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TREND OF REAL INCOME OF THE RURAL POOR IN EAST
PAKISTAN, 1949-66: -- AN INDIRECT ESTIMATE

By

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S. R. Bose*

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"Diminishing inequalities in the distribution of income" is one of the professed objectives of Pakistan's Third Five-Year Plan [21 p-40]. This objective implies both an absolute and a relative improvement in the income level of the poorer sections of population. The two studies which are known to have been made on income distribution in Pakistan do not cover enough ground to indicate whether this was achieved in the past: The study by Mrs. Haq [10] is limited to personal income distribution in the high-income brackets (income tax payers) in urban areas for the period 1948-49 to 1960-61, and that by Bergan [1] although comprehensive, refers to a single year 1963-64.

It is, however, generally held that Pakistan's pattern of development has generated increasing income inequalities among classes (and also between the two Wings). The development strategy has placed major reliance on private enterprise and sought to generate a higher saving rate through redistributing income in favour of those groups whose saving rates are considered to be relatively high.

* The author is grateful to Professor Moshonaff Hussain, Department of Economics, Rajshahi University, for kindly letting him access to some unpublished data collected through a survey conducted under the auspices of the University.

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This has meant an increasing concentration of income in the hands of a small group of wealthy industrialists. Apparently some non-industrial groups also experienced large increases in their incomes. One cannot even exclude the possibility that the process of economic development redistributed income in such a way and to such an extent that the bottom group (say, the quartile) in the income scale has become absolutely poorer while per capita income of the population as a whole increased.

About two years ago Griffin [8] suggested, on the basis of some important although inadequate data, that the real income of Pakistan's rural population declined from 1949/50 onwards till the early 1960's whenceforward it gradually rose to the 1949/50 level in 1964/65. Griffin's provocative remarks have not been followed up by any research into the changes over time in the level of real income (consumption) of the poorest sections of society in urban as well as in rural areas^{1/}.

The present writer's efforts to make such an enquiry have been hindered by non-availability of necessary information. This paper, much more restricted in scope than was originally intended, presents the preliminary findings of an attempt to indicate in an indirect way the changes in the level of real income of the bulk of the poorest people in rural East Pakistan from 1949 to 1966. It does not represent a comprehensive study of the intertemporal changes in the inequality of income (consumption) distribution and the levels of living of the various sections of the rural population of East Pakistan. Such a study does not appear to be feasible for lack of

1/ Griffin has been rightly criticised by Bergan [1, p.172] for assuming that agricultural income is the only income that accrues to the rural population. It is, however, very doubtful, if the inclusion of income accruing to rural population for their activities in non-agricultural sectors (if such income could be estimated) would show a rising trend of per capita income in rural areas.

necessary historical data^{2/}.

The Central Statistical Organisations's multipurpose sampling enquiry (National Sample Survey) which collected data on consumption and income of rural households began as late as 1959, and only three rounds (1959, 1960 and 1961) are available. The same enquiry restarted in 1963/64^{3/} and so far only the 1963/64 survey is available. Because of the short period of time covered by these surveys and the admittedly poor quality of the 1959 survey, one cannot use them even for the limited purpose of studying the long-term changes in the income-consumption level of the poorest among rural population. They may, however, be used as evidence of such changes in the early 1960's^{4/}.

Main Hypotheses and Findings

Because of limitations of available data, some indirect and somewhat crude methods are used in this study. Four main hypotheses underlie the statistical computations and their interpretations:

(a) Increase of income of the poorest section of rural population would not take place in the absence of an increase in average income of agricultural population and rural population. (b) Increase in per capita income in agriculture would show up in rising crop yields

2/ Given expenditure distributions (i.e., distributions of persons by total monthly or yearly per capita consumption expenditure, at current prices) relating to different periods, and given the appropriate consumer price indices with which to bring the distributions to some common set of prices, one could attempt an estimate of the intertemporal changes in inequality or level of living. The appropriate consumer price index is unlikely to be the same for all levels of living (income consumption groups). Hence, if the index varies with the level of income or consumption, it would be necessary to work out not a single price deflator but a set of price deflators, one deflator for each income-consumption group for comparing intertemporal changes in levels of living and inequality of expenditure (income) distributions. About the need for a set of deflators see Iyengar and Bhattacharya [12].

3/ It has been renamed "Quarterly Survey of Current Economic Condition" which covers both urban and rural areas.

4/ It has, however, been pointed out by Mahalanobis [16] that frequency distributions in which the class ranges are fixed in terms of money value of per capita expenditure (or income) have limitations for purposes of intertemporal comparisons of levels of living. Even when price changes are corrected by use of the price deflator(s) a fixed range frequency class (income or expenditure) would represent different fractile groups in two or more periods and would not be comparable in any important sense.

- adjusted for land per capita. (c) Those who are agricultural labourers by chief occupation constitute the bulk of the poorest among rural people and any increase in their real income must show up in the movement of real wages which constitute the major part of their income.
- (d) Wage earnings per labourer are not equal to the total or per capita wage income of an agricultural labour family. It is assumed, on the basis of available information on changes in male labour force participation rates and in family size in rural areas, that the number of dependents per wage earner has remained unchanged (if not increased), so that the movement of real wages indicates the trend of per capita wage income of agricultural labour families. In so far as some agricultural labour families possess some land any changes in their income from cultivation would be indicated by changes in crop yield mentioned above.

The estimated movement of per capita rural income, per capita income in agriculture, crop yield, and real wages suggest a decline in real income level of the poorest stratum of rural population in the 1950's and no significant rise in the 1960's.

MOVEMENT OF FACTOR INCOME PER CAPITA IN AGRICULTURE AND IN RURAL AND URBAN AREAS.

We begin with the observation of estimated changes in the income levels of rural, and agricultural population of East Pakistan, and in rural-urban disparity in per capita income. Table 1 presents some estimates of movements of per capita income of agricultural, rural, urban, and total population of East Pakistan. Agricultural stagnation, sluggish industrial development and rapid population growth characterised the economy of East Pakistan in the 1950's. The result has been a decline in East Pakistan's per capita income which had a slight reversal in the early 1960's.

Decline in per capita factor income in agriculture.

The decline in per capita income in the agricultural sector was even more pronounced. The gross value added in agriculture (as estimated by C.S.O. at 1959/60 prices) does not show any significant

trend increase during the period 1949/50 to 1958/59. Only since 1959/60 an appreciable growth is observed. The value added in agriculture in 1959/60 was about 12 per cent higher than that in 1949/50. In the same period both rural and agricultural population increased by about 40 per cent, so that in per capita terms agricultural income declined significantly. In the 1960's the average rate of growth of agricultural production outstripped population growth rate, so that there began an upturn in per capita agricultural income of rural and agricultural population. However the decline in the 1950's has not yet been made good by the rise in the early 1960's.

One would expect that a decline in per capita factor income within the agricultural sector would be accompanied by a similar decline in income of the poorer people in the sector, unless the relative income of these people is sufficiently raised by a change in the distribution of income within the sector. But there appears to be no reason why such a redistribution should have taken place over time in favour of poorer agriculturists and agricultural wage labourers. On the contrary, it is reasonable to maintain as was observed by Papanek [23] that whatever increase in agricultural production occurred in the 1960's has accrued almost entirely to large farmers who could obtain power-pumps and subsidised fertilizers.

There are two more considerations. One is the terms of trade of the agricultural sector, and the other is income earned by agricultural population from subsidiary occupations.

T A B L E I.

PER CAPITA INCOME ESTIMATE FOR EAST PAKISTAN (1959/60 PRICES)

(Except the last Column, all in Rupees)

Period	Gross Provincial Product Per Capita	Agricultural Value added		Per Capita Rural Income	Per Capita Urban Income	Per Capita Rural Income as % of Urban
		Per head of Rural Population	Per head of Agri. Population*			
	1	2	3	4	5	6
1949-50	285	200	228	271	609	44
1950-51	289	201	230	274	619	44
1951-52	290	198		274	634	43
1952-53	292	202		277	619	45
1953-54	295	204		280	615	46
1954-55	282	191	218	265	617	43
1955-56	263	173	197	247	597	41
1956-57	281	189		261	666	39
1957-58	270	178		253	607	42
1958-59	257	165		238	616	39
1959-60	271	177	196	252	618	41
1960-61	279	183	203	259	644	40
1961-62	289	186	207	267	671	40
1962-63	281	176	197	258	696	37
1963-64	305	188	208	279	755	37

Sources:- See Appendix Tables 1 & 2 and explanatory notes.

* Agricultural Population for some years has not been estimated.

This decline in per capita factor income in agriculture is measured in terms of constant agricultural prices of 1959/60. Since the agricultural sector sold a part of its output to other sectors in exchange for certain products, a decline in the prices of these products over time could partly or fully offset the decline in per capita income in the sector measured in the way stated above. There was, however, no such offsetting influence. For one, the proportion of agricultural output sold outside the sector was unlikely to be more than 50 per cent. Secondly, Lewis and Hussain [15] have shown that the terms of trade were actually moving against agriculture in the 1950's, and only in the 1960's there began a reversal of this trend.

It is agricultural output which essentially determines the income level of agricultural population. Inclusion of income earned by agricultural population from subsidiary occupations would only slightly raise the absolute level of per capita income in all years, but would not alter the observed trend over time.

Land per head and trend of rice output per acre.

In the national income accounts prepared by the CSO, agriculture includes fishing and forestry. But outputs of various crops are the most important. One can, therefore, go a step further and see whether changes in land per head and yield per acre appear to support the observed decline in per capita factor income in the agricultural sector. Table 2 shows the changes in net cropped area per head of rural population, and in yield of rice which accounts for well over 50 per cent of the gross value valued in agriculture.

TABLE - 2

East Pakistan: Cropped land per head, and yield per acre

Period (July-June)	(A) Net cropped area per head of: (in acres)			(B)	(C)
	Rural Pop.	Agr. Pop.	Male Agr. Lab. force	Yield of rice per acre (in maunds)	Total agricul- tural value added per acre of net cropped land(1959/ 60 Prices:Rupees)
1948-49				10.8	n.a.
1949-50	0.50	0.57	n.a.	10.3	402
1950-51	0.50	0.57	2.07	10.0	406
1954-55	0.46	0.53	n.a.	9.7	415
1955-56	0.44	0.50	n.a.	8.9	393
1959-60	0.40	0.45	n.a.	10.9	439
1960-61	0.40	0.44	1.74	11.8	460
1961-62	0.39	0.43	n.a.	12.3	478
1962-63	0.38	0.42	n.a.	11.1	463
1963-64	0.37	0.41	n.a.	12.8	503

Sources:- ✓ Net cropped Area, from East Pakistan Bureau of Statistics, Statistical Digest of East Pakistan 1965. Acreage and output of rice, C.S.O. Statistical Year Book 1964.

Labour force from Census of Pakistan 1951 and 1961. For others, same as for Table 1.

There is very little scope of enlarging net cropped area which remained practically the same over the last two decades. Rapid population growth resulted in a decline of net cropped area per head of rural as well as agricultural population. Available information about land use shows that the practice of raising more than one crop from the same land has also not made any appreciable progress, presumably for lack of water in the dry season and other inputs. The yield of rice-the principal crop-remained practically stagnant in the 1950's and began to rise only in the 1960's. The percentage decline in acreage per head was greater than the slight rise in yield. Hence the output of rice per head of agricultural or rural population is lower in the mid-1960's than in the early 1950's.

Rural-Urban disparity in factor income.

We may now turn to the changes in per capita factor income of rural and urban population shown in Table 1. Rural population is larger than agricultural population and total rural factor income is larger than gross value added in agriculture. Rural areas contain almost all of the population engaged in agriculture, and a large part of non-agricultural population. But the weight of non-agricultural income is low, and the trend of rural per capita income is determined largely by the movement of agricultural income. Moreover, in an important sense the volume of many rural based non-agricultural activities - services, trade, transport and processing of agricultural products-is determined largely by the volume of agricultural output. The method of estimation of rural and urban factor income has been discussed in notes following Appendix Table 2. If anything, the estimates of rural income are on the high side.

There has been a trend of decline in per capita rural income from 1949-50 to 1958-59. Although a reversal began from 1959-60, the level was still lower in 1962-63 than in 1949-50; only by 1963-64 it rose slightly above the 1949-50 level. Per capita urban income increased steadily, although slowly, during the entire period. As a result, the rural-urban disparity in factor income per capita has

increased. The ratio of per capita rural income to urban has gone down from 44% in 1949-50 to 37% in 1963/64. This differs from Bergan's [1, p.172] estimate of 50 percent for 1963/64, based on the C.S.O.'s Quarterly Survey [19]. Total population and its rural-urban distribution used in our estimates are practically the same as in Bergan's. These two estimates are not, however, strictly comparable, because Bergan's measure relates to disparity in personal income per capita, while our estimate is based on factor income.

There is also some transfer of factor income between rural households and urban households. Those urban households which receive income remittances from rural areas are usually rich (mainly landlords and businessmen) and those rural households which receive remittances from urban areas are usually poor. If these transfers are taken into account the average per capita factor income accruing to the rural population may not be changed very much. But what is likely is that the income enjoyed by the poorer rural people could be found to be higher when these transfers are taken into consideration. We do not know how much higher, but it is unlikely to be very much. This is because urban employment did not increase fast enough to make such remittances significantly large, while per capita land holding of poorer families declined over time-tending to lower per capita income.

The decline in agricultural value added per head of agricultural population and in per capita rural income indicates, if anything, that the real income of the poorest stratum of rural population declined over time, perhaps quite appreciably. This decline is very likely to show up in the movement of real income of agricultural labourers who constitute a large segment, and are among the poorest, of rural population in East Pakistan. This is considered in the following Section.

WAGES OF AGRICULTURAL LABOURERS - THE POOREST OF THE POOR.

In rural areas income is derived chiefly from agriculture, and therefore, landlessness and extreme poverty go together. Apart from the very small proportion of rural population, whose income is derived from non-agricultural activities such as trade and services the relatively better-off sections have relatively large land-holding. At the lowest rung of the income scale are those with very small or no land holdings, - people whose chief occupation is wage labour on and off the farm in the countryside. These people whose chief occupation is wage labour mainly in agriculture constitute the bulk of the poorest stratum of the rural population, although some small-holders and craftsmen may be equally poor.

All labourers in rural areas are not agricultural worker. Quite a few of them take wage employment in other activities in rural areas such as household work, earth work, wood cutting, trade and transport, not all of which are strictly related to agriculture. But most of the rural labourers are chiefly agricultural labourers some of whom may also be partly employed in non-agricultural activities. The wage rates and conditions of work of agricultural labourers can, therefore, be presumed to indicate the same for all unskilled rural labourers.

Increasing size of landless labour force in agriculture.

Although self-employment far outweighs wage employment in agriculture, and cultivators (owners and tenants) outnumber landless agricultural labourers the latter constitutes a large proportion of the agricultural labour force in East Pakistan. This proportion has been rising over time. Census data show that in the period 1951-61, while agricultural labour force increased by 33.8 per cent the number of landless labourers increased by 63.6 per cent. Its relative importance in agricultural labour force rose from 14 per cent to 17 per cent (Table 3).

The area of cultivated land being practically unchanged, the acreage per head of the agricultural labour force has declined. The land holding per working member of small-owner and tenant families is naturally lower than the average, and the decline in this holding has driven an increasing number of such owners and tenants into the employment market for at least a part of the year (Table 3). Thus the effective supply of man-days seeking employment in agriculture is even greater than is indicated by the increasing number of landless agricultural labourers.

It does not follow however that wage employment in agriculture (or in rural areas in general) increased in the same proportion. Changes in crop production and the increase in the extent of double cropping do not indicate any appreciable increase in the demand for labour in agriculture.

TABLE - 3

COMPOSITION OF AGRICULTURAL LABOUR FORCE BY LAND TENURE AND SEX: EAST PAKISTAN, 1951 & '61

(in millions, except the percentages)

Year	Owning all land tilled	Part owner or fully tenant	owner tenant or full tenant who also works for hire	Landless Agricultural labourers	Total Agr. labour force including others	Landless Agr. labour as % of total
	A	B	C	D	E	F
1951 Both Sexes	3.74	4.96	0.41	1.51	10.72	14.09
Males	3.38	4.67	0.39	1.40	9.90	14.14
1961 Both Sexes	5.01	5.60	1.01	2.47	14.34	17.22
Males	4.74	3.75	0.98	2.33	12.00	19.42
Per cent change						
1951-61 Both Sexes	34.0	12.9	146	63.6	33.8	
Males	40.2	-19.7	150	66.4	21.2	

Sources:- Census of Pakistan 1951
Census of Pakistan 1961

Money wages:

The main sources of current account income of agricultural labour households are presumably (a) cultivation of land if any land is held, (b) agricultural labour, (c) non-agricultural labour and (d) other non-farming activities such as handicrafts. No historical series of income of such households are available. But wage earnings, particularly those in agriculture-are likely to be the most important component of their income, and we shall mainly consider this component.

For agricultural labour families without any land, wages constitute almost the total income. For all agricultural labour families with or without land, sampling enquiries made in India indicate that agricultural wages accounted for 64 per cent and 73 per cent of income of such families in 1950-51 and 1956-57 respectively, and non-agricultural wage earnings were respectively 12 and 8 percent of income in those years [27]. A survey [26] conducted by the Rajshahi University (herein after called the Survey) in East Pakistan for 1965-66 indicate that 52 per cent of such income was derived from wage earnings - agricultural and non-agricultural. This estimate for East Pakistan appears to be low, in view of the high proportion of landless labourers in agricultural labour force as found by the census of Pakistan.

Except for the excellent Report by Darling [2], the conditions of agricultural labourers and wages in Pakistan have remained practically an untouched field. Available statistics are also very scanty and poor in quality. No serious importance is attached to collection of such statistics. At the same time the large number of small employers and the conditions obtaining in subsistence agriculture and rural life in general make the task very difficult. For studying the movement over time of wage earnings of agricultural labourers we had to make do with the little bits of available data.

The only source of historical data on agricultural wages in East Pakistan is the Directorate of Agriculture, East Pakistan. This directorate prepares a Weather and Crop Report [5] for

every week or every month, which is published in the supplement to the Dacca Gazette. It reports the daily wages in money for every week or month in each district of East Pakistan. The series is available from 1948 onwards. The reported wage rate for each district is based on an unweighted average of the rate obtaining in the sub-divisions of the district. The wage rate in each sub-division is reported on the basis of 'random' queries by agricultural officers to a few local farmers, and is not weighted by man-days employed during the week or the month.

Even if it is assumed that the Directorate reports exactly what the farmers state and that the latter's statement is factual, there are several deficiencies of these wages data. They arise from the prevalence of wage payment in cash-cum-kind, inter-area differences in wage rates even in a sub-division, and seasonal fluctuation in employment.

Consider first the method of wage payment in agriculture. Payment of wages in money is not universal in East Pakistan's agriculture. As Darling and Habibullah [2; 9] have found, although wage payment in money is much more prevalent in some cases wages are paid partly in money and partly in kind; e.g., one or two meals a day plus some money. However imperfect it may be, there is a market^{for}/agricultural labour in the countryside, where the forces of supply and demand determine the wage rate. One may reasonably assume that in any area where the two systems prevail, they would behave in the same manner under the impact of the same forces. When the rural economy is being increasingly monetised, the movement of cash wages is likely to set the face for wage payment in kind, though the latter may be somewhat more sticky than the former. Therefore, it will not be unrealistic to assume that in any small area the purely cash wage rate will be approximately equal to the cash-cum-kind wage rate expressed in money. Further, this agricultural wage rate is likely to approximate the prevailing wage rate for the general run of rural unskilled

But even if a sub-division or a district is considered fairly homogeneous, inter-district wage differences introduce real difficulties. An estimated daily wage for East Pakistan during any week or month based on a simple average of daily wages in the constituent districts hardly gives a satisfactory description of reality. The minimum adjustment one should make is to weight the wage rate in each district during any month by the number of man-days of agricultural wage labour employed in that district. But this information is not available. Nor do we know the population or the number of landless agricultural labourers in each district for most of the years. We have, therefore, made a simple average of daily wage rates in districts to obtain the daily wage rate for East Pakistan for each month. This provincial daily wage rate for each month is then adjusted for seasonal variations in wage-employment in agriculture. As estimate of the number of days an agricultural labourer in East Pakistan gets wage-employment in each calendar month of the year has been obtained from a sub-sample of the Survey. These have been used for all years to estimate the average labourer's daily wage rate, and total wage-earnings per year.

So far as the estimated yearly wage earnings over time are concerned, these involve the implicit assumption that the seasonal pattern and total days of wage-employment per year did not change over time in the relevant period. So far as the estimated daily wage rates for each year are concerned the implicit assumption is only that the seasonal pattern of wage-employment did not change over time.

It is not unreasonable to assume that the seasonal pattern of wage-employment has not changed in any significant way in the last twenty years. The cropping pattern has remained unchanged, practice of double-cropping has not extended very far, and non-agricultural employment creation particularly in rural areas has not been large enough to disturb the traditional seasonal pattern of agricultural employment. However, it is possible and even likely that there has been a decline over time, in the quantum of employment per agricultural labourer, chiefly because agriculture remained

practically stagnant while rural population grew fast. Therefore, the assumption of un-changed annual wage-employment per labourer perhaps gives an over estimate of annual wage-earnings per labourer in the later years as compared with those in the earlier years.

With these adjustments, the average annual wage-earnings per labourer and the daily wage rates for the years 1948-60 are presented in Table 4 which also shows the unadjusted daily wage rates.

It should be mentioned here that nominal wage rates reported by the Directorate of Agriculture, East Pakistan for the early 1950's are corroborated by the evidence of Darling [2] who obtained some first-hand information on daily wages in various parts of the province. However, the officially reported wage rates for the 1960's are considerably higher than the rates reported to the present author by quite a number of people who are supposed to have first-hand knowledge of the situation in rural areas. Moreover, the sub-sample of the Survey shows that the daily wage rate during 1965-66 was about Rs. 1.75 which is much lower than that reported by the Directorate. On the other hand it has been reported by PARD and Rahman [22; 24] that average daily wage rate during January-June of labourers employed in the Rural Works programme were Rs. 1.50 in 1962, Rs. 2.00 in 1963 and Rs. 2.40 in 1964, which are more in line with the agricultural wage rates reported by the Directorate of Agriculture. One may, however, still suspect that the wage rates reported by the Directorate are over-estimates, in which case our estimates of real wages will be higher than actuals.

TABLE - 4

Wages of Agricultural Labourers in East Pakistan*

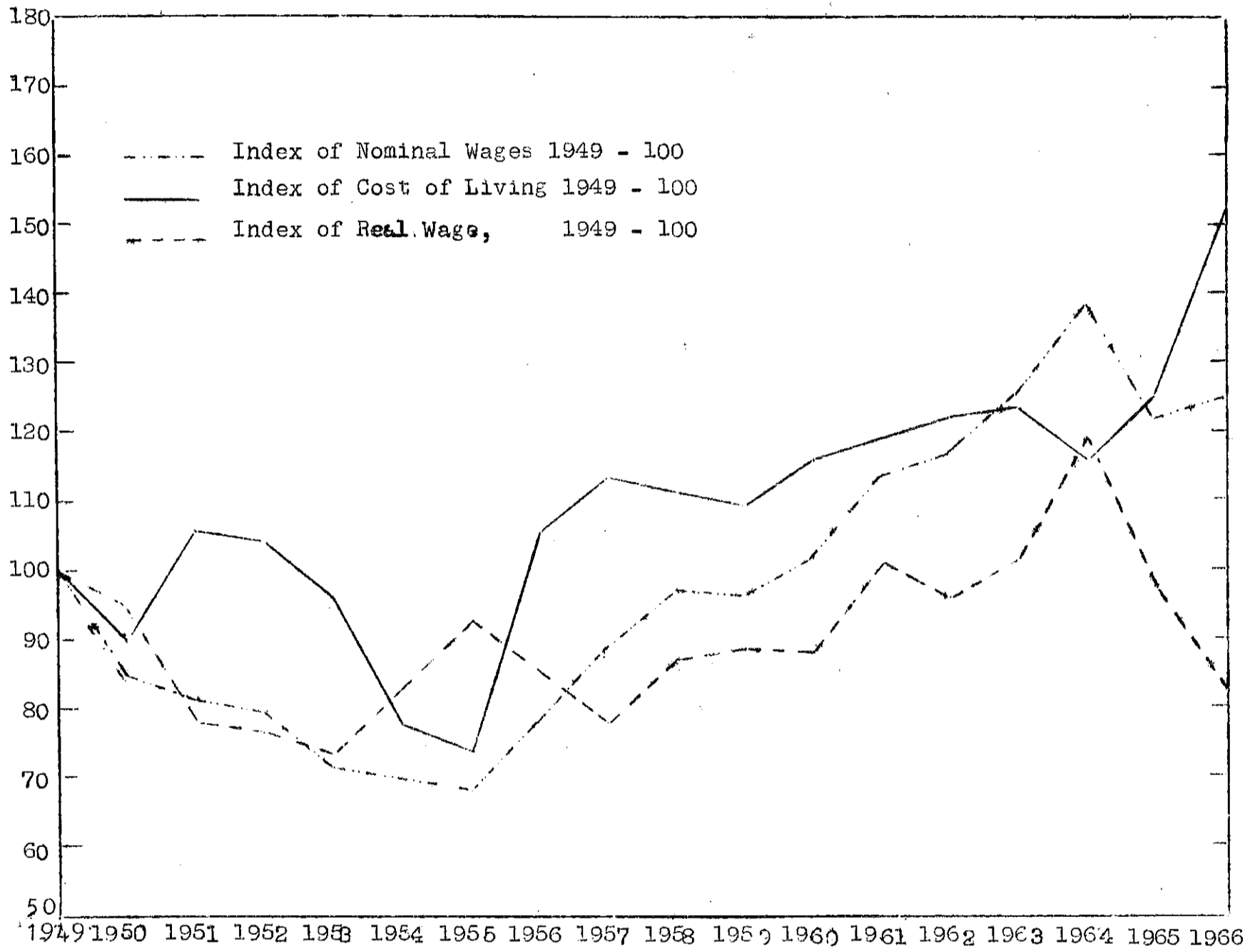
(Rupees per worker)

Y e a r	Nominal Wages		Real Wages based on 1949 Cost of Living Index		Real Wages based on 1966 Cost of Living Index	
	Daily	Yearly	Yearly	Index	Yearly	Index
1948	1.79 (1.81)	463	n.a.	n.a.	n.a.	n.a.
1949	1.92 (1.92)	497	497	100.0	697	112.1
1950	1.62 (1.62)	419	471	94.8	666	107.1
1951	1.55 (1.56)	402	386	77.7	549	88.4
1952	1.53 (1.52)	396	383	77.1	562	90.5
1953	1.38 (1.38)	357	363	72.9	513	82.5
1954	n.a. (n.a.)	n.a.	n.a.	n.a.	n.a.	n.a.
1955	1.31 (1.32)	339	461	92.8	635	102.3
1956	n.a. (n.a.)	n.a.	n.a.	n.a.	n.a.	n.a.
1957	1.70 (1.70)	441	389	78.1	567	91.3
1958	1.86 (1.85)	480	435	87.5	632	101.7
1959	1.85 (1.85)	478	440	88.5	642	103.3
1960	1.95 (1.95)	506	438	88.0	635	102.1
1961	2.18 (2.18)	564	500	100.5	733	117.9
1962	2.24 (2.25)	581	477	96.0	704	113.4
1963	2.41 (2.41)	624	505	101.6	756	121.7
1964	2.65 (2.65)	687	593	119.3	852	137.1
1965	2.34 (2.34)	606	482	96.9	723	116.2
1966	2.40 (2.40)	621	409	82.3	621	100.0

Sources and Methods:- Daily wage rate for each month of any year from Directorate of Agriculture, East Pakistan. The number of days a worker is employed in each month is from the Survey [26]. Nominal wages shown above are estimated by weighing the reported wage rate by employment in each month. Real wages are estimated by deflating money wages with the cost of living index. The relative weights of consumer items were estimated from family budget data of the Survey. These weights are applied to obtain two sets of cost of living indices one based on 1949, and the other on 1966.

Note:- *Figures in brackets show unadjusted daily nominal wages as reported by the Directorate of Agriculture, East Pakistan. All other figures are adjusted in the manner stated above.

Chart - 1



Figures for 1954 and 1956 not available for index of Nominal Wages and Real Wages.

Real wages:

The real worth of money wages depends on prices of goods purchased by labourers from the market. The use of an appropriate consumer price deflator is obviously essential for this. The determination of consumption items and of their relative weights for this purpose is far from easy, because unlike industrial workers, even the landless agricultural labourers consume some own-produced goods.

For example, practically no payment is made even by landless agricultural labourers in respect of fuel and house-rent.. They erect their huts on deserted spots or the employer's land, and gather from the surroundings firewood and straw for use as fuel for cooking. They also surely catch some fish from public canals and rivers and perhaps grow some vegetables around the hut. The wage-earnings, and these fringe income in kind constitute their household income.

Agricultural labourers with some land derive some income from cultivation as well, and most of this income is directly consumed in kind, and only part of this is marketed for other purchases. This general pattern of the mixture of market-purchases and own-produced goods in consumption of agricultural labour families has been found in studies by Hossain and Rajshahi University [11; 26] covering small localities and larger areas in East Pakistan.

However, so far as landless agricultural labourers are concerned, as a rough approximation one can assume that they have to purchase all consumption items other than fuel and housing. On this assumption we have estimated the relative weights of various consumption items from the budget data of a sub-sample of agricultural labour households of the Survey. We have excluded expenditure on fuel and rent, and estimated from the rest the relative proportions of other consumption items at current prices (i.e., of the period August 1965 to July 1966). These weights have been applied to the historical data of retail prices of individual items to obtain two series of consumer price index one taking 1966 prices as the base, and the other taking 1949 prices^{6/}. Each index has been used as a deflator to estimate the movement of real wages shown in Table 4 and chart 1. For lack of information about 6/ The detailed estimates and discussions are in Appendix.

retail prices of some items, these items were grouped together.

The relative weights of various items, as obtained in the twelve-month period, August 1965 to July, 1966, may be considered reasonably normal. The only important factor that might have distorted the relative weights was the abnormally high price of rice in that period. The implicit average retail price of rice, as estimated from the sub-sample was about Rs. 31 per maund. This was somewhat higher than that in the earlier three or four years. A higher price of rice a basic need and the most important consumption item would usually give a large weight to it and hence smaller weights to other items. But in this particular case there was an offsetting factor. This was the substitution of some wheat for rice. Increasing quantities of wheat at prices substantially lower than those ^{for} rice were made available to East Pakistan, including rural areas, since the early 1960's. There is little doubt that both the absolute quantity of wheat and the proportion of total expenditure spent on wheat by rural households were higher in the mid-1960's. Therefore, the estimated relative weight can be considered as reasonably normal. These weights are roughly in line with the findings of several other surveys, as shown in Hossain and Rao [11; 27-7].

There is another way of roughly judging the reasonableness of these relative weights. We may ask whether the wage earning of a family in recent years could be considered adequate for sheer subsistence and whether its allocation in the way indicated by the estimated relative weights would buy such quantities of basic consumption goods as are necessary for subsistence. Assuming that an average agricultural labour family has 4.5 members including 1.1 wage earners as shown by the Survey^{7/}, it may be said that these conditions are roughly met.

It should be emphasised that our cost of living Index is almost certainly an under-estimate. This is chiefly because of the constant price assumption for 17.5 per cent of household expenditure, and because coarse saree prices are assumed to represent clothing as a whole. As a matter of fact other varieties of cloth such as shirting and long cloth registered greater increases in price than sarees.

^{7/} See Appendix Table 2.

Thus on the one hand the reported nominal wages for the 1960's are probably over-estimates and on the other hand the computed cost of living Index underestimates the trend rise in consumer prices. Hence the estimated trend of real wages can be considered to have an upward rather than a downward bias. The movement of real wages estimated on the basis of the cost of living Index of 1949 and 1966 is essentially similar (Table 4). It appears broadly that from 1949 onwards real wages in agriculture went on declining till 1961. There was sharp rise in 1961 so much so that the real wage was for the first time slightly above the 1949 level. After a decline in 1962, it rose again to reach the peak in 1964 and then again declined in 1965 and 1966 below the 1949 level. The estimate based on the 1949 cost of living Index indicates that except for three years 1961, 1963, and 1964, the real wage was always below the 1949 level. And only in 1964 was it substantially above that in 1949. The estimate based on the 1966 cost of living Index suggests that the real wage was above the 1949 level during five years 1961-65, but only in 1964 was it substantially higher. Thus one may say that after the decline during the 1950's real wages rose since 1961 till it fell sharply in 1966- the abnormal year of high prices. But one may also say that real wages clearly declined in the 1950's, but the rise since 1961 is not clearly established except for 1964. In view of the possible alternative interpretations it may be reasonable to conclude that real wages declined in the 1950's; but did not rise significantly in the 1960's. Moreover if the reported money wages for the 1960's are overstatements, the rise in real wages in the 1960's would turn out to be fictitious.

A Tentative Explanation of Real Wage Movement.

In the early 1950's the decline was due largely to a fall in money wages. Since the late 1950's as money wages began to move upwards but they never caught up with the rise in consumer prices, except in some years of the 1960's.

A recent study by Khan [13] has shown that real wages of industrial workers in East Pakistan also declined in the period

between 1954 and 1962-63. But the index of real wages was never below 88 (1954 = 100). Our estimates indicate that the real wage of agricultural labourers has been much more flexible and in some years the index was around 25 percent below the 1949 (= 100) level.

Wage - price adjustment is likely to be much slower in agriculture than in industry. In other words, money wages in agriculture are likely to show a greater lag in catching up with the change in cost of living. There are a number of reasons for this to be so. Most of the agricultural workers are casual labourers who are not in permanent employment of any farmer. Their bargaining power is practically nil because of lack of any trade union organisation and the prevalence of large labour surplus in rural areas. Agriculture is really a residual sector for the labour force. Under such circumstances a rise in consumer prices is not likely to be matched quickly by a rise in money wages. However, large increases in agricultural prices would result in significant increases in wages unless the price rise is due to a crop failure; similarly a fall in agricultural prices would depress money wages. In other words, changes in farmers' income influence changes in money wages. This relationship partly compensates for the changes in consumer prices, since agricultural products constitute the bulk of the labourer's consumption.

On the basis of the Lewisian theory, it is generally held that in a labour surplus, underdeveloped country, the real wage tends to remain at the subsistence level. If our estimates are to be given any credence, it is, therefore, necessary to explain the movement of real wages, particularly the large decline in some years below the 1949 level. Without a satisfactory explanation, the data may be considered suspect.

The Lewisian theory relates wages in the capitalist sector to the subsistence level in traditional agriculture. If the subsistence level of income (consumption) is defined as the minimum requirement for physiological survival, then an estimated real wage below that level must be considered fictitious. If, then, the 1949 real wage is assumed to have been at such a subsistence level, our estimates for any other year should not be appreciably lower than that for 1949.

As long as surplus labour exists the real wage level in agriculture would equal this physiological subsistence. Since surplus labour existed for decades in the past and is likely to exist in the near future one should expect, according to this view, a roughly constant real wage at this subsistence level. Thus the notion of increased poverty of these people is completely ruled out. This, however, would be unrealistic.

The level of subsistence should not be defined in this way. The physiological minimum indicates the floor below which the actual consumption (real wage) level cannot conceivably fall. It is more appropriate to think that the subsistence level is determined in terms of a conventional standard of living, and not in terms of the minimum calories and the minimum clothing required for survival. This conventional standard of living may be depressed at times by the pressure of circumstances. A simple example is the possible reduction in consumption level as a result of successive crop failures for two years. Again it is possible that agriculture is squeezed in the process of industrial development, resulting in such reduction in consumption level. The agricultural labourers and small farmers may be compelled to eke out a living with smaller quantities of rice, pulses, cloth and other consumption goods. There may be a reallocation of consumption in favour of goods which are cheaper and/or of poorer quality. This may adversely affect their well-being, and after a point, their health and physical capacities. But the point is that a reduction in level of consumption below the conventional standard is possible.

A rise in (consumption) real wage above the conventional standard is, however, more difficult for reasons partly mentioned earlier. This can come about if productivity of labour in agriculture increases, or the demand for rural labour increases from non-agricultural sources.

We may now try to see why money wages and real wages behaved in the way they appear to have done. It has been noted earlier that population and labour force dependent on agriculture have increased

rapidly during the last two decades. At a time when the size of average holding was declining, many small-holders were sliding down to the level of the agricultural labour family and some were entering the labour market occasionally.

The demand for hired agricultural labour almost certainly did not grow that fast. It is governed partly by the factors which determine the total demand for labour in agriculture, and partly by forces which make for substitution between hired labour and family labour. The total demand for labour in agriculture would depend on acreage and farming methods. There has been no appreciable increase in the net sown area, and hence no significant increase in demand for labour on this count. Extension of area under irrigation, double cropping, extended use of fertilizers and pesticides, and increase in area under labour-intensive crops involve more labour per acre of land. While some advance has been made in this direction, particularly in recent years, it is very unlikely to have increased the total demand for labour in agriculture by as much as the increase in the number of agricultural labourers, let alone the increase in the total agricultural labour force. One must also keep in mind the possibility of some replacement of hired labour by the labour of the cultivating owner and his family, specially when the size of holding decreases. We have already noted that the value of agricultural output (at constant prices) per head of agricultural population declined from 1949/50 till the early 1960's.) In such a situation a decline in agricultural wages should not be surprising.

In the early 1950's, except the Korean boom period, agricultural prices as well as output was depressed partly as a result of the adverse effects on trade following the non-devaluation decision of 1949. The decline in agricultural prices, including price of rice, affected the consumer price Index in the same direction. In the period the decline in wages showed up in money wages. Pakistan devalued in 1955. After that year till 1960 money wages increased but consumer prices increased faster.

Only in some years in the 1960's did the rise in money wage but the rise in prices so as to raise the real wage above the 1949 level. As noted by several observers, e.g. Papanek [23],

reduction of duties on agricultural exports, abandonment of foodgrains procurement at uneconomic prices, plus greater public investment in agriculture in the 1960's had favourable effects on agricultural growth.

The expenditure on Rural works Programme which started in the fiscal year 1962/63 (July-June) introduced a new factor increasing demand for rural labour during the dry season-roughly January to June. The expenditures on Rural work as shown in East Pakistan Budgets [6] have been:

Fiscal year	1962/63	1963/64	1964/65	1965/66	1966/67
Rupees (Crores)	10	20	25	12	15.

No comprehensive study of the employment effect of the programme is available. But Rahman [24; 79-80], has estimated for 1963/64 that at thana and union levels a total of 25.8 million labour man-days were employed, which was over two times the employment created in the previous year. If the average labourer worked for 100 days during the season i.e. January to June, 258 thousand workers were employed in 1963/64. While this is not a high proportion of the rural or agricultural labour force, it probably had some appreciable effect on wages in 1964, the peak year in our series.

APPENDIX - A

A note on the sub-sample of Kajshahi Survey.

As mentioned in the text, some information used in this paper has been obtained from a sub-sample of a survey [26] conducted by the Rajshahi University (Committee for the Economic Evaluation of the Rural Works Programme in East Pakistan) during the period August 1965 to July, 1966. This was a sample survey of employment, income and expenditure of rural households in general, and not of agricultural labour households only. Five areas (Thanas) from different parts of East Pakistan were selected on the basis of important crops. From each of these areas one union was selected. From these five unions a random sample of rural households totalling 234 was drawn and they were interviewed weekly over a period of 12 months. In this sample of 234 households, 48 households reported themselves as agricultural labour by occupation. We made a random selection of 50 per cent (i.e. 24) of proformas related to these 48 agricultural labour households. Because of non-reporting of certain data, 3 out of these 24 proformas were rejected.

Our estimates of employment, pattern of consumption expenditure, family size, and wage-earners per family are based on these 21 households. It should be clear that characteristic of a small sub-sample selected in this way cannot be claimed in a statistical sense to be representative of agricultural labour in East Pakistan. But these estimates may roughly reflect the actual order of magnitudes.

A P P E N D I X - B

A note on item contents and their relative weights in
Consumer Price Index

The pattern of consumption of an average family which is classified as agricultural labour by chief occupation of the male active member(s), has been obtained from a sub-sample of the Survey [26] and is reported in Appendix Table 4. Total consumption of an average family includes some purchases from the market and some own-produced goods for which values are imputed in the Survey. The existence of own-produced goods in consumption raises some problems in choosing the appropriate consumption bundle for preparing a cost of living Index with which to deflate money wages. Since fuel for cooking is not purchased from the market by any family and rent is paid only by those who own some land, the weights based on total consumption expenditure excluding fuel (for cooking) and rent have been chosen. In other words it is presumed that landless labourers usually purchase all their consumption items except cooking fuel and housing. Some items have been grouped together because item-wise information about consumption is not in all cases available.

Retail prices shown in Appendix Table 6 used in computing the Index are mostly taken from the C.S.O. historical series. Since such series are not available for all items certain assumptions were used for our purpose:

a) to ensure that the Index does not overestimate the increase, no price change has been assumed for food items-wheat, pulses, milk, fish, beef, mutton, chicken, eggs which constitute 13 per cent of total consumption, and also for pan, betel nuts and other non-food items together representing 4.5 per cent of consumption.

b) for the item grouped together the price of one important item in the group has been taken as representative of the group; e.g. Saree for clothing, bidi for tobacco, kerosene for lighting, dry chillies for chillies and spices, onions for fruits and vegetables, and mustard oil for edible oil.

A P P E N D I X

T A B L E - A-1

East Pakistan's Population
(in millions)

<u>Year</u>	<u>Total</u>	<u>Urban</u>	<u>Rural</u>	<u>Agricultural</u>
1949-50	42.25	1.83	40.42	35.43
1950-51	43.29	1.88	41.41	36.30
1951-52	44.35	1.96	42.39	
1952-53	45.44	2.04	43.40	
1953-54	46.56	2.13	44.43	
1954-55	47.70	2.22	45.48	39.91
1955-56	48.86	2.31	46.55	40.87
1956-57	50.06	2.41	47.65	
1957-58	51.29	2.52	48.77	
1958-59	52.56	2.62	49.94	
1959-60	53.85	2.74	51.11	46.02
1960-61	55.25	2.87	52.38	47.22
1961-62	56.69	2.99	53.70	48.45
1962-63	58.16	3.12	55.04	49.07
1963-64	59.67	3.25	56.42	50.99
1964-65				
1965-66				

Sources and methods:-

- a) Total population based on Planning Commission estimates, taken from Khan and Bergan, [14].
- b) Urban rural breakdown for 1949-50, 1950-51 is based on proportions, given by census of Pakistan 1951, the same break-down for 1960-61 based on 1961 census.
- c) Between 1950-51 and 1960-61 urban population is assumed to have increased by 4.3 per cent per annum. The same growth rate is assumed for the period after 1960-61.
- d) Agricultural population was first estimated by using census data, i.e. by multiplying agricultural labour force by the ratio of rural population to rural labour force. This showed that in the census populations of 1951 and 1961, agricultural populations were 83.85 per cent and 85.46 per cent respectively. The proportion obtained in 1951 is applied to 1949-50 and that of 1961 is applied to 1959-60 onwards till 1963-64. Between 1950-51 and 1955-56 an annual compound rate of growth of 2.4 per cent is assumed.

Appendix Table - A-2.

East Pakistan: Gross Provincial Product at 1959/60
Factor Cost, and its Distribution by Origin
to Agricultural and Non-Agricultural Sectors,
and Rural and Urban Areas.

(in million Rs.)

Period	Gross Provincial Product	Agriculture	Non-Agriculture	Rural	Urban
	1	2	3	4	5
1949-50	12,052	8,074	3,978	10,937 ¹⁰¹⁵⁴	1,115
1950-51	12,495	8,344	4,151	11,332	1,163
1951-52	12,849	8,394	4,455	11,607	1,242
1952-53	13,270	8,751	4,519	12,007	1,263
1953-54	13,737	9,048	4,689	12,428	1,309
1954-55	13,438	8,704	4,734	12,069	1,369
1955-56	12,856	8,043	4,813	11,476	1,380
1956-57	14,062	9,012	5,049	12,458	1,604
1957-58	13,851	8,696	5,156	12,321	1,530
1958-59	13,515	8,234	5,281	11,902	1,613
1959-60	14,568	9,042	5,526	12,875	1,693
1960-61	15,434	9,590	5,844	13,585	1,849
1961-62	16,368	10,012	6,356	14,361	2,007
1962-63	16,367	9,675	6,692	14,195	2,172
1963-64	18,171	10,599	7,572	15,718	2,453
1964-65					
1965-66					

Source & Methods:-

The first three columns are computed essentially from Khan and Bergan [14] which again is based on Pakistan's G.N.P. estimates made by the C.S.O. But, we allocated to East Pakistan 37 per cent of the value added in Transport and Communications, and 33 per cent of Banking and Insurance, and 30 per cent of Central Government and Defence, while Khan and Bergan allocated them in a ratio of fifty-fifty to the two Wings. This is the only difference between this estimate and theirs. The percentages which we used for these sectors were once estimated by the C.S.O. and used by a group of experts in Transportation Survey of East Pakistan, 1961 [7]. Another estimate by M. Anisur Rahman [25] allocates an even smaller share to East Pakistan.

(Continued on next page)

A note on estimation of rural-urban factor income

The method of rural-urban distribution of the Gross Provincial Product is very crude, and almost certainly it overestimates rural income. The following formula is used:

$$\begin{aligned} \text{Rural Income} = & \frac{\text{Agricultural Income} \times \text{Agr. L.F. in rural areas}}{\text{Total Agricultural Labour Force}} \\ & + \frac{\text{Non-agr. Income} \times \text{Non-Agri. L.F. in rural areas}}{\text{Total Non-agricultural Labour force.}} \end{aligned}$$

Urban Income is obtained by deducting Rural Income from the Gross Provincial Product.

The proportion of total agricultural labour force working in rural areas, and the proportion of total non-agricultural labour force working in rural areas have been estimated mainly from data shown in the censuses of 1951 and 1961.

The Census data for 1951 and the estimates for 1961 show that in both years 99 per cent of total agricultural labour force was in rural areas, but of total non-agricultural labour force 74 per cent was rural in 1951 and 70 per cent in 1961.

On this basis it is assumed that in all the years 99 per cent of agricultural income originated in rural areas. The proportion of non-agricultural income originating in rural areas is rather arbitrarily assumed to have declined in following way:

1949/50 - 1953/54	74%
1954/55 - 1955/56	73%
1956/57 - 1957/58	72%
1958/59 - 1959/60	71%
1960/61 - 1961/62	70%
1962/63 - 1963/64	69%

The urban-rural distribution of labour force used in this computation is discussed below:

(Continued on next page)

Census Distribution of Population and Labour force:
(In million)

	1951			1961		
	Urban	Rural	Total	Urban	Rural	Total
Population	1.82	40.11	41.93	2.64	48.20	50.84
Labour force (age 12 & above)	0.67	12.22	12.89	(0.92)	(15.94)	16.86
Agricultural Labour force	0.12	10.60	10.72	(0.16)	(14.18)	14.34
Non-agricultural Labour force	0.55	1.57	2.12	(0.76)	(1.76)	2.52
Labour force age 10 & above)	n.a.	n.a.	n.a.	0.94	16.50	17.44

(Census of Pakistan 1951, Vol. I)

(Census of Pakistan 1961, Vol.II)

The figures in brackets () are our estimates, made on the following assumptions:

For 1961, it is found that labour force age 10 and above is 3.4% larger than labour force age 12 and above. It is assumed that in urban areas it is only 2 per cent larger, because a higher proportion of children of age 10-12 goes to school in urban areas. It is also assumed that agricultural labour force in urban areas was 33 per cent higher than that in 1951. The other figures in brackets are then easy to obtain.

Appendix Table - A-3

AGRICULTURAL LABOUR IN EAST PAKISTAN

Average Daily Wages in Rupees
(without food)

Year	Month												Annual Average	
	January	February	March	April	May	June	July	August	September	October	November	December	Simple	Weighted by employment
1948	1.72	1.67	1.73	1.66	1.71	1.79	1.78	1.79	1.93	1.92	1.87	1.85	1.81	1.79
1949	1.91	1.91	1.88	1.91	2.01	2.07	2.03	2.01	1.97	1.86	1.78	1.71	1.92	1.92
1950	1.74	1.72	1.67	1.61	1.66	1.59	1.58	1.59	1.62	1.59	1.51	1.54	1.52	1.62
1951	1.51	1.50	1.46	1.52	1.59	1.55	1.55	1.59	1.62	1.60	1.60	1.55	1.56	1.55
1952	1.55	1.55	1.54	1.54	1.62	1.61	1.61	1.52	1.53	1.42	1.42	1.42	1.52	1.53
1953	1.37	1.37	1.39	1.39	1.41	1.37	1.36	1.35	1.37	1.40	1.37	1.39	1.36	1.38
1954	-	-	-	-	-	-	-	-	-	1.22	1.20	1.21	-	-
1955	1.30	1.31	1.23	1.21	1.23	1.19	1.37	1.40	1.40	1.36	1.34	1.37	1.32	1.31
1956	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	1.82	1.82	1.85	1.70	1.68	1.72	1.51	1.50	1.52	1.65	1.81	1.84	1.70	1.70
1958	1.66	1.66	1.91	1.80	1.87	1.84	1.83	1.98	1.95	1.92	1.96	1.86	1.85	1.86
1959	1.78	1.76	1.85	1.77	1.85	1.90	1.81	1.90	1.96	1.77	1.80	1.93	1.85	1.85
1960	1.83	1.84	1.85	1.80	1.96	1.95	1.96	2.03	1.98	2.08	2.04	2.12	1.95	1.95
1961	2.02	2.03	2.05	2.11	2.30	2.28	2.23	2.30	2.21	2.24	2.04	2.33	2.18	2.18
1962	2.29	2.21	2.19	2.21	2.45	2.35	2.26	2.16	2.23	2.23	2.13	2.19	2.25	2.24
1963	2.10	2.18	2.24	2.22	2.46	2.60	2.53	2.55	2.38	2.62	2.46	2.57	2.41	2.41
1964	2.52	2.49	2.49	2.61	2.86	2.70	2.86	2.93	2.71	2.75	2.48	2.44	2.65	2.65
1965	2.41	2.22	2.33	2.43	2.37	2.41	2.36	2.27	2.28	2.38	2.29	2.33	2.34	2.34
1966	2.94	2.99	2.29	2.35	2.33	2.26	2.26	2.22	2.30	2.28	2.26	2.35	2.40	2.40
Number of days employed each month	20	20	22	23	21	22	18	23	22	23	23	22		

Sources:- Daily wages from Directorate of Agriculture, East Pakistan [5]
Employment per month, Rajshahi University Survey [26].

Appendix Table - A-4.

Pattern of Consumption of the Average Agricultural Labour Household in East Pakistan (1965-66).

I t e m	Value in Rupees			Percent Distribution			
	Market Purchased	Own Produced	Total consumption	Market purchased	Total consumption Excluding Fuel & Rent	Total Consumption	
1	2	3	4	5	6	7	
Rice	248.37	211.60	459.97	48.8	60.5	53.8	
Wheat	32.86	-	32.86	6.5	4.3	3.9	
Pulses	13.06	0.37	13.43	2.6	1.8	1.6	
Milk	4.89	2.00	6.89	1.0	6.9	0.8	
Fish	22.48	10.81	33.29	4.4		3.8	
Beef	4.39	2.01	6.41	0.9		0.7	
Mutton & Chicken	2.21	2.20	4.41	0.4		0.5	
Eggs	0.36	1.26	1.63	0.1		0.2	
Fruits & Vegetables	22.13	20.36	42.49	4.3		5.6	5.0
Edible oil	28.07	-	28.07	5.5		3.7	3.3
Salt	8.51	-	8.51	1.7	1.1	1.0	
Chillies	9.94	1.63	11.57	1.9	1.5	1.3	
Spices	10.18	0.22	10.39	2.0	1.4	1.2	
Gur	7.12	-	7.12	1.4	0.9	0.8	
Lighting	14.17	-	14.17	2.8	1.9	1.7	
Fuel (fire wood)	-	92.06	92.06	-	-	10.8	
Clothing	32.76	-	32.76	6.4	4.3	3.8	
Tobacco	10.69	1.02	11.71	2.1	1.6	1.4	
Pan, Betel Nuts & other non-food	33.35	0.55	33.90	6.5	4.5	4.0	
Rent	3.49	-	3.49	0.7	-	0.4	
Total	509.04	346.10	855.14	100.00	100.00	100.00	
Total Excluding Fuel and Rent.	505.55	254.04	759.59				

Source:- The Survey [26]

Note :- The relative weights shown in Column 6 are used for computing cost of living Index.

Appendix Table - A-5

AGRICULTURAL LABOUR FAMILY IN EAST PAKISTAN (REFERENCE PERIOD 1965-66)

(A)

AVERAGE INCOME BY SOURCES (RUPEES PER YEAR)

	Total	Wages	Scale of agriculture products	Own-Produce consumed	Wages as percent of total
1	2	3	4	5	6
Income Per household	909	481	77	351	53
Income Per Capita	201	106	17	78	53
$\sqrt{\text{Consumption Per Capita}}$	190				

(B)

LAND HOLDING, TOTAL MEMBERS AND ACTIVE MEMBERS PER FAMILY

Land (in acres)	Family members	Active Members		Children under age 10
		Male	Female	
1.11	4.52	1.1	1.2	2.1

Source:- The Survey [26] .

APPENDIX TABLE - A-6

Retail Prices of Consumption Goods

Year	Rice Coarse (Maund)	Onion (Seer)	Salt (Seer)	Dry Chil- lies (Seer)	Mustard Oil (Seer)	Kerosene Oil (22 OZ Bottle)	Saree 5 YDS (PAIR)	Bidi (Packet of 25)	Gur (Seer)	Weighted indices of cost of living 1949= 100 1960=100	
1949	20.40	0.68	0.26	3.21	3.32	0.34	10.76	0.18	0.87	100	71.3
1950	18.00	0.32	0.33	1.94	3.06	0.33	12.07	0.18	1.00	89.2	63.1
1951	22.40	0.53	0.31	2.69	2.77	0.32	13.46	0.18	0.84	104.8	73.3
1952	23.20	0.26	0.28	1.73	2.30	0.32	12.12	0.27	0.69	103.7	70.5
1953	20.40	0.41	0.25	2.36	2.53	0.32	15.16	0.28	0.78	95.5	69.6
1954	13.20	0.43	0.26	3.06	2.71	0.29	14.16	0.26	0.69	77.6	57.6
1955	13.20	0.29	0.26	1.81	2.08	0.32	11.58	0.25	0.60	73.6	53.7
1956	24.00	0.23	0.26	1.66	2.44	0.32	11.09	0.25	0.84	105.5	71.5
1957	25.20	0.50	0.28	2.68	2.95	0.32	11.46	0.29	0.96	112.9	77.6
1958	24.40	0.42	0.29	2.31	3.41	0.31	12.15	0.29	0.81	110.7	75.9
1959	24.00	0.46	0.25	2.25	3.00	0.29	11.31	0.31	0.71	108.8	74.7
1960	25.60	0.50	0.24	3.94	3.02	0.30	12.49	0.30	0.79	115.4	79.5
1961	25.20	0.31	0.26	3.11	2.94	0.29	9.55	0.32	1.21	113.2	76.9
1962	28.00	0.45	0.27	3.00	2.96	0.28	11.63	0.31	0.96	121.9	82.4
1963	28.80	0.35	0.28	2.86	2.79	0.34	11.45	0.30	0.80	123.3	82.5
1964	24.80	0.76	0.31	2.34	3.54	0.35	11.59	0.30	1.03	115.7	80.5
1965	29.20	0.51	0.32	1.85	4.06	0.35	11.75	0.31	1.20	125.6	83.5
1966	37.20	0.61	0.32	3.25	4.40	0.36	10.39	0.33	1.20	152.2	100

- Source:- a) 1952 onwards all items except gur, kerosine and Bidi from [18].
- b) 1949, 1950, 1951 all items, and from 1952 to 1961 bidi, gur and kerosine from [17]; split years shown above as calendar year; e.g. 1949-50 as 1949.
- c) 1962-66 bidi, gur and kerosine from [3].

Appendix Table - A-7

Changes in Income and Consumption in Rural East Pakistan
1960, 1961, 1963/64 (as indicated by C.S.O. data).

A. Personal Income Distribution.

Monthly Income Per household (Rupees)	Per cent of households				Per cent of population			
	1960	1961	1963/64	1963/64*	1960	1961	1963/64	1963/64*
below 50	12.8	10.4	7.3		6.5	5.0	3.3	
50 - 99	37.1	30.5	30.8		29.2	22.3	23.8	
below 100	49.9	40.9	38.1		35.7	27.3	27.1	
100 and above	50.1	59.1	61.9		64.3	72.7	72.9	

B. Average Income (Rupees)

Mean Income:	1960	1961	1963/64
Per Household	131.1	153.4	148.3
Per Capita	24.9	28.4	27.1
Median Income ^a			
Per household	100.2	117.0	122.0
Average Household size	5.3	5.4	5.5

C. Monthly Per Capita Consumption (all rural Population).

	Total (Rupees)	Important food Items (in Seers)				
		Rice	Wheat	Mutton+Beef	Fish	Milk+Butter
1960	23.0	15.0	0.5	0.15	0.6	1.3
1961	28.3	16.3	0.1	0.10	1.2	1.7
1963/64	21.7	14.0	0.9	0.18	1.0	0.9

Sources:- C.S.O. [19; 19a].

a. The median income is more representative because the distribution of income is very skewed. The figures are approximate estimates calculated by assuming linearity in the relevant income range.

A Note on Table- A-7

From the C.S.O.'s National Sample Survey [19a] and Quaterly survey [19], some information about the average income and consumption of rural population, and the proportion of households and population which can be considered very poor is available for the years 1960, 1961, and 1963/64, and is shown in Table-A-7.

It is found that the proportion of households and population with a monthly household income of Rs. 100 (at current prices) declined considerably from 1960 to 1961 but did not change appreciably between 1961 and 1963/64. The median income for all rural households increased during the entire period, while the mean income increased in 1961 but declined a little in 1963/64. Per capita consumption rose in 1961 and declined in 1963/64 below the level of 1960. This leaves a significant excess of income over consumption in 1963/64, which cannot be easily explained.

Since consumer prices rose some-what in 1963/64 from the levels of 1960 and 1961 (as shown in Table-A-6) the mean income per capita in real terms appears to have been appreciably lower in 1963/64 than that in 1961 but still higher than that in 1960. But if the deflator is applied to consumption, it is clear that mean consumption in 1963/64 was lower than that in 1960 or 1961. It may not be unreasonable to think that in these surveys reporting of consumption is usually more reliable than reporting of income, particularly since certain conceptual errors were made in regard to the latter, which, however, will not be discussed here.

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