

# Mass Poverty in Pakistan - A Further Study

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Despite great development efforts made in Pakistan<sup>1</sup> during the last twenty-five years, the extent of poverty in the country has remained shockingly great and the living standards of the masses alarmingly low. The interest in the study of the mass poverty problem is of recent origin in Pakistan. Earlier studies have examined the problem mainly from the point of view of an equitable distribution of income and wealth and their analysis has been principally based on their relative shares. However, one study [6] deals with the specific problem of mass poverty in Pakistan, taking into account the absolute levels. The study, done by Naseem, analyses consumption expenditure of the masses by making use of the *Household Income and Expenditure Survey* [9] data for the years 1963-64, 1966-67, 1968-69 and 1969-70. Since then, many changes have occurred in Pakistan's economy as a result of which the per capita GNP declined during the last two years covered by this study, viz. 1970-71 and 1971-72. Since expenditure, as a measure of welfare, may not be very appropriate in a year in which income declines, for part of the expenditure might be financed by dissavings and sales of assets, the analysis for this paper is based on both expenditure and income levels. Moreover, as the estimation of poverty levels, to a great extent, involves, besides other things, value judgement, it is more appropriate to specify a range of income and expenditure values rather than specific values. For this reason, the study makes use of four levels of income and expenditures, instead of the two adopted in Naseem's study [6], below each of which the number of the poor is estimated.

Naseem, in his study [6], has formulated a group-specific Laspeyzer's Price Index to deflate the expenditure data obtained from the *Household Income and Expenditure Survey*. Since Laspeyzer's Index overestimates and Paasche's Index under-estimates the changes in prices, we have used Fisher's Index. In this study, therefore, group-specific Fisher Price Index for the base year 1959-60 has been used to deflate incomes and expenditures.

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<sup>1</sup>Pakistan, in this study, refers to the area contained in the post-1971 boundaries of the country.

## Concepts, Methodology and Data Problems

The term 'poverty' is used as "a negative counterpart" of the term minimum living standards [5] and for this study is defined as "that level of expenditure [and income] that fails to satisfy the minimum needs" [6]. Two measures have been suggested to study the extent of poverty. They depend on ascertaining (i) a consumption basket, which provides the minimum subsistence for a household, the money equivalent of which provides the dividing line between those who are poor and those who are not; and (ii) minimum nutrition required by an individual to stay healthy [14 and 15].

The *Household Income and Expenditure Survey* records data on the basis of two concepts of income and expenditure, viz. household income and household total receipts; and total expenditure and consumption expenditure. The concepts of household income<sup>2</sup> and consumption expenditure are used here since they are better indicators of welfare.

The Central Statistical Office (CSO) has carried out *Household Income and Expenditure Surveys* for the years 1963-64, 1966-67, 1969-70, 1970-71 and 1971-72. The Survey, when first conducted in 1963-64, had a relatively small sample with the result that sampling errors, combined with non-sampling errors, were significant in 1963-64 [2]. Since the size and coverage of data for subsequent years greatly improved, even though the size of the sample does not represent one-tenth of one percent of the country's household [3], the year 1963-64 is by no means a point of comparison for the analysis of the subsequent years. Besides, it is believed that the Survey data greatly underestimate the income shares of higher income groups. As a result, the inequality may be more than what Gini coefficients, estimated on the basis of these data, suggest. In 1971-72, the average size of the households shows a sudden increase. Since the size of the household is determined by factors which change very gradually, it casts serious doubts about the reliability of the Survey data. Also, the Survey data fail to give a breakdown by age, sex, education and regions, so essential for such a study.

The national accounts data [7] were used to check the accuracy of the Survey data [9]. Since the national accounts data do not give breakdowns for rural and urban incomes, their comparison with the Survey data is made only at an aggregate level. Although the Survey data show lower per capita income, the trends in both the national accounts data and the Survey data are the same. A possible reason, as noted by Bergan [2], is that the incomes of the highest income group are underestimated. Azfar [1] has adjusted the Survey data for higher income group upwards by five percent. No such attempt is made in this study since our concern is with the lower income groups. In view of the shortcomings of the Survey data, one is well-advised to be cautious while drawing conclusions from them. The Survey data are used because they are the only data available for a study on poverty.

<sup>2</sup>The analysis based on household total receipts and disposable income has also been carried out and the results, not given here for reasons of space, can be obtained from the author at request.

## Results

As will be noted from the data on per capita and per household income and expenditure, given in Appendix Table I, expenditures, both per household and per capita, have remained somewhat constant over the period 1966-67 to 1971-72 in both rural and urban areas, although they are higher than those in 1963-64.

To estimate the magnitude of poverty, Naseem[6] specified two minimum levels of expenditure necessary for basic needs. For rural areas, in alternative specifications, persons with an expenditure of less than Rs. 250 or Rs. 300 per annum are termed as poor. For urban areas, the corresponding levels of expenditure are Rs. 300 and Rs. 375 per annum per person.

### Rural Poverty

Table I shows the percentages and absolute numbers of people lying below the two poverty levels. Both the percentages and the absolute numbers of persons lying below the poverty line of Rs. 250 per annum have declined considerably between 1963-64 and 1971-72—from 43 percent to 19.9 percent and from 16.53 million people to 8.60 million people. In the second poverty level of Rs. 300 per annum an almost constant 60 percent of the rural population lies below the poverty line, while the absolute number of people has steadily

Table I

*Annual Per Capita Expenditure in Rural Areas at Constant Prices of 1959-60*

Year	Persons with per capita expenditure below Rs. 250 per annum		Persons with per capita expenditure below Rs. 300 per annum	
	As % of Rural Population	Numbers (millions)	As % of Rural Population	Numbers (millions)
1963—64	43.1	16.53	60.5	23.20
1966—67	32.0	13.13	59.7	24.49
1968—69	25.1	10.76	61.5	26.37
1969—70	26.0	11.40	59.7	26.18
1970—71	9.3(6.3) <sup>a</sup> (10.9) <sup>b</sup>	4.15 (4.85) <sup>b</sup>	54.8(54.1) <sup>a</sup>	24.59
1971—72	19.2(19.3) <sup>a</sup> (23.1) <sup>b</sup>	8.82 (10.62) <sup>b</sup>	58.4(58.4) <sup>a</sup>	26.83

Source: [6], [9], [12] and Appendix Table II.

<sup>a</sup>Represents population lying below the expenditure level deflated by Laspeyzer's Price Index.

<sup>b</sup>When per capita expenditure level of Rs. 20.83 p.m. is rounded off to Rs. 21 p.m., a high concentration of population is found in the narrow range of expenditure levels, suggesting that the degree of poverty is very sensitive to the choice of poverty line.

increased. However, there was a slight decline in 1970-71 in both the percentages and the absolute numbers of poor people falling under the two poverty levels. It was believed that the great difference between the results covering the two poverty levels was due to a high concentration of population in the narrow

range of that level [6]. For this reason, poverty was estimated at two different expenditure levels, one slightly below the first level of Rs. 250 per annum and the other slightly above the second poverty level of Rs. 300 per annum (Table II).

Table II  
*Annual Per Capita Expenditure for Rural Areas at Constant Prices  
of 1959-60*

Year	Persons with per capita expenditure below Rs. 225 per annum		Persons with per capita expenditure below Rs. 350 per annum	
	As % of Rural Population	Numbers (millions)	As % of Rural Population	Numbers (millions)
1963-64	26.0	9.97	83.01	31.83
1966-67	15.0	6.15	80.10	32.86
1968-69	10.0	4.19	75.49	31.66
1969-70	*	*	73.27	32.14
1970-71	*	*	81.75	36.70
1971-72	0.2	0.09	87.42	40.16

Source: [6], [9], [12], and Appendix Table II.

An asterisk (\*) represents 'none' or 'negligible'.

As mentioned earlier, the number of persons below the poverty line of Rs. 250 per annum has been declining over time. Table II shows that almost all the poor people lying below this line spent more than Rs. 225 per annum in the years 1969-70 to 1971-72, showing that abject poverty has been declining over the period. On the other hand more than 80 percent of the population lies below the annual expenditure level of Rs. 350 and does not show any trend. Thus, one may conclude that there has been a transfer of the very poor people to slightly less poor group over the time, leaving the relatively better-off groups unaffected.

To obtain a more accurate picture of changes in welfare, the distribution of income is studied in addition to the distribution of expenditure. This enables one to determine the number of persons in both absolute and percentage terms, who cannot afford the minimum expenditures. In Table III, the percentages and absolute numbers of person lying below different levels of income are given.

Below the level of the per capita income of Rs. 250 per annum, which corresponds to the first poverty level, the percentage of poverty-stricken people has declined from 56.47 (i.e. 21.66 million people) in 1963-64 to 28.56 (i.e. 12.83 million people) in 1970-71, but rose again to 41.56 (i.e. 19.10 million people) in 1971-72. In the upper poverty level of the per capita income of Rs. 300 per annum, the percentage has remained more or less constant around 60 except in 1966-67.

Although there is a declining trend in the absolute numbers and percentages of the persons lying below the two poverty levels in terms of both

Table III

*Annual Per Capita Rural Income at Constant Price of 1959-60*

Year	Persons with per capita expenditure below Rs. 225 per annum		Persons with per capita expenditure below Rs. 250 per annum		Persons with per capita expenditure below Rs. 300 per annum		Persons with per capita expenditure below Rs. 350 per annum	
	As % of rural population	Total Numbers (millions)	As % of rural population	Total Numbers (millions)	As % of rural population	Total Numbers (millions)	As % of rural population	Total Numbers (millions)
1963—64	33.54	12.86	56.47	21.66	67.36	25.83	80.02	30.69
1966—67	15.58	6.39	30.84	12.65	48.80	20.01	61.41	25.19
1968—69	23.24	9.97	36.86	15.81	63.84	27.37	76.58	32.84
1969—70	20.96	9.19	35.61	15.62	61.08	26.79	81.79	35.87
1970—71	11.62	5.22	28.56	12.82	60.13	26.99	79.15	35.53
1971—72	19.30	8.87	41.56	19.10	64.79	29.77	87.04	39.99

Sources: [9], [12], and Appendix Table II.

income and expenditure, the absolute numbers and percentages of the population lying below these poverty lines in terms of income are much higher than those of their counterparts in terms of expenditure. A comparison of the two analyses suggested that whereas there were no persons spending less than Rs. 225 per annum, there were about 19 percent of the people earning an income of less than Rs. 225 per annum in 1971-72. Similarly, as against 23 percent of the rural population who spent less than Rs. 250 per annum, 42 percent earned less than Rs. 250 per annum. This suggests that there had been a dissaving by the poor persons to meet their minimum needs. Although the proportion of the poor persons has declined, almost half of the population does not have the income to buy even the minimum requirements.

Table IV shows the annual mean and median incomes of rural households and population. The per capita mean income has shown a steady, although slight, increase since 1966-67 even though it remained well below that in 1963-64; however it declined in 1971-72. The percentage of population earning less than the per capita mean income has also shown a steady increase over the years.

The household mean income declined between 1963-64 and 1968-69 and then gradually increased in the later years. The percentage of households receiving less than the mean household income shows the same trend as that observed for per capita mean income. Per household and per capita median incomes show a steady increase since 1966-67 but are much below those of 1963-64. However, the per capita median income declined slightly in 1971-72. All this shows that the poverty, if not decreased, has not increased either over the time.

Table V shows the concentration ratios of real income and consumption expenditure for households and population.

The concentration ratios of expenditure for both households and population have declined since 1963-64. However, they increased slightly for households in 1971-72 and for population in 1970-71 and 1971-72. As no statistical method is available to test the significance of differences in the Gini coefficients over time, simple observation shows an almost constant coefficient over the years. The slight differences may, however, be due to irregularities found in the data. So the only safe conclusion that can be drawn is that inequality has not increased.

### **Urban Poverty**

In urban areas, real incomes and expenditures have gradually increased since 1963-64 for both households and individuals. As in the case of rural areas, urban poverty was estimated at two (albeit slightly higher) levels of per capita real income and expenditure of Rs. 300 and Rs. 375 per annum.

Table IV

*Annual Mean and Median Incomes of Rural Households and Population at Constant Prices of 1959-60*

Year	Annual Mean Income				Annual Median Income	
	Per Capita Income	% of Rural Population with less than the mean Income	Per Household Income	% of Rural Households with less than the mean Income	Per Capita Income	Per Household Income
	(Rs)		(Rs)		(Rs)	(Rs)
1963—64	385.44	67.25	2120.16	71.49	304.92	1416.00
1966—67	301.92	69.08	1724.40	72.36	266.88	1180.32
1968—69	310.80	71.77	1678.32	82.34	269.16	1213.08
1969—70	315.00	70.51	1695.12	70.90	277.32	1225.84
1970—71	326.28	71.49	1696.56	69.81	281.04	1246.23
1971—72	313.20	72.41	1816.32	71.53	269.04	1279.32

Source: [9] and [12].

Table V

*Gini Coefficients for Income and Consumption Expenditures of Rural Households and Population*

Year	Households		Population	
	Income	Expenditure	Income	Expenditure
1963—64	.3485	.2988	.2308	.1660
1966—67	.3300	.2985	.1991	.1511
1968—69	.2934	.2617	.1587	.1239
1969—70	.2910	.2620	.1616	.1218
1970—71	.2908	.2603(.2569)	.1474	.1263(.1120)
1971—72	.3095	.2730(.2741)	.1660	.1272(.1720)

Source: [6] and [9].

Note: Figures in brackets represent Gini coefficients derived by using Laspeyer's Price Index, formulated by the method suggested in [6, p. 321].

Table VI shows the results on urban poverty, which are similar to those for the rural areas. Under the first poverty level of Rs. 300 per annum, the percentage as well as absolute numbers of people declined sharply from 54.8 percent (or 6.55 million people) in 1963-64 to 24.37 percent (or 4.27 million people) in 1971-72. However, during 1970-71 both the percentage and absolute numbers of people had slightly increased over those for the previous years, due to a slight fall in their expenditure (Appendix Table II). Below the

Table VI

*Annual Per Capita Urban Expenditure at Constant Prices of 1959-60*

Year	Persons with per capita expenditure below Rs. 300 per annum		Persons with per capita expenditure below Rs. 375 per annum	
	Percentage of Urban Population	Total Numbers (Millions)	Percentage of Urban Population	Total Numbers (Millions)
1963—64	54.8	6.55	70.0	8.37
1966—67	47.0	6.47	59.3	8.17
1968—69	34.7	5.59	57.9	8.75
1969—70	25.0	4.27	58.8	9.30
1970—71	27.47	4.54	59.26	9.84
1971—72	(26.4) <sup>a</sup>	(4.39) <sup>a</sup>	(57.16) <sup>a</sup>	(9.48) <sup>a</sup>
	24.65	4.27	62.81	10.93
	(22.7) <sup>a</sup>	(3.94) <sup>a</sup>	(59.24) <sup>a</sup>	(10.31) <sup>a</sup>

Source: [6], [9], [12], and Appendix Table II.

<sup>a</sup>Figures in parentheses are obtained by deflating the expenditure data by Laspeyer's price index, formulated by using the method given in [6, p. 321]. They show that there is an under-estimation of the poverty-stricken people.



second poverty level, the percentage of population has shown a decline from 70 in 1963-64 to 57.9 in 1968-69. Later, the percentage showed an increase, reaching 62.81 in 1971-72. The absolute number of population, however, showed a steady increase after 1963-64.

As in the case of rural areas, there has been a transfer of poor people from the lower income groups to slightly higher income groups in urban areas (Table VII).

Table VII  
Annual Per Capita Expenditure in <sup>Urban</sup>~~Rural~~ Areas at Constant Prices  
of 1959-60

Year	Persons with per capita expenditure below Rs. 250 per annum		Persons with per capita expenditure below Rs. 400 per annum	
	Percentage of Urban Population	Total Numbers (Millions)	Percentage of Urban Population	Total Numbers (Millions)
1963-64	9.01	1.08	74.02	8.85
1966-67	6.88	0.95	63.40	8.73
1968-69	3.22	0.49	67.85	10.26
1969-70	3.66	0.58	68.06	10.78
1970-71	2.10	0.35	67.62	11.22
1971-72	2.63 (3.63)*	0.46 (0.63)*	70.18	12.21

Source: [9], [12] and Appendix Table II.

\*Rounding off of Rs. 20.83 per month to Rs. 21.00 per month reveals great concentration of population in that narrow range.

At an expenditure level of Rs. 250 per annum the percentage of poor people has steadily declined from 9.01 in 1963-64 to 2.63 in 1971-72, while at a higher level of Rs. 400 per annum the percentage of population, although below that of the 1963-64 level, has shown an increase, rising from 63.40 in 1966-67 to 70.18 in 1971-72. Appendix Table II shows the per capita expenditure of different percentile groups of urban population. It shows that the lower half of the population has experienced an increase in its expenditures. Although there was a slight decline in 1971-72 over the 1970-71 levels, the expenditure level in 1971-72 is higher than the corresponding 1963-64 level.

The absolute numbers and percentages of urban population under different income levels show the same trends as those observed under corresponding expenditure levels, and are shown in Table VIII.

Table VIII

*Annual Per Capita Urban Income at Constant Prices of 1959-60*

Year	Persons below per capita expenditure of Rs. 250 per annum		Persons below per capita expenditure of Rs. 300 per annum		Persons below per capita expenditure of Rs. 375 per annum		Persons below per capita expenditure of Rs. 400 per annum	
	Percentage of Urban Population	Total Numbers (millions)	Percentage of Urban Population	Total Numbers (millions)	Percentage of Urban Population	Total Numbers (millions)	Percentage of Urban Population	Total Numbers (millions)
1963—64	13.68	1.64	49.56	5.92	70.95	8.49	77.19	9.23
1966—67	21.28	2.93	43.85	6.04	61.69	8.49	68.00	9.36
1968—69	12.12	1.83	32.55	5.67	60.48	9.14	68.84	9.36
1969—70	6.85	1.08	29.65	4.69	60.17	9.53	67.63	10.76
1970—71	7.09	1.18	30.76	5.12	59.56	9.88	67.27	11.16
1971—72	8.46	1.47	26.96	4.69	62.41	10.86	69.27	12.04

Source: [9], [12], and Appendix Table II.

The percentages of population below the levels of per capita incomes of Rs. 300 and Rs. 375 per annum show results similar to those obtained using the corresponding expenditure levels. The percentage and the absolute numbers of people below the lower poverty level of Rs. 300 per annum have steadily declined while the percentage of population below the second poverty line of Rs. 375 per annum has remained almost constant around 60, considerably lower than the 1963-64 level of 70 percent. At an income level of Rs. 250 per annum slightly below the first poverty level, the percentage of population has shown a steady decline, parallel to that of the corresponding expenditure levels. Thus, except for the level of Rs. 250 per annum below which the percentage of population is larger on the basis of income than on that of expenditure, the percentages for both the measures are the same. However, at almost all levels these percentages have increased for 1971-72 over those of 1970-71.<sup>3</sup>

Table IX shows mean and median incomes of households and population for urban areas.

It will be noted that while the percentage of urban population involved has remained more or less constant around 80 percent, the per capita mean income has been increasing rather steadily. The annual per capita median income steadily increased from Rs. 282 in 1963-64 to Rs. 348 in 1971-72. The household median income showed an almost similar steady increase between 1963-64 and 1971-72, the only difference being that in one year, viz. 1966-67, it fell below that of 1963-64.

Table X shows the Gini coefficient of real income and consumption expenditure for urban population and households.

It will be noted that Gini coefficients do not show any discernible trend, and that urban inequality appears to have remained constant. However, the Gini coefficients are greater for both households and population in urban areas than for those in rural areas, implying greater inequality in the urban sector.

Keeping in mind the great limitations of the data, it is extremely difficult to draw any definite conclusions about the magnitude of poverty and the extent of inequality. However, it can be very safely concluded that both the percentages and absolute numbers of the poverty-stricken people have been falling, especially in the lower poverty levels in both urban and rural sectors. The decline in the percentage of the poverty-stricken people between 1963-64 and 1971-72 has been greater in urban areas (33.1 percent) than in rural areas (24.4 percent). Under the second poverty level, while the rural poor seem to have remained more or less at the same level of around 60 percent, the urban poor actually declined by about 10 percent between 1963-64 and 1970-71. But, because of an increase in the numbers and percentages of the poor people in 1971-72, the decline amounts to 5.44 percent over the period between 1963-64 and 1971-72.

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<sup>3</sup>This is probably due to inflationary trends observed in 1971-72, which wiped off the effects of the increased wage introduced in 1968 and which had some levelling effects in 1970-71.

Table IX

*Annual Mean and Median Incomes of Urban Households and Population at Constant Prices of 1959-60*

Year	Annual Mean Income				Annual Median Income	
	Per Capita (Rs)	Percentage of urban popula- tion with less than the mean income	Per Household (Rs)	Percentage of urban house- holds with less than the mean income	Per Capita (Rs)	Per Household (Rs)
1963—64	421.56	73.68	2487.36	72.43	281.64	1573.92
1966—67	430.08	77.52	2408.04	80.52	337.80	1456.92
1968—69	444.60	79.52	2489.64	74.87	345.36	1599.72
1969—70	451.20	78.72	2483.16	74.49	347.88	1659.72
1970—71	446.04	77.27	2453.28	74.11	345.96	1668.12
1971—72	453.00	78.87	2658.72	76.68	348.24	1790.40

Source: [9], [12] and Appendix Table I.

Table X

*Gini Coefficients of Incomes and Consumption Expenditure for Urban Households and Population*

Year	Gini Coefficient			
	Household		Population	
	Income	Expenditure	Income	Expenditure
1963—64	.3742	.3307	.2559	.2126
1966—67	.3934	.3713	.2802	.2420
1968—69	.3807	.3610	.2619	.2428
1969—70	.3672	.3518	.2577	.2414
1970—71	.3625	.3368(.3309)	.2409	.2093(.2037)
1971—72	.3816	.3502(.3416)	.2548	.2173(.2063)

Source: [6] and [9].

Note: Figures in parentheses are the concentration ratios derived by deflating the data with Laspeyres's Price Index as suggested by Naseem [6, p. 321].

**Nutritional Intakes**

The nutritional requirement recommended in the Fourth Plan is 2,350 calories per person per day [13]. Other agencies have estimated the calorie requirements to be much higher, viz. between 2,500 and 3,000 calories per person per day [4, 6 and 11]. However, for this study, calorie requirement is estimated by taking into consideration the sex and age distribution of the population and amounts to about 2,580 calories per person per day.<sup>4</sup> In Table XI, the average calorie intake for both rural and urban areas of Pakistan is presented along with the calorie intake of people lying below the first poverty line in both sectors.

It is obvious that calorie intake is much below the required level in both the sectors and has remained almost constant over time, around 1,700 calories per person per day in urban areas, whereas in the rural areas the daily per capita calorie intake was around 2,000 calories, which shows a slightly declining trend. In rural areas, the calorie intake has gone down from 1988 calories per person in 1963-64 to 1898 calorie per person daily in 1971-72. It will be recalled that it is the same year in which the per capita income went down considerably. The percentage of calories derived from foodgrains has remained almost constant over the years—around 83 percent in the rural areas and 80 percent in the urban areas.

<sup>4</sup>The minimum calorie requirements were calculated taking into account the age and sex distribution of population. For this reason, calorie requirement of different age and sex groups [12] were weighted with the Percentage of population (male and female) in each age group. It was thus that a minimum calorie requirement for the economy as a whole was obtained.

Table XI

*Daily Per Capita Calorie Intakes in Rural and Urban Areas*

Year	Average Calorie Intake		Average Calorie Intake by the poor lying below Rs. 250 per annum in Rural Areas and below Rs. 300 per annum in Urban Areas		Population below the Poverty Level of Rs. 250 per annum in Rural Areas and Rs. 300 per annum in Urban Areas	
	Total	Percentage derived from Cereals	Total Calories	Percentage derived from Cereals	Percentage of Population	Total Numbers (Millions)

*Rural Areas*

1963—64	1988	86.8	1897	90.4	43.1	16.53
1968—69	1974	83.4	1857	87.1	25.1	10.76
1969—70	1983	82.9	1815	84.8	26.0	11.40
1970—71	1950	82.8	1810	87.5	9.25	4.15
					(10.87) <sup>a</sup>	(4.85)
1971—72	1898	83.3	1736	85.7	19.19	8.82 <sup>a</sup>
					(23.11) <sup>a</sup>	(10.62) <sup>a</sup>

*Urban Areas*

1963—64	1731	84.0	1595	85.9	54.8	6.55
1968—69	1713	80.8	1664	83.3	34.7	5.69
1969—70	1707	80.6	1691	83.1	25.0	4.27
1970—71	1734	80.7	1681	84.5	27.5	4.54
1971—72	1702	80.2	1614	84.0	24.7	4.27

Source: [6], [9], [12], Tables I, VI, and Appendix Tables III-A and III-B.

<sup>a</sup>Rounding off Rs. 20.83 per month to Rs. 21.0 per month reveals great concentration of population in that narrow range.

The calorie intake of persons lying below the poverty line of per capita expenditure of Rs. 250 per annum (i.e., Rs. 20.80 per month) in rural areas and Rs. 300 per annum (i.e. Rs. 25.00 per month) in urban areas declined in 1971-72. In rural areas, their per capita nutritional intake was about 1,897 calories per day in 1963-64, which steadily declined to 1,736 calories per person per day in 1971-72. In urban areas, the number of poor persons declined slightly due to an increase in real incomes and expenditure. As a result, their calorie intake also increased from 1,595 calories in 1963-64 to 1,691 calories in 1969-70 but declined slightly to 1,686 calories in 1970-71 and 1,614 calories in 1971-72. In both the rural and urban areas the percentage of calories derived from cereals remained more or less constant over the years.

The daily per capita calorie intakes by different income groups for the years 1970-71 and 1971-72 are shown in Appendix Tables III-A and III-B. The percentage of calories derived from cereals and foodgrains declines in both the sectors as one moves up the income scale. In urban areas this percentage has declined over the years for lower income groups but has increased for upper income groups.

It is clear from the above that both the sectors are faced with the problem of nutritional deficiency, aggravated by a rapid increase in the population. However, this problem is much more serious in urban areas where all the income classes above the two poverty levels suffer from this deficiency, even with due allowances made for non-major food items.<sup>5</sup> Also, unlike that in rural areas, the relationship between calorie intake level and income levels is not direct in urban areas, especially among higher income groups which spend greater proportions of their incomes on items other than food to maintain a particular standard of living.

### Conclusions

Besides updating Naseem's study, this study measures poverty not only in terms of real consumption expenditure (as was done by Naseem) but also in terms of real income. The use of income levels has shown that the problem of poverty is much more severe than that portrayed by an analysis based on expenditures only. A comparison of the two measures suggests that there is a perpetual dissaving in the lower income groups. However, one may wonder how the lower income groups can go on financing their expenditures over and above their incomes. Besides the limitations of the data stemming from the fact that the people in general tend to understate their incomes and overstate their expenditures, it is just possible that people move from one group to another over time. The study confirms Naseem's result that the poverty at the lowest level is declining over time. This study, which employs four poverty levels, has further shown that the decline in poverty is really moving from a very low income/expenditure group to slightly higher income/expenditure group. The study shows that the use of Fisher's index, though theoretically superior to both Laspeyer's and Paasche's indices does not make much difference. Thus, Naseem's analysis, based on Laspeyer's index, holds good. Comparing rural and urban poverty, one finds that under the second poverty level there is a faster decline in the percentage of the urban poor than in that of the rural poor. The analysis based on calorie intake suggests that there is a serious nutritional deficiency in both urban and rural areas. One may thus conclude that although over time there has been some decline in the number of very poor people, in general poverty is widespread and people are undernourished.

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<sup>5</sup>Since these figures are only for 14 major food items, the actual intake is likely to be higher. Therefore, the calorie intakes were estimated at (a) 10 percent and (b) 15 percent more than the total. For urban areas at 10 percent increase it still remained below the required level. At 15 percent it reached round about 2,350 calories per person per day on the average for all income classes, which is 530 calories per person daily below our estimate of minimum calorie requirements.

Appendix Table I

*Income and Expenditure (Per Household and Per Capita) Based on Household Survey, at Constant Prices of 1959-60*

(In Rupees)

Year	Per Household			Per Capita		
	Rural	Urban	Total	Rural	Urban	Total
<i>Income</i>						
1963—64	176.68	207.28	181.44	32.06	35.18	32.45
1966—67	143.70	200.67	160.30	25.66	35.83	28.09
1968—69	139.86	207.46	154.55	25.90	37.05	28.64
1969—70	141.28	206.93	153.30	26.66	37.63	29.32
1970—71	141.38	204.44	158.86	27.19	37.17	19.97
	(141.89) <sup>a</sup>	(208.35) <sup>a</sup>		(27.29) <sup>a</sup>	(37.88) <sup>a</sup>	
1971—72	151.36	221.56	170.85	26.10	37.55	29.46
	(152.27) <sup>a</sup>	(154.49) <sup>a</sup>		(26.25) <sup>a</sup>	(38.28) <sup>a</sup>	
<i>Consumption Expenditure</i>						
1963—64	144.18	188.52	152.28	26.16	31.99	27.23
1966—67	153.12	202.22	164.73	27.34	36.01	32.31
1968—69	140.95	202.43	154.16	26.10	36.15	28.55
1969—70	144.57	200.66	156.25	27.28	36.49	29.50
1970—71	143.34	199.19	159.05	27.57	36.22	30.01
	(143.85) <sup>a</sup>	(203.01) <sup>a</sup>		(27.67) <sup>a</sup>	(36.91) <sup>a</sup>	
1971—72	153.58	214.87	170.79	26.37	36.42	29.45
	(154.49) <sup>a</sup>	(219.04) <sup>a</sup>		(26.53) <sup>a</sup>	(37.12) <sup>a</sup>	

Source: [6] and [9].

<sup>a</sup>Figures in brackets represent real income and expenditure deflated by Laspeyer's Price Index as suggested in [6, p. 321].



Appendix Table II  
Annual Per Capita Expenditure for Rural and Urban Population of Pakistan at Constant Prices of 1959-60

Population Percentages	Annual Per Capita Expenditure											
	Rural Population						Urban Population					
	63-64	66-67	68-69	69-70	70-71	71-72	63-64	66-67	68-69	69-70	70-71	71-72
5	192.0	—	229.2	—	—	243.6	249.6	222.0	254.4	252.0	260.9	254.9
					(278.0)	(239.4)					(269.6)	(261.2)
10	205.2	198.0	234.0	258.0	250.9	245.8	250.8	244.8	273.6	264.0	279.6	265.0
					(254.4)	(243.1)					(287.4)	(268.6)
20	222.0	240.0	244.8	258.0	263.5	250.1	254.4	252.0	300.0	280.8	290.6	285.2
					(266.5)	(250.8)					(294.4)	(291.6)
30	232.8	247.2	256.8	259.2	247.1	256.3	268.8	300.0	306.0	294.0	305.5	317.6
					(156.7)	(260.3)					(308.6)	(340.8)
40	244.8	258.0	270.0	270.0	218.4	262.7	283.2	313.2	328.8	318.0	326.4	335.9
					(283.6)	(269.8)					(333.0)	(352.8)
50	271.2	274.8	278.4	288.0	291.5	282.7	300.0	330.0	350.4	352.8	349.8	350.4
					(293.0)	(285.8)					(356.2)	(355.7)
60	304.8	297.6	288.0	307.2	309.2	301.6	318.0	372.0	373.2	374.4	377.2	369.6
					(310.0)	(301.6)					(384.4)	(376.7)
70	319.2	328.8	321.6	324.0	323.6	311.6	367.5	408.0	402.0	402.0	406.6	399.2
					(324.1)	(811.2)					(415.0)	(404.2)
80	330.0	369.6	355.2	334.8	342.8	327.8	440.4	456.0	450.0	447.1	451.9	446.3
					(342.4)	(327.2)					(466.3)	(443.6)
90	420.0	418.8	379.2	394.8	384.1	354.1	535.2	580.8	552.0	571.2	527.4	500.6
					(383.3)	(376.3)					(530.0)	(473.8)
100	962.4	1663.2	1651.2	1155.8	1198.4	1260.1	1002.0	2328.0	2856.0	2361.6	2345.8	2170.9
					(1199.0)	(1257.4)					(2341.7)	(2168.4)

Source: [6] and [9].

## Appendix Table III-A

## Daily Per Capita Calorie Intake by Different Income Groups, 1970-71

Monthly Income Groups (Rupees)	Daily Per Capita Calorie Intake								
	Rural Areas			Urban Areas			Pakistan		
	Total calories	Calories derived from cereals	Percentage of calories derived from cereals	Total calories	Calories derived from cereals	Percentage of calories derived from cereals	Total calories	Calories derived from cereals	Percentage of calories derived from cereals
All groups	1949.67	1614.28	82.80	1733.92	1399.12	80.69	1885.87	1559.86	82.71
Less than 50	1999.38	1763.45	88.20	1396.59	1237.66	88.62	1911.04	1688.77	88.34
50— 99	1810.17	1583.01	87.45	1724.49	1498.51	86.90	1799.56	1574.47	87.49
100— 149	1841.23	1563.54	84.92	1777.64	1501.52	84.47	1831.44	1554.85	84.90
150— 199	1859.93	1560.60	83.91	1686.23	1424.71	84.49	1831.87	1534.45	83.78
200— 249	1958.47	1611.26	82.27	1669.52	1376.13	82.43	1890.40	1555.70	82.29
250— 299	1968.00	1618.81	82.26	1713.56	1405.48	82.02	1903.54	1563.25	82.12
300— 399	2054.82	1665.67	81.06	1738.85	1399.52	80.49	1955.24	1580.96	80.86
400— 499	2105.32	1690.23	80.28	1745.36	1380.92	79.12	1951.50	1558.99	79.89
500— 749	2176.77	1733.09	79.62	1798.82	1392.01	77.38	1987.08	1545.39	77.77
750— 999	2522.77	1962.28	77.78	1787.51	1322.06	73.96	2155.99	1641.08	76.12
1000—1499	4271.22*	2377.90	79.09	1785.67	1244.98	69.72	2563.87	1918.41	74.82
1500—1999	2113.77	1484.94	70.25	1980.09	1324.20	66.88	2071.31	1414.61	68.30
2000 and above	—	—	—	1985.17	1225.48	61.73	2009.53	1225.48	60.98

Source: [9] and [12].

\*The Survey shows excessive consumption for this group in rural areas.

Note: (a) Total Calories calculated from intakes of 13 major food items.

(b) Cereals include only 4 items.

Appendix Table III-B

Daily Per Capita Calorie Intake by Different Income Groups, 1971-72

Monthly Income Groups (Rupees)	Daily Per Capita Calories Intake								
	Rural Areas			Urban Areas			Pakistan		
	Total calories	Calories derived from cereals, pulses, etc.	Percentage of calories derived from cereals	Total calories	Calories derived from cereals, pulses, etc.	Percentage of calories derived from cereals	Total calories	Calories derived from cereals, pulses, etc.	Percentage of calories derived from cereals
All groups	1898.13	1581.55	83.32	1701.82	1364.32	80.17	1848.59	1537.24	82.62
Less than 50 ✓	1687.36	1531.36	90.77	1873.87	1616.27	86.25	1707.40	1541.79	90.30
50—99 ✓	1642.24	1417.94	86.34	1584.83	1371.09	86.51	1631.71	1408.11	86.30
100—149 ✓	1736.39	1488.41	85.72	1675.63	1431.31	85.42	1729.42	1481.77	85.68
150—199 ✓	1811.53	1539.78	85.00	1613.68	1355.99	84.03	1787.07	1511.53	84.58
200—249 ✓	1850.77	1532.93	82.83	1671.92	1374.81	82.23	1751.57	1439.26	82.17
250—299 ✓	1892.07	1560.32	82.47	1730.10	1422.78	82.24	1850.59	1526.68	82.50
300—399 ✓	1985.27	1641.10	82.66	1658.38	1333.66	80.42	1882.43	1545.51	82.10
400—499 ✓	2074.85	1680.34	80.99	1705.06	1366.82	80.16	1939.06	1562.73	80.59
500—749 ✓	2334.34	1899.54	81.37	1691.44	1307.30	77.29	2035.63	1623.08	79.73
750—999 ✓	1911.73	1505.56	78.75	1835.44	1379.30	75.15	1872.68	1442.49	77.04
1000—1499 ✓	2383.96	1800.08	85.51	1938.89	1406.29	72.53	2125.44	1573.15	74.02
1500—1999 ✓	5256.52*	4323.18	82.24	1991.73	1347.83	67.67	2830.48	2110.46	74.56
2000—above	3871.25	2913.58	75.26	2178.68	1382.81	63.47	2992.21	2119.31	70.81

Source: [9] and [12].

\*The Survey shows excessive consumption for this income group in rural areas.

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