CHAPTER II

THE LEVEL OF AGRICULTURAL WAGES AND TRENDS

The purpose of this chapter is to study the trends in the movements of agricultural wages over the period 1967-68 to 1978-79. The first section examines and compares the general level of agricultural wages among the villages and the districts of Rajasthan over the period of study. A comparision of wage levels with those of other States has also been undertaken for relevant years. In the second section, an attempt has been made to esteblish, analyse and to explain the trends in money wage rates; while the third section discusses operation-wise wage rates and examines inter-operation wage movements. A study of relative movements of cereal prices and money wage rates is undertaken in the fourth section. It furthor looks into the movements of wages deflated by State Consumer Price Indices also. Last section summarises the main findings of the analyses done in this chapter.

2.1 General Wage Level in the State

During the previous two decades, average daily earnings for adult male agricultural labourers in Rajasthan remained

3.2 generally higher than what they were at all India-level. It was Rs.0.98 and Rs.1.76 in 1956-57 and 1964-65 respectively as against Rs.0.96 and Rs.1.43 at national level (see table 1.3). As compared to many of the other States also, wages were somewhat higher in Rajasthan. In 1967-68 average wages in Andhra Pradesh, Gujarat, Karnataka, Orissa, Maharashtra, Uttar Pradesh, Tamil Nadu etc. were Rs.2.43, 2.56, 1.93, 1.76, 2.47, 2.27, 2.25 respectively, while in Rajasthan it was Rs.2.58.[1]

Significant inter-village and inter-district wage variations were prevailing in Rajasthan. Table 2.1 highlights that the ratio of the highest wage village to the lowest wage village was 3.91 in 1967-68. Wages in the districts of Bhilwara, Dungarpur, Banswara, Udaipur etc. were at the lowest levels (below Rs.2.00 per day) in the State, while those in Bharatpur and Ganga Nagar were at the highest levels (above Rs.4.00). In the former group of districts wages remained quite low in both the villages (i.e.the two centres selected for data collection); while in the latter group of districts, wages were found to be higher in both the villages. Similarly considerable inter-village wage

1. Jose, A.V., "Trends in Real Wage Rates of Agricultural Labourers"; Economic and Political Weekly, 30 March, 1974, PPA-27. Jose estimated these figures based on 'Agricultural Wages in India'.

TABLE 2.1

Average Annual Daily Money Wage Rates in Agriculture for Adult Male Casual Labourers in Rajasthan : By Village and year (in Rupees)

Village	District	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Asind	Bhilwara	1.40	2.35	2.22	2.37	2.13	2.00	2.50	6.62**	10.75	10.60	5.00	5.00
Kakenseja	Banswara	1.42	1.50	1.95	2.07	2.00	2.67	2.81	3.37	-	-	-	-
Karada	Dungarpur	1.50	1.89	2.45	2.23	2.25	2.13	2.14	2.27	3.65	5.25	7.00	7.02
Jhonthri	Dungarpur	1.50	1.96	2.50	2.45	2.41	2.75	4.27	5.00	5.00	5.00	5.00	5.00
Jesrasar	Churu	1.50**	2.18	3.21	3.46	3.22	2.86	4.55	4.65**	4.75	5.00**	5.25**	5.50
Bigod	Bhilwara	1.84	2.30	2.46	2.46	2.43	2.50	2.55	2.70	4.28	5.00	4.83	5.22
Anjana	Banswara	1.85	1.85	2.11	2.05	3.92	4.59	4.58	4.89	5.55	5.81	5.00	5.00
Peepli 'A'	Udaipur	1.95	2.01	2.03	2.87	2.74	3.35	3.43	3.70	4.98	5.00	5.00	5.22
Adana	Chittor	2.00	2.50	2.00	2.00	2.00	2.50	3.12	3.68	8.62	7.98	8.70	8.07
Bhaisra	Jaisalmer	2.00	-	-	4.69	-	-	3.50	4.58**	5.66	6.75	8.50	5.00
Manora	Sirohi	2.00	2.09	2.28	2.12	2.09	3.05	3.56	3.70**	3.83	4.12	4.61	5.02
Khayra	Ajmer	2.02	2.50	2.26	2.39	2.87	2.68	3.13	3.91	5.47	6.79	6.95	6.99
Ninder	Jaipur	2.04	2.97	3.75	3.71	4.43	4.65	5.29	5.30	6.26	9.61	8.65	9.04

Village	District	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Sohla	Tonk	2.06	2.16	2.40	2.59	3.02	3.87	2.43	3.60**	5.00	5.00	5.02	5.12
Meenapara	Sawai Madhopur	2.15**	2.50	1.87	1.98	2.41	2.46	2.88	3.33	4.67	7.92	7.92	8.01
Sera	Udaipur	2.15	2.29	1.94	2.74	3.00	3.07	3.71	5.40	6.16	5.00	5.00	5.03
Dadiya	Ajmer	2.17	2.24	1.76	1.95	2.09	2.11	2.48	2.61	5.42	5.38	5.24	5.55
Bani	Jhalawar	2.20	2.33	1.83	1.81	1.91	2.05	2.58	2.72	3.01	4.21	5.33	4.50
Palri	Sirohi	2.28	2.22	2.34	2.41	2.38	3.00**	3.10**	4.40**	5.34	5.00	5.00	5.00
Chitanu Khurd	Jaipur	2.31	2.29	2.35	2.80	3.12	3.62	3.77	4.09	4.50	5.00	8.91	6.66
Mayalana Kalan	Pali	2.35	2.95	3.29	3.87	2.80	4.75	3.56	5.12	5.65	5.12	5.13	5.01
Govindpura	Jhalawar	2.46	2.88	2.84	2.88	2.86	3.00	3.00	3.04	4.54	4.97	5.18	4.82
Deepawas	Pali	2.46	2.39	1.94	2.01	2.17	2.46	3.88	-	-	-	-	-
Nathusar (Sikar)	Sikar	2.50	3.40	2.88	3.00	3.00	3.00	2.95	2.84	5.55	5.02	5.00	7.11
Salarpur	Alwar	2.54**	2.67	2.81	3.18	3.72	3.60	2.85	4.12	-	-	-	-
Pahoona	Chittor	2.70	2.62	2.61	2.50	2.85	2.77	3.50**	4.70**	6.50	4.36	5.00	5.00
Sayla	Jalore	2.72	3.19	2.39	2.72	3.35	3.55	3.29	5.59	5.72	5.51	5.41	7.84
Kasba-Machri	Alwar	2.75	2.74	3.09	2.85	3.25	4.64	3.95	4.88	5.36	6.77	5.00	5.29

Village	District	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Bissala	Barmer	2.75	4.00	3.00	3.91	3.08	3.20	5.14	8.37**	11.60	5.00	5.00**	10.00
Sukhapur	Bundi	2.75	2.56	2.41	2.46	2.43	2.54	3.37	4.00	-	-	-	-
Gurali	Sawai-Madhopur	2.75	2.74	3.36	2.91	3.21	3.31	4.31	4.27	4.83	4.87	5.42	5.32
Mehroli	Sikar	2.75	3.40	3.07	3.04	3.34	3.42	3.65	3.68	5.00	5.26	7.40**	9.60
Amli	Tonk	2.75	1.79	2.16	2.00	2.18	2.12	2.50	3.27	4.42	5.59	6.66	7.29
Panwa	Jalore	2.92	3.25	1.75**	2.30	1.88	2.00	3.00	3.00**	4.00**	5.00	5.00	5.00
Kuwarti	Bundi	2.96	2.95	3.03	2.97	3.00	3.02	-	-	-	-	-	-
Dhoti	Kota	2.99	2.73	2.75	2.95	2.86	3.16	3.45	4.28	5.18	6.22	5.04	5.75
Nathusar (Bikaner)	Bikaner	3.00	3.00	3.65	3.00	2.00	3.83	3.54	4.34**	5.14	7.61	7.88	6.00
Sekhla	Jodhpur	3.00	2.92	1.80	3.23	3.02	5.00	6.00**	8.66	5.00	6.41	6.87	7.00
Chokri-Khurd	Jodhpur	3.00	3.41	2.31	2.91	3.04	2.84	4.71	3.68	5.48	5.66	6.60	9.03
Jayal	Nagaur	3.00	3.53	3.20	3.31	3.08	3.00	3.28	3.38	5.14	6.07	6.33	7.43
Bamla	Kota	3.05	2.85	3.00	3.07	3.27	3.81	3.80	3.42	5.70	6.15	6.77	6.78
Khinwasar	Jhunjheen	3.16	3.81	3.95	3.53	3.78	4.46	4.48	4.83	-	-	-	-

Village	District	1967-68*	68-69*	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Bigga	Churu	3.19	3.54	3.66	4.16	4.42	3.66	4.16	5.41	6.76	7.50	3.94	4.25**
Doomra	Jhunjheena	3.37	3.92	3.49	3.57	3.69	3.76	3.76	4.00	-	-	-	-
Tausar	Nagaur	3.37	3.61	3.21	3.19	3.07	3.33	3.50	3.45	9.17	9.37	7.10	7.62
Khanwa	Bharatpur	4.24	3.30	3.29	3.04	3.00	3.32	5.11	5.71	7.89	7.13	7.59	9.80
Baropal	Ganganagar	4.75**	5.06	4.75	4.98	6.77	7.47	8.70	9.47	11.51	11.83	11.62	13.00
Jagheena	Bharatpur	5.48	4.15	4.54	4.59	4.52	4.55	4.74	5.10	6.18	5.94	6.15	7.20

Source :- Appendix tables computed as per the procedure described in Chapter I.

Notes : * Based on averaging of wage rates of four operations; wages for Irrigation and transplanting operations started being collected from 1969-70.

** Wage data not reported. Hence, average of the previous and the following years wages is taken. In some cases looking to the previous or following year's trend, some notional value is used in averaging.

*** Bissala : Its wage rate is based on harvesting wage rate for July month only.
Panwa : Its wage rate is based on only harvesting wage rate for March month only.
Sekhla : Its wage rate is based on ploughing and sowing wages of July month.

Variations were observed even within the district. Jesrasar and Bigga villages belong to Churu district. But the wage rate of the former was below half of that in the latter (See table 2.1, villages at serials 5 and 43). Likewise, Adana and Pahoona in Chittor district, and Sohla and Amli in Tonk district also witnessed sizeable wage differences in 1967-68. Such high wage variations continued to exist over the period under study. In 1978-79, the ratio of the highest wage village to the lowest wage village was found to be 3.06; though villages at the highest and the lowest ranks were not the same in all the years.

The rate of increase in wages also varied substantially over the period among the villages. Money wages observed a rise by two to three times in some villages; while in others, wages shot up by four to five times (see villages - Karada, Adana, Ninder etc. in table 2.1). Wage fluctuations occurred frequently causing inter-change of rank structure of the villages. All the villages witnessed, in general, a smoothly rising trend over time. But the first half of the period under study, exhibited relatively a slow and more smooth upward pattern; while the later half of the period (as seen in table 2.1)

showed a sharply increasing trend with frequent fluctuations. Perhaps it was due to the spiral hike in the cost of living of agricultural labourers in Rajasthan at one hand, and, failure of crops due to scanty rainfalls, on the other hand. Initially low wage villages showed higher percentage rate of increase in wages over the period as against the villages of the initially high wage rates.

In summing up, we find persistent rising trend in the wages over the period, fluctuating rates of increases, significant changes in the rank-structure of villages and significant wage differences between districts and even between villages in the same district.

2.2 Trends in the Movements of Money Wages over the years

2.2.1 Movements of Quartile Averages

To form Quartiles, all the 48 villages under study are arranged in an ascending order of their annual daily wage rates for the year 1967-68 (See Table 2.1). First quartile represents 12 villages of the lowest wage rates, while the fourth quartile denotes 12 villages of the highest wage rates. To arrive at quartile wage, simple average of wage rates of all the 12 villages in the quartile has been worked out for each year. Quartile wages are depicted in Table 2.2 below

TABLE 2.2

Annual Daily Wage Rates Averages Over Quartiles : 1967-68 to 1978-79 (Rs./day)

Years / Quartiles	1967-68	68-69	69-70	70-71	71-72	72-73
First	1.75	2.10	2.32	2.60	2.55	2.83
Second	2.26	2.55	2.43	2.65	2.77	3.17
Third	2.78	2.89	2.70	2.82	2.93	3.11
Fourth	3.55	3.59	3.40	3.55	3.64	4.09

Years / Quartiles	73-74	74-75	75-76	76-77	77-78	78-79
First	3.35	4.09	5.69	6.12	5.99	5.73
Second	3.35	3.86	5.10	5.66	6.03	5.99
Third	3.55	4.56	5.85	5.40	5.55	6.79
Fourth	4.65	5.12	6.80	7.37	7.09	7.81

Source : Table 2.1

Quartile wages have observed an over all rising pattern over the period as seen in table 2.2. 1975-76 happens to be the year of the highest absolute increase in wages over the preceding year in all the quartiles; while 1969-70 emerges as a year of general fall from which only the first quartile could get an escape. The fourth quartile exhibited the highest absolute rise

of Rs.4.26 over the period while, the second quartile witnessed the lowest rise of Rs.3.73. Year to year disparity between the wage rates of the highest and the lowest quartiles continued to be fluctuating. And it widened over the period from Rs.1.80 in 1967-68 to Rs.2.08 in 78-79 (See table 2.2).

TABLE 2.3

Year to Year Percentage Change in the Wage Rates over Quartile Averages: 1967-68 to 1978-79

Quartile	Percentage Change Over the Preceding Year in 1968-69	69-70	70-71	71-72	72-73	73-74
First	20.00	10.48	12.07	-1.92	10.98	18.37
Second	18.83	-4.71	9.05	4.53	14.44	5.68
Third	3.98	-6.57	4.44	3.90	6.14	14.15
Fourth	1.13	-5.29	4.41	2.54	12.36	13.69

Quartile	Percentage Change Over the Preceding Year in 1974-75	75-76	76-77	77-78	78-79
First	22.09	39.12	7.56	-2.12	-4.39
Second	15.22	32.12	10.98	6.54	-0.66
Third	28.45	28.29	-7.69	2.78	22.34
Fourth	10.11	32.81	8.38	-3.80	10.16

Source: Table 2.2

From table 2.3, one finds a general rising pattern in wage rates throughout the period excepting 69-70 when three

of the four quartiles marked a decline. The rate of rise varied among quartiles and years. It remained below 25 percent in almost all the years barring 75-76 when all the quartiles exhibited above 25% rise. This high rate of increase in wages might be attributed to the persistent and abnormal rise in the cost of living of agricultural labourers during the previous years, specifically in 1974-75. Consumers General Prices Index Numbers for Agricultural labourers in Rajasthan reached all time high (369 with base 1960-61 = 100) in 1974-75. It seems abnormal rise in the cost of living could reflect its sharp impact on wages only in 1975-76 due to lagged effect. Convergence of trend is distinctly visible in the movements of quartile averages. The first quartile exhibited the highest increase of 227.43% in 78-79 over 67-68; while the fourth quartile showed the lowest rise of 120% during the corresponding period (see table 2.2). The second quartile observed lower rate of rise than the first quartile but higher than the third quartile.

In absolute term, the fourth quartile observed the highest increase of Rs.4.26 over the period; while the second quartile witnessed the lowest increase of Rs.3.73. Absolute wage differentials between the first and the fourth quartile averages widened over the period. But in percentage terms the position is reversed. There is convergence in the sense that the highest percentage rate of rise is observed in the first quartile; while the lowest in the fourth quartile. Thus

absolute change and percentage change methods lead to different results. As such it is appropriate to employ both the techniques to examine trends in the movements of wages as has been advocated also.[2]

2.2.2 Interchange of Ranks of Quartiles

Quartiles remained by and large, sticky to their ranks and did not interchange at all upto 1971-72 (See Table 2.2). From 1974-75 the First Quartile superseded the II Quartile thrice and the III quartile twice. Similarly II quartile also overtook III quartile. Only IV quartile strictly maintained its top rank throughout the period.

2.2.3 Movements of Wages in each Village

Each quartile comprises 12 villages. Quartile analysis does not reveal movements in wages of individual villages. Further, it fails to explain as to how many villages in each quartile showed increase or decrease in wages and at what rates. Therefore, we, first, prepare table 2.4 showing percentage change in wage rates over the preceding year for each of the villages and then employ frequency distribution method to explore the facts.

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2. Reynolds, L.G; and Taft, C.H., "The Evolution of Wage Structure, New Hoven, Yale University Press, 1956, P.12.

TABLE 2.4

Measurement of year to Year Percentage Change in Money Wage Rates in Agriculture by Village and Year 1968-69 to 1978-79.

	Percentage Change Over the Preceding Year										
	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
First Quartile											
1.Asind	67.86	- 5.53	6.76	-10.13	- 6.10	25.00	164.80	62.39	- 1.40	-52.83	-
2.Kakenseja	5.63	30.00	6.15	- 3.38	33.50	5.24	19.93	-	-	-	-
3.Jesrasar	45.33	47.25	7.79	- 6.94	-11.18	59.09	2.20	2.15	5.26	5.00	4.76
4.Karada	26.00	29.63	-8.98	0.90	- 5.33	0.47	6.07	60.79	43.84	33.33	0.29
5.Jhonthri	30.67	27.55	-2.00	- 1.63	14.11	55.27	17.10	-	-	-	-
6.Bigod	25.00	6.96	0.00	- 1.22	2.88	2.00	5.88	58.52	16.82	- 3.40	8.07
7.Anjana	0.00	14.05	-2.84	91.22	17.09	- 0.22	6.77	13.50	4.68	-13.94	0.00
8.Peepli 'A'	3.08	1.00	41.38	- 4.53	22.26	2.39	7.87	34.59	0.40	0.00	4.40
9.Adana	25.00	-20.00	0.00	0.00	25.00	24.80	17.95	134.24	-7.42	9.02	-7.24
10.Bhaisra	-	-	-	-	-	-	30.86	23.59	19.26	25.93	-41.18

	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
11.Manoro	4.50	9.09	-7.02	-1.42	45.93	16.72	3.93	3.51	7.57	11.89	8.89
12.Khayra	23.76	-9.60	5.75	20.08	- 6.62	16.79	24.92	39.90	24.13	2.36	0.58
Second Quartile											
13.Ninder	45.59	26.26	-1.07	19.41	4.97	13.76	0.19	18.11	58.51	-9.99	4.51
14.Sohla	4.85	11.11	7.92	16.60	20.15	-37.21	48.15	38.89	0.00	0.40	1.99
15.Meenapura	16.28	-25.20	5.88	21.72	2.07	17.07	15.63	40.24	65.59	0.00	1.14
16.Sare	6.51	-15.28	41.24	9.49	2.33	20.85	45.55	14.07	-18.83	0.00	0.60
17.Dadiya	3.23	-21.43	10.80	7.18	0.97	17.54	5.24	107.66	- 0.74	-3.32	5.92
18.Bani	5.91	-21.46	-1.09	5.42	7.33	25.85	5.43	10.66	39.87	26.60	-15.57
19.Palri	-2.63	5.41	2.99	-1.24	26.05	23.33	18.92	21.36	-6.80	0.00	0.00
20.Chitanu Khurd	-0.86	2.62	19.15	11.43	16.03	4.14	8.49	10.02	11.11	78.20	-25.25
21.Dayalana Kalan	25.53	11.53	17.63	-27.65	69.64	-25.05	43.82	10.35	-9.38	0.20	- 2.34
22.Deepawas	-2.85	-18.83	3.61	7.96	13.36	57.72	-	-	-	-	-
23.Govindpura	17.07	-1.39	1.41	-0.69	4.90	0.00	1.33	49.34	9.47	4.23	-6.95
24.Nathusar (Sikar)	36.00	-15.29	4.17	0.00	0.00	-1.67	-3.73	95.42	-9.55	-0.40	42.20

	Percentage Change Over the Preceding Year										
	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Third Quartile											
25.Salarpur	5.12	5.24	13.17	16.98	-3.23	-20.83	44.56	-	-	-	-
26.Pahoona	-2.96	-0.38	-4.21	14.00	-2.81	-26.35	34.29	38.30	-32.92	14.68	0.00
27.Sayla	17.28	-25.08	13.81	23.16	5.97	- 7.32	69.91	2.33	- 3.67	-1.81	44.92
28.K.Machri	-0.36	12.77	-7.77	14.04	42.77	-14.87	23.54	9.84	26.31	-26.14	5.80
29.Bissala	45.45	-25.00	30.33	-21.23	3.90	60.63	62.84	38.59	-56.90	0.00	100.00
30.Sukhpura	-6.91	- 5.06	2.07	-1.22	4.53	32.68	18.69	-	-	-	-
31.Gurali	-0.36	22.63	-13.39	10.31	3.12	30.21	-0.93	13.11	0.83	11.29	-1.85
32.Mehrali	23.64	-9.71	- 0.98	9.87	2.40	6.73	0.82	35.87	5.20	40.68	29.73
33.Amli	-34.91	20.67	- 7.41	9.00	-2.75	17.72	30.80	35.17	26.47	19.14	9.46
34.Panwa	11.30	-46.15	31.43	-18.26	6.38	50.00	0.00	33.33	25.00	0.00	0.00
35.Kuwarti	- 0.34	2.71	-1.98	1.01	0.67	-	-	-	-	-	-
36.Dhoti	- 8.70	0.73	7.27	-3.05	10.49	9.18	24.06	21.03	20.08	-18.97	14.09
37.Forth Quartile											
37.Nathusar (Bikaner)	0.00	21.67	-17.81	-33.33	91.50	-7.57	22.60	18.43	48.05	3.55	-23.86

	Percentage Change Over the Preceding Year										
	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
38.Sekhla	-2.67	-38.36	79.44	-6.50	65.66	20.00	44.33	-42.26	28.20	7.18	1.89
39.Chokri Khurd	13.67	-32.26	25.97	4.47	-6.58	65.85	-21.87	48.91	3.28	16.61	36.82
40.Jayal	17.67	-9.35	3.44	-6.95	-2.60	9.33	3.05	52.07	18.09	4.28	17.38
41.Bamla	-6.56	5.26	2.33	6.51	16.51	-0.26	-10.00	66.67	7.89	10.08	0.15
42.Khinwasar	20.57	3.67	-10.63	7.08	17.99	0.45	7.81	-	-	-	-
43.Bigga	10.97	3.39	13.66	6.25	-17.19	13.66	30.05	24.95	10.95	-47.47	7.87
44.Doomra	16.20	-10.97	2.29	3.37	1.70	0.00	6.38	-	-	-	-
45.Tausar	7.12	-11.08	-0.62	-3.76	8.47	5.11	-1.43	165.80	2.18	-24.23	7.32
46.Khanwa	-22.17	- 0.30	-7.60	-1.32	10.67	53.92	11.74	38.18	-9.63	6.45	29.11
47.Berpal	6.53	-6.13	4.84	35.94	10.34	16.47	8.85	21.54	2.78	-1.78	11.88
48.Jagheena	-24.27	9.40	1.10	-1.53	0.66	4.18	7.59	21.18	-3.88	3.54	17.07

Source : Table 2.1

A perusal of table 2.4 reveals that year to year increase in wage rates above 100% had been observed in three villages of initially low wage rates as compared to only in one village of initially high wage rate. Number of villages exhibiting rise in wage rates were 192 in I and II quartiles during the years 68-69, 70-71, 72-73, 73-74, 74-75, 75-76, 76-77 and 77-78 as against 171 villages in III and IV quartiles (See table 2.5, Specially the Cumulative Frequency Table-A). Contrary to it, villages showing declines in wage rates above 20 percent were 16 in the Third and the Fourth quartiles against 8 villages in the First and the Second quartiles (see table 2.5, specially Cumulative Frequency table-B). Thus larger number of villages experiencing increase at higher rates were associated with First and Second quartiles; while those of declines were related to Third and Fourth Quartiles. Both the phenomena lend support to the fact of convergence of wage movements over time.

TABLE 2.5

Frequencies of Villages by Quartiles and by Ranges in Percentage Change in Money Wage Rates Over The Preceding Year: 1967-68 to 78-79.

1968 - 69					1969 - 70					1970 - 71					1971 - 72					1972 - 73				
IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T
3	2	-	1	6	1	1	2	5	9	2	4	1	5	12	2	1	1	2	6	1	6	5	2	1
1	2	1	2	6	2	1	1	-	4	4	2	1	-	7	-	4	2	3	9	-	1	2	1	
-	2	2	4	8	1	2	1	1	5	-	3	2	1	6	-	3	4	-	7	2	2	1	4	
5	2	1	1	9	3	1	2	1	7	1	-	2	1	4	1	1	1	1	4	3	2	-	-	
2	1	1	-	4	1	-	-	1	2	-	1	-	1	2	1	-	-	-	1	1	1	1	2	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9	5	8	33	8	5	6	8	27	7	10	6	8	31	4	9	8	6	27	7	12	9	9	3
-	1	3	-	4	-	1	1	1	3	1	2	2	1	6	3	2	1	2	8	-	-	-	-	-
-	2	1	1	4	-	-	-	-	-	1	-	1	-	2	2	-	1	1	4	-	-	3	1	
-	-	2	1	3	2	-	2	1	5	2	-	2	1	5	1	-	-	2	3	3	-	-	1	
-	-	-	-	-	1	3	2	2	8	-	-	1	2	3	1	1	1	-	3	1	-	-	1	
-	-	1	2	3	-	3	1	-	4	-	-	-	-	-	-	-	1	1	2	-	-	-	-	
-	3	7	4	14	3	7	6	4	20	4	2	6	4	16	7	3	4	6	20	4	-	3	3	1

3.

2.2.4 Convergence of Trend in Money Wage Movements

So far the analysis exploring trends in wage movements over time was based on year to year changes separately. Now we examine what would be the pattern of wage movements if we consider effects of all the 12 years movements simultaneously.

Least Square Equation is fitted to money wage series in the following form:

$$W = a + bt$$

Where, W stands for money wage rate;

t represents time period;

a is constant (initial wage rate); and,

b stands for per annum growth rate.

Annual growth rates 'b' in money wages are worked out for each of the 47 villages. One village-Bhaisra-is left out of the analysis due to frequent breaks in its wage series. Table 2.6 presents resultant equations (per annum growth rates in wages over a period of 12 years). All the villages under study exhibited positive growth rates implying an upward pattern of movements in money wages. Growth rates varied from village to village ranging from Rs.0.054 to Rs.0.844 per annum.

Values of 'a' (initial wage) and 'b' (annual growth rate) for each village along with the ranks assigned in their ascending order are presented in table 2.7.

TABLE 2.6

Least Square Equations for Money Wage Rates
by village : 1967-68 to 1978-79

Village Name	Equation	Village Name	Equation
1. Dadiya	W=1.158+0.3803t	25. Sayla	W=1.974 + 0.4181t
2. Khayra	W=1.200+0.5083t	26. Govindpura	W=2.185 + 0.2462t
3. Salarpur	W=2.566+0.1770t	27. Bani	W=1.375 + 0.2724t
4. Kasba Machri	W=2.469+0.3174t	28. Doomra	W=3.505 + 0.0540t
5. Kapenssja	W=1.257+0.2761t	29. Khinwasar	W=3.299 + 0.2002t
6. Anjana	W=1.831+0.3821t	30. Sekhla	W=2.244 + 0.4846
7. Bissala	W=2.363+0.5559t	31. Chokri Khurd	W=1.790 + 0.4725
8. Jagheena	W=4.173+0.1979t	32. Dhoti	W=1.425 + 0.4584t
9. Khanwa	W=2.188+0.5630t	33. Bamla	W=2.153 + 0.3914t
10. Asind	W=0.988+0.6223t	34. Jayal	W=2.220 + 0.3648t
11. Bigod	W=1.946+0.3073t	35. Tansar	W=2.066 + 0.5331
12. Kuwarti	W=2.960+0.1114t	36. Deepawas	W=1.976 + 0.1654t
13. Sukhpura	W=2.266+0.1567t	37. Dayalanakalan	W=2.665+ 0.2669
14. Nathusar	W=2.068+0.4268t	38. Meenapara	W=0.689 + 0.6022t
15. Pahoona (Bikaner)	W=2.120+0.2981t	39. Gurali	W=2.465 + 0.2683
16. Adana	W=0.523+0.7105t	40. Nathusar	W=2.079 + 0.3227t
17. Bigga	W=3.427+0.2049t	41. Mehroli (Sikar)	W=1.716 + 0.5004t
18. Jesrasar	W=1.986+0.3377t	42. Palri	W=1.782 + 0.3286
19. Karada	W=0.748+0.4667t	43. Manora	W=1.616 + 0.2891
20. Jhonthri	W=1.543+0.3695t	44. Sohla	W=1.792 + 0.3145t
21. Baropal	W=3.684+0.8438t	45. Amli	W=0.993 + 0.4667
22. Ninder	W=1.914+0.6473t	46. Sera	W=1.821 + 0.3581
23. Chitanu Khend	W=1.285+0.5151t	47. Peepli 'A'	W=1.655 + 0.3397t
24. Panwa	W=1.831+0.2595t		

Source: Table 2.1

TABLE 2.7

Convergence of Money Wage Movements Over the Period

Village Name	Code	Value of 'a'	Rank in ascending order of value in 'a'	Value of 'b' (per annum growth rate in money wage in Rs.)	Rank in ascending of order of value in 'b'
(1)	(2)	(3)	(4)	(5)	(6)
Adana	1	0.523	1	0.7105	46
Meenapara	2	0.689	2	0.6022	43
Karada	3	0.748	3	0.4667	33.5
Asind	4	0.988	4	0.6223	44
Amli	5	0.993	5	0.4667	33.5
Dadiya	6	1.158	6	0.3803	27
Khayra	7	1.200	7	0.5083	38
Kabenseja	8	1.257	8	0.2761	14
Chitanu Khurd	9	1.285	9	0.5151	39
Bani	10	1.375	10	0.2724	13
Dhoti	11	1.425	11	0.4584	32
Jhonthri	12	1.543	12	0.3685	26
Manora	13	1.616	13	0.2891	15
Peepli 'A'	14	1.655	14	0.3391	23
Mehroli	15	1.716	15	0.5004	37
Palri	16	1.782	16	0.3286	21
Chokri Khurd	17	1.790	17	0.4725	35
Sohla	18	1.792	18	0.3145	18
Sera	19	1.821	19	0.3581	24
Anjana	20	1.831	20	0.3821	28

(1)	(2)	(3)	(4)	(5)	(6)
Panwa	21	1.831	21	0.2595	10
Ninder	22	1.914	22	0.6473	45
Bigod	23	1.946	23	0.3073	17
Sayla	24	1.974	24	0.4181	30
Deepawas	25	1.976	25	0.1654	4
Jesrasar	26	1.986	26	0.3377	22
Tausar	27	2.066	27	0.5331	40
Nathusar (Bikaner)	28	2.068	28	0.4268	31
Nathusar (Sikar)	29	2.079	29	0.3227	20
Pahoona	30	2.120	30	0.2981	16
Bamla	31	2.153	31	0.3914	29
Govindpura	32	2.185	32	0.2462	9
Khanwa	33	2.188	33	0.5630	42
Jayal	34	2.220	34	0.3648	25
Sekhla	35	2.244	35	0.4846	36
Sukhpura	36	2.266	36	0.1567	3
Bissala	37	2.363	37	0.5559	41
Gurali	38	2.465	38	0.2683	12
Kasba-Mechri	39	2.469	39	0.3174	19
Salarpur	40	2.566	40	0.1770	5
Dayalana Kalan	41	2.665	41	0.2669	11
Kuwarti	42	2.960	42	0.1114	2
Khinwasar	43	3.299	43	0.2002	7
Bigga	44	3.427	44	0.2049	8
Doomra	45	3.505	45	0.0540	1
Baropal	46	3.684	46	0.8438	47
Jagheena	47	4.173	47	0.1979	6

Source : Table 1.5

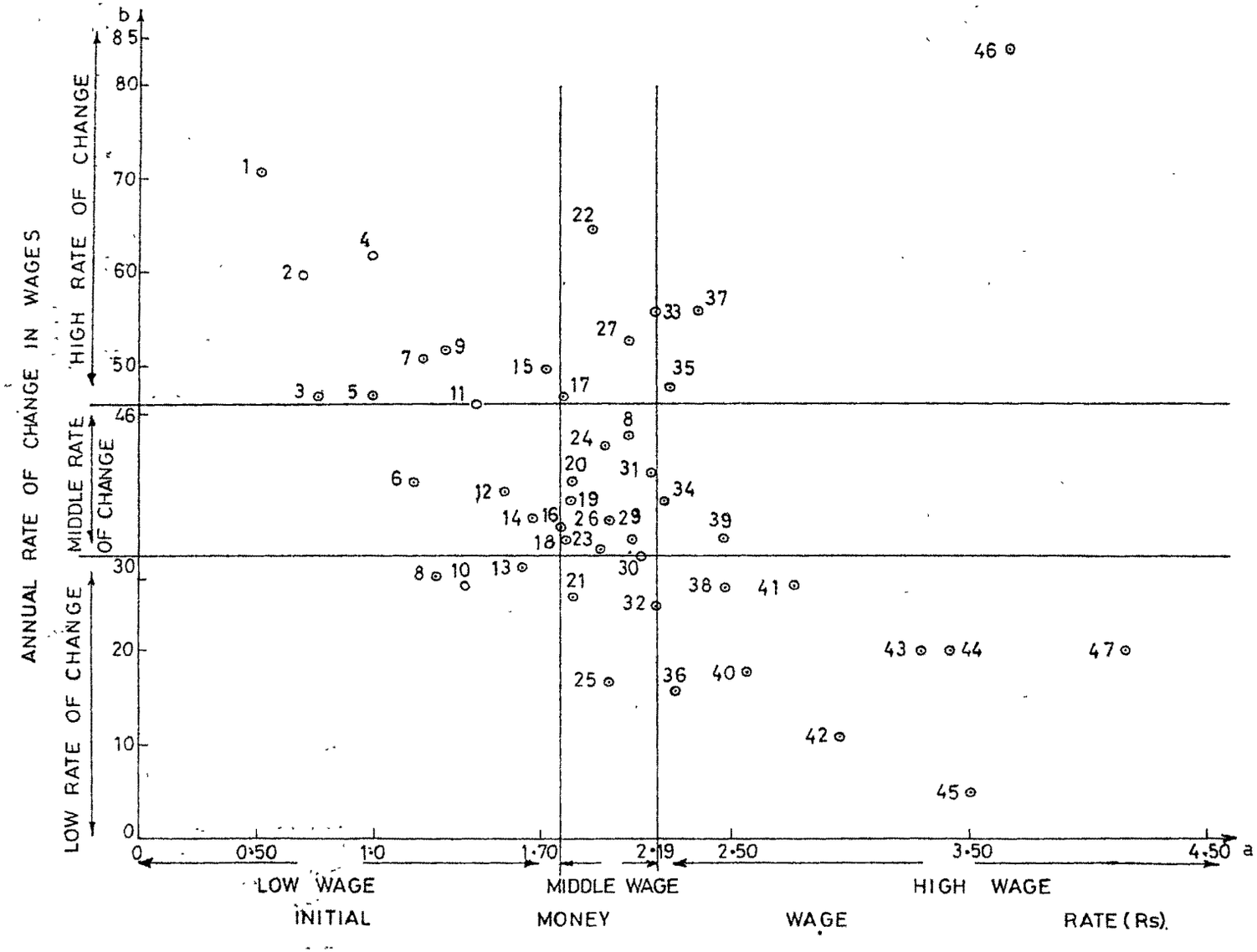
3.

Coefficient of Rank correlation is worked out between the two. It turned out to be -0.4724 (highly significant). r value exceeding 0.4648 is statistically significant at 0.1 percent level of confidence with 45 d.f. Negative sign of the coefficient indicates that per annum growth rate 'b' and initial wage rate 'a' are inversely correlated suggesting convergence of trend in money wage movements. Villages having low wage rates 'a' secured higher per annum growth rates 'b' and vice-versa. Villages are classified according to the level of their initial wage rates (a) and per annum growth rates (b) to support that low wage villages achieved higher growth rates (see table 2.8). Village Adana with the lowest initial wage rate(a = 0.523) obtained annual growth rate of Rs.0.71 and stood next to the highest in rank. Contrary to it, 'Jagheena' the highest wage village in the initial period (a = 4.173) could achieve growth rate of Rs.0.20 only.

Convergence of wage movements can further be illustrated graphically. 'a' and 'b' values of each village are plotted on X and Y axes respectively. Graph 2.1 discloses the fact that low growth rates are associated with initially high wage villages. Such a distribution can also be seen in table 2.8. Villages having initially middle wage rates clustered around middle growth rates. Such villages could maintain their initial positions only. While, high wage villages could not preserve but lost their positions excepting village 'Baropal' in Ganganagar District which has shown the highest per annum growth rate of Rs.0.8438 despite high wage in 1967-68. By and large, the shape of the graph lends support to the fact of

GRAPH II·1

RELATION BETWEEN INITIAL MONEY WAGE RATES (a) AND ANNUAL RATE OF CHANGE IN WAGES (b) OF VILLAGES FOR THE PERIOD 1967-68 TO 1978-79.



convergance of wage movements over-time.

TABLE 2.8

Classification of Villages According to the level of their Initial Wage Rates and Annual Growth Rates in Wages Over Time: 1967-68 to 1978-79.

Level of initial wage rate / Level of Annual growth rate	Low growth rates upto Rs.0.2981 i.e. 16th rank of 'B' value	Middle growth rates >Rs.0.2981 <Rs.0.4584 i.e. from 17th to 32nd ranks of 'B' value	High growth >70.4584 <Rs.0.8438 i.e. from 33 to 47 ranks of 'B' value
Low wage rate upto 1.782 i.e. upto 16th rank of 'a' value	Bani, Kapenseja Manora =(3)	Palri, Jhonthri, Dadiya, Pipli 'A' Dhoti = (5)	Amli, Karada, Mehroli, Khayra, Chitanu Khurd, Meenapara, Asind Adana=(8)
Middle Wage rates >Rs.1.782 <Rs.2.185 i.e. from 17th rank to 32nd rank of 'a' value	Deepawas, Panwa, Govindpura, Pahoona =(4)	Bigod, Sohla, Nathusar(Sikar) Jesrasar, Anjana, Sera, Nathusar (Bikaner), Bamla, Sayla(9)	Chokri Khurd, Tausar, Ninder =(3)
High Wage rates >Rs.2.185 <Rs.4.173 i.e.villages from 33 to 47 ranks of 'a' value	Doomra, Kuwarti, Sukhpura, Salarpur, Jagheena, Bigga, Khinwasar, Gurali, Dayalana Kalan = (9)	Kasba-Machri Jayal=(2)	Sekhla, Bissala, Khenwa, Baropal =(4)

Source : Table 2.7

2.3 Trends in the movements of operation-wise wages

Operation-wise wage movements are examined only at the state level for the following six operations: (i) ploughing (ii) sowing (iii) weeding (iv) irrigation and allied activities (v) harvesting, and (vi) transplanting. These operations are seasonal by nature and are not carried out simultaneously. Farm operations calendar in its tentative form is presented in table 2.9. Possibility of variation of about two weeks in the timings of various operations, either way, cannot be ruled out, since operations depend very much upon the arrival of monsoon. Further, some of the operations depend upon the nature of the crop sown, soil and also upon the irrigation facilities. Therefore, wage data for all these six operations relating to all the 48 villages are not available even for a single year. If all the villages are included irrespective of the availability of operation-wise wage data; the analysis may not present a proper picture as the number of villages for different operations will vary within a year. Hence, we have sorted out those villages having wage data for all the six operations. Such villages are 7, 36, 22, 24, 25, 22, 21, 19, 25, 27, 19, and 19 for the years 1967-68 to 1978-79 respectively. State-level wage rate for an operation is arrived at by taking simple average of wage rates of all such villages.

Before we examine and analyse inter-operation wage movements, it is desirable to see if wages for various

TABLE 2.9

FARM OPERATIONS CALENDAR

Crop Season / Operation	Ploughing	Sowing	Weeding	Trans-planting	Irriga-tion & allied activities	Reaping and harvesting
Kharif	Ashadha month i.e. IV week of June to III week of July Again ploughing in Shravana month i.e. last week of July and/or first week of August	15 to 20 days of Ashadha end to middle of Shravana i.e. 15 to 20 days of July end to beginning of August	About one month from Shravana Shukla to Bhadava Shukla i.e. last days of July to August end.	Last 20 days of Ashadha i.e. II to IV week of July	Ashwin & sometimes in Bhadava month also depending upon rain fall in I week of September to II week of October	In general, Ashwin Shukla to Kartika Shukla. In certain cases during Mrigsira also i.e. III week of October to III week of November. Peak harvesting from October end to middle of November. Thrashing and Winnowing of local (Deshi) variety of Jowar continue till December end; while Those of H.Y.V. of Jawar and Bajra end by II week of November, sometimes even earlier.

CONTD....

TABLE 2.9 (Concld.)

Crop Season / Operation	Ploughing	Sowing	Weeding	Trans-planting	Irriga-tion & allied activities	Reaping and harvesting
Rabi	Middle of Shravana to Ashwin i.e. end of August to Middle of October.	Kartika month i.e.III week of October to II week of November	Kartika Shukla to beginning of Mrigsira i.e.III to IV week of November	Kartika Shukla i.e. II to III week of November	Mrigsira Shukla to Falguna Shukla i.e.III week of November to beginning of March generally three to four times during the whole season	Chaitra Shukla to Jaistha Shukla. Reaping from March end to April end for local variety of wheat. Thrashing and winnowing continue till May end, and sometimes till middle of June. Reaping for H.Y.V. of Wheat from II week of March to IV week of March. Winnowing continues till April end depending upon the quantum of production.

operations are significantly different. Table 2.10 reveals that wages for ploughing remained on the top throughout the period. Wages for sowing stood at the second rank. Wages for weeding and transplanting were at the bottom and moved together interchanging their ranks. Absolute wage differentials between the lowest and the highest wage-operations expanded over period from Rs.0.79 in 69-70 to Rs.0.94 in 78-79. The ratio of the highest wage operation to the lowest wage operation also declined from 1.33 to 1.15 during the corresponding period. Though the highest absolute wage difference remained Rs.1.82 in 1975-76. Ploughing being strenuous work warrants higher wages in comparison to other operations. Female and children labourers, by and large, do not compete for this work. It is exclusively reserved for adult males. Hence, its wage remains the highest. On the other hand, weeding and transplanting do not require physical toil of that extent. Male, female and also children undertake such works. Hence, wages are expected to be lower. Generally, demand for labour in agriculture reaches its peak during the harvesting period since it is to be finished within a short stretch of time. Moreover, during the harvesting season, post-harvesting operations also raise demand for labour. Farm operations calendar also supports this. Therefore, wages for harvesting operations are also higher. As such operation-wise wage differences existed persistently over the period under study (See Table 2.10).

TABLE 2.10

Annual Daily Wage Rates by Agricultural Operation at State level : 1967-68 to 1978-79 (in Rs.)

Year	Operation Ploughing	Sowing	Weeding	Irrigation Allied Activities *	Reaping and Harvesting	Transplanting *
1967-68	2.65	2.48	2.33	-	2.46	-
68-69	3.10	3.06	2.58	-	2.67	-
69-70	3.15	2.98	2.59	2.66	2.66	2.36
70-71	3.37	3.06	2.58	2.74	2.79	2.57
71-72	3.40	3.14	2.62	3.00	2.87	2.73
72-73	4.07	3.40	2.97	3.30	3.27	3.06
73-74	4.67	4.25	3.28	3.62	3.66	3.27
74-75	4.53	4.45	3.84	4.19	4.05	3.94
75-76	6.83	6.55	5.01	5.39	5.35	5.25
76-77	6.35	6.30	5.41	5.98	5.91	5.48
77-78	6.43	6.40	5.89	6.09	6.12	6.12
78-79	7.04	6.85	6.20	6.44	6.59	6.10

Source : Appendix Tables.

Note * : Collection of irrigation and transplanting wage data commenced from 1969-70.

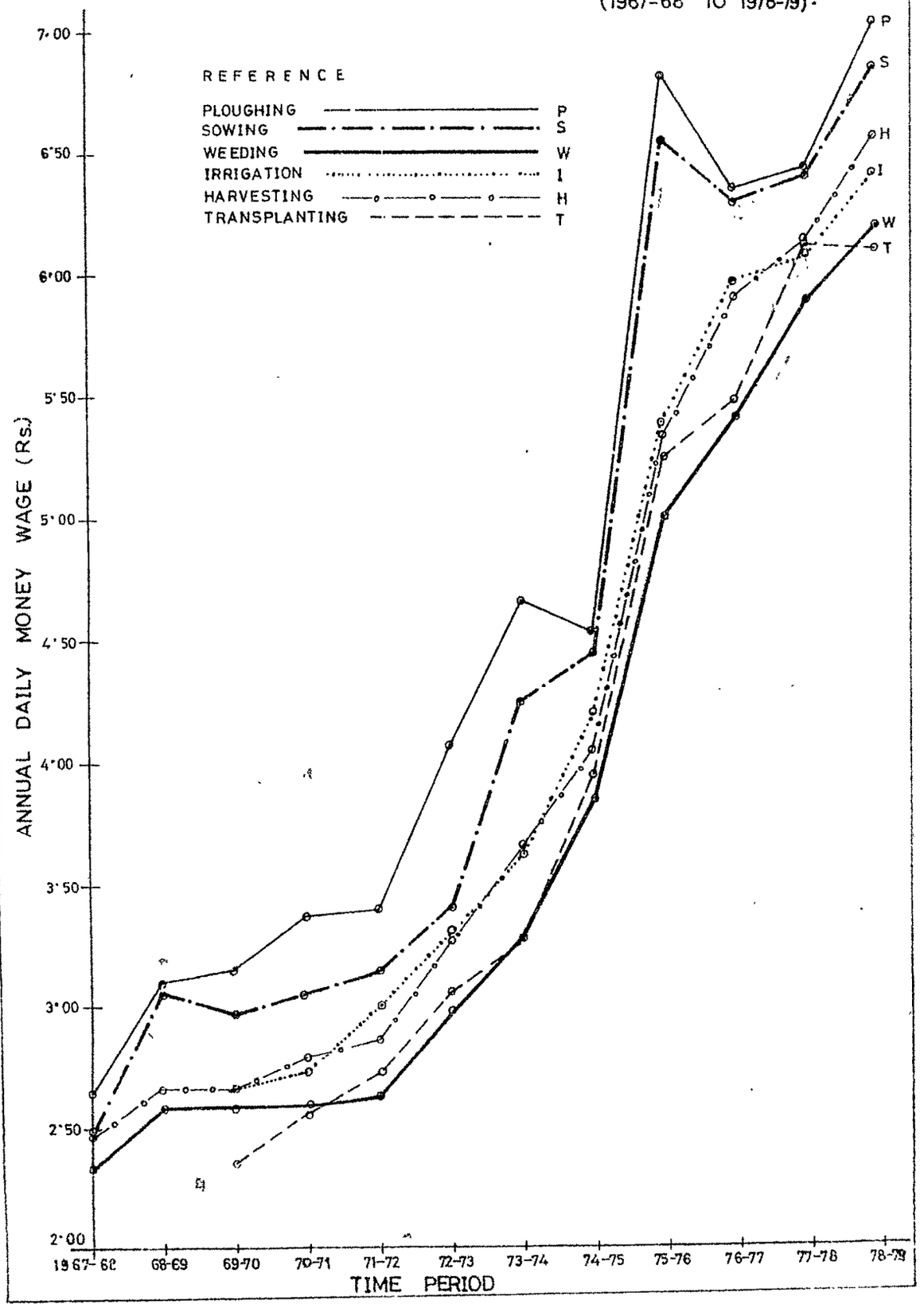
Wage data by operations are plotted graphically to examine pattern of operation-wise wage movements over the period. It is seen from the graph II.2 that wages for ploughing increased steeply from 72-73 and wages for sowing increased from 73-74. But from 1976-77 wages for both these operations showed a decline. Wage rates for the other operations exhibited a steady upward pattern of movements through-out the period. All the operations showed steep rise in 75-76. The most likely reason seems to be the abnormal rise in price level in the preceding year 1974-75 which could affect wage rates only in 75-76 due to lagged effect.

A very distinct feature of ploughing and sowing wage rates is the identical pattern of movements throughout the period. Moreover, graphs of both the operations did not intersect each other. While the rest of the four operations frequently interchanged ranks. Wages for harvesting and irrigation moved together interesecting each other many times. Similarly wages for weeding and transplanting also moved together interchanging their positions.

The pattern of inter-operation wage movements appears to be divergent over time. Divergence of movements is measured through Standard Deviation (S.D.). It increased from 0.1137 in 1967-68 to 0.3335 in 78-79. Coefficient of Variation (C.V.) also widened from 4.58 to 5.10 during the corresponding period. Though there are certain years

GRAPH II.2.

INTER-OPERATION WAGE MOVEMENTS IN AGRICULTURE (1967-68 TO 1978-79).



in-between, i.e. 74-75 and 77-78 in which the wages for different operations converge quite a bit.

2.4 Movements of Wages and Prices

A significant aspect of agricultural wage movements pertains to its relationship with price movements. Since prices move frequently, wages may also be expected to behave accordingly. Now the questions are whether price movements are reflected in agricultural-wage movements or not? If yes, to what extent and with what time lag? These questions are proposed to be examined in this section.

2.4.1 Relative Movements of Wages and Cereal Prices

The first step is to choose the relevant price and the price index. Had this study been at the State level , Consumers General Prices Index Number for Agricultural Labourers in Rajasthan (Issued by Labour bureau, Simla) could have been used. But crop conditions price and wage movements in different parts of Rajasthan present very diverse picture. In order to bring out regional characteristics in price and wage movements, we take resort to Farm Harvest Prices. The Farm Harvest Prices (F.H.P.) are available at District level right from the year 1967-68 to 1978-79. Farm Harvest Price is the average whole sale price at which the commodity is sold by the producer to the trader at the village site during the harvest period.[3]

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3. Statistical Abstract Rajasthan, 1976, issued by the Directorate of Economics and Statistics Rajasthan, Jaipur. pp-101.

The second step is to choose the farm produce which should be considered relevant to the cost of living of agricultural labourers. The basic item of consumption accounting for 78% of monthly expenditure for the lowest income groups is food stuff and that too coarse cereals only. Since agricultural labourers belong to the lowest income groups, it is relevant to use prices of Jowar and/or Bajra to compare relative movements of wages and prices. To facilitate the study of wage and price movements, the State is divided into five broad regions (see map - 1), consisting of districts based on geographical proximity, rainfall and cropping pattern. Regions along with districts and villages under study falling in each region are mentioned below:

Name of the Region	Districts included	Villages falling in the region
(1)	(2)	(3)
1. Plain Region: Villages included in this region generally take crops of Bajra, Bajra-month erhar, chola, ground nut, Kharif and Wheat, barley, gram, rape and mustard, linseed, spices etc. in rabi seasons. Normal rainfall and not quite sufficient irrigation facilities are the two main characteristics.	Alwar, Bharatpur, Jaipur, Jhunjhunu, Tonk, Sawai-Madhopur and Sikar = (7)	Kasba-Machri, Salarpur, Jagheena, Khanwa, Sohla, Amali, Ninder, Chitanu-Khurd, Meenapara, Gurali, Khinwasar, Doomra, Nathusar and Mehroli =(14)

(1)	(2)	(3)
2. Desert Region: It is a region of scanty rainfall and completely lacks irrigation facilities. It grows dry and rainfed crops such as Bajra, and Bajra, month (pulses) in Kharif season only.	Barmer, Bikaner, Churu, Jalore, Jodhpur, Nagaur, Jaisalmer and Pali = (8)	Bissala, Nathusar, Bigga, Jesrasar, Dayalana Kalan, Sekhla, Chokri-Khurd, Bhaisra, Deopawas, Tausar and Jayal =(13)
3. Plateau Region: This has ample rainfall and irrigation facilities. Cropping pattern is therefore, diverse. Crops grown are maize, chillies in Kharif and Wheat, gram, oil seeds etc. in rabi seasons.	Ajmer, Bundi, Chittor, Kota, Jhalawar and Bhilwara =(6)	Dadiya, Khayra, Sukhpura, Kuwarti, Pahoona, Adena, Bani, Govindpura, Bamla, Dhoti, Asind and Bigod = (12)
4. Hilly Region : Due to plenty of rainfall, this region grows crops like rice, maize, sugarcane, oil-seeds in Kharif and combines with gram and Wheat in rabi season where irrigation facilities are sufficient.	Banswara, Dungarpur, Sirohi and Udaipur =(4)	Anjana, Kakensija, Kerada, Jhonthri Palri, Manora, Sera and Peepli 'A' =(8)
5. Ganganagar: Geographically it is a part of the desert region. But it has acquired a unique status in agriculture on account of wide-spread canal irrigation and adoption of improved technology in terms of hybrid/H.Y.V. seeds, fertilizer and machines like tractor, thrashers, combined harvester etc. Cotton and Wheat are the two major crops.	Ganganagar	Baropal

Third step is to work out region-wise money wage rates for agricultural labourers and farm harvest prices for Bajra and Jowar separately right from 1967-68 to 78-79. Simple average of money wage rates of all the villages falling in a region for a particular year will represent wage rate for that region and the year (See Table 2.11). Similar procedure is adopted to work out farm harvest prices for Jowar and Bajra separately (see Table 2.12). Indices for money wage and farm harvest prices for Jowar and Bajra are constructed with base 1967-68 = 100 (Table 2.12 and 2.13 respectively).

Region-wise Money wage and coarse cereal price indices are plotted on graphs (2.3 to 2.7). An examination of the graphs indicates that cereal price fluctuations are sharper and frequent; while those of wages are mild and steady. Although secular trend in prices is also rising. Further, a lagged effect between price and wage movements can be seen. When prices declined sharply, wages rose steeply. Cereal prices shot up during 1972-73 to 74-75; while wages increased between 1974-75 to 75-76 and even then not so sharp. Our results are in conformity with some other studies.[4]

Movements of increases and decreases are sharper in prices than in wages, while those of increases are sharper than decreases in wages. Wages are stickier towards fall than towards rise in the short period. It seems difficult to reduce wages in proportion to declines in cereal prices in the short period.

4 (i) Rath and Joshi; Op.cit., (ii) Mavinkurve, B.S; Op.cit. (iii) Suresh Chandra, Op.cit.

TABLE : 2.11

Average Annual Daily Money Wage Rates for Agricultural Labourers in Rajasthan : by Region and Year (Rs. / day)

Region \ Year	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Plain	2.92	2.99	3.08	3.06	3.33	3.63	3.76	4.22	5.42	6.19	6.70	7.31
Desert	2.71	3.16	2.78	3.29	2.93	3.37	4.01	5.02	6.17	6.25	6.08	6.64
Plateau	2.38	2.57	2.43	2.48	2.56	2.68	3.04	3.79	5.95	6.17	5.80	5.77
Hilly	1.83	1.98	2.20	2.37	2.60	3.08	3.53	4.09	4.93	5.03	5.23	5.33
Ganganagar	4.75	5.06	4.75	4.98	6.77	7.47	8.70	9.47	11.51	11.83	11.62	13.00

Source : Table 2.1

TABLE : 2.12

Farm Harvest Prices for Jowar and Bajra by Region and Year : 1967-68 to 1978-79 (Rs./quintal)

Region \ Year	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
				JOWAR								
Plain	60.76	68.21	63.71	57.00	60.71	91.71	~~91.17~~ 112.00	~~112.00~~ 160.43	~~160.43~~ 107.21	~~107.21~~ 85.95	101.00	104.57
Desert	62.29	73.25	80.13	59.86	55.83	94.67	117.00	169.17	103.31	100.40	109.10	111.32
Plateau	55.68	67.21	69.08	54.00	66.83	73.00	122.50	151.17	88.52	96.00	104.13	104.49
Hilly	77.75	67.13	70.63	60.00	66.67	90.50	125.25	164.25	81.23	92.36	105.70	96.78
Ganganagar	65.00	75.00	70.00	65.00	65.00	80.00	128.00	165.00	*	*	87.50	110.00
				BAJRA								
Plain	70.36	70.01	70.43	55.86	57.86	90.50	94.00	185.00	97.16	90.89	112.33	107.86
Desert	67.87	85.50	86.75	57.75	56.83	106.14	108.13	181.67	106.26	97.18	126.31	118.14
Plateau	67.70	77.93	67.83	58.00	58.60	89.00	113.33	159.67	103.83	95.80	103.88	105.20
Hilly	63.17	72.67	90.00	62.00	54.00	95.00	143.33	161.67	87.00	99.67	132.00	109.92
Ganganagar	80.00	70.00	72.00	68.00	65.00	95.00	120.00	180.00	134.00	112.00	118.00	111.00

Source : Statistical Abstract Rajasthan (1967-68 to onwards) published by the Directorate of Economics and Statistics, Rajasthan, Jaipur and its office records also.

* F.H.P. not reported.

TABLE 2.13

Money Wage Indices for Agricultural Labourers by Region : 1967 - 68 to 1978 - 79(Base 1967-68=100)

Region \ Year	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Plain	102.40	105.48	104.79	114.04	124.32	128.77	144.52	185.62	211.99	229.45	250.34
Desert	116.61	102.58	121.40	108.12	124.35	147.97	185.24	227.68	230.63	224.35	245.02
Plateau	107.98	102.10	104.20	107.56	112.61	127.73	159.24	250.00	259.24	234.70	242.44
Hilly	108.20	120.22	129.51	142.08	168.31	192.90	223.50	269.40	274.86	285.79	291.26
Ganganagar	106.53	100.00	104.84	142.53	157.26	183.16	199.37	242.32	249.05	244.53	273.50

Source : Table 2.11

TABLE 2.14

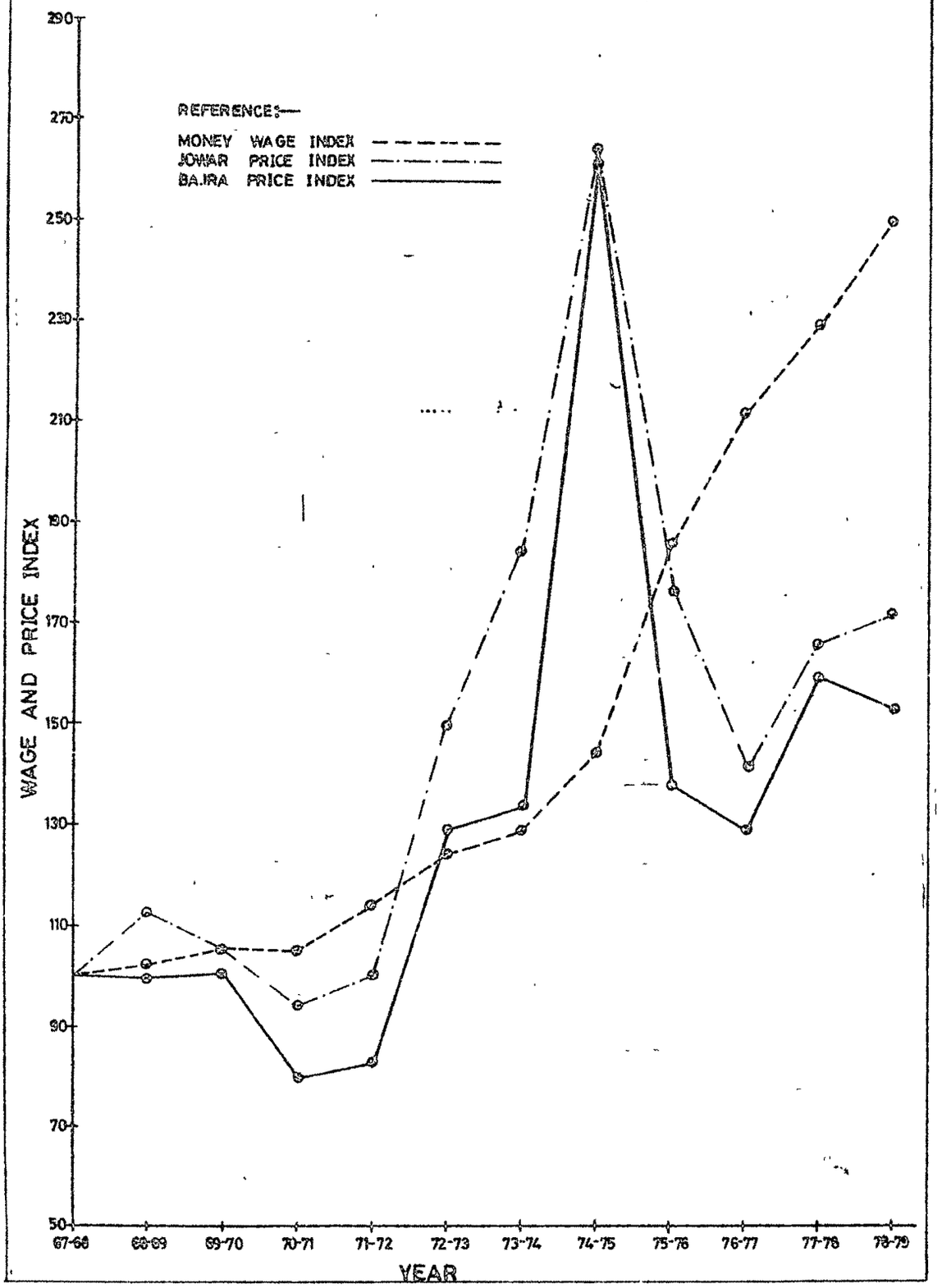
Farm Harvest Price Indices for Jawar and Bajra by Region: 1967-68 to 1978-79 (Base 1967-68 = 100)

Region \ Year	1968-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
				Jawar							
Plain	112.26	104.86	93.81	99.92	150.05	184.33	264.04	176.45	141.46	166.23	172.10
Desert	117.60	128.64	96.10	89.63	151.98	187.83	271.53	165.85	161.18	175.15	178.71
Plateau	120.71	124.07	96.98	120.03	131.11	220.00	271.50	158.98	172.41	187.02	187.66
Hilly	86.34	90.84	77.17	85.75	116.40	161.09	211.25	104.48	118.79	135.95	124.48
Ganganagar	115.38	107.63	100.00	100.00	123.08	196.92	253.85	-	-	134.62	169.23
				Bajra							
Plain	99.50	100.10	79.39	82.23	128.62	133.60	262.93	138.09	129.18	159.65	153.30
Desert	125.98	127.82	85.09	83.73	156.39	159.32	267.67	156.56	143.19	186.11	174.09
Plateau	115.11	100.19	85.67	86.56	131.46	167.40	235.85	153.37	141.51	153.44	155.39
Hilly	115.04	142.47	98.15	85.48	150.39	226.90	255.93	137.72	157.78	208.96	174.01
Ganganagar	87.50	90.00	85.00	81.25	118.75	150.00	225.00	167.50	140.00	147.50	138.75

Source : Table 2.12

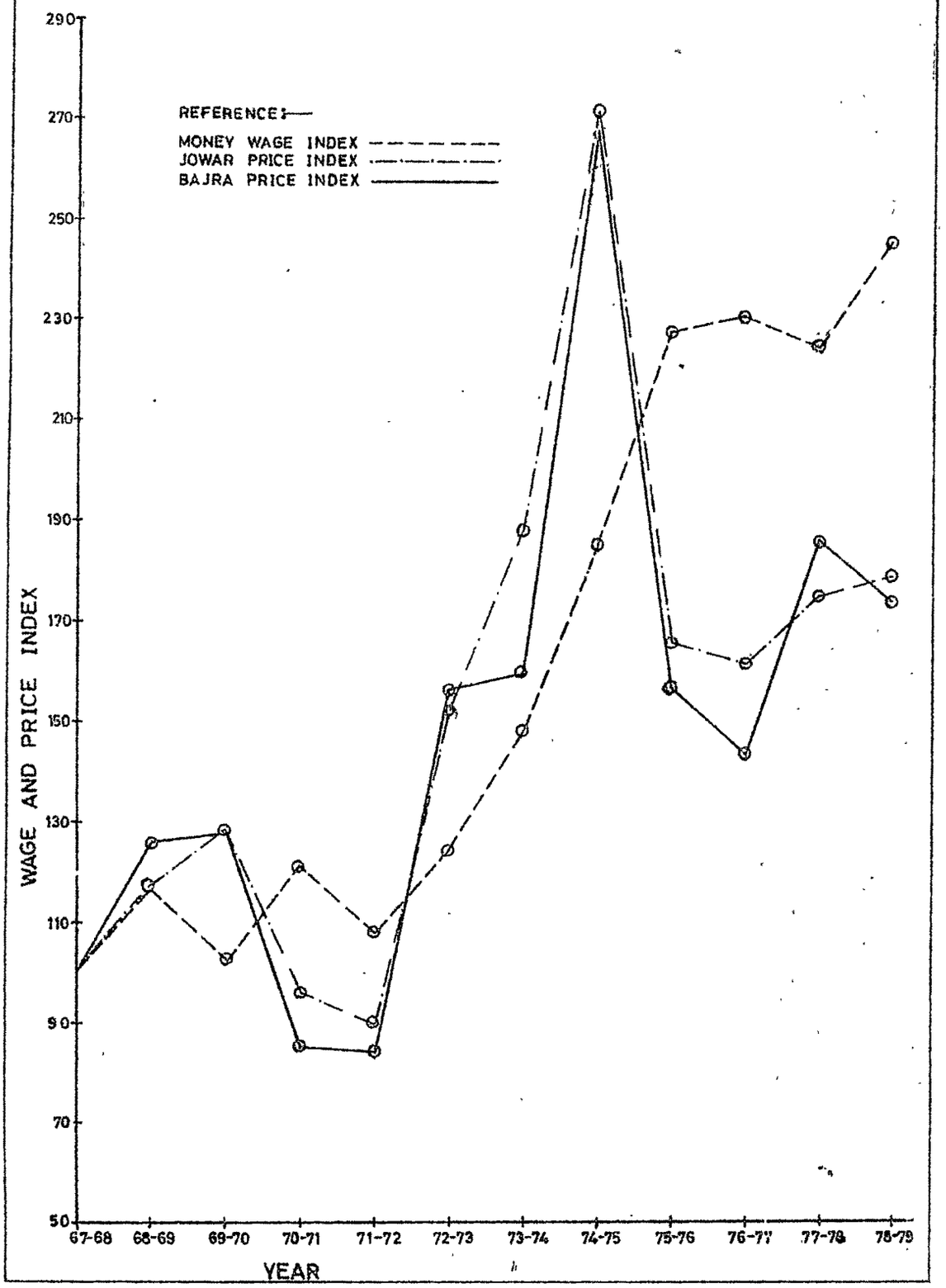
GRAPH II.3.

RELATIVE MOVEMENTS OF MONEY WAGE IN AGRICULTURE AND CEREAL PRICE INDICES (PLAIN REGION)



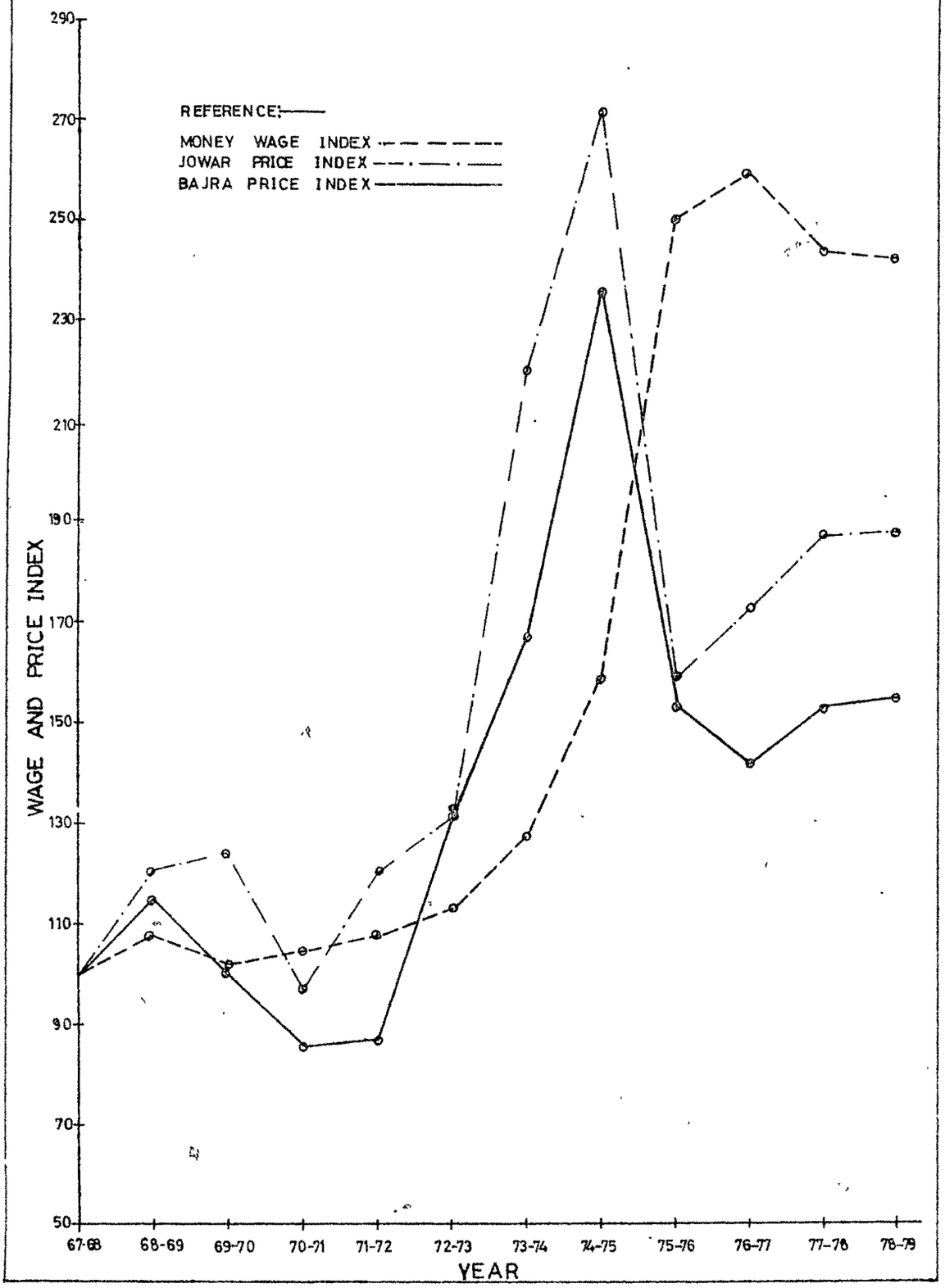
GRAPH II.4.

RELATIVE MOVEMENTS OF MONEY WAGE IN AGRICULTURE AND CEREAL PRICE INDICES (DESERT REGION)



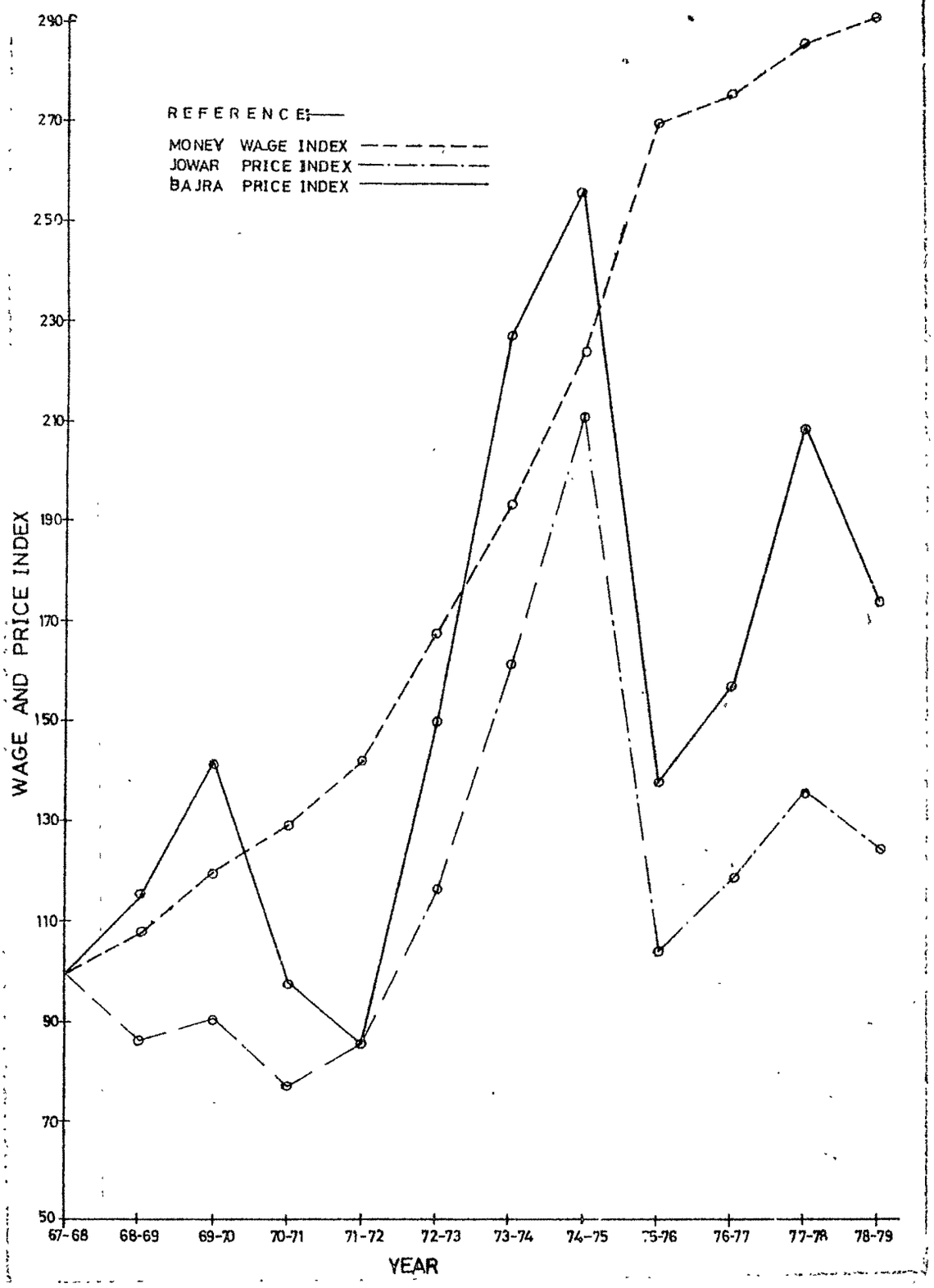
GRAPH II.5.

RELATIVE MOVEMENTS OF MONEY WAGE IN AGRICULTURE AND CEREAL PRICE INDICES (PLATEAU REGION)



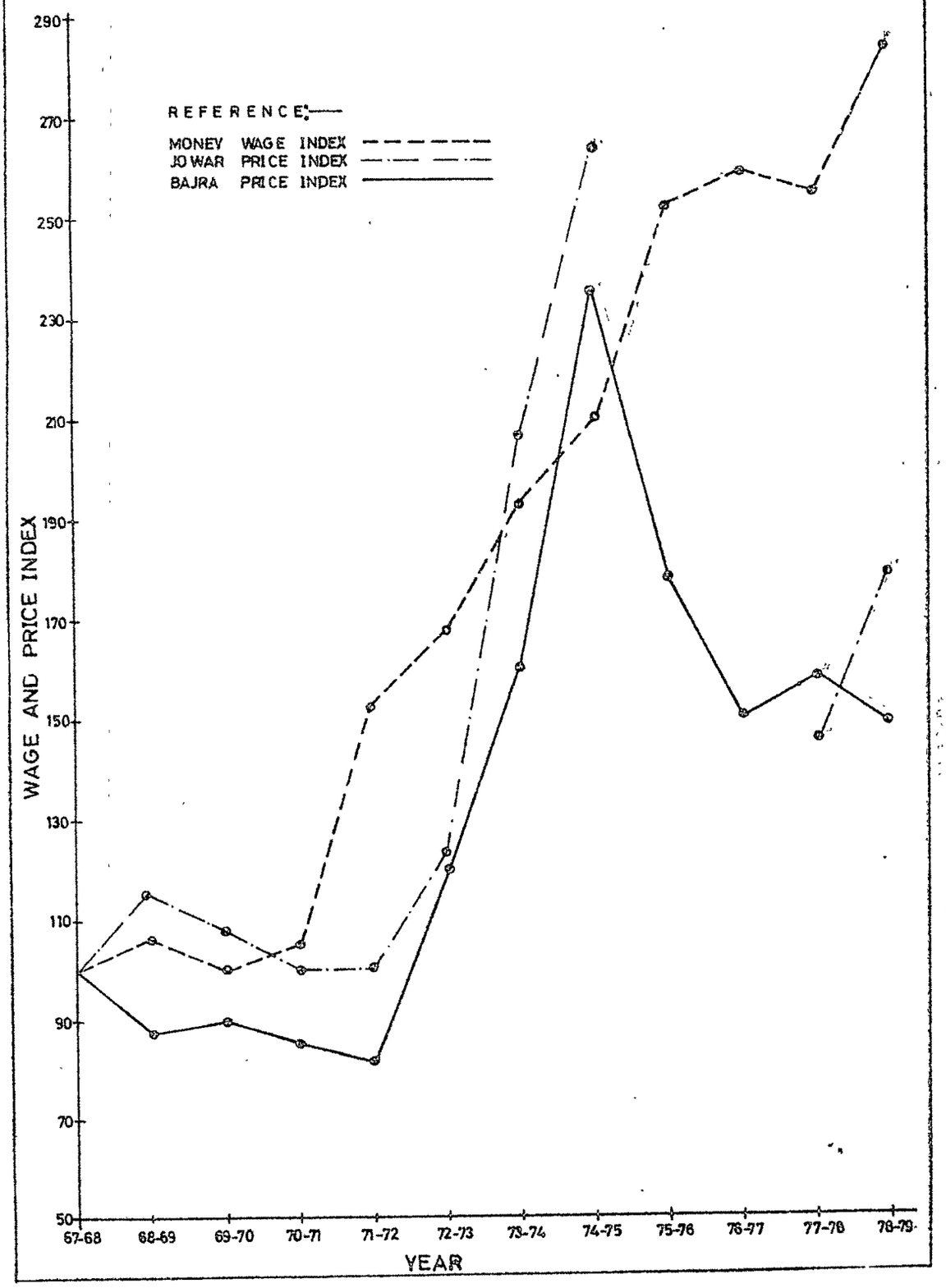
GRAPH II.6.

RELATIVE MOVEMENTS OF MONEY WAGE IN AGRICULTURE AND CEREAL PRICE INDICES (HILLY REGION)



GRAPH II.7.

RELATIVE MOVEMENTS OF MONEY WAGE IN AGRICULTURE AND CEREAL PRICE INDICES (GANGA NAGAR DISTRICT)



Another striking feature is that the wages fluctuate more in regions which have low intensity of irrigation and where agricultural activities are confined to a single season and limited number of crops over a year.

2.4.2 Trends in the Movements of Wage and State Consumer Price Indices

In order to examine the trends in real wages, we have to use the Consumer Price Indices which are available at State level as mentioned earlier.

As such one has to rely upon a common price deflator to examine movements of real wages at village/district levels, though that may not reflect accurate variations in the cost of living of labourers belonging to different villages/districts. This is a serious limitation of real wage analysis. Hence conclusions should be judged subject to such limitations. This common deflator is known as the Consumers General Price Index Numbers of Agricultural Labourers in Rajasthan (A.C.P.I.)*. Village-wise deflated wage series (real wage rates) are presented in table 2.15. Real wage level ranged between Rs.1.00 to 2.00. Labourers experienced the severest hardships during 1974-75 when two third of the villages marked declines in their real wages in comparison to those of 1967-68.

* It is issued by the Labour Bureau, Govt. of India, Simla, with base 1960-61 = 100 and A.C.P.I. is its abbreviated terms

TABLE 2.15

Average Annual Daily Real Wage Rates in Agriculture for Adult Male Casual Labourers in Rajasthan : By Village and Year (in Rupees).

Year / Village	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
1. Asind	0.81	1.29	1.13	1.37	1.21	0.88	0.88	1.79	3.68	3.81	1.53	1.58
2. Kakenseja	0.82	0.82	0.99	1.20	1.14	1.17	0.99	0.91	-	-	-	-
3. Karada	0.87	1.04	1.25	1.29	1.28	0.93	0.75	0.62	1.25	1.89	2.15	2.21
4. Jhonthri	0.87	1.08	1.28	1.42	1.37	1.21	1.50	1.36	1.71	1.80	1.53	1.58
5. Jesrasar	0.87	1.20	1.64	2.00	1.83	1.25	1.60	1.26	1.63	1.80	1.61	1.74
6. Bigod	1.06	1.26	1.26	1.42	1.38	1.10	0.90	0.73	1.47	1.80	1.48	1.65
7. Anjana	1.07	1.02	1.08	1.18	2.23	2.01	1.61	1.33	1.90	2.09	1.53	1.58
8. Peepli 'A'	1.13	1.10	1.04	1.66	1.56	1.47	1.21	1.00	1.71	1.80	1.53	1.65
9. Adana	1.16	1.37	1.02	1.16	1.14	1.10	1.10	1.00	2.95	2.87	2.67	2.55
10. Bhalsra	1.16	-	-	2.71	-	-	1.23	1.24	1.94	2.43	2.61	1.58
11. Manora	1.16	1.15	1.16	1.23	1.19	1.34	1.23	1.00	1.31	1.48	1.41	1.58

contd....

TABLE 2.15 (contd.)

Year / Village	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
12. Khayra	1.17	1.37	1.15	1.38	1.63	1.18	1.10	1.06	1.83	2.44	2.13	2.21
13. Ninder	1.18	1.63	1.91	2.14	2.52	2.04	1.86	1.44	2.14	3.46	2.65	2.85
14. Sohla	1.19	1.19	1.22	1.50	1.72	1.70	0.86	0.98	1.71	1.80	1.54	1.62
15. Meenapara	1.24	1.37	0.95	1.14	1.37	1.08	1.01	0.90	1.60	2.85	2.43	2.63
16. Sera	1.24	1.26	0.99	1.58	1.70	1.35	1.31	1.46	2.11	1.80	1.53	1.59
17. Dadiya	1.25	1.23	0.90	1.13	1.19	0.93	0.87	0.71	1.87	1.96	1.61	1.75
18. Sani	1.27	1.28	0.93	1.05	1.09	0.90	0.91	0.74	1.03	1.51	1.63	1.42
19. Palri	1.32	1.22	1.19	1.39	1.35	1.32	1.30	1.19	1.83	1.80	1.53	1.58
20. Chitanukhurd	1.34	1.26	1.20	1.62	1.77	1.59	1.33	1.11	1.54	1.80	2.73	2.10
21. Dayalana Kalan	1.39	1.62	1.68	2.24	1.59	2.08	1.25	1.39	1.93	1.84	1.57	1.58
22. Govindpura	1.42	1.58	1.45	1.66	1.63	1.32	1.06	0.82	1.55	1.79	1.59	1.52
23. Deepawas	1.42	1.31	0.99	1.16	1.23	1.08	1.37	-	-	-	-	-
24. Nathusar (Sikar)	1.45	1.87	1.47	1.73	1.70	1.32	1.04	0.77	1.90	1.81	1.53	2.24

contd....

TABLE 2.15 (Contd.)

Year / Village	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
25. Salarpur	1.47	1.47	1.43	1.84	2.11	1.58.	1.00	1.12	-	-	-	-
26. Pahoona	1.56	1.44	1.33	1.45	1.62	1.21	1.23	1.27	2.23	1.57	1.53	1.58
27. Sayla	1.57	1.75	1.22	1.57	1.90	1.56	1.16	1.51	1.96	1.98	1.66	2.47
28. Kasba-Machri	1.59	1.51	1.58	1.65	1.85	2.04	1.39	1.29	1.84	2.44	1.53	1.67
29. Bissala	1.59	2.20	1.53	2.26	1.75	1.40	1.81	2.27	3.97	1.80	1.53	3.15
30. Sukhpura	1.59	1.41	1.23	1.42	1.38	1.11	1.19	1.08	-	-	-	-
31. Gurali	1.59	1.51	1.71	1.68	1.82	1.45	1.52	1.16	1.65	1.75	1.66	1.68
32. Mehroli	1.59	1.87	1.57	1.76	1.90	1.50	1.29	1.00	1.71	1.89	2.27	3.03
33. Amli	1.59	0.98	1.11	1.16	1.24	0.93	0.88	0.87	1.51	2.01	2.04	2.30
34. Panwa	1.69	1.79	0.89	1.33	1.07	0.88	1.06	0.81	1.37	1.80	1.53	1.58
35. Kuwarti	1.71	1.62	1.55	1.72	1.70	1.32	-	-	-	-	-	-
36. Dhoti	1.73	1.50	1.40	1.71	1.63	1.39	1.21	1.16	1.77	2.24	1.55	1.91
37. Nathusar (Bikaner)	1.73	1.65	1.86	1.73	1.14	1.68	1.25	1.18	1.76	2.74	2.42	1.89

contd....

TABLE 2.15 (concld.)

Year / Village	1967-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
38. Sekhla	1.73	1.60	0.92	1.87	1.72	2.19	2.11	2.35	1.71	2.31	2.11	2.21
39. Chokri-Khurd	1.73	1.87	1.18	1.68	1.73	1.25	1.66	1.00	1.88	2.04	2.02	2.85
40. Jayal	1.73	1.94	1.63	1.91	1.75	1.32	1.15	0.92	1.76	2.18	1.94	2.43
41. Bamla	1.76	1.56	1.53	1.77	1.86	1.67	1.34	0.93	1.95	2.21	2.08	2.14
42. Khinwasar	1.83	2.09	2.02	2.04	2.15	1.97	1.58	1.31	-	-	-	-
43. Bigga	1.84	1.95	1.87	2.40	2.51	1.61	1.46	1.47	2.32	2.70	1.21	1.34
44. Doomra	1.95	2.15	1.78	2.06	2.10	1.65	1.32	1.08	-	-	-	-
45. Tausar	1.95	1.98	1.64	1.84	1.74	1.46	1.23	0.93	3.14	3.37	2.18	2.40
46. Khanwa	2.45	1.81	1.68	1.76	1.70	1.46	1.80	1.55	2.70	2.56	2.33	3.09
47. Baropal	2.75	2.78	2.42	2.88	3.85	3.28	3.06	2.57	3.94	4.26	3.56	4.10
48. Jagheena	3.17	2.28	2.32	2.65	2.57	2.00	1.67	1.38	2.12	2.14	1.87	2.27

Source : Table 2.1. Consumers General Prices Index Numbers for Agricultural Labourers in Rajasthan (bas 1960-61 = 100) is used as a common price deflator.

Quartiles are prepared using the same technique as adopted in 2.2.1. In short, first quartile comprises 12 villages of the lowest real wage rates, while the fourth quartile includes 12 villages of the highest wage rates. Table 2.16 presents quartile real wage rates.

TABLE 2.16

Annual Daily Real Wage Rates - Averages Over Quartiles : 1967 - 68 to 1978 - 79

(Rs./day)

Year / Quartile	1967-68	68-69	69-70	70-71	71-72	72-73
First	1.01	1.15	1.18	1.50	1.45	1.24
Second	1.31	1.40	1.24	1.53	1.57	1.39
Third	1.61	1.59	1.38	1.63	1.66	1.36
Fourth	2.05	1.97	1.73	2.05	2.07	1.79

Year / Quartile	73-74	74-75	75-76	76-77	77-78	78-79
First	1.18	1.11	1.95	2.20	1.84	1.81
Second	1.18	1.05	1.75	2.04	1.85	1.89
Third	1.25	1.24	2.00	1.94	1.70	2.14
Fourth	1.64	1.39	2.33	2.65	2.17	2.46

Source : Table 2.15

A perusal of the Table 2.16 shows that quartile real wages did not observe any steady trend. After an interval of every two to four years, trend got changed as if there was a short period cycle of wage fluctuations. But over the entire period the general trend was rising. All the quartiles have observed continuous falls in real wage rates from 1972-73 to 74-75 due to persistently high increase in the Cost of Living Indices. Money wage increases were not sufficient to neutralize effects of spiral price hikes. On the one hand, all the quartiles marked the highest absolute increases in the real wages during 1975-76; on the other hand, the highest declines were observed in 1977-78.

Convergence of movements in real wage rates is witnessed in the sense that the lowest wage quartile(first quartile) recorded the highest absolute increase of Rs.0.80 over the entire period; while the highest wage quartile (fourth quartile) exhibited the lowest increase of Rs.0.41 only. Further, the absolute gap between the averages of the first and fourth quartiles also marked a reduction.

Quartiles, in general, remained static to their ranking positions. First quartile picked up its position after 1973-74. It replaced second quartile and continued to hold till 1976-77. Second quartile also overtook third quartile. Only fourth quartile could maintain its rank intact throughout the period under study.

To find out trends in real wage movements at individual village level, frequency distribution technique is employed. Table 2.17 distributes villages by ranges in percentage changes for each year. Number of villages observing increase in real wages during 1967-68 to 1978-79 were 68 in the first quartile; while those belonging to fourth quartile were only 59. Similarly, villages showing increase above 100 percent were 5 in the first quartile as against 3 in the fourth quartile (See Table 2.17). Specially Cumulative Frequency Table-A).

But the situation is different in case of declines in wages. 54 villages showing declines belong to the first quartile as against 65 in the fourth quartile. Villages witnessing declines above 40 percent were 3 in the third and and fourth quartiles as against 2 villages in the first and second quartiles. Villages showing declines below 2.5 percent were 10 in the first and second quartiles as compared to those of 5 villages in the third and fourth quartiles

TABLE 2.17

Frequencies of Villages by Quartiles and by Ranges in Percentage Change in Real Wage Rates Over the Preceding Year : 1967-68 to 1978-79.

1968 -69					1969 - 70					1970 - 71					1971 - 72					1972 - 73				
IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T	IQ	IIQ	IIIQ	IVQ	T
1	3	1	2	7	2	2	1	1	6	1	-	2	2	5	-	2	-	3	5	1	-	-	-	1
-	-	1	2	3	1	-	-	-	1	2	-	1	-	3	-	4	3	2	9	-	-	-	-	-
4	3	2	3	12	1	1	3	1	6	4	7	3	6	20	1	2	3	-	6	1	-	1	-	2
2	2	1	-	5	3	-	-	-	3	3	4	3	1	11	-	1	1	1	3	-	1	-	1	2
1	-	-	-	1	-	-	-	-	-	1	1	2	1	5	1	-	-	-	1	-	-	-	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
8	8	5	7	28	7	3	4	2	16	11	12	11	11	45	2	9	7	6	24	2	1	1	2	6
1	1	-	-	2	-	1	-	1	2	-	-	1	-	1	2	1	1	-	4	-	2	-	-	2
2	-	-	1	3	-	1	2	2	5	-	-	-	-	-	4	1	2	2	9	1	-	-	-	1
-	3	4	1	8	2	1	2	1	5	-	-	-	1	1	2	-	-	3	5	2	-	-	1	3
-	-	2	1	3	2	-	1	4	7	-	-	-	-	-	1	-	1	-	2	1	5	5	4	15
-	-	1	2	3	-	6	2	2	10	-	-	-	-	-	-	1	1	1	3	5	4	6	5	20
-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	4	7	5	19	4	9	8	10	31	-	-	1	1	2	9	3	5	6	23	9	11	11	10	41

(see table 2.17 specially Cumulative Frequency Table-B). Summing up, wage increases at higher rates and declines at lower rates with larger number of villages seem to be the two basic features of first and second quartile villages. Larger number of villages with higher rate of falls and lower rate of rises confine only to third and fourth quartiles. Both these phenomena are indicative of the convergence of movements in real wage rates.

2.4.3 Convergence of Trend in Real Wage Movement

Least Square Equation in the following form is fitted to the deflated wage series for each of the 47 villages*, and per annum growth rates are worked out to examine the pattern of movements in real wages.

$$W = a + bt$$

Where W stands for real wage rate,
t represents time period,
a is constant and represents initial real wage rate, and
b stands for co-efficient of t (per annum growth rate).

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* Village 'Bhaisra' is left-out of the analysis due to frequent breaks in its wage series.

Village-wise resultant equations are presented in Table 2.18. 38 out of 47 villages recorded positive per annum growth rates in real wages. Growth rates are quite low ranging between Rs.0.0012 to Rs.0.1695 per annum. As many as 18 villages have showed growth rates below than Rs.0.05 per annum. The lowest wage village 'Adana' secured the highest growth rate of Rs.0.1695 per annum. Except two, all the nine villages exhibiting negative growth rates, belong to the middle and the high wage villages* in the initial period. Most of the villages belonging to the low wage group, observed high growth rates. Middle wage group villages achieved middle growth rates and could preserve their old positions.

Graph 2.8 depicts initial real wages (a values) on X axis and annual growth rates (b values) on Y axis. Villages are located with code numbers allotted to them in column 2 of Table 2.19. Location of the villages indicates that low wage villages recorded high per annum growth rates, while villages of the high wage rates in the initial period could record low growth rates. This suggests about the existence of convergent pattern in the real wage movements over time.

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* Upto 16th rank of 'a' value are initially low wage villages, from 17th to 32nd rank of 'a' value are middle wage villages, and from 33 to 47 rank of 'a' value are high wage villages.

TABLE 2.18

Least Square Equations for Real Wage Rates

by Village : 1967-68 to 1978-79

Village Name	Equation	Village Name	Equation
1. Dadiya	W=0.927+0.0648t	25.Sayla	W=1.408+0.0517t
2. Khayra	W=1.020+0.0971t	26.Govindpura	W=1.443+0.0012t
3. Salarpur	W=1.332-0.0486t	27.Bani	W=0.998+0.0270t
4. Kasba Machri	W=1.589+0.0199t	28.Doomra	W=1.320+0.1261t
5. Kakenseja	W=0.923+0.0233t	29.Khinwasar	W=1.614-0.0742t
6. Anjana	W=1.211+0.0621t	30.Sekhla	W=1.518+0.0700t
7. Bassala	W=1.649+0.0830t	31.Chokri Khurd	W=1.377+0.0661t
8. Jagheena	W=1.792-0.0748t	32.Dhoti	W=1.501+0.0165t
9. Khanwa	W=1.642+0.0786t	33.Bamla	W=1.514+0.0399t
10.Asind	W=0.843+0.1492t	34.Jayal	W=1.565+0.0285t
11.Bigod	W=1.093+0.0362t	35.Tausar	W=1.552+0.0794t
12.Kuwarti	W=1.493-0.0440t	36.Deepawas	W=1.183-0.0132t
13.Sukhpura	W=1.090-0.0604t	37.Dayalana Kalan	W=1.676-0.0008t
14.Nathusar-Bikaner	W=1.470+0.0514t	38.Meenapara	W=0.798+0.1362t
15.Pahoona	W=1.394+0.0195t	39.Gurali	W=1.581+0.0020t
16.Adana	W=0.742+0.1695t	40.Nathusar-Sikar	W=1.458+0.0203t
17.Bigga	W=1.698-0.0350t	41.Mehroli	W=1.425+0.0648t
18.Jesrasar	W=1.321+0.0391t	42.Palri	W=1.195+0.0406t
19.Karada	W=1.019+0.0939t	43.Manora	W=1.098+0.0312t
20.Jhonthri	W=1.061+0.0602t	44.Sohla	W=1.228+0.0347t
21.Baropal	W=2.596+0.1258t	45.Amli	W=0.919+0.0848t
22.Ninder	W=1.479+0.1223t	46.Sera	W=1.227+0.0484t
23.Chitanu Khurd.	W=1.171+0.0809t	47.Peepli'A'	W=1.151+0.0462t
24.Panwa	W=1.270+0.0085t		

Source : Table 2.15

GRAPH II·8

RELATION BETWEEN INITIAL REAL WAGE RATES (a) AND ANNUAL RATE OF CHANGE IN WAGES (b) OF VILLAGES FOR THE PERIOD 1967-68 TO 1978-79.

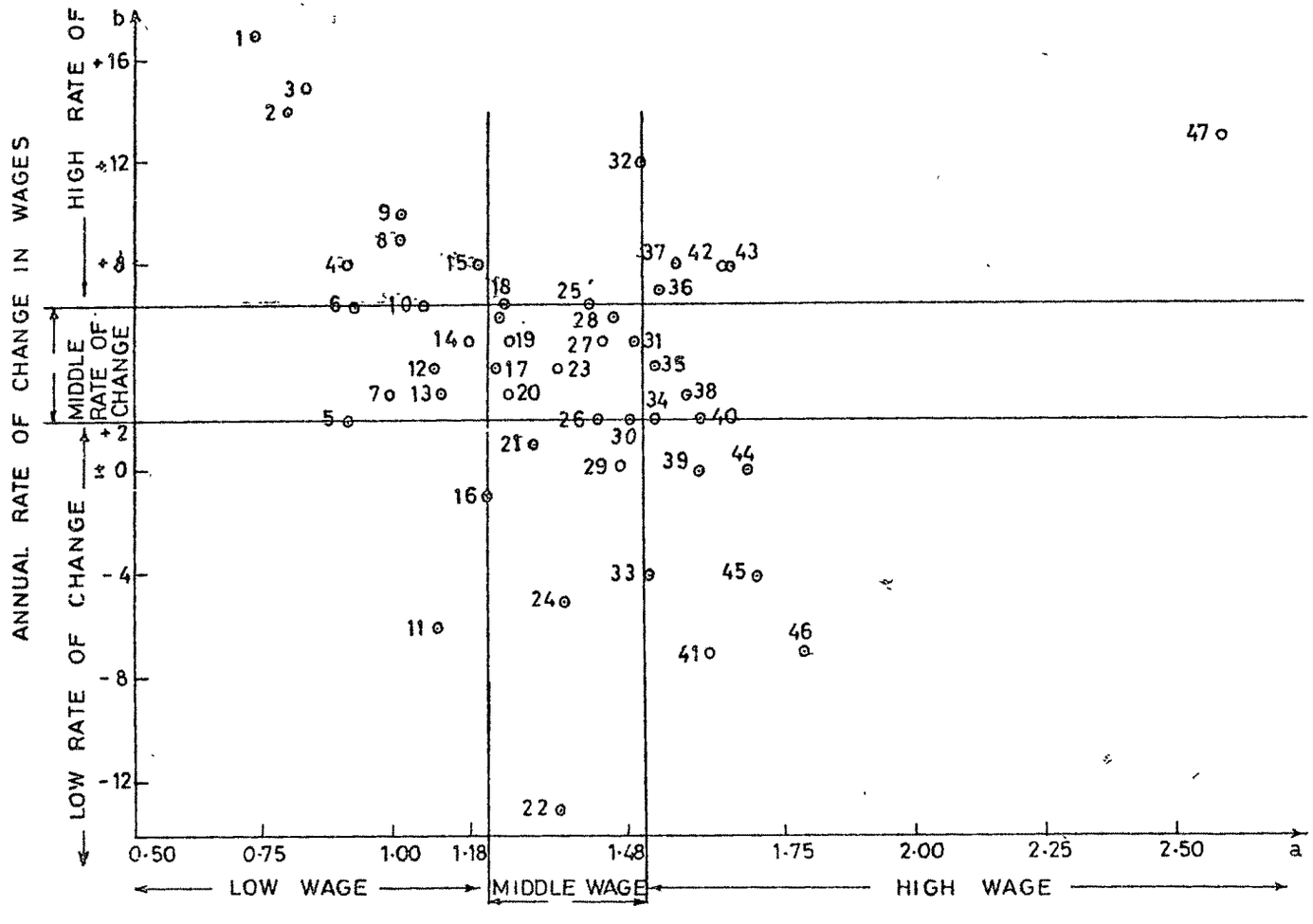

TABLE 2.19

Convergence of Real Wage Movements Over the Period

Village Name	Code	Value of 'a'	Rank in ascending order of value of 'a'	Value of 'b' (per annum growth rate in Real Wages (in Rs.)	Rank in ascending order of value of 'b'
(1)	(2)	(3)	(4)	(5)	(6)
Adana	1	0.742	1	0.1695	47
Meenapara	2	0.798	2	0.1362	45
Asind	3	0.843	3	0.1492	46
Amli	4	0.919	4	0.0848	40
Kapenseja	5	0.923	5	0.0233	17
Dadiya	6	0.927	6	0.0648	32.5
Bani	7	0.993	7	0.0270	18
Karada	8	1.019	8	0.0939	41
Khayra	9	1.020	9	0.0971	42
Jhonthri	10	1.061	10	0.0602	30
Sukhpura	11	1.090	11	-0.0604	4
Bigod	12	1.093	12	0.0362	22
Manora	13	1.098	13	0.0312	20
Peepli 'A'	14	1.151	14	0.0462	26
Chitanu Khurd	15	1.171	15	0.0809	38
Deepawas	16	1.183	16	-0.0132	8
Palri	17	1.195	17	0.0406	25
Anjana	18	1.211	18	0.0621	31
Sera	19	1.227	19	0.0484	27
Sohla	20	1.228	20	0.0347	21

(1)	(2)	(3)	(4)	(5)	(6)
Panwa	21	1.270	21	0.0085	12
Doomra	22	1.320	22	-0.1261	1
Jesrasar	23	1.321	23	0.0391	23
Salarpur	24	1.332	24	-0.0486	5
Chokri Khurd	25	1.377	25	0.0661	34
Pahoona	26	1.394	26	0.0194	14
Sayla	27	1.408	27	0.0517	29
Mehroli	28	1.425	28	0.0648	32.5
Govindpura	29	1.443	29	0.0012	10
Nathoosar(Sikar)	30	1.458	30	0.0203	16
Nathoosar-Bikaner	31	1.470	31	0.0514	28
Ninder	32	1.479	32	0.1223	43
Kuwarti	33	1.493	33	-0.0440	6
Dhoti	34	1.501	34	0.0165	13
Bamla	35	1.514	35	0.0399	24
Sekhla	36	1.518	36	0.0700	35
Tausar	37	1.552	37	0.0794	37
Jayal	38	1.565	38	0.0285	19
Gurali	39	1.587	39	0.0020	11
K.Machri	40	1.589	40	0.0199	15
Khinwasar	41	1.614	41	-0.0742	3
Khanwa	42	1.642	42	0.0786	36
Biesala	43	1.649	43	0.0030	39
Dayalana Kalan	44	1.676	44	-0.0008	9
Bigga	45	1.698	45	-0.0350	7
Jagheena	46	1.792	46	-0.0748	2
Baropal	47	2.596	47	0.1258	44

Source : 2.18

Convergence of real wage movements can further be explained. Coefficient of rank correlation between the values of 'a' (initial real wage rates) and those of 'b' (annual growth rates) turned out to be -0.3150*. Negative coefficient implies that villages with high values of 'a' secured low values of 'b' and vice-versa.

2.5 Conclusions

Significant inter-village/inter-district wage variations not only existed in the state, but continued to exist over the entire period of study. All the villages witnessed steady rising trend in their money wages; but, rate of rise varied substantially among the villages. Consequently Rank Structure changed frequently. Quartile average wages also showed upward movements with varied rates. The pattern of wage movements in quartiles remained convergent in percentage terms; while, divergent in absolute terms. Similarly, individual villages also experienced convergence in wage movements. There was significant inverse correlationship between initial wages and annual growth rates, which suggests that the initially low wage villages achieved wage increments at higher rates and vice-versa.

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* Value of $r > 0.2875$ is significant at 5 percent level of confidence with 4 5 d.f.

Like-wise, real wages also observed convergent movements at village as well as quartile levels. In real wages, though a steady rising or falling pattern did not emerge, yet the general trend over the entire period was that of a mild rise.

The analysis further revealed that the increases in money wages of casual labourers were not quite sufficient to neutralise the adverse effects of price hikes in certain periods, like 1974-75, when labourers of two-third of villages under study failed even to maintain their 1967-68 real wage standards. Thus 1974-75 remained as the year of the severest hardships for agricultural labourers.

The examination of wage and price movements revealed that fluctuations in cereal prices were sharper and frequent, while, those of wages were mild and steady. Further, wage fluctuations were sharper where intesity of irrigation was lower. Similarly, wages fluctuate more in the regions where agricultural activities are confined to a single season and to a limited number of crops over a year.

A lagged effect phenomenon between price and wage movements was distinctly witnessed when prices shot up during 72-73 to 74-75, while wages moved upward only between 74-75 to 75-76. Further, increases as well as decreases were sharper in prices than in wages; while, increases were sharper than decreases in wages. Thus, wages were found stickier

towards fall than towards rise in the short period.

Analysis of operation-wise wages showed that nature of the work and its seasonality influence the wages of various operations. Wages for ploughing remained on top since it is strenuous work; while those of Transplanting and weeding remained at bottom since these are of general nature. Similarly, wages for harvesting were also found higher, since harvesting is to be finished within a short strech of time, and post harvesting operations also raise pressure of work.

Absolute wage differentials between the highest and the lowest wage operations expanded over the period under study; while, the ratio of the highest wage operation to the lowest wage operation declined.

All the operations, in general, witnessed a steady upward pattern. Pattern of movements in the wages of ploughing and sowing was identical throughout the period. Pattern of inter-operation wage movements appeared to be divergent over the period except in 74-75 and 77-78 when wages converged gently.