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Summaries

1. Wages and Employment of Agricultural Labourers in Rural India: A Temporal and Cross-Sectional Analysis *H.R. Sharma*
2. Spatial and Temporal Wage Differentials in Agriculture in India *Puran Chand, B.R. Atteri and A.K. Ray*
3. Trends in the Agricultural Wages in the Nalgonda District of Andhra Pradesh, 1950-92 *M. Atchi Reddy*
4. An Economic Analysis of Farm Wages and Employment in Mahabubnagar District of Andhra Pradesh *Goutham and J. Krishnaiah*
5. Employment Potential of Hybrid Rice Seed Production in Rural India - An Ex-Ante Study *A. Janaiah and V. Kiresur*
6. A Study of Wages, Employment, Income and the Level of Indebtedness of Landless Agricultural Workers *Debnarayan Sarker*
7. Agricultural Wage Differentials in India: An Empirical Study *M.S. Jairath*
8. Production, Productivity and Agricultural Wages in Karnataka *R.V. Dadibhavi and S.S. Masali*
9. Growth in Productivity and Wages in a Dynamic Agriculture with special reference to Punjab *Bant Singh, Narinder Kumar and H.S. Bal*
10. Wage-Productivity: An Analysis Across Agro-Climatic Zones *Jayanti Ghanekar*
11. Contract Employment in Agriculture and Its Effect on Income, Wages and Farm Productivity in the Humid South-Eastern Plains of Rajasthan *K.A. Varghese and P.M. Sharma*
12. Impact of New Dryland Technology on Employment in Ranga Reddy District of Andhra Pradesh *Shaik Saleem, K. Hemachandrudu and Y.R.B. Sharma*

13. Impact of Poverty Alleviation Programmes on Agricultural Labourers: A Case Study in Birbhum District (West Bengal) *D.K. Ghosh*
14. Levels of Employment, Income and Consumption among Tea Plantation Labourers in Himachal Pradesh *R.K. Sharma, Brij Bala and S.K. Sharma*
15. Wages, Employment and Earnings of Marginal Farmers in Some Selected Villages of Raipur District of Madhya Pradesh *A.K. Gauraha and S.P. Gupta*
16. Employment and Income of Agricultural Labourers vis-a-vis Small Farmers and Non-Agricultural Labourers in Gwalior District of Madhya Pradesh *V.N. Singh and A.M. Jaulkar*
17. A Study of Employment and Income of Agricultural Labourers in Agra District (Uttar Pradesh) *Balisher, R.K. Singh and Naher Pal Singh*
18. Gender Differentials in Agricultural Wages - A Study of Haryana *Satnam Kaur and S.K. Goyal*
19. Pattern of Employment in Agriculture: A Comparison with Non-Agricultural Sector in Ghaziabad District (Uttar Pradesh) *Bindhyachal Singh and K.P. Singh*
20. Female Employment and Wages in Agricultural and Non-Agricultural Activities - Evidence from Rural Punjab *Gian Kaur*
21. Spatio-Temporal Variations in Agricultural and Industrial Wages in India *K.N. Rai, S.N. Singh, S.P. Singh and R.K. Grover*

Wages and Employment of Agricultural Labourers in Rural India: A Temporal and Cross-Sectional Analysis

H.R. Sharma*

This study based on data emanating from Rural Labour Enquiry Reports for different years analyses the changes in the money/real wage earnings, the effect of rising agricultural productivity on money/real wage earnings, male/female real wage earnings differentials and the number of employment days available to male and female agricultural labourers in different states of India. The study shows that while money wage earnings of both male and female labour increased continuously practically in all the states since 1956-57, the trends in real wage earnings are mixed; these increased in a majority of the states between 1956-57 and 1977-78, followed by a decline of varying degrees between 1977-78 and 1983. Consequently, taking a long period view, in as many as nine states, namely, Assam, Bihar, Jammu and Kashmir, Karnataka, Madhya Pradesh, Orissa, Punjab, Uttar Pradesh and West Bengal, the daily average real wage earnings in 1983 were lower than those in 1956-57. Nevertheless, the number of employment days available to male and female labour, despite fluctuations from one period to the other, were significantly higher in 1983 than in 1956-57. The study further brings out the declining male/female real wage earnings differentials and also supports the hypothesis that the per worker agricultural product affects the money/real wage earnings favourably.

Spatial and Temporal Wage Differentials in Agriculture in India

Puran Chand, B.R. Atteri and A.K. Ray†

This study was undertaken to analyse the spatial and temporal wage differentials and to know the magnitude of factors affecting the wage differentials in India. The data for the study have been collected from various published sources. A comparison of money wages (nominal wages) and real wages between states at three points of time has been made. Regression analysis has been used with lagged wages, cropping intensity, number of tractors per thousand hectares of net area sown and land-workers ratio as independent variables affecting current wage rate in different states of the Indian Union. Inter-state comparison of wages showed that the money wage rates were higher in Punjab and Haryana and remained higher throughout the study period (1970-73 to 1990-92). However, real wage rates were lower in 1980-83 as compared to 1970-73. A very marginal increase in money wage rate was noticed in Assam (0.6 paise per annum) during 1970-73 to 1980-83. Between 1980-83 and 1990-92, both money and real wage rates increased in all the states with the highest wages in Punjab in the country.

The minimum statutory wages per day varied from Rs. 6 in Orissa to Rs. 14 in Punjab and Haryana in 1982-83. The actual wage rates varied from Rs. 6.09 in Orissa to Rs. 16.23

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in Haryana. It was observed that in Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu and West Bengal, the actual wage rates were lower than statutory wage rates recommended by these states. The trend in money and real wage rates showed that the regression coefficient for time was positive and highly significant in all the states. The equations explained above 83 per cent of the variation in nominal wage rates. The rise in nominal and real wage rates per annum was the highest in Kerala (Re. 1.40 and 0.19 paise respectively) among all the states in the country. The coefficient of determination was higher for nominal wages in comparison to that of real wage rates in all the states. This shows that time was a significant factor which influenced the wages in various states with different intensities.

A multi-regression function showed that the regression coefficient for lagged money wage rates was positive and highly significant in all the states indicating its profound influence on the current wage rates in all the states except in Karnataka. In Karnataka the number of tractors had significant influence on current wage rate whereas in Himachal Pradesh and Kerala land-workers ratio was found to be significant. Cropping intensity significantly influenced the current money wage rates in Maharashtra whereas it was insignificant in all other states. It was noted that differences in wages prevailed due to differences in the state of economic development and infrastructural facilities in a state. These differences continued to prevail indicating that seasonal migration at current rate was not sufficient to even out the wage differences among states. Therefore, for balanced growth and social justice, agro-based rural industry should be promoted to create rural employment. Backward states may be provided more funds for agro-based industries at concessional rates in comparison to comparatively better off states. This will not only reduce the wage differentials among the states but also enhance production and employment opportunities in the rural areas.

Trends in the Agricultural Wages in the Nalgonda District of Andhra Pradesh, 1950-92

M. Atchi Reddy*

The object of this paper is to analyse the trends in the level of agricultural wages in the district of Nalgonda of Andhra Pradesh between 1950 and 1992. The main sources of data are the *Season and Crop Reports* supplemented by the field data from private sources. Wages of the able-bodied adult male field labourers are chosen. The wage rate paid to the local ploughman is standardised in terms of the second sort rice. The wage rates steadily declined upto the mid-1970s, and began to rise afterwards, and the increasing trend continued in 1992-93 also. A significant point is that the wage rates recorded from private data were higher than the official wages; and the wages paid in kind exceeded the cash wages by a significant margin. This is not true if we take into account the hourly rates, since they worked for longer hours when they got their wages paid in grain and also fed by the employer. The daily wages of the ploughmen ranged around 4 to 5 kilograms of second sort rice in 1990.

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An Economic Analysis of Farm Wages and Employment in Mahabubnagar District of Andhra Pradesh

Goutham and J. Krishnaiah[†]

The paper examines the wage employment of rural labour and variations in wage earnings, by labour class and operation. The study was taken up in four villages of Narayanpet and Ieeja mandals in Mahabubnagar district of Andhra Pradesh. A sample of 100 labour households was selected through probability random sampling method. The data pertained to the year 1992-93. The results revealed that the wage employment was 165 days in farming and 60 days in non-farm activities. Preparatory cultivation and sowing are the major farm activities for males and children while sowing and harvesting are the major sources of employment for female labour. The total farm earnings of male were three times that of children and $3\frac{1}{2}$ times that of female labour. The non-farm earnings of the females and children were more or less same and were nearly 54 per cent of the total male labour earnings. Wage employment was high in the irrigated villages compared to the unirrigated villages. The need is suggested to implement wage employment schemes in the unirrigated area to augment farm labour employment.

Employment Potential of Hybrid Rice Seed Production in Rural India - An Ex-Ante Study

A. Janaiah and V. Kiresur^{*}

The study attempts to assess the employment potential and profitability of hybrid rice seed production in India based on the experimental data collected from various hybrid rice research network centres, viz., Hyderabad, Maruteru (Andhra Pradesh), Coimbatore (Tamil Nadu), Karnal (Haryana) and MAHYCO Seed Company Farm located at Eluru (Andhra Pradesh) during *kharif* and *rabi* 1992-93. The ICAR-UNDP-FAO funded project was launched with 12 network centres (Hyderabad, Maruteru, Mandya, Coimbatore, New Delhi, Karnal, Kapurthala, Pantnagar, Faizabad, Cuttack, Chinsurah and Karjat) under the co-ordination of Directorate of Rice Research, Hyderabad with the main objective of developing and releasing first commercial rice hybrids by 1994 which can yield at least one tonne extra per hectare over the best high-yielding variety (HYV) and provide sizeable additional employment opportunities in rural India. The results of the study showed that one hectare of the hybrid rice seed production farm can provide about 270 additional man-days (260 man-days for women and 10 man-days for men) which are required to accomplish special operations like roguing, supplementary pollination, leaf clipping, gap filling, etc., in F1-seed

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production process. In terms of resource cost, about 48 per cent of total variable cost is required for these additional operations and Gibberalic acid. The return per investment was worked out at Rs. 2.90 with the gross income and total cost of about Rs. 72,900 and Rs. 24,300 per hectare respectively. Since it is a highly profitable enterprise, F1-seed production would be taken up on large scale both in private and public sectors in the near future. The estimated area to be brought under F1-seed production programme based on the targeted area for hybrid rice cultivation is 20,000 ha, 1.0 lakh ha and 1.5 lakh ha by 2000, 2005 and 2010 A.D. respectively which can generate about 5.4, 26.9 and 40.3 million additional man-days in the rural areas. Therefore, it is the responsibility of the planners and policy makers to make the fruits of the hybrid rice technology being developed by the Indian rice scientists available to the farmers and rural labourers by formulating a clear-cut seed policy and providing all support to take up F1-seed production not only in private and public sectors, but also in the co-operative sector.

A Study of Wages, Employment, Income and the Level of Indebtedness of Landless Agricultural Workers

Debnarayan Sarker[†]

It is argued that landless agricultural labourers and landless tenants are the two main categories of the same rural class structure in which the labour of others is employed, directly by hiring for wages and indirectly by leasing out land on rent. This paper attempts to study the wages, employment, income and the level of indebtedness of these two types of landless agricultural workers in a region of West Bengal having a greater incidence of modern agricultural technology. The exercise is carried out with primary data pertaining to 90 households covering the period 1985-86 in eight villages of Bagdah Development block in the north 24-Parganas district of the state.

Despite the greater incidence of modern agricultural technology, the economic conditions of the landless tenants (pure tenants) who are tied to the bondage of perpetual debt with their landowners (leasors), are noticeably worse off than the landless agricultural labourers who enjoy freedom to secure employment with different employers, with whom the landless labourers are not enmeshed with any loanable transactions, at a wage rate not so far from uniformity of the Minimum Wages Act of the West Bengal Government. The introduction of advanced agricultural practices has ensured to secure employment for male members of both the categories of landless workers for more than nine months in an agricultured year on agricultural work and monetisation of payment made for all types of works except for share-cropped land by the landless tenants. Although non-agricultural wage work for both the categories of landless workers is insignificant in relation to agricultural wage work, they all are employed in various types of works within the same region they live in. But, despite such a bounty for the landless workers, there is acute under-employment and the income of

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the landless tenants is very low compared to the full-time wage workers in this technologically advanced area. Also, the introduction of modern agricultural practices in the production front does not suggest high marginal productivity of production credit and high contribution to agricultural growth; nor do the landless tenants work as full-time wage labourers because of their increasing outstanding debt (or a cycle of perpetual debt) to their landowners who prevent this transition. The study also highlights that in such a stage if there exists high marginal productivity of production credit and its high contribution to agricultural production by the landless tenants and then if they fail to repay the total interest on the large burden of outstanding debt, the indebted tenants will be caught in the high level of debt trap from which they themselves will be unable to come out. In this situation, the study suggests that mere institutional aid needed to make the landless tenants free from the large burden of existing outstanding debt with their landowners is a doubtful gain if they fail to get ownership or security rights in their leasehold land and a complete package of supporting ancillary services; also, there is the need to intensify agriculture in its wider connotation, which includes animal husbandry, pisciculture, horticulture, agro-based industries, etc., to generate more employment for the rural masses.

Agricultural Wage Differentials in India: An Empirical Study

M.S. Jairath*

Rising prices is a world wide phenomenon. The only difference between countries facing this global problem is the varying degree and magnitude of this malady. In such a situation of rising prices, the fixed wage earning class and agricultural workers are most adversely affected. In this context, a study on wage rates of the unskilled agricultural labour and factors affecting wage rates at two time periods, namely, pre-green revolution and post-green revolution periods, is most relevant. The study indicates that both the minimum and average wages have increased in all the states. This shows that the government has not only raised the minimum wages in absolute terms but the relative real minimum wages in the post-green revolution period can also be seen to be placed at a higher level in all the states, compared to the pre-green revolution period. The percentage of average real wages to minimum deflated wages in the pre-green revolution period was the highest in Kerala (248), followed by Punjab (224); relatively it was at the lowest level (98) in Haryana. The average real wages relative to minimum real wages during the post-green revolution period increased (as compared to the pre-green revolution period) in the case of Gujarat, Haryana, Himachal Pradesh and Karnataka. An analysis across the states during both the periods indicates that the average real wages were the highest in Kerala during the first quarter and in Haryana and Punjab during the second, third and fourth quarters, during the pre-green revolution period in almost all quarters in the states of Uttar Pradesh, followed by Karnataka, Bihar and Madhya Pradesh.

Real wages have registered an increase continuously during the peak periods of agricultural operations in these states. In the post-green revolution period, Haryana paid the

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highest real wages in all quarters. A lot of variation in real wages among the states in different quarters in both the periods has been noticed. The real wages of unskilled labourers across the states, except for marginal differences, have increased in all quarters during the post-green revolution period as compared to the pre-green revolution period. This is a clear indication of the improvement in real wages offered during the latest period of green revolution. This is a healthy trend and a positive sign of development. Average deflated wages and the minimum wages are very much correlated. The correlation coefficient between these two was found to be 0.74 which is significant at 5 per cent level. The values of the regression coefficients for percentage of irrigated area and cropping intensity were positive but these were negative in the case of percentage area under HYV and fertiliser use per hectare. However, neither of these is significant at 5 per cent level. The value of R^2 too was not very encouraging.

It is apparent that real wages have increased during the period of the study. A comparison of the real average wages and the real minimum wages does not present an encouraging picture. It is suggested that unless the unskilled labourers in the farm sector are able to unite and present an organised front like their counterparts in the industrial sector, it is difficult for them to demand at least reasonable wages based on changes in consumer price indexes.

Production, Productivity and Agricultural Wages in Karnataka

R.V. Dadibhavi and S.S. Masali[†]

The new technology introduced in Indian agriculture in the mid-sixties was likely to result in an increased demand for labour and favourably affect the wage rates of agricultural labourers. But it was also found that the agricultural labourers were not sharing equitably in the benefits of new technology indicating excess supply of agricultural labourers. In the light of these, the paper attempts to examine the growth of money wages and real wages and the association between real wages and production and productivity of agricultural crops at the district level in Karnataka. The entire period under study 1960-61 to 1986-87 is also divided into the pre-green revolution period (1960-61 to 1970-71) and post-green revolution period (1971-72 to 1986-87). The required data are collected from the published and unpublished sources of the State Bureau of Economics and Statistics, Bangalore.

The results indicate that though the money wages registered a significant growth during all the three periods under study in the districts of the state, the growth in real wages is not impressive. Two possible important reasons for such a phenomenon in real wages may be the shifts in the demand for and supply of labour. In the present study, increase in the size of agricultural output is considered to be the factor causing for a shift in the demand for labour. Generally, any increase in the demand for labour causes a rise in the real wages. But the districts like Raichur and Tumkur experienced high growth of output but low growth in real wages during 1960-61 to 1986-87. The possible reason for this in these districts is the high growth in the supply of agricultural labourers compared to the state average during

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1961 to 1981. Thus it seems that a rise in the demand for labour for an increase in the size of output in these districts has led to an increase in the employment of surplus labourers but not in the wages. On the other hand, during the same period the districts like Bidar, Bijapur, Dakshina Kannada, Gulbarga and Kodagu reported low growth in output but high growth in real wages. But in all these districts the growth in supply of agricultural labourers is less than the state average which may perhaps explain the above phenomenon.

Further, we have also examined the association between the real wages and production and productivity of crops. The results reveal that the real wages failed to find a significant relation with either production or productivity in a majority of the districts of the state during all the three periods under study. Also the cross-section regression results for 1960-63, 1970-73 and 1984-87 do not show any significant impact of production and productivity on real wages. Thus the results indicate that in a majority of the districts of the state, an increase in the demand for labour has led to an increase in the employment of surplus labourers rather than in raising the level of real wages. This clearly shows the failure of agricultural labourers to share equitably the benefits of increased production/productivity of agricultural crops in a majority of the districts of the state. Further, it was also noticed that the actual level of agricultural wages in a majority of the districts of the state were below the statutory minimum wages fixed by the Government of Karnataka from time to time. Hence generation of regular non-farm employment opportunities, formation of agricultural labour organisation and effective implementation of minimum wages act may go a long way in enhancing the well-being of agricultural labourers.

Growth in Productivity and Wages in a Dynamic Agriculture with special reference to Punjab

Bant Singh, Narinder Kumar and H.S. Bal*

The present study was conducted (1) to examine the growth and relationship in productivity, human labour demand and wages of agricultural labourers in different agro-climatic regions of Punjab during the post-green revolution period from 1971-72 to 1987-88, (2) to compare the earnings of small and marginal farmers with those of agricultural labourers and (3) to examine and assess the impact of migratory agricultural labourers on the wages and relations with the local labourers in Punjab. The study brought out that although the total factor productivity and aggregate demand for labour in the post-green revolution period in Punjab have increased in almost in all the three regions of the state, the wages of agricultural labourers (at constant prices) have declined over the period from 1971-72 to 1987-88. The main reason for the decline in the wage rates, besides mechanisation, is the derogatory impact of migratory agricultural labourers from other states. The study further brought out that there is little relationship between productivity and wages; the wages are rather determined by total demand and total supply of labour in the area. An important facet which the study highlighted is that many small and marginal farmers in a state like Punjab and that too in the green revolution era have become agricultural labourers.

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Wage-Productivity: An Analysis Across Agro-Climatic Zones

Jayanti Ghanekar[†]

A number of studies relating to different issues of the agricultural labourers in India have been carried out. The studies dealing with variations in wage rates across the states of India consider each state as a homogeneous unit to explain the differences in the wage rates across the states. But the analysis can also be based on different agro-climatic zones of the country, which have similar agro-climatic conditions, but which cut across different state boundaries. The basic focus of such a study would be to examine the extent of influence of agro-climatic conditions on the wage rates without special emphasis on the socio-economic characteristics of the states involved. The major objectives of this study are to examine the variations in money wage rates across different agro-climatic zones as identified by Agro-Climatic Regional Planning Unit of the Planning Commission, to study the variations within the zones and to relate the average level of wage rate of a zone with the average level of productivity of that zone. The study has considered six major agro-climatic zones including the States of Punjab, Kerala, Madhya Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Bihar and Orissa. Firstly, it was found that except for Punjab and Kerala, the absolute level of money wage rates in the remaining zones does not vary greatly from one zone to the other. Similarly, positive relationship was found between money wage rates and productivity of the zones considered, *i.e.*, zones with lower productivity happened to be those with lower average wage rate and those with higher productivity were the zones with higher level of average wage rate. Thirdly, the degree of variation around the average wage rate within the zone seemed to be increasing as the number of states involved went on increasing, *i.e.*, the zone covering only one state showed least variation while that covering a larger number of states showed larger variation.

Contract Employment in Agriculture and Its Effect on Income, Wages and Farm Productivity in the Humid South-Eastern Plains of Rajasthan

K.A. Varghese and P.M. Sharma*

Contract labour for fixed period of time or doing specified job is generally practised by the landless labourers in the humid south-eastern plains comprising Kota, Bundi, Baran and Jhalawar districts of Rajasthan. The paper attempts to assess the contribution of contract employment in the crop farming activity, its productivity and wage structure due to different types of labour use in crop farming. The study based on data collected from 50 farmers (16 operated with annual contract labour and 34 with other types of labour) for the crop year 1991-92 revealed that out of 331.3 man-days of labour required for crop farming, 31.8 per

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cent was from family sources, 18.7 per cent was through contract labour, 33.7 per cent was through job contract form of labour and the remaining 15.8 per cent was through hired labour on daily wages. Across the farm size classes, there has been wide variation in the share of sourcewise employment for crop farming. The proportionate share of family labour in the total employment has been more on small farm size classes and its share decreased from 65.2 per cent on marginal farms (less than 1 ha) to 23.9 per cent on large farms (more than 6 ha). Consequently, the proportionate share of labour employment through contract and other sources increased with the increase in farm size. The farm size and the number of animals maintained on farms determined the size of regular labour supply either through family members or through attached labour in farm households during the year.

The productivity of wheat on farms operated with annual servants was found to be statistically higher than that on farms operated without attached servants, implying that assured labour supply on farms has positive impact on farm productivity. The per day wage income received by contract labour on annual basis, job contract basis and on daily wage basis differed significantly, the per day wage income being Rs. 22.65, Rs. 35 and Rs. 30 respectively for these classes of labour. The timely farm operation and the consequent higher productivity are the advantages for landowners engaging annual contract labour while work guarantee and lump sum advance payment which in turn is used for productive purposes are the encouraging factors for the landless households to adopt such a labour contract system in this region.

Impact of New Dryland Technology on Employment in Ranga Reddy District of Andhra Pradesh

Shaik Saleem, K. Hemachandrudu and Y.R.B. Sharma[†]

The impact of new dryland technology on employment in Ranga Reddy district of Andhra Pradesh was studied to evaluate the impact of technological change on employment at the farm level using multivariate analysis. The study was based on micro level data obtained from a sample of 108 farms in Ranga Reddy district, classified into three farm size-groups, namely, small, medium and large. The analytical technique used is the multiple regression analysis of the log linear type. The regression equation was estimated taking employment as the dependent variable, cropped area, high-yielding variety (HYV) seed, fertiliser, plant protection chemicals and gross income as independent variables. Among the various factors contributing to labour employment, the share of fertiliser was the maximum, being 87 per cent. This was followed by the use of HYV seed and cropped area which together accounted for about 50 per cent of labour employment for the sample as a whole. The study concludes that the labour employment depended mainly on fertiliser, followed by seed and cropped area. The technological inputs however made marginal contribution to labour employment on small farms when compared to medium and large size-groups of farms.

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Impact of Poverty Alleviation Programmes on Agricultural Labourers: A Case Study in Birbhum District (West Bengal)

D.K. Ghosh*

Though the upliftment of the weaker sections of the community has been the target of the Government right through the launching of the plan era, poverty alleviation in right earnest became a major concern of the State during the Sixth Plan. The inadequacies of trickle down approach put the emphasis on target group approach. Agricultural labour comprises a sizeable portion of this target group. Since the Sixth Five Year Plan, programmes like Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) were launched to provide self and wage employment to the rural poor. In the process of thirteen years of its existence, the IRDP goes deep into the hearts of the rural poor through its beneficial impact. Though in terms of families crossing the poverty line the achievement seems to be negligible, in reality due to this programme the majority of the assisted families were able to increase their standard of living and get the vision of better life. The study of a sample of 200 agricultural labour families selected from ten gram panchayats in five blocks of Birbhum district of West Bengal in 1989-90 revealed that though 10.50 per cent of the assisted families were able to cross the poverty line, 70.50 per cent of them were able to improve their standard of living; 82 per cent of the assisted families were able to increase their food consumption because of enhanced family income due to the various schemes under IRDP. However, the IRDP did not help significantly in the acquisition of additional assets. The IRDP also helped to mitigate illiteracy as agricultural labour families have felt the urge to send their children to schools for formal education. This becomes possible due to enhanced family income. Contrary to the success of IRDP, the achievements of JRY are not so much epochmaking. JRY neither ensures continuous employment nor takes care of adequate employment. As a consequence, the impact of this programme on agricultural labourer is minimum. For effective implementation of poverty alleviation programmes, close linkage between self and wage employment opportunities is essential.

Levels of Employment, Income and Consumption among Tea Plantation Labourers in Himachal Pradesh

R.K. Sharma, Brij Bala and S.K. Sharma†

The paper attempts to examine the pattern of employment, income and consumption of a sample of 80 tea plantation labourers in Kangra district of Himachal Pradesh, which is a major tea producing area of the state. The study revealed that the labour employment in tea plantation is mainly during plucking periods of April-May and September-October. In other

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months, December to February are important for pruning and other interculture operations. The employment within the agricultural sector is low because of negligible land holding. The study further shows that tea plantation labour is the largest contributor to gross household income, followed by service/pension and non-agricultural sector. About 72 per cent of the total expenditure was on food items and about 9 per cent of the expenditure was on non-vegetarian food. Health and education were given the least priority. The results further show that the variations in female labour employment in tea plantation were mainly due to owned land, number of adult male, female education and average wage rate. Provision of better educational facilities to the females in the study area, along with alternative employment opportunities, are likely to streamline the tea plantation labour employment. Although the large tea plantations are adequately managed, the small planters need proper guidance. With better management in terms of pruning, fertilisation, irrigation and other intercultural activities, the overall employment in tea plantation could be enhanced.

Wages, Employment and Earnings of Marginal Farmers in Some Selected Villages of Raipur District of Madhya Pradesh

A.K. Gauraha and S.P. Gupta*

A study was undertaken with a view to examining the level of wages paid, employment, income and expenditure of the marginal farmers having a holding size less than one hectare each. It was based on a sample of 70 marginal farmer households selected from four villages of two agricultural development blocks of the district. On the basis of the extent of irrigation, these villages are divided into two groups, *i.e.*, canal along with tubewell irrigated villages (group I) and only canal irrigated villages (group II). A comparison has been made between these two groups to examine the effect of additional irrigation on the economy of the marginal farmers. All the information collected for the study related to the year of 1992-93.

The study showed that the work done by male and female members on their own farms was only about one-tenth of the total employment. They got the rest of the 90 per cent employment either from non-agricultural works or from agricultural works at other farms. More than 50 per cent of the employment was generated from non-agricultural works in which the involvement of the female members was very limited due to the long distance of the working places. Both the employment and wages at other farms were higher in group I as compared to group II. The per family total employment was 511 and 451 labour days in group I and group II respectively, showing a relatively better position of employment in group I. The prevailing wage rate for agricultural work is Rs. 16.78 in group I; it is only Rs. 14.06 in group II. The wage rate for the female workers is less than that of male workers by Rs. 2.24 to Rs. 3.32 in these groups. The average earning of a farm family in group I was Rs. 7,805 per annum from its own farm as well as from other farms, which was higher than that of group II by Rs. 1,756. The per capita earning from agriculture is also higher in group I, as compared to group II. The total income from all the sources was considerably higher

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in group I (Rs. 12,179 per annum) as compared to group II (Rs. 10,371). In spite of excess expenditure, the per family and per person net savings in group I were Rs. 1,753 and Rs. 305 per year, which were higher than that of group II by Rs. 1,258 and Rs. 258 respectively. Of the total available female labour days, only 45 per cent of the female labour days were utilised, whereas this figure was more than 80 per cent in the case of male members in both the groups. It is observed that the prevailing wage rate in agriculture was about half of the wage (Rs. 28.17 per day) announced by the government.

It is suggested that the extent of female labour employment could be increased by establishing cottage and small scale industries in the rural areas. Since irrigation is a very important factor of production in agriculture, in order to improve the productivity and cropping intensity on the farms, there is an urgent need to create the irrigation infrastructure which may be possible through co-operative management by the farmers themselves. The implementation of the announced wages seems to be very essential to raise the level of income of marginal farmers/labourers.

Employment and Income of Agricultural Labourers vis-a-vis Small Farmers and Non-Agricultural Labourers in Gwalior District of Madhya Pradesh

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The study aims at examining the extent of employment and income per family per annum derived by agricultural labourers, small farmers and non-agricultural labourers and tests the hypothesis that agricultural/non-agricultural labourers are better off than the small farmers in the study area. A sample of 50 small farmers and an equal number of agricultural labourers and of non-agricultural labourers were selected in 1991-92 from Murar and Dabra blocks in Gwalior district of Madhya Pradesh for the purpose of the study through survey method. The study indicated that the size of families of the small farmers, agricultural and non-agricultural labourers was the same but employment per member per annum was less in the case of small farmers and agricultural labourers as compared to non-agricultural labourers though per family earning members were more in the first two categories. Annual earnings from employment per family were the highest in the case of non-agricultural labourers, followed by small farmers and agricultural labourers. Similarly, periods of unemployment were higher in the case of small farmers and agricultural labourers. Crop production was the major activity which provided employment to the extent of 79 per cent of the total employed days for small farmers and more than 82 per cent to agricultural labourers. Out of total annual farm income, earnings from crop production and dairying (35.4 per cent) and family labour employed in crop cultivation (53.2 per cent) together accounted for 88.6 per cent in the case of small farmers. Wage earnings of agricultural labourers from crop and dairying were 87 per cent. Non-agricultural labourers engaged in housing industry as masons earned the highest income of Rs. 31,000 per family per annum. Similarly, non-agricultural

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labourers engaged in jobs other than masonry earned Rs. 18,050 per family per annum as compared to their counterparts engaged in the agricultural sector who earned only Rs. 15,695 per family per annum. It indicates that annual earnings of non-agricultural labourers were higher than those of agricultural labourers though the scope for migration of rural agricultural labourers was limited due to certain obligations to their employers (big farmers) and other factors linked with them. Higher wages, less physical exertion and more employment duration were the major reasons for the migration of agricultural labourers from agriculture to non-agricultural occupations both within the village and from the village to the urban areas, besides the lure for urban living in the case of non-agricultural labourers who migrated from rural to urban areas during the period.

A Study of Employment and Income of Agricultural Labourers in Agra District (Uttar Pradesh)

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The paper makes an attempt to study the employment and income of agricultural labour households based on an enquiry of 74 agricultural labour households consisting of 46 cultivating labour households and 28 landless labour households, selected from three villages of Bichpuri development block in Agra district of Uttar Pradesh. The data were collected by personal interviews with the help of schedules and questionnaires for the year 1987-88. The results of the study indicated that out of 74 agricultural labour families under study, 35 or about 47 per cent of the families were benefited by the Integrated Rural Development Programme (IRDP). The extent of families benefited under IRDP was higher (52 per cent) in the case of landless labourers as compared to cultivating labourers (39 per cent). The scheduled caste families benefited under IRDP constituted about 55 per cent of the total families. A majority of beneficiary families (about 51 per cent) were provided loans for buffaloes, followed by for shoe-making (23 per cent), for retail trade (20 per cent), for *tonga* and horse (14 per cent), for sewing machines (11 per cent) and for bicycle repair (3 per cent). Thus the purchase of buffaloes was the dominant purpose of the loan and it appears to be the main thrust for removal of poverty of the poor families. Assets were found intact in 53 per cent of the cases. The purposewise analysis indicated that the proportion of assets which were intact was the lowest in the case of buffaloes (41 per cent) and the highest (about 68 per cent) in the case of shoe-making. The poor performance in the case of buffaloes creates an impression that there is greater opportunity for leakages. It may be noted that for some families subsidy was the main attraction.

Per worker employment worked out to about 245 man-days in a year in the case of beneficiary families and 198 man-days in the case of non-beneficiary families. The extent of self-employment was higher in the case of beneficiary families (230 man-days or about 63 per cent of total employment) than in the case of non-beneficiary families (128 man-days or about 47 per cent of total employment). Thus IRDP assistance has enabled the beneficiary

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families to get more self-employment jobs. The level of employment in the case of beneficiary families was higher by about 19 per cent than that of the non-beneficiary families. Overall income per family worked out to about Rs. 5,646 for beneficiary families, which was higher by about 16 per cent as compared to the non-beneficiary families (Rs. 4,728). It may be noted that the family income of beneficiary families was higher in the case of both cultivating labour families and landless labour families than their counterparts among non-beneficiary families. The main source of income for beneficiary families was self-employment (58 per cent) and for non-beneficiary families was wage employment (about 66 per cent). This is due to the fact that the IRDP has enabled the beneficiary families to get self-employment through creation of assets. About 31 per cent of the beneficiary families and only about 15 per cent of the non-beneficiary families could cross the poverty line. It is further observed that 27 per cent of the cultivating labourers and 33 per cent of the landless labourers were above the poverty line in the case of beneficiary families while the respective percentages for the non-beneficiaries was only 12 and 18. This indicates that the IRDP has not made any substantial dent on alleviation of poverty in the area under study. The problem of removal of rural poverty needs to be tackled through an effective programme of diversification of rural economic activities in the non-traditional areas outside agriculture. There is need to make sincere efforts to implement the rural development programmes effectively to eradicate rural poverty.

Gender Differentials in Agricultural Wages - A Study of Haryana

Satnam Kaur and S.K. Goyal[†]

Analysis of the census data indicates that over the years there has been an increase in the proportion of agricultural labour and a decline in the proportion of cultivators. This trend is more sharp in the case of women who are joining the ranks of agricultural labourers in increasing proportion. They are finding themselves doubly disadvantaged, first for being members of the weaker class and secondly for being members of the weaker sex. The paper examines the extent to which female agricultural labourers lag behind the male agricultural labourers with regard to wage payment in different agricultural operations, average earnings and mode and rate of payment. It is based on a study carried out in two districts of Haryana which are at different levels of rural development, namely, Karnal, a developed district and Mohindergarh, a less developed district. The data were collected from four villages, two from each district. Out of the households having female agricultural labourers, ten per cent of the households were selected on the basis of simple random sampling, caste forming the basis of strata; thus 155 households were selected. From each household, women working as agricultural labourers were interviewed personally.

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The analysis of the data indicated significant differences in the wages of females and males for the operations in which both are employed. Even for the operations which are female labour intensive and are considered to be better performed by them such as weeding, their wages were half the wages of males. It is observed that the activities which are dominated by males are better paid, indicating that wages are determined not by the quality of work or end product but by whether it is done by male or female. It is found that all operations involving the use of machinery and draught animals are performed by men and the operations which demand direct manual labour are performed by women. The tendency of women to suffer deprivation is not just because of wage differentials, it is also due to less than equal opportunity in the labour market. Furthermore, all the operations which are solely performed by males are paid in cash while the operations which are performed by females are paid in kind.

Pattern of Employment in Agriculture: A Comparison with Non-Agricultural Sector in Ghaziabad District (Uttar Pradesh)

Bindhyachal Singh and K.P. Singh*

The paper presents a comparative picture of the pattern of employment in agricultural and non-agricultural sectors, based on analysis of data collected from a sample of 100 agricultural labour households (70 without land and 30 with land), selected from ten villages in Simbhaoli block of Ghaziabad district in Uttar Pradesh. The study revealed that agricultural labourers got employment from all sources for nine months in a year and for the rest of the months they remained idle. Further, wage paid employment in agriculture is the main and important source of employment to agricultural labourers. Milk production and non-agricultural wages are the next best sources creating substantial employment for them. On an average, the agricultural sector provided employment for 220 days to an agricultural labourer and the non-agricultural sector for 58 days in a year. Among agricultural operations, harvesting, threshing and winnowing and interculture are the important operations creating major days of employment. *Kharif* is the most important season contributing a major portion of agricultural employment to the labourers. It is suggested that self-employment schemes for agricultural labourers should be effectively implemented to provide full employment to the have-nots of the rural population in the study area in particular and in the country in general.

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Female Employment and Wages in Agricultural and Non-Agricultural Activities - Evidence from Rural Punjab

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Work participation rate and composition of workers in India have undergone change over the years. The female work participation rate in the rural areas has increased by 4 percentage points from 23 per cent in 1981 to over 27 per cent in 1991, with wide regional variations. Over the decade (1981-91) the proportion of female cultivators (to total female labour) has increased whereas that of female agricultural labour has decreased. Punjab State bears distinct features in the composition of workers when compared with other states. The paper aims at examining the participation of female rural labour in agricultural and non-agricultural activities, based on data collected from a sample of 70 female agricultural labourers in 1987-88 and from 100 female non-agricultural labourers in 1988-89, selected from three blocks in Gurdaspur tehsil in Gurdaspur district of Punjab. It also attempts to explore the sex discrimination in terms of wages and their contribution to family income. The district has the largest number of holdings which are less than 2 hectares (5 acres) each. Seventy-eight per cent of its population lives villages and 70.7 per cent of its population earn their livelihood from agriculture. Further, the yield per hectare of major crops like wheat, barley, pulses, rice, jowar and maize is very low as compared to the average yield per hectare in the state. Thus though this district is predominantly agriculture based, it is quite backward in agricultural development.

The female agricultural workers engaged themselves in hard jobs like transplanting of paddy and harvesting of paddy and wheat (the main crops of the study area). The main activities undertaken by the female non-agricultural labourers are tailoring, shopkeeping, canning chairs and they also worked as domestic servants. The maximum number of field workers was found to be in the age group of 30-40 years whereas the females engaged in household industry were mostly in the age group of 36-45 years. Female agricultural labourers received only 75 per cent of the remuneration of what their male counterparts were paid for the same labour. The same is found to be true in the case of female non-agricultural labourers. The wages paid to them for tailoring, canning chairs and for working as domestic servants were ludicrously very low. The respondents complained of exploitation by their employers in terms of wages and hard nature of job. Only 60 per cent of the respondents were satisfied with their present jobs.

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Spatio-Temporal Variations in Agricultural and Industrial Wages in India

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An attempt has been made in the paper to examine the trends and growth rates in money as well as real wages of agricultural and industrial workers across the states and the gains in respect of agricultural wages consequent upon the increase in agricultural production. The study is based on macro level information for 31 years (1960-61 to 1990-91) collected from various published sources. Real wages were estimated by deflating the money wages with consumer price indices (general) during different years. The average wage rates and the estimated trend values along with growth rates establish that in spite of most of the gains in money wages eaten away by the inflationary trend in consumer price indices, there has been some improvement in wages in general across the states. The gain was more discernable in period II (1967-91). Among the states, the gain in agricultural wages was the highest for Haryana, followed by Gujarat, Bihar and Tamil Nadu. In the case of industrial wages in real terms, Gujarat being the leader was closely followed by Tamil Nadu, Bihar and Haryana. However, no conclusive inference could be drawn regarding the impact of economic development in the recent past on real wages across the states and sectors. A comparison of findings of real wages of agricultural and industrial wages failed to establish any sound criterion to judge who has benefited the most.

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