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RAPPORTEUR'S REPORT

ON

WAGES AND INCOMES OF THE WEAKER SECTIONS IN RURAL INDIA

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As many as 26 papers are received for discussion at the Conference. The area of enquiry in many of the papers is restricted to a State or a district, and in some cases a few villages. Almost all the major States in India are covered, though the enquiry in most cases is restricted to a smaller area.

The attention to regional enquiries is to be welcomed in view of the observed disparities in the conditions of weaker sections in India and helps to bring to light the special variations into sharp focus.

Punjab and Haryana together got the maximum attention. This should not be surprising in view of the controversy about the impact of green revolution in this area. Among other States which received relatively more attention are Uttar Pradesh, Madhya Pradesh and West Bengal.

Among the issues listed in the synopsis circulated to the members, only the first issue got the attention of most of the writers. Only one writer addressed himself to the question of implementation of minimum wages. There is also no discussion of the specific role of trade Unions within agriculture. Very few papers attempted an examination of the inter-relation between rural and urban wages. Even in papers in which the trends in real wages have been studied very few have attempted to study the two aspects of the problem, namely, wage rates and employment together, despite the suggestion in the synopsis that these two cannot be studied in isolation. However, the papers have brought together useful information which sheds a better light on wages and incomes of weaker sections for different regions in rural India. It may be convenient to review the results of these enquiries issuewise.

I

TRENDS IN MONEY AND REAL WAGES

1. *Punjab :* S. S. Grewal and H. S. Bal take the period 1956 to 1972 and examine the trends in real wage rates separately for three operations, namely, ploughing, weeding and harvesting for the State of Punjab. The data on money wages are from Statistical Abstracts of Punjab. Instead of the consumer price index (general), the consumer price index of food is used for purposes of deriving the real wages. Linear trends are fitted to the data thus derived. On the whole, the real wages showed no increase during the period.

In order to see whether the rise in wage rates during the period of Green Revolution was significant compared with the earlier period, the analysis is repeated by using dummy variables for allowing changes in the intercept as well as slope. The period 1967 to 1972 was taken to represent the Green Revolution era. The analysis revealed that the rise in wage rates was highly significant during the Green Revolution period while in the pre-revolution period the rate of growth of money wages just kept pace with the cost of living. R. K. Pandey and U. N. Dixit use the Farm Management data 1954-57 for the districts of Amritsar and Punjab and of 1966-67 to 1969-70 for the district of Ferozepur to throw light on the question of trends in real wages. They are aware that the data strictly are non-comparable, and comparison of results of Ferozepur district alone would have yielded more reliable results. As compared to the years 1954-57 the nominal money wages were 2.3 times more in the years 1967-70. The consumer price index for agricultural labour for Delhi and Himachal Pradesh is used to arrive at a judgment on the trends in real wages : and this rose by 193 per cent. The conclusion from this is that there is a rise in real wages, though slight, over the period. Pranab Bardhan[1] using the Farm Management data for Ferozepur showed that in terms of wheat the real wages remained almost the same between the two years. A closer scrutiny of Farm Management data, as was done by Bardhan is warranted.

A more detailed analysis of the trends in real wages in Punjab district-wise is undertaken by Biswanath Santra for two periods, *viz.*, 1956-57 to 1970-71 and the Green Revolution period, *i.e.*, 1964-65 to 1970-71. The percentage rates of growth are computed for each district by fitting semi-logarithmic equations to observed time-series data for the index of money wages (IMW) and agricultural labour consumer price index (ACPI). All except one district in this State show positive rates of growth in real wages in the first period, and all without exception in the second period. More districts show rates of growth exceeding 3 per cent in the second period. Six out of the 14 districts show rates of growth of real wages exceeding 8 per cent in the second period.

S. N. Kundu and K. Sain also throw some side-lights on the trends in real wages in Punjab by presenting the index of money wages and deflating it with the Punjab ACPI for the period 1962-63 to 1971-72. The figures suggest an increase in real wage though the rate of growth is not stable. The years 1966-67 and 1967-68 are marked by decline as compared to 1965-66 due to big jumps in the ACPI. It is the stability of ACPI in the later period and steady rise in the money wages that ensured an increase in real wages.

2. *Haryana :* M. L. Sharma, D. S. Nandal and Chander Bhan examine the average daily wage rates for casual male agricultural labourers in Hissar

1. " 'Green Revolution' and Agricultural Labourers," *Economic and Political Weekly*, Vol. V, Nos. 29, 30 and 31, July, 1970.

district, Haryana State, for the period 1960-62 and 1971-73. Linear trend equations are fitted for money wages operationwise and consumer price index for agricultural labour, food and general. It is concluded that while the real wage rates in terms of food items remained almost static, in terms of general consumer price index an increasing tendency in real wage rate is observable.

D. K. Grover and K. N. Rai examine the trends in money and real wages for the State of Haryana as a whole for the period 1961-62 to 1970-71 and similarly for the food and general consumer price indices for agricultural labour, by fitting linear trends. The money wages increased at the same level as the general price index, though they lagged behind the food index. The real wage trends are also fitted in terms of four commodities, namely, wheat, gram, bajra and *gur*. For wheat and gram the real wage trends show negative results. It is concluded that agricultural labourers did not benefit from the agricultural revolution, primarily due to inflationary pressures on the economy.

3. *Uttar Pradesh :* V. K. Pandey and R. N. Pandey take two districts in Uttar Pradesh, one at a higher level of development and another at a lower level. These are Meerut and Varanasi. The period of analysis relates to 1962-63 to 1972-73. The money wages of male workers (simple arithmetic averages) per day for each of the year are presented. The real wages are got by deflating them with the consumer price index for agricultural labour. Linear time-trend coefficients for both the money and real wages are computed. The conclusion is that both the money and real wages moved up in both the districts, the annual rate of increase of money wages being around Re. 0.16 and the rate of growth of real wage being around Re. 0.04 in both the districts. But Pandey and Pandey end cynically that their conclusions are as much valid as the data employed. No doubt, the data deserved better scrutiny before use.

Ram Iqbal Singh and R. Kunwar base their analysis on the farm and labour data got from two clusters of villages, one under the influence of new technology and another in a backward area, both from Kanpur district. Since their Institute has been working in this area for the last several years, wage data could be presented for 1964-65 and for 1971-72 to 1973-74. The casual male agricultural labourer without land received a daily wage of Rs. 1.80 in the new technology area and Rs. 1.65 in the sub-technology area in 1964-65. The corresponding wages were Rs. 4 and Rs. 3.50 respectively in 1973-74. The annual earnings of this class of labour in the new and sub-technology areas were Rs. 324 and Rs. 277 respectively in 1964-65. In 1973-74 the corresponding earnings were Rs. 1,008 and Rs. 714. These are useful data and could have thrown more definite light on the trends in real wages. But Singh and Kunwar fail us where they should have been most helpful. They are vague on the trends in the cost of living and do not provide any figures on the trends in prices of wage goods, which they say, are showing a very high increase. Presumably, the real wages did not increase.

4. *Bihar :* S. P. Sinha and Binoy Nath Verma present the money earnings of agricultural workers in Bihar for 1961 and for 1966 to 1970. The source of the data is not clear. The real earnings are got by deflating these with the consumer price indices constructed for workers in Bihar by the Directorate of Statistics and Economic Evaluation, Bihar. The indices of real earnings of agricultral workers show a fall from 100 in 1961 to 75.6 in 1973.

5. *West Bengal :* Kundu and Sain (referred to earlier) conclude after an examination of data of money wages and consumer price index of West Bengal that although between 1962-63 and 1971-72 the money wages for agricultural labourers have somewhat advanced, the real wages actually dropped. They also use the Farm Management Studies in the districts of Nadia, 24-Paraganas, Hooghly, Burdwan and Birbhum for the period 1963-64 to 1967-68 to study the trends in money and real wages. Even though the weighted average daily wage increased from Rs. 1.88 in 1963-64 to Rs. 2.73 in 1966-67 and to Rs. 3.70 in 1967-68, the real wage declined as compared to 1963-64. Santra's inter-State examination for West Bengal shows that during the period 1956-57 to 1970-71, ten out of 14 districts showed negative rates of real wages. Even in the Green Revolution period six out of 14 districts showed decline in real wages. Only two districts showed a rate of growth of more than 3 per cent. Gangadhar Bandyopadhyay makes use of the data collected by the Agro-Economic Research Centre, Visva-Bharati in 1955-56 and 1960-61 in Birbhum district, and supplements these with the data collected by him in 1973-74 to study the changes in employment, wages and earnings of agricultural labour. The money wage per casual worker was Rs. 1.51 in 1955-56 and Rs. 1.52 in 1960-61. It shot upto Rs. 3.37 in 1973-74. But the real wage declined over the period.

6. *Orissa :* The exercise of B. Bhuyan and M. Chakraverty for Orissa State based on the IMW and ACPI shows that the real wages did not show any change from 1965-66 to 1973-74. While the money wages increased from Rs. 1.77 to Rs. 2.75 the real wages rose from 88 paise in 1964-65 to Rs. 1.22 in 1965-66 and remained at this level year after year until 1973-74.

7. *Madhya Pradesh :* M. C. Athavale fits linear and quadratic regressions for the data of money wages from 1960-61 to 1972-73. The wage data are the averages of four villages from four districts of Madhya Pradesh. The money wage rate roughly doubled during this period. The rate of increase of general and food indices is far higher indicating a decline in real wages. J. S. Sisodia chooses the average wage rate for each of the 43 districts in Madhya Pradesh and fits a linear trend for skilled, unskilled and all agricultural labour. The money wages show an increasing trend. The index for the whole State rose to 141.21 with base 1957-58. The wholesale price indices are used to judge the real wages. The index of cereal prices was 250.8 in 1967-68 and 223.2 in 1968-69 with 1959-60 to 1962-63 = 100. The conclusion is a decline in real wage.

The analysis of S. P. Pant and A. S. Baghel shows that real wages declined in 14 out of 43 districts of Madhya Pradesh and among the rest rates of growth are low in most.

8. *Maharashtra :* Jagannathrao R. Pawar and V. K. Gayakwad throw light on the trends in real wages based on farm studies conducted by them in Ahmednagar district for the years 1964-65 and 1971-72. The average wage rate received by an adult male worker was Rs. 2.17 in 1964-65 and Rs. 3.42 in 1971-72, an increase of 57.10 per cent. But no attempt is made to indicate quantitatively the rise in the cost of living though it is said that the commodity prices and the cost of living increased in the same manner.

9. *Gujarat :* V. N. Misra and S. B. L. Gupta fit exponential functions to the indices of money wages for the districts in Gujarat to arrive at the percentage growth rate for the period 1960-61 to 1968-69. In three out of 16 districts the growth in money wages was about 4 per cent per annum while in the remaining districts the compound annual growth rate varied from 5 to 8 per cent. To arrive at real wages the consumer price index number for Gujarat State is used. In real terms, wages declined at the rate of 1 to 3 per cent in all the districts except Ahmedabad and Surat, where it increased at the rate of about 0.87 and 0.30 per cent per annum, respectively.

10. *Himachal Pradesh :* G. D. Vashist considers the trend of money wage rates by fitting linear equations for the periods, 1952-1971, and 1965-1971. The coefficients for the later period are found to be higher. To arrive at the real wages the consumer price index of industrial labour is used as a deflator. The trends in real wages for the period 1965-1971 show negative coefficient for field labour.

11. *Andhra Pradesh :* V. T. Raju collects the farm data from the Benchmark and Assessment Surveys of the IADP district, West Godavari for the years 1967-68 and 1970-71. The wage bill per farm in money and real terms is compared for the two periods and it is concluded that the wage bill per farm increased in real terms. The wage bill per farm in money terms increased by 70 per cent and in real terms by 52 per cent. The data however do not firmly establish that the real wage rate increased during the period without supporting figures on farm size and employment for the two periods. It is also not clear how the wage bill in real terms is computed.

12. *Kerala :* Santra's study shows that the percentage rate of growth in real wages is positive for all the districts for 1956-71 and for 1964-65 to 1970-71. But the rate of growth was less than 3 per cent for the first period in four out of eight districts and for an equal number in the second period. The data on real wages presented by Kundu and Sain for Kerala as a whole show a high degree of instability. The real wage index in 1966-67 was more or less at the same level as in 1962-63. It showed a jump in 1967-68 and this

level was not reached in 1971-72. The results for Kerala do not appear to be definitive.

13. *Tamil Nadu :* Santra's districtwise examination for Tamil Nadu shows positive rates of growth in real wages for 1956-71 in all, though in eight out of ten districts the rate of growth in real wages is less than 3 per cent. In the second period two districts witness negative rates of growth. However, six districts show positive rates of growth exceeding 3 per cent per annum. One of the two districts that witnessed negative rates of growth during the Green Revolution period is Thanjavur.

In conclusion, for most regions, the analysis of the papers shows that the money wages rates, though rising, lagged behind commodity prices or cost of living. The Green Revolution period shows in general a better picture in areas like Punjab in which the impact of revolution is perceptible. But even a rise in real wage does not automatically ensure a rise in real income of labour households.

II

TRENDS IN REAL INCOMES OF WEAKER SECTIONS

Very few papers focus attention on this aspect. Inadequacies of published data explain this. Ram Iqbal Singh and Kunwar throw some light by using the survey results in clusters of villages in Kanpur district, one cluster representing the 'new technology area' and another 'sub-technology area' for the years 1964-65 and 1973-74. The money earnings of permanent agricultural labourers without land rose from Rs. 720 to Rs. 1,440 in the new technology area and from Rs. 630 to Rs. 1,260 in the sub-technology area. The corresponding figures for casual male agricultural labourers without land are Rs. 324 (1964-65) and Rs. 1,008 (1973-74) in the new technology area and Rs. 277.20 (1964-65) and Rs. 714 in the sub-technology area. While these show that the money earnings increased at a faster rate in the technology area, the trends in real earnings are not clear since the trends in prices paid by the agricultural labourers are not shown. Bandyopadhyay's study for Birbhum district of West Bengal for three years, *viz.*, 1955-56, 1960-61 and 1973-74 presents income per worker in real terms of paddy for the attached and unattached agricultural labourers. The attached agricultural labourer lost in real terms between 1955-56 and 1960-61 and regained in 1973-74. But his real earnings were no more than what they were in 1955-56. The unattached agricultural labourer lost heavily between 1955-56 and 1960-61 but regained in 1973-74. But his real earnings were less in 1973-74 as compared to 1955-56. Many permanent farm servants were pushed into *Lagari*, a system by which continuous employment to a particular worker on daily wage payment is provided. The former permanent farm servants get less as *Lagaries*. Many share-croppers, who are evicted from land joined the ranks

of landless labour. Thus the structural changes in the agrarian economy are working to the disadvantage of the labour class. The position of small and marginal farmers however presents a less distressing picture. Due to the changes in the cropping pattern and yield, the income accruing from crop enterprises to both the marginal and small farms appears to have improved considerably. Paddy yield on the small farms increased from 640 kgs. in 1955-56 to 1080 kgs. in 1973-74.

Pawar and Gayakwad compare the position of a sample of small farmers in Ahmednagar district for the period 1964-65 and 1971-72. The per capita net income of the family in money terms rose from Rs. 195.49 to Rs. 392.33 and the per capita domestic expenditure rose from Rs. 213.04 to Rs. 431.62. This is a significant rise. But the price indices are not given to judge whether there is an improvement in the position of real earnings of the small farmers. Agricultural employment both on own farm and on others' farms of an adult male worker increased though the total employment declined due to a fall in employment in non-agricultural occupations. The gross income from crop and livestock production increased at a faster rate than income from wages.

Umananda Phukan draws inferences relating to the trends in real incomes of agricultural labourers by comparing the results of a sample survey in Nowgong district of Assam with the results of Agricultural Labour Enquiry for the State as a whole. The validity of comparison is doubtful.

The contribution on the trends in real earnings, as distinguished from real wages, is too scanty to arrive at any definite conclusions.

III

SEASONALITY

Seasonality in wages is studied only by a few of the writers. J. R. Gupta examines the seasonality based on the data collected for a project on Crash Scheme for Rural Employment (CSRE) in Gurdaspur district (Punjab) during 1972. To study the inter-seasonal variations in wage rates, the whole of the reference year is divided into six seasons, three in *kharif* and three in *rabi*. The wage data are presented for each of the seasons for the year 1971-72 for four regions in the district. While the agricultural wage rates varied from season to season, no such variations are observed in the case of non-agricultural wage rates. The coefficients of correlation are computed between intensity of employment in the season (percentage of days worked in the season) and the wage rate. These are found to be non-significant implying that the wage rates are not related to the absolute intensity of employment. However, the method on which this inference is based needs refinement.

Ram Iqbal Singh and Kunwar study the impact of new agricultural technology on seasonality in labour earnings in Kanpur district by dividing the

year into four equal periods. Seasonality in earnings is found to be comparatively less in the new agricultural technology area as compared to the sub-technology area because of the spread of cropping pattern over different months of the year. M. G. Ghosh presents the data on average number of days of employment and wages of agricultural labour (adult males) by months for one village each in Bankura and Burdwan districts. These villages were surveyed in 1972-73 by the Agro-Economic Research Centre, Visva-Bharati. The village in Burdwan has perennial source of irrigation. In the other village, most of the land is single cropped. As is to be expected, employment within agriculture is much more even over the months in Burdwan as compared to Bankura. But the variations in wage rate over the months within each village are not so significant. In Bankura the wage rate stood for most months at Rs. 3.10 despite considerable variation in the levels of employment. In Burdwan also the wage rate stood at Rs. 3.15 for most months and the maximum witnessed was only Rs. 3.65. Despite considerable variations in the levels of employment, the variations in wage rates are minor. Wages are found to have been pushed down in Bankura only in the 'dead season.' There appears to be a survival wage rate below which wages do not get pushed down despite considerable decline in demand over the seasons and the wage rates in many villages are at this survival rates.

IV

FACTORS AFFECTING WAGE RATES

Pandey and Dixit study the labour production function and demand for labour for the period 1954-57 and 1966-70. The study is based on the Farm Management data of Ferozepur district for hired labour and total labour respectively. The coefficients for hired labour suggest an upward shift in the demand curve for labour in 1967-68 and 1968-69 as compared to 1954-57. Is is possible to imply that the rise in wage rate during the latter period is due to these upward shifts. But the authors notice that the productivity of labour is not consistent and stable for all the equations. Further only one independent variable, *viz.*, labour is taken to explain the changes in production. Many of the coefficients are not found statistically significant.

G. S. Ram and C. B. Singh using the Farm Management data for the districts of Deoria and Muzaffarnagar in Uttar Pradesh and Ferozepur in Punjab derive the daily earnings of agricultural labour on a number of heroic assumptions. Daily wages in Ferozepur are thrice the levels in Deoria and Muzaffarnagar. This is attributed primarily to a larger extent of cropped area per agricultural labourer; 15.51 acres in Ferozepur as against 2.24 acres in Deoria and 3.19 acres in Muzaffarnagar. The percentage of agricultural labourers to total workers is also less in Ferozepur as compared to Deoria and Muzaffarnagar.

The cross-sectional study of Ram Iqbal Singh and Kunwar in Kanpur district (referred to earlier) shows that the labour earnings for ploughing, sowing, and transportation do not differ very much between the 'new technology' and the 'sub-technology' area while those for irrigation, manuring, inter-culture and harvesting are higher in the former area. The use of labour saving equipment like tractors, seed drills and threshers has a dampening effect on the rise in wage rates and labour earnings in the new technology area.

Pant and Baghel use the districtwise agricultural wage data of Madhya Pradesh and seek to explain the differences in money wages. They fit a multiple regression with wage as dependent variable and output per capita (rural) and mechanization units per agricultural worker as dependent variables. Cross-sectional analysis showed a positive relationship between wages on the one hand and each of the two independent variables on the other though the regression coefficients are not significant. Similarly, the regression equation with wage as dependent variable and land concentration ratio and index of urban industrial complex as independent variables also showed positive relationship though even in this case the regression coefficients are not statistically significant. The analysis is extended by fitting regression equations to time-series data of real wages and per capita production for each district. A direct relationship is not noticed in all the cases. It is concluded that agricultural output growth and agricultural wages in general bear a positive but weak relationship.

Sisodia takes the districtwise agricultural wage rates in Madhya Pradesh and relates them to two variables, *viz.*, the percentage of gross irrigated area to gross cropped area and the percentage of other workers to total workers. Rank correlations are computed between wage on the one hand and each of the other variables and the values are found to be statistically significant. It is concluded that irrigation and industrial development have a positive influence on the agricultural wage rate.

Misra and Gupta fitted exponential functions to the indices of money wages, real wages and productivity per cropped hectare to arrive at the percentage growth rate. Productivity increased at the rate of 1 to 3 per cent over the period in most of the districts in Gujarat. But the real wages declined in all districts except two. The coefficients of productivity are found non-significant in all the districts. It is concluded that changes in productivity have not at all influenced the real wages. Linear and exponential functions have also been estimated between selected variables, *viz.*, (1) land concentration ratio, (2) percentage of irrigated area, (3) pump-sets per thousand acres, (4) tractors per thousand acres, and (5) number of agricultural labourers per acre of cultivated area and wages for the cross-sectional districtwise data of 1968-69. All the variables included in the equations to explain the inter-district wage differentials have expected signs. But the availability of pump-sets and agricultural labour alone turn out to be signi-

ficant, the former with a positive sign and the latter with a negative sign indicating that the wage rate responds positively to variations in the availability of pump-sets and negatively to the number of agricultural labourers per acre of cultivated area. M. L. Singh and K. K. Singh in their case study of factors determining agricultural wages take 16 villages in four districts of Bihar. They explain the inter-village variations in wage rates by fitting a multiple regression with wage as the dependent variable. The independent variables chosen are : (1) percentage of net sown area irrigated, (2) percentage intensity of cropping, (3) average size of operational holding, and (4) percentage of agricultural labour households to rural households. Since (1) and (2) are found correlated, only one of these two is used in the regressions. Their results show that the agricultural wage rate responds positively to the percentage area irrigated and negatively to the proportion of agricultural labour households.

V

AGRICULTURAL AND INDUSTRIAL WAGES

The number of papers devoting attention even to this question is small. Gupta's study based on CSRE data for Gurdaspur district (Punjab) shows that the agricultural wage rate has a wider range of seasonal and regional variation than the non-agricultural wage rate. The non-agricultural wage rates in the selected villages are not higher than the agricultural wage rates. Grover and Rai work out the correlation between agricultural and industrial wages and find them significant. The statistical test of trends showed that the differences are significant. It reveals a higher growth rate for industrial wage than agricultural wage. The data also show that the industrial wages are consistently higher than the agricultural wages throughout from 1961-62 to 1970-71. Sinha and Verma's analysis of real earnings of agricultural and industrial workers in Bihar shows that the real wages of industrial workers in 1970 were lower as compared to 1961. But the real earnings of agricultural workers fell at a faster rate. Pant and Baghel fit a linear trend to the average daily per capita real earnings of factory workers drawing less than Rs. 400 per month in Madhya Pradesh for the period 1961-70. This shows a negative coefficient. A similar trend for agricultural workers showed a positive trend. But both the regression coefficients are statistically insignificant.

The evidence presented in the papers is inadequate to draw any firm conclusions on the question.

VI

INCREASE IN ABSOLUTE AND RELATIVE SHARE OF LABOUR IN AGRICULTURAL INCOME

There is no discussion on this issue except by suggestion in a couple of papers. Santra poses the question by relating the growth rate in real wages

to the observed growth rate in production in Punjab. The growth rate of agricultural production in Punjab during the period 1964-65 to 1970-71 was of the order of 10-38 per cent per annum. But the rate of real wages in most districts is less than 7 per cent. Unless there is a rise in employment per worker during the period the relative share of labour should have declined. No data on the rate of growth of employment are presented to throw light on this question. Raju attempts to quantify the share of hired labour income in output in the IADP district, West Godawari for the years 1967-68 and 1970-71. The per acre results of Cobb-Douglas regression of hired labour income on output shows that the elasticity of labour income with respect to value of output is 0.4289 for 1967-68, and 0.6776 for 1970-71. Raju draws the inference from these results that the share of hired labour in terms of wage income in the district has significantly increased from 1967-68 to 1970-71 due to the Green Revolution. This inference is at variance with other studies, and needs to be examined closely.

VII

MINIMUM WAGES WITHIN AGRICULTURE

There is only one paper by Bhanudev Bagchi and K. Sain on the question of minimum wages for agricultural labour in West Bengal. The results present a familiar and expected picture. The prevailing rates of wages of agricultural labour are below the rates statutorily fixed in 1968.

VIII

SMALL AND MARGINAL FARMERS AND AGRICULTURAL LABOURERS

Ghosh, and Pawar and Gayakwad discuss the issues relating to the small and marginal farmers. Ghosh draws upon the data collected by the Agro-Economic Research Centre, Visva-Bharati in 1969-70 in the rural areas of Hooghly district. Small farmers are defined as those holding more than one hectare but less than 2 hectares while marginal farmers are defined as those holding less than one hectare. Nearly half of the workers in marginal farmers' households have occupations other than cultivation as primary. Craft and services figure along with agricultural labour. Marginal farmers are found to be in a poorer position than small farmers. Pawar and Gayakwad compare the position of the small farmer in Ahmednagar district (Maharashtra) in 1971-72 with that in 1964-65 for the same sample. The per capita net income increased from Rs. 195.49 to Rs. 392.33. Wage employment of the small farmer increased. The gross income from crop production rose by more than three times. The trends in real incomes are however not clear from the paper.

IX

ISSUES FOR DISCUSSION

1. Some of the broad conclusions of the papers on the trends in money and real wages are that in several parts of the country there is no significant trend of increase in real wages. In many regions there is a decline in real wages. These conclusions are based mainly on two sets of data : (1) Agricultural Wages in India published by the Directorate of Economics and Statistics, Ministry of Food and Agriculture, Government of India, and (2) Statewise Consumer Price Index for Agricultural Labour published by the Labour Bureau. In an excellent article published in this journal, V. M. Rao[2] indicated the limitations of these. There is an upward bias in agricultural wage series and the representative character is also questionable. The Consumer Price Index for Agricultural Labour suffers from a downward bias. A casual scrutiny of the prices obtained at some selected centres for the purpose of building up the consumer price index of agricultural labour for Andhra Pradesh shows that the prices used in respect of foodgrains and sugar are far lower than the open market prices, and over time they show little changes though open market prices have been showing big spurts. Further the consumer price index is not available for each district. In the absence of it, for arriving at the trends in real wages in most papers State consumer price indices are used. In the light of these biases is it possible that the trends in real wages estimated in the papers for different districts and States have an upward bias, and also have less representative character ?

2. In areas of rapid agricultural growth as in Punjab, the period of Green Revolution is marked by significantly higher trends in real wages. But there are paradoxes. Thanjavur, "the heartland of green revolution in paddy zone" shows a decline in real wages. Even in other areas the correlation between real wages and increase in agricultural production is found to be weak and statistically insignificant. Is it that the rates of growth in agricultural production exercise an upward pressure on real wages only under some unique circumstances, while in large parts of the area, real wages are little responsive to growth in agricultural production and shifts in demand for labour generated by it ? Could these circumstances be identified ?

3. The few papers on seasonality presented for discussion suggest that wages are invariant to shift in demand over the seasons and whatever variations that are observed between the seasons could be explained by variations in the intensity of work and in requirements of physical energy for different operations. Is it possible to deduce from the data that the supply curve tends to be perfectly elastic over wide range in many parts of the country and a positively sloping supply curve is more an exception ? Does the absence of varia-

2. " "Agricultural Wages in India"—A Reliability Analysis," *Indian Journal of Agricultura Economics*, Vol. XXVIII, No. 3, July-September, 1972.

tion in seasonal indices, properly worked out, despite large seasonal variations in labour requirements, necessarily imply a situation of chronic labour surplus ?

4. There is a suggestion in some papers that the Green Revolution has reduced the seasonality in levels of employment. This is a consequence of multiple cropping and rise in intensity. But there are some areas in which the Green Revolution meant only a change from long duration to short duration variety and did not lead to multiple cropping or higher intensity. In such areas one could presume an increase in the degree of seasonality in employment. How general is the phenomenon of reduced seasonality in levels of employment as a consequence of the Green Revolution ?

5. Though the real wages have not increased in many parts of the country, a surprising adjustment of money wages to the consumer price index, though not instantaneous, is observable in many areas, the organized labour in industries could maintain their real wages only after prolonged fights. It is also noticed in some papers, that the rates of growth of money wages are higher in the low wage pockets, though some others present contrary results. Does this imply that the wage rate within Indian agriculture has been at a 'survival rate' and there is an adjustment of money wage at this level, within the given agrarian structure ?

6. The question whether urban wages exert any influence on the rural wages and if the organized urban labour has fared better than the unorganized rural labour through the years has not been discussed adequately in the papers and this needs attention.

7. If the real wages have not increased over vast parts, the real incomes of labour households could increase only through increases in the levels of employment of the household. There is very little data on the trends of employment in the papers presented. The overall rate of compound rate of growth of agricultural production for the period 1949-50 to 1970-71 was only of the order of 2.7 per cent. For the period 1960-61 to 1970-71 this was only 2.1 per cent. Even if one assumes unit elasticity of hired labour with reference to output, growth of employment in agriculture will be no more than the growth of labour force. But some data show less than unit elasticity and suggest that employment grew at a less rate than the rate of growth of rural labour force. This is for all-India. The Statewise data show that several States with large concentration of wage earners witnessed declining rate of growth of per capita foodgrain production between 1964-65 and 1970-71. Even changes in the elasticity of substitution between land and labour and between capital and labour in the post-Green Revolution period appear to work to the disadvantage of labour. In the light of this evidence will it be valid to presume that there have been no favourable changes in the employment level of labour households, and, with a constant or declining real wage in most parts, the real incomes of labour households have not shown a rise ?

8. Even in areas like the Punjab where the real wages and absolute share of labour have increased, the relative share has declined due to adverse changes in the elasticity of substitution between land and labour, and between capital and labour.[3] Is there any firm evidence to the contrary in other parts of the country? Have there been any compensating advantages to hired labour in other spheres like dairying and non-agriculture?

9. There is a suggestion in some papers that the numbers of rural proletariat are swelling due to eviction of share-croppers. Changes in modes of employment contracts are also working to the disadvantage of hired labour. Is there more evidence to suggest a growth in rural proletariat, and in what parts of the country? Does this suggest a shift away from peasant to capitalist agriculture as modified by the agrarian circumstances of a densely populated economy?

10. Studies on temporal variations in wage rates suggest that low wage rates are explained largely by (*a*) low extent of irrigation, and (*b*) large number of agricultural labourers per acre. These studies are based on simple averages of money wages in different districts. It is not known whether the real wage rates show the same range of variation between the districts. No attempt has been made to examine this question. The influence of land concentration on wage rates also needs more discussion. It may put a downward pressure on wages through adverse effects on the landless in rental and credit markets. There is controversy on the extent to which trade unions could exercise an upward pressure on real wages. There are differences of opinion among scholars on facts relating to Kerala. Would it be valid to presume that when the political machinery acts on behalf of labour, the wage rates could be pushed up even when the rates of growth of production are low while in the absence of such processes only very high rates of production could ensure a rise in real wages as in Punjab, and with a lag, as is suggested by a writer? Are there adverse effects on long-term investments in agriculture and employment when trade unions push up the real wages?

11. If the absolute and relative shares of the weaker sections in rural areas have been falling in most parts, and the legislative and other action programmes have failed to prevent this deterioration, what are the appropriate mix of policies to ensure these sections a rightful share in progress? In the light of past experiences is it feasible to implement such policies within the existing framework of agrarian and power structure?

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3. C. H. Hanumantha Rao: Technological Change and the Distribution of Gains in Indian Agriculture (mimeo).