during 1966/67 and the proportion declined to 37 per cent during 1970/71. The proportion of rural workers for 1970-71 has been independently estimated at 34.3 per cent by Eckert [2, p. 26] on the basis of a sample study in the Punjab. The difference between our 37 per cent and Eckert's 34.3 per cent is insignificant and may be the result of the smallness of Eckert's sample compared to the CSO sample. Second, according to our calculations included in Table I, the average monthly income per household of the defined labour class varied between Rs. 105 and Rs. 111 over the period under consideration, which is approximately Rs. 1300.00 per annum per household. A separate calculation, based on daily wage rates for rural labourers during 1965-66, the number of earners per family and a work year of 280 days (see Apendix Table A-I and A-2), shows that the income of a typical rural labour household was Rs. 1165 per annum. The difference between Rs. 1300 and Rs. 1165 per annum is insignificant and may be ignored as we have used a constant wage rate of 1965-66 in our calculation.

In constructing cost of living indexes, dependence on wholesale price indices in the case of food, fuel and lighting groups and on consumer price indices for urban clerical wage earners in the case of clothing, footwear, and miscellaneous groups has been inevitable. Data on actual prices paid by rural population or for that matter the rural labourers is simp y not available. It is conceivable that rural workers pay prices lower than the wholesale prices for food, fuel and lighting but higher than consumer prices for clothing, footwear and miscellaneous groups. In both cases, however, the deviations in price are due to the marketing margins which may cancel one another for the following reasons. First, over the period the rural labourers allocated roughly 34 per cent of their total expenditures on clothing, footwear, and miscellaneous, while the other 66 per cent was allocated to food, fuel and lighting purchases (see Table II). Some of the commodities included in the food group like vegetable ghee, some pulses, condiments and spices, however, were also purchased in retail at consumer prices from urban centres. If we deduct the percentage share of all these commodities from the food group, the expenditure on the remaining food items falls to roughly 50 per cent of total expenditure. The prices of these remaining food items are frequently under reported; see for example, Khan [4, Pp. 317-347]. However, the prices that rural workers must pay for the other food items are over-estimated by the use of urban price indices. We have, therefore, assumed that these over and under estimates cancel one another out in calculating the total cost of living index.

While we constructed our own price indices for food and fuel and lighting groups by weighting the wholesale commodity price indices with current per cent expenditure on the commodity in question (commodity price indices and corresponding weights are given in appendix table B-1 and B-2), the same was not possible in the case of clothing and footwear and miscellaneous groups for lack of price data on the commodities composing these groups. It was necessary, therefore, to depend directly on price indices given by CSO for clerical wage earners. Since industrial workers often get a subsidy for the goods of the employing industry, the choice of the consumer price index for clerical wage earners was considered more appropriate.

We assume further that each rural worker conforms to the average consumption pattern of rural labourers as a group. This is a crucial assumption for drawing conclusions from our study on budget-cost indexes.

In our calculations we implicitly have used an imputed value for the commodities produced for self-consumption by the rural workers and the imputations have been made at the prevailing market prices for the factor or commodities in question.

III. STATISTICAL METHODS

Several statistical methods have, invariably, been employed for constructing cost of living indexes. We will be using similar devices in the construction of indices for the rural workers. Each of these devices is distinguishable by the yardstick it uses for measuring the standard of living.

The simplest computational procedure is to obtain price indexes for different expenditure groups (F_i), determine the relative weights (W_i) from consumption pattern and then construct budget-cost indexes as follows:

$$I_s = F_1W_1 + F_2W_2 \ldots\ldots\ldots\ldots\ldots\ldots + F_nW_n$$

Where

I_s represents simple cost of living index

F_n is the price index for the nth commodity group

W_n designates weight of the commodity group, n, in the consumption bundle

I_s attempts to measure changes in the cost of a given year standard of living. This method has been employed by CSO for constuction of cost of living index for clerical wage earners and industrial workers in selected urban centres.

A second method which aims at maintaining base year standard of living is popularly known as Laspeyre's index in economic literature. In general it is denoted by I_L and its estimation involves the following formula:

$$I_L = \frac{\sum_{i=1}^{n} (p_t^i \, q_o^i)}{\sum_{i=1}^{n} (p_o^i \, q_o^i)}$$

Since in the base period $p_t^i = p_o^i$, the base period cost of living index will always be equal to 100.

In terms of price relatives I_L can be expressed as follows:

$$I_L = \sum_{i=1}^{n} [(p_t^i \div p_o^i) \; (p_o^i \, q_o^i)] \div \sum_{i=1}^{n} (p_o^i \, q_o^i)$$

Where

p^i_t = price of commodity "i" in the year "t"

p^i_o = price of commodity "i" in the base year

q^i_o = quantity of commodity "i" in the base year

As one can see, I_L measures changes in cost of living due to changes in prices and assumes a constancy of the consumption pattern of the base year. As a general rule, the index is believed to over-estimate increases and under-estimate decreases in the cost of living [3, Pp. 310-313].

If we would have liked to live in past, the way we are living today, an appropriate measure is Paasche's index designated by the symbol I_p with the formula

$$I_p = \frac{\sum_{i=1}^{n} (p^i_t\, q^i_t)}{\sum_{i=1}^{n} (p^t_o\, q^i_t)} = \frac{\sum_{i=1}^{n} (p^i_t\, q^i_t)}{\sum_{i=1}^{n} [\,(p^i_o \div p^i_t)\,(p^i_t\, q^i_t)]}$$

$$= \frac{1}{\sum_{i=1}^{n} [\,(p^i_o \div p^i_t)\ \ (p^i_t\, q^i_t)\,] \div \sum_{i=1}^{n} (p^i_t\, q^i_t)}$$

Paasche's index has been shown to understate the rise and overstate a fall in the cost of living [3, Pp. 313-316].

While Laspeyre's index overstates the rise and understates the fall in cost of living and this position is reversed in Paasche's index, the unknown true index (I_T) willl assume a value in between the two such that:

$$I_L \geqslant I_T \geqslant I_P$$

In an attempt to overcome the inherent biases in Laspeyre's and Paasche's indexes Irving Fisher has proposed an index with superior analytical qualities. It satisfies both the time and factor reversal tests of the economic theory of index numbers and successfully combines the Laspeyre's and Paasche's approaches by taking geometric means of the two indexes. If Fisher's index is represented by the symbol I_F, then the formula assumes the following shape:

$$I_F = (I_L \ . \ I_P)^{\frac{1}{2}}$$

The Fisher's index assumes values in the middle of Laspeyre's and Paasche's indexes and is therefore a superior measure of a cost of living index. Our calculations will be based on Fisher's index.

IV. APPLICATION OF MODELS AND COST OF LIVING INDEXES

The simplest method of constructing cost of living indexes consists in the simple addition of group price indices weighted by corresponding per cent expenditure on each group. We have applied this technique to CSO group price indices using wholesale price indices in case of food; fuel and lighting groups for West Pakistan and consumer price indices for clerical wage earners in the case of clothing, footwear and miscellaneous groups. The results of this exercise have been presented in Table II.

TABLE II

Cost of Living Index for Rural Workers from 1966-67 = 100 *to* 1973 *Based on CSO Group Price Indices*

Consumption Groups	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973*
A. **Food**							
1. Price index	105.02	105.63	105.68	107.57	120.97	148.83	238.90
2. Percent expenditure at current prices	62.38	61.83	60.30	59.19	59.19	59.19	59.19
3. Share in cost of living (A1 x A2)	65.51	65.31	36.72	63.67	71.61	88.08	141.40
B. **Clothing and Footwear**							
1. Price index	103.40	106.82	109.68	115.20	119.96	131.06	155.77
2. Percent expcnditure	10.52	12.20	12.23	11.97	11.97	11.97	11.97
3. Share in cost of living (B1 x B2)	10.88	12.92	13.42	13.79	14.37	15.69	18.65
C. **Fuel and lighting**							
1. Price index	102.17	105.28	109.27	113.31	124.51	151.10	198.68
2. Percent expenditure	6.11	6.42	6.60	6.74	6.74	6.74	6.74
3. Share in cost of living (C1 x C2)	6.24	6.76	7.21	7.64	8.39	10.18	13.39
D. **Miscellaneous**							
1. Price index	102.23	105.66	108.92	111.85	116.74	119.89	124.54
2. Per cent expenditure	20.99	19.65	20.87	22.10	22.10	22.10	22.10
3. Share in cost of living (D1 x D2)	21.46	20.76	22.73	24.72	25.80	26.50	27.52
E. Over all cost of living (A3+B3+C3+D3)	104.09	105.75	107.08	109.82	116.47	140.47	200.96

Source: Calculations based on relevant pages in [7 and 8].

* Calculations based on the average price indices for the months of July, August and September, 1973.

The above table reveals that the cost of living has been rising incessantly over the period, 1966-67 to 1973. Within this period two clearly distinct sub-periods can be identified. First the period from 1966-67 to 1970-71 represents a period of slow changes in cost of living where the cost of living index over this five year period increased only by about 10 per cent. Second, the period from 1970-71 to 1973 can be termed as a period of sharply rising cost of living where the rate of increase gained momentum with an accelerating trend so that the total increase in cost of living amounted to more than 80 per cent over a three year period. On the basis of the data in Table II, it is evident that the cost of living for rural workers more than doubled from 1966-67 to 1973.

In the preparation of group price indices, the CSO makes use of 1955-56 weights. The 1955-56 weights, however, have become unrepresentative of the current consumption pattern. This inherent bias is better understood by looking at recent trends in consumption patterns. We have noticed (see appendix Table B-2) that over a short span of five years, 1966-67 to 1970-71, the consumption expenditures of rural labourers have undergone significant changes. Thus, one improvement in the cost of living indexes given in table II would be the use of current consumption weights in the preparation of group price indices and the further use of these in the calculation of the overall cost of living indexes.

In the following section we have attempted to remove the bias from inappropriate consumption weights inherent in the above indexes. While we were successful in overcoming this bias for food, fuel and lighting groups, we were unable to eliminate this bias entirely because price indices for the sub-items in the categories of group price indices for clothing, footwear and miscellaneous groups were unavailable. Moreover, as we had to depend entirely on the CSO price indices relating to clerical wage earners for these latter groups, our results are subject to error and improvements are possible if the required data become available in future.

The price indices for the four groups (see appendix Table B-3) were combined into a single cost of living index using group weights given in table II earlier. The results of this some what improved approach are presented in table III.

TABLE III

Cost of Living Indexes for Rural Labourers in Pakistan

Year	Laspeyre's index	Paasche's index	Fisher's index
1966-67	100.00	100.00	100.00
1967-68	101.13	100.99	101.50
1968-69	102.32	102.25	102.28
1969-70	105.72	105.60	105.66
1970-71	109.30	109.29	109.29
1971-72	117.54	117.37	117.45
1972-73	130.06	130.04	130.05
1973 (July-Sept.)	189.40	182.48	185.90

Source: Calculations based on Table II and appendix Table B-3.

The above table includes three types of indexes, namely Laspeyre's, Paasche's and Fisher's. All three indexes show a consistent trend in cost of living over the period under study. The Laspeyre's indexes, by definition, assume higher values than the corresponding Paasche's indexes. The values for Fisher's indexes lie in between as these represent the geometric mean of the former two indexes.

It is evident from table III that the cost of living was rising constantly since 1966-67 to 1973. Like that of table II, the data in table III point to a slower rate of increase in cost of living during early five years with an accelerating tendency in the later years. However despite these common characteristics of the two tables, there is, also one visible difference among them. To be explicit, table III registers a slower rate of increase in cost of living relative to table II. While the total increase according to table II over the period 1966-67 to 1973, amounted to 101 per cent, it was only 85 per cent according to table III, which is significantly different from the above figure of 101 per cent. As was pointed out earlier, the difference is attributable to the tendency of the people to shift to low priced consumption commodities under conditions of a constantly rising cost of living. The steep rise in cost of living during 1973 hints at the recent price spiral experienced in Pakistan.

It is interesting to compare the cost of living indices for rural and urban (Industrial and Clerical) workers. The data in table IV below, along with the data in table III above, provide for such a comparison:

TABLE IV

Cost of Living Indices for Clerical Wage Earners and Industrial Workers 1966-67 *to* 1973

Year	Clerical Wage Earners	Industrial Workers
1966-67	100.00	100.00
1967-68	104.04	103.03
1968-69	106.19	104.17
1969-70	109.20	109.82
1970-71	114.61	115.15
1971-72	124.78	121.31
1972-73	140.69	136.83
1973 (July to Sept.)	164.18	165.72

Source: Based on general cost of living in [8].

It can be seen from the above table that the cost of living for urban workers, like that of rural labourers, has been rising over the period under study. It is further noticable as one would expect, that the rise in cost of living was somewhat more pronounced in case of urban compared to rural workers. During 1973, however, the cost of living index for urban workers registered a much smaller increase than that of rural workers. One reason for this trend in the cost of living may be the large scale introduction of departmental stores and

the supply of basic consumption commodities at subsidized rates to urban industrial and clerical wage earners. The rural workers, on the other hand, did not have access to such facilities.

No specific study in Pakistan has been made on cost of living for rural workers. Only recently, in a study of the extent of poverty, Naseem [6, p. 46] has attempted to construct such indexes for different income groups over the period 1963-64 to 1969-70. His calculations showed a decline in the cost of living during 1968-69 in contrast to 1966-67. While the cost of living was higher than 1968-69 during 1969-70 it still was lower than 1966-67. Naseem's calculations, however, may be less accurate than ours as, first, he uses 1963-64 consumption weights while we have used current consumption weights; second, he considered only 20 commodities in the food group whereas we have included all; and third, instead of fuel and lighting he included an index of housing costs for industrial workers in his calculations.

V. CONCLUSIONS

Ours has been the first attempt to construct cost-of-living indexes for rural labourers in Pakistan. We have computed these indexes for the period 1966-1973. These indexes indicate that the cost of living has been rising slowly during 1966-71 but this upward trend was sharply accelerated in the following period. Our analysis also reveals hyper-inflationary tendencies in the year 1973 (July-September).

Our indexes may be imperfect guides to changes in the costs of living for rural workers but these are the best indicators presently available[3]. The need for such indexes cannot be overemphasized and we have made a serious effort to accomplish this objective. We, however, do realize that the cost-of-living index is a summary statistical device reflecting the "centre of gravity" of widely dispersed changes in prices and consumption patterns of individuals and is open to question by modern economic theorists. It also suffers from the limitations of the underlying data. Nevertheless, it can be used with profit if proper caution is exercised in deriving conclusions from it.

[3]It would have been more appropriate to construct regional cost-of-living indices for rural workers in order to account for regional variations in prices and consumption patterns. However this could not be accomplished due to lack of regional data.

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APPENDIX TABLE A-1

Average Number of Earners per Household

Year	No of Earners by Monthly Income Groups			
	Less than Rs. 50	Rs. 50-99	Rs. 100-149	Average
1966-67	1.1	1.2	1.4	1.32
1968-69	1.2	1.2	1.5	1.39
1969-70	1.3	1.2	1.4	1.34
1970-71	1.3	1.2	1.3	1.27
				1.33

Source: Relevant pages in [7]

APPENDIX TABLE A-2

Calculation of Annual Income per Worker

Daily wage rate per worker*	=	Rs. 3.13
Number of workers per household	=	Rs. 1.33
Daily earnings per household	=	Rs. 3.13 x 1.33
	=	Rs. 4.16
Annual income per household at 280 work days per annum**	=	Rs. 4.16 x 280
	=	Rs. 1165

Source: Calculations based on [10, Pp. 18-47]

*Given wage rate represents a weighted average wage rate of all the rural labourers given in the source.

**S.R. Bose [1, Pp. 452-488] assumed a work year of 259 days for East Pakistan (now Bangladesh). Since work conditions in West Pakistan are better than those in Bangladesh, we arbitrarily assumed a work year of 280 days for West Pakistan.

APPENDIX TABLE B-1

Price Indices for Food and Fuel and Lighting Commodities 1966-67 = 100.00

Commodities	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973*
A. **Food Group**							
Wheat	88.50	75.84	76.63	78.63	89.21	91.19	106.08
Rice	111.66	111.34	106.17	106.23	114.18	164.44	214.89
Other cereals	91.11	74.83	76.32	75.03	92.99	115.16	123.30
Gram	120.16	126.80	167.71	117.35	172.68	261.19	206.63
Other pulses	93.11	98.64	133.16	130.30	133.16	171.45	222.60
Milk	108.79	113.83	118.16	127.08	134.98	137.17	245.06
Ghee	102.72	104.76	118.05	131.11	130.47	126.54	209.55
Veg. ghee	96.23	95.30	98.08	107.27	108.57	108.28	126.61
Mustard oil	80.13	73.68	95.54	106.21	93.61	94.67	125.56
Mutton	118.28	126.28	127.21	139.63	147.23	148.44	176.79
Beef	118.28	126.28	127.21	139.63	147.23	148.44	176.79
Fish	100.91	104.94	117.59	144.04	202.67	251.02	325.97
Chicken	98.96	82.54	73.09	76.74	79.95	79.79	87.60
Eggs	98.96	82.54	73.09	76.74	79.95	79.79	87.60
Potato	79.35	76.36	96.88	102.25	83.93	80.78	157.06
Onion	110.32	113.30	115.49	177.05	133.29	132.05	648.13
Other veg.	93.48	93.20	105.36	136.36	100.40	97.67	—
Salt	120.11	123.26	112.42	114.38	118.49	136.58	176.94
Condiments and spices	91.11	105.59	169.41	139.31	145.00	185.35	171.41
Sugar refined	118.85	111.61	111.61	101.96	130.18	157.48	152.30
Sugar desi	172.84	216.62	143.53	107.29	200.22	398.71	467.87
Gur	172.84	216.62	143.53	107.29	200.22	398.71	467.87
Tobacco	103.75	98.18	105.23	105.40	128.31	141.76	140.11
Tea	83.43	88.84	84.23	87.44	100.53	136.19	118.71
B. **Fuel and Lighting Group**							
Kerosine oil	101.01	102.25	104.02	109.92	102.87	103.13	128.49
Matches	100.33	109.86	112.89	129.04	251.93	205.24	197.26
Firewood	104.75	109.62	113.71	115.89	126.22	152.34	161.10

Source: Calculations based on CSO commodity price indices in [8].
* Represents average price indices for the months of July, August, and September, 1973.

APPENDIX TABLE B-2

Percentage Expenditure on Component Commodities in Food and Fuel and Lighting Groups for Rural Workers in Pakistan

	Commodities	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973
A.	**Food Group**	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Wheat	36.19	36.19	34.43	33.18	32.19	32.19	32.19	32.19
	Rice	3.84	3.84	4.51	4.42	3.41	3.41	3.41	3.41
	Other cereals	8.94	8.94	2.22	2.29	2.54	2.54	2.54	2.54
	Gram	1.13	1.13	1.32	1.68	1.58	1.58	1.58	1.58
	Other pulses	1.93	1.93	2.59	2.75	2.63	2.63	2.63	2.63
	Milk	8.76	8.76	10.98	11.01	11.38	11.38	11.38	11.38
	Ghee	11.30	11.30	11.61	11.18	12.04	12.04	12.04	12.04
	Vegetable ghee	2.55	2.55	3.53	4.24	5.00	5.00	5.00	5.00
	Mustard oil	0.29	0.29	0.38	0.26	0.19	0.19	0.19	0.19
	Mutton	0.76	0.76	1.22	0.91	1.00	1.00	1.00	1.00
	Beef	1.97	1.97	2.65	2.83	3.03	3.03	3.03	3.03
	Fish	0.36	0.36	0.50	0.58	0.51	0.51	0.51	0.51
	Chicken	0.27	0.27	0.24	0.28	0.30	0.30	0.30	0.30
	Eggs	0.11	0.11	0.11	0.17	0.18	0.18	0.18	0.18
	Potatoes	1.18	1.18	1.34	1.56	1.49	1.49	1.49	1.49
	Onion	1.22	1.22	1.20	1.33	1.43	1.43	1.43	1.43
	Other vegetables	3.28	3.28	3.60	3.74	4.31	4.31	4.31	4.31
	Salt	0.41	0.41	0.41	0.40	0.40	0.40	0.40	0.40
	Condiments and spices	2.72	2.72	2.58	2.72	2.52	2.52	2.52	2.52
	Sugar (refined)	1.37	1.37	2.19	2.31	2.59	2.59	2.59	2.59
	Sugar (desi)	0.93	0.93	0.63	0.75	0.56	0.56	0.56	0.56
	Gur	3.84	3.84	3.93	3.66	2.98	2.98	2.98	2.98
	Tobacco	3.28	3.28	3.57	3.62	3.63	3.63	3.63	3.63
	Tea	1.59	1.59	1.81	1.86	1.89	1.89	1.89	1.89
	Miscellaneous food	1.78	1.78	2.47	2.27	2.22	2.22	2.22	2.22
B.	**Fuel and Lighting Group**	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.0
	Kerosine oil	10.99	10.99	11.85	11.87	11.93	11.93	11.93	11.93
	Matches	3.66	3.66	3.86	4.17	4.10	4.10	4.10	4.10
	Firewood	85.35	85.35	84.29	83.96	83.97	83.97	83.97	83.97

Sources: Calculations based on relevant pages in [7].

Note: For 1967-68, 1966-67 weights were used and for the years following 1970-71 expenditure pattern of the year 1970-71 was taken.

APPENDIX TABLE B-3

Group Price Indices for Rural Workers in Pakistan 1966-67 *to* 1973

Year	Food	Fuel and Lightings	Clothing and Footwear	Miscellaneous
1966-67	100.00	100.00	100.00	100.00
1967-68	100.08	104.22	103.40	102.23
1968-69	99.80	108.74	106.82	105.66
1969-70	103.31	112.53	109.68	108.92
1970-71	106.81	115.71	115.20	111.85
1971-72	116.32	128.59	119.96	116.74
1972-73	131.50	148.63	131.06	119.89
1973 (July-September	197.51	158.70	256.07	140.82

Sources: (*i*) Food, fuel and lighting indexes based on the information in appendix tables B-1 and B-2.

(*ii*) Clothing, footwear and miscellaneous are the indices for clerical wage earners as given in [8].

Note: Food price indices have been inflated by percentage expenditure on miscellaneous food items as the price indices for miscellaneous food items are not available.