CHAPTER VII

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VII.1 Introduction

This study has dealt with the analysis of agricultural wages, which is an important aspect of agricultural labour market of the industrializing economy of Gujarat. The analysis of labour market behaviour is necessary to understand the process through which labour gets allocated among firms, industries, occupations and regions etc. Wages play an important role in smooth working of labour market mechanism. While there are several studies for organized industrial labour markets, there is dearth of similar studies for unorganized sectors such as agriculture, on which majority of population depends for livelihood. Further, agricultural labourers form a large proportion of the weaker section in the rural areas and therefore, the trends in the levels of living of agricultural labourers need serious consideration. The allocational and distributive questions in relation to agricultural wages deserve closer scrutiny and therefore form the core issues of the present study.

An analysis of the behaviour of agricultural wages and their determinants at state and district levels is undertaken in this study. The agricultural wage rates are studied in both nominal and real terms and factors affecting the levels and the differentials of these wage rates are identified. An attempt is also made to examine the effect of seasonal variations on wage levels. Further, the influence of composition of labour supply in terms
of socio-economic groups on agricultural wages is analysed. The study is based on secondary sources of data. The analysis involves time series and cross-sectional comparisons of wage rates and their differentials and develops an explanatory framework for study of wage trends and wage differentials with the help of bi-variate and multi-variate correlation and regression analysis.

VII.2 Findings of the Study

1. Wage Theories and Empirical studies on Wages

An analysis of different strands of economic thought regarding wage determination reveals limited applicability of classical and new-classical theory of wage determination for the agricultural sector of developing countries. Since wages in such economies are not determined by pure economic factors only, but depend on many other non-economic factors. Some elements of classical wage theory leading to subsistence wages may be applicable to agriculture and unorganised sectors of these economies, where there is vast amount of surplus labour. Here the conditions akin to Marxian reserve army of labour can also be visualized depressing the level of wages to the subsistence level. Weak bargaining power of labour, seasonality of demand for labour, vast inequalities of distribution of land holdings, multiplicity of labour market and their segmentation make the wage determination a complex issue. The survey of researches undertaken for Indian agricultural labour market and wage determination therein seem to
confirm the above conclusions of theoretical studies. These studies suggest the need for considering several institutional factors in wage determination. However, the results of these studies do not lead to much theoretical developments in the sphere of wages and remain mostly in the nature of empirical findings.

2. Agriculture Performance of State

The analysis of agricultural performance in Gujarat shows that Gujarat has made remarkable progress in the field of irrigation, along with increased coverage under high yielding varieties of seeds and use of chemical fertilizers. These changes have led to increased share of agriculture in state economy in terms of both: (a) Income, and (b) Employment. The production and productivity of both food crops and non-food crops has increased and there is a clear trend of shift towards cash crops almost in all the districts subject to the climatic conditions and quality of soil. These trends in agriculture have increased the demand for labour, which has direct bearing on wages of agricultural labour. With increase in population and consequently in the labour force in agricultural sector the continued labour surplus has contributed to lowering down wages of agricultural labourers, specially in areas where economically disadvantaged socio-economic groups such as tribals reside or migrate. The agricultural labour market seems to face the contrary pulls of rising demand for labour and continued labour surpluses.
3. Wage Trend and Differentials

The analysis of temporal and spatial wage trends and differentials reveals the following results:

(A) Temporal Wage Trends

There seems to be highly significant positive and increasing trend in money wage rate throughout the period, while due to the inflationary tendency real wages have fluctuations around a modestly rising trend line. Thus real wage rates have failed to keep pace with rising money wage rates. The analysis in terms of growth rate of money wages and real wages conforms this finding. The former has been high and significant, whereas real wage growth rate has fluctuated. On the whole, growth rate of real wages has been positive but not significant. In recent period in fact the real wages have registered a negative growth rate largely due to adverse agricultural conditions.

(B) Inter-Districts Wage Differentials

i. In most districts of Gujarat there were variations in wage rates over the years, though districts of Saurashtra region maintained the high rank in wage rate throughout the period under study.
ii. Money wage rates in all districts of the state registered fluctuations around rising trend line, while real wages have experienced fluctuations with alternatively trends of rise followed by fall in all the districts leading to negligible rise during the period as a whole.

iii. Inter-district wage pattern expressed in terms of rank ordering is not stable. In the first decade there was some tendency towards stability but in the second and third decades the extent of stability in rank orderings has reduced. A comparison over the period as a whole reveals marked dissimilarity of wage pattern.

iv. It is also observed that absolute differentials in wages among different districts have fluctuated over time both in money wages as well as real wages. The relative differentials have tended to narrow down with passage of time, though there have been some fluctuations also.

v. There is wide inter-district disparity and marked fluctuations in growth rate of money and real wage rates; though in case of real wage rates a negative tendency is observed in most of the districts. The period 1971-82 is an exception where growth rate of real wages has increased over previous period. This may be on account of green revolution during this period.
(C) Seasonal Wage Differentials

The wage rates tend to be high during the time of sowing and harvesting of kharif and rabi crops, and have lower levels during summer and remaining part of cropping periods. Thus the wages experience marked seasonal variations. The new technology in agricultural sector, however, has dampened the seasonal fluctuations in wages.

(D) Operationwise Wage Differentials

i. The trends of money and real wage rates are observed to be different in different farm operations. Though there was an increase in the money wages for all the four farm operations, there was no such increase in real wages. On the contrary, real wages fluctuated over a period of time in all the operations.

ii. Rise in wages, however, has not been uniform for all processes involved in agriculture. The rate of rise of money as well as real wages has been higher in case of weeding and harvesting, though sowing is the highest paid operation.

iii. The growth rate in money wages of different operations remained almost high and significant, while the real wages of different agricultural operations have registered a very low and insignificant growth rate over the years and these...
have remained negative almost in all operations except weeding over the period under study.

iv. It has been observed that inter-occupational (operation-wise) wage differentials in both money as well as real terms have increased in absolute term but declined in relative term seems to support the hypothesis that inflation tends to widen the absolute differentials but dampen the relative differentials.

v. The inter-district variations in money and real wage rates of different operations have increasing tendency but it is not uniform. There have been fluctuations.

vi. It can also be observed that growth rates of money wages are significant and positive in all districts, though there is hardly any similarity in operation-wise growth rate in different districts. In some districts growth rate of wages of ploughing operation is higher while in some districts growth rate of wages in weeding is higher. Besides in many districts the growth rate of real wage has been negative in all the four operations, while in some districts it is positive. The regional differentials in labour market (demand and supply of labour) seem to account for these inter-district variations.
4. Determinants of Wage Behaviour

(A) Temporal Wage Changes

The analysis of determinants of temporal variations in wage reveals the following conclusions:

i. Wage changes through time are positively influenced by changes in agricultural product price and productivity of labour. Both are demand factors and theoretically their positive relationship with wages is understandable. Rising product prices and improved farming conditions lead to better paying capacity of the employer and thus rise in wages (both money and real) is explained by these factors.

ii. The real agricultural product price (agricultural terms of trade measure) in combination with productivity of labour explain highly changes in money and real wage rates.

iii. Change in product price has short-run as well as long run effects on money wage changes as shown by significant values of regression coefficient for lagged product price measure.

iv. Wage changes are dynamic process and past wages have highly significant influence on current wages. This factor is relevant in explaining both money as well as real wage changes. In combination with product price the effect of
lagged wages means that past wage determination process has its effect distributed over long time period.

v. In a developing agricultural sector the demand for labour plays an important role in wage determination. This is visualised by the effect of several demand related factors, such as the use of new technology and complementary inputs like fertilizers, high yielding varieties seeds and resultant changes in cropping pattern, irrigation etc. which are the main factors in determination of agricultural wage rates. Relatively speaking, supply side factors do not have significant role in explaining rise in money and real wages over time. This may be due to the existence of excess labour supply conditions in agricultural sector.

vi. The analysis of determinants of wage variations is characterised by the existence of inter-relationship among various demand factors. While the role of all factors together turns out to be significant, the significance of the effect of individual demand factors is difficult to judge due to this multi-collinearity.

(B) Spatial Wage Variations

The analysis of spatial (inter-district) wage variations for four selected Census years (1961, 1971, 1981, and 1991) yields following conclusions:
i. Inter-district wage variations are explained by several factors influencing demand and supply of labour. On demand side variables such as use of improved farm practices such as use of tractors, fertilizers and irrigation play an important role. The rising cultivation of non-food crops (mostly cash crops) is associated with use of improved farm practices and is important in explaining wage variations.

ii. On supply side, variable associated with availability of tribal population in a district has a high and significant influence on wages. Generally this variable tends to dampen wages in a region. Another supply side factor having its origin in demographic and institutional characteristics of farm sector is man land ratio on farm. This variable has a negative influence on wages and denotes adverse effect of excess labour supply conditions on agricultural wages.

iii. The analysis of determinants of spatial variations in wages, like temporal analysis of wages, is affected by presence of multi-collinearity among explanatory variables. The variables included in analysis together explain the wage variations satisfactorily, though it is difficult to isolate effects of individual variables. This also signifies that in agricultural sector labour markets are characterised by inter-correlated system of demand-supply factors. On the whole, the logic of market forces seems to work in agricultural sector also. Thus the positive effects of demand side factors and negative influence of supply side
factors is observable in the results obtained through the analysis of determinants.

VII.3 Implications of Analysis

Thus the analysis reveals a strong support for the role of market forces in wage determination in developing agricultural sector. As against the contention that labour markets of agricultural sector of developing countries are characterised by lack of competitive elements, the present study finds the effectiveness of demand and supply factors in shaping of wage behaviour. The power forces such as organisations of labour or employers and institutional intervention are either absent or exercise a very weak influence on wages. One of the factors which has augmented demand for labour in Gujarat is the green revolution after 1969 which had significant impact on real wages. However, in relative terms the rise in real wages of agricultural workers has fared unfavourably compared to rise in overall prosperity in Gujarat due to excess labour supply situation and weak bargaining power of labourer. The depressing influence of supply conditions on wages is more pronounced in those areas where man-land ratio on farms is high or where concentration of weaker social groups such as tribals is high.

The analysis undertaken in the study on the whole, provides ample support for the hypotheses formulated and stated in Chapter III. The wage behaviour is largely explained by market forces, which are shaped by process of economic development in the State as
well as socio-economic characteristics and institutional background of rural population.

VII.4 Policy Suggestions

It is clear from the study that landless agricultural labourers who constitute the major portion of weaker section of society are not substantially benefited by agricultural prosperity of Gujarat. No doubt, the agricultural labourers have shared in the gains of green revolution and their economic conditions have improved in absolute terms though not in relative terms. The government and non-governmental organisations have to play a much more active and effective part than hitherto in devising policies for improving their lot. Therefore, to help in this task some suggestions can be put forward for implementation. These are related to measures for increasing demand for labour, improving quality of labour supply and institutional and legal reforms relating to agricultural labour market. These suggestions are as under:

i. Demand for labour in rural areas needs to be augmented. This could be done by creating job opportunities in non-farm sector of rural areas or by generating self-employment opportunities for under-employed and openly unemployed members of rural labour force. For this purpose, there is need for encouraging agro-based industries in these areas. This would reduce the extent of excess labour supply in
agriculture sector and help in putting upward pressure on agricultural wages.

ii. Policy measures for improving farm productivity should be taken which would require greater attention on providing educational and training facility to the rural people. Over and above some special programmes for the tribal population in this connection are all the more necessary to remove the depressing influence on wages.

iii. To protect the wage earners from the effect of rising prices, agricultural labourers should be provided essential consumer goods at subsidised price so as to adjust wage rates to cost of living index.

iv. The government needs to strengthen the implementation of minimum wage legislation in the state.

v. To give opportunity in off-seasonal unemployment programmes of local development aimed at creating community assets such as dams, canals, school, health centres, should be initiated on the line of employment guarantee programmes.

vi. It is observed that the trade union organisations have not developed in this sector. There is need for organisation of labour unions for reduction of labour exploitation. However, on their own they may not organise. N.G.Os. can play an important role in organising agricultural workers.
vii. The segmentation of labour market is the result of several cultural, social, educational, economic factors. There is need to attach the root causes of segmentation so that labour market is integrated.

viii. To reduce spatial wage differentials it is necessary to facilitate the availability of agricultural inputs and irrigation facilities on the one hand and to provide incentives for the development of underdeveloped regions like Dangs, Panchmahals, Broach, Bulsar districts on the other hand. This will raise demand for agricultural labour and thus increase wages in low wage areas.

VII.5 Scope for Further Studies

The present study was constrained by the limitations of time and resources. It could be done on the basis of primary data collected for individual households or individual agricultural farms of various parts of Gujarat's agricultural economy. The advantage of such study would be that data on various economic, social, demographic and institutional aspects of labour market could be collected to analyse wage determination process at micro level. Such a study would also help an understanding the difficulties in implementation of laws relating to agricultural wages. However, due to constraints of individual researcher in the form of limited time and resources, it was not feasible. It would be appropriate to examine the conclusions of the present study with the help of such primary data based research investigation at a future date.