Chapter - III

Trends in Agricultural Wages
Recently the rate of migration is declining due to population increases in the country. The socio-economic status of rural agricultural labours, who constitute nearly one third of the total rural work force depends largely on wage paid employment. Agricultural employment is so low in many regions of the country that rural agricultural labours are forced to live below the poverty line. Nearly 62 percent of rural agricultural labour households live below the poverty line, while the average rural poverty ratio in the country is 38 percent. Besides, the population of agricultural labours is rising over time, as also the casualization of agricultural labour force. These trends may further reduce the agricultural wage rates, particularly when there is neither much unionization among agricultural labours nor any effective implementation of minimum wages by the states. Moreover, in the wake of economic liberalization, agricultural wages and employment are likely to be more market drives, the possible impact of which on the socio-economic status of agricultural labours has yet to be assessed.

The divisional wise male or female wage trends in Anantapur district are explained below. To estimate the trend values, both the linear and log-linear (i.e., Exponential) form of the functions adopted. These functions are show in the chapter-II.

**Anantapur Division**

The estimated linear regression equation of female money wage rate in Anantapur division is

\[
Y = 8.0884 + 0.8875^*t
\]

\(r = 0.9958^*\) \quad \text{LGR}=5.1\text{ Percent.}

- Significant at ‘5’ percent probability level.
- Figures in the percentage one standard errors of the estimate

In the above linear regression equation, the estimated value of ‘b’ is positive and is 0.8875. It shows that there is an increasing trend in female
FIG. 3.1 - Anantapur Division: Female Money Wages

$Y = 8.0884 + 0.8875 \times T$

$y = 9.3670 \times 1.0559^T$

Base Year 1982-83
money wage rate in Anantapur division. This positive value reveals, on average, 0.89 rupees of female money wage rates that increasing every year during the study period. And this increment is significant. To establish the relationship between time and female money wages, correlation co-efficient is calculated. The value of ‘r’ is 0.9958. It explained that 99.85 percent of variation in female money wages by the time factor. This variation is significant at ‘5’ percent probability level. From the positive relation between female wage rate and time, one can observed that this relation is found significant. The linear growth rate is estimated and is found as 5.10 percent. This growth rate shows that the average annual increase in female money wages is 5.10 percent. The value of the intercept term ‘a’ is 8.0884.

The estimated log-linear equation for female money wage rate in Anantapur division is

\[ y = (9.3670) \times (1.0559)^t \times (0.0444) \]

C.G.R= 5.59 percent.

The estimated value of ‘b’ is 1.0559. The rate of change in female money wages is 1.0559 over year to year. This rate of increase is significant at ‘5’ percent. Probability level. The Compound Growth Rate is 5.59 percent.

The estimated linear regression equation of male money wages in Anantapur division is

\[ Y = 10.5787 + 1.3925 t \times (0.0971) \]

\[ r = 0.9588 \times LGR= 5.53 \text{ percent} \]
FIG. 3.2 - Anantapur Division: Male Money Wages

\[ Y = 10.5787 + 1.3925T \]
\[ y = 11.7540 \times 1.0610^T \]

Base Year 1982-83
From the above equation, the estimated value of ‘b’ is positive and it is 1.3925. A positive relationship was observed between wages and time. It expresses that there is an increasing trend in male money wage rate in Anantapur division. This positive value shows on average, 1.40 rupees of male money wage rate is increasing every year during the study period. By ‘t’ test statistic, it is observed that this increase in male wage rate is significant. To establish the relation between time and male wages, correlation coefficient is calculated. The value of ‘r’ is 0.9588. It reveals 95.88 percent of variation in male money wage rate is observed by the time factor. This relationship is significant at ‘5’ percent probability level. The increase in male money wages with respect to time is significant. The linear growth rate is estimated and it is found as 5.53 percent. This growth rate shows that the average annual increase in male money wages is 5.53 percent. The value of intercept term ‘a’ is 10.5787.

The estimated exponential form i.e., log-linear equation of male money wage rate in Anantapur division is

\[ y = (11.7540)(1.0610)^t. \]
\[ (0.1009) \]

CGR = 6.1 percent.

The estimated value of ‘b’ is positive (1.061) and significant. This value to be explained that the annual rate of change in male money wages is 1.061 over year to year. This rate of increase is significant at five percent. The Compound growth rate is 6.1 percent.

**Dharmavaram Division**

The estimated linear regression equation of female money wage rate in Dharmavaram division is
FIG.3.3-Dharmavaram Division : Female Money Wages

\[ Y = 7.5750 + 0.8785 \times T \]
\[ y = 8.9405 \times 1.0568^T \]

Base Year 1982-83
From the above equation, the estimated value of ‘b’ is 0.8785. It reveals that there is an increasing trend in female money wage rate in Dharmavaram division. This value reveals that an average, 0.87 rupees of female money wage rate is increasing every year during the study period. With the help of t-test statistic, it is observed that this increase in female money wage rate is significant. To establish the relation between time and female money wage, correlation co-efficient is calculated. The value of ‘r’ is 0.9930. That is 99.3 percent of variation in female wage rate is observed by the time factor. The relationship is significant at ‘5’ percent probability level. The increase in female money wages with respect to time is increasing and it is significant. The linear growth rate is estimated and it is found as 5.23 percent. This growth rate shows that the average annual increase in female money wages is 5.23 percent. The value of the intercept i.e., ‘a’ is 7.5750.

The estimated exponential form of female money wage rate in Dharmavaram division is

\[ y = (8.9405) (1.0568)^t \]

\[ (0.0383) \]

CGR = 5.68 percent.

The estimated value of ‘b’ is 1.0568. The rate of change in female money wages is 1.0568 over year to year. This rate of increase is significant at ‘5’ percent. The Compound Growth Rate is 5.68 percent during the study period.

The estimated linear regression equation of male money wages in Dharmavaram division is
FIG. 3.4 - Dharmavaram Division: Male Money Wages

\[ Y = 8.4184 + 1.4065 \times T \]

\[ y = 11.7376 \times 1.0604^T \]

Base Year 1982-83
\[ Y = 8.4184 + 1.4065^* t \]

\[ r = 0.9423^* \quad \text{LGR= 6.1 percent.} \]

From the above equation, the estimated regression co-efficient of the variable \( 't' \) i.e., the value of \( 'b' \) is positive and it is 1.4065. It is clear that this positive value reveals an increasing trend in male money wage rate in Dharmavaram division. This positive value shows on average, 1.40 rupees of male money wage rate is increasing every year during the study period. With the help of \( 't' \) test statistic, it is observed that this increase is significant. To set up the relation between time and male money wages, correlation coefficient is calculated. The value of \( 'r' \) is 0.9423. It reveals 94.23 percent of variation in male money wage rate is observed by the time factor. This relationship is significant at ‘5’ percent probability level. The increase in male money wages with respect to time is increasing and it is significant. The linear growth rate is estimated and it is found as 6.1 percent. This growth rate shows that the average annual increase in male money wages is 6.1 percent. The value of intercept i.e., ‘a’ is 8.4184.

The estimated exponential form of male money wage rate in Dharmavaram division is

\[ y = (11.7376)(1.0604)^{^*}. \]

\[ \text{CGR= 6 percent} \]

The estimated value of \( 'b' \) is 0.0765. The rate of change in male money wages is 0.0765 over year to year. This rate of increase is significant at five percent. The Compound Growth Rate is 6.1 percent in Dharmavaram division.
Penukonda Division

The estimated linear - regression equation of female money wages in Penukonda division is

\[ Y = 7.2723 + 0.8740t \]

\[ r = 0.9935 \quad \text{LGR}=5.31\text{percent}. \]

From the above equation, the estimated value of ‘b’ is 0.8740. It expresses that there is an increasing trend in female money wage rate in Penukonda division. This value shows on average, 0.87 rupees of female money wage rates is increasing every year during the study period. With the help of t-test statistic, it is observed that this increase is significant. To establish the relation between time and female money wages, correlation coefficient is calculated. The value of ‘r’ is 0.9935. It reveals 99.35 percent of variation in female money wage rate is observed by the time factor. This relationship is significant at ‘5’ percent probability level. The increase in female money wages with respect to time is increasing and it is significant. The linear growth rate is calculated and is found as 5.31 percent. This growth rate reveals that the annual average increase in female money wages is 5.31 percent. The value of the intercept i.e., ‘a’ is 7.2723.

The estimated log-linear function i.e., exponential from of female money wage rate in Penukonda division is

\[ y = (8.7758)(1.0563)^t. \]

\[ CGR= 5.6 \text{percent}. \]

The estimated value of ‘b’ is 1.0563. The rate of change in female money wages is 1.05 over year to year. This rate of change is tested and found that it is significant at ‘5’ percent. The Compound Growth Rate is 5.6 percent.
FIG. 3.5- Penukonda Division: Female Money Wages

\[ Y = 7.2723 + 0.874T \]
\[ y = 8.7758 \times 1.0563^T \]

Base year 1982-83
The estimated linear regression equation of male money wages of Penukonda division is

\[ Y = 8.4118 + 1.3703^* t \]
\[ r = 0.9464^* \quad \text{LGR}= 6 \text{ percent}. \]

From the above equation, the estimated co-efficient of ‘b’ is 1.3703. It indicates that this increasing trend in male money wage rate in Penukonda division. The positive value shows on average 1.37 rupees of male money wage rate is increasing every year during the study period. By t-test statistic, it is observed that this increase is significant. To establish the relation between time and male money wages, correlation, co-efficient is calculated. The value of ‘r’ is 0.9464. It reveals that 94.64 percent of variation in male money wage rate is observed by the time factor. This relationship is significant at ‘5’ percent probability level. The increase in male money wages with respect to time is increasing and it is significant. The linear growth rate is estimated and it is found as 6 percent. This growth rate shows that the average annual increase in male money wages is 6 percent. The value of constant term ‘a’ is 8.4118.

The estimated exponential form of male money wage rate in Penukonda division is

\[ y = (11.6185) (1.0600)^{t}. \]
\[ (0.0715) \quad \text{CGR}= 6 \text{ percent}. \]

The estimated value of ‘b’ is 1.06. The rate of change in male money wages is 1.06 over year to year. This increased rate is significant at ‘5’ percent. The Compound Growth Rate is 6 percent.
FIG. 3.6 - Penukonda Division: Male Money Wages

\[ Y = 8.4118 + 1.3703 \times T \]
\[ y = 11.6185 \times 1.06^{0.06T} \]

Base Year 1982-83
Anantapur District

The estimated linear regression equation of female money wages in Anantapur district is

\[ Y = 7.6434 + 0.8799t \]

\[ r = 0.9986 \quad \text{LGR}=5.28 \text{ percent}. \]

From the above equation, the estimated regression co-efficient of ‘b’ is positive and significant (0.8799). It reveals that there is an increasing trend in female money wage rate in Anantapur District as a whole. This value shows on average, 0.88 rupees of female money wage rate is increasing every year during the study period. With the help of t-test statistic, it is observed that this increase in female money wage rate is significant. To establish the relationship between time and female money wages, correlation co-efficient is calculated. It means that the effect of time on female money wage rate is observed by the ‘r’ value. The value of ‘r’ is 0.9986. It indicates that 99.86 percent of variation in female money wage rate by the time factor. This relationship is significant at ‘5’ percent probability level. Hence, it is concluded that the female money wages with respect to time is increasing and this increase is significant. The linear growth rate is calculated and it is 5.28 percent. This growth rate shows that the annual average increase in female money wages is 5.28 percent. The value of the intercept term ‘a’ is 7.6434.

The estimated exponential from i.e., log-linear equation of female money wage rate in Anantapur district is

\[ y = (8.3203). (1.0646)^t \]

\[ \text{CGR}= 5.68 \text{ percent}. \]

The estimated value of ‘b’ is 1.0568. The rate of change in female money wages is 1.0568 over year to year. This rate of change is significant at ‘5’ percent probability level. The Compound Growth Rate is 5.68 percent.
FIG. 3.7- Anantapur District: Female Money Wages

\[ Y = 7.6434 + 0.8799^T \]
\[ y = 8.3203 * 1.0646^T \]
The estimated linear regression equation of male money wages of Anantapur District is

\[ Y = 9.1504 + 1.3871^* t \]
\[ r = 0.9511^* \quad \text{LGR} = 5.85\% 

From the above equation, the estimated value of \('b'\) (1.3871) is positive and significant. This positive value reveals that there is an increasing trend in male money wage rate in Anantapur District. These value express that, on average, 1.38 rupees of male money wage rate is increasing every year during the study period. By t-test statistic it is observed that this increase is significant. To establish the relationship between time and male money wages, correlation co-efficient is calculated. The value of \('r'\) is 0.9511. It tells that 95.11 percent of variation in male money wage rate is observed by the time factor. This relationship is significant at '5' percent probability level. Hence, it is found that the male money wages with respect to time is increasing over the period. The linear growth rate is calculated and it is found as 5.85 percent. This growth rate shows that the annual average increase in male money wages is 5.85 percent. The value of the intercept i.e., \('a'\) is 9.1504.

The estimated log-linear function of male money wage rate in Anantapur district is

\[ y = (12.2864)(1.0587)^t \]
\[ \text{CGR} = 5.87\% 

The estimated value of \('b'\) is 1.0587. The rate of change in male money wages is 1.0587 over year to year. This rate of change is significant at '5' percent. The Compound Growth Rate is 5.87 percent.
FIG. 3.8 - Anantapur District: Male Money Wages

Y = 9.1504 + 1.3871*T
y = 12.2864*1.0587^T

Base Year 1982-83
Table - 3.1

Division Wise Growth Rates of Money Wages in Anantapur district

<table>
<thead>
<tr>
<th>Division</th>
<th>Percent of L.G.R</th>
<th>Percent of C.G.R</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Anantapur</td>
<td>5.53</td>
<td>5.10</td>
</tr>
<tr>
<td>Dharmavaram</td>
<td>6.10</td>
<td>5.23</td>
</tr>
<tr>
<td>Penukonda</td>
<td>6.00</td>
<td>5.31</td>
</tr>
<tr>
<td>A.T.P. District</td>
<td>5.85</td>
<td>5.28</td>
</tr>
</tbody>
</table>

Comparing the division wise growth rates of agricultural wage rate, the growth of male wage rates are more than female wage rates. The growth rate of male wages is more (6.10) in Dharmavaram division followed by Penukonda (6.0) and Anantapur division (5.53) divisions. The Anantapur district as a whole, the percentage of male wage rate is 5.85. It is more than female wage rate (5.28) in the district. Penukonda division occupies first place in female money wage rate (5.31) followed by Dharmavaram division (5.23) and Anantapur division (5.10). Observing the growth rates of both male and female money wages, male wages are dominating female wages.