

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

International Manuscript ID : 23482001V2I101022014-07

(Approved and Registered with Govt. of India)

DEPENDENCE ON AGRICULTURAL EMPLOYMENT: A REGIONAL ANALYSIS

Bal Krishan

Research Scholar

Centre for study of regional development,

JNU, New Delhi

Abstract

After six decade of independence there has been drastic change in sector wise contribution to the GDP in India. For development of an economy the contribution of the secondary and tertiary sector is desirable in terms of income, employment generation and modernization of the country. Ironically this is not working in case of Indian economy. The contribution of agriculture to the GDP during the independence was more than 50 percent, now it has declined to only 13 percent. However the dependence on the agriculture is still more than 40 percent in all India level. More than 40 percent labor force contributing only the 13 percent of national income one can imagine the plight of the people who engage in the primary sector resulting disguise unemployment, low wage rate and low income in the rural India. Paper shows that still there is high proportion of male and female workforce engage in agriculture. Female participation has increase as an agricultural labor.

Introduction

Employment in agriculture was almost stagnant during the decade 1981-91. After 1981-91 there has been drastic fall in employment in the agricultural sector. There are mixed trends from states; push as well as pull factors appear to have been responsible for these trends in

agricultural employment. The share of female workers in agriculture has increased at the aggregate level; though there are many states registering a decline in its share. This paper, examining agricultural employment in rural India, brings out certain features which have serious implications. It finds little evidence of a substantial decline in the excessive dependence on agriculture in rural areas. Agriculture, as an exclusive source of livelihood for the rural population, has been a matter of serious concern for India since independence. Despite efforts towards rural development and employment generation in the non-agricultural sector, the picture in rural areas has not changed significantly. This fact is brought out by the 1991 Census and 2001 Census. India's prospects for reducing the pressure on agriculture depend on its ability to create more jobs in the non-farm sector. Recently many researchers have looked at the employment trends in India as reflected in the latest data available in Quinquennial Surveys of the NSS [Visaria and Minhas 1991] as well as in the 1991 Census [Bhattacharya and Mitra 1993]. Their analyses suggest sluggish employment growth in the manufacturing sector during the 1980s and the limited ability of the state to expand employment opportunities in the public sector. On the other hand there is a feeling of apprehension that if the solution of the problem is left to market forces alone; it would lead to greater unemployment. On the other hand, some researchers have expressed the optimism that economic liberalization is likely to raise considerably the demand for cheaper unskilled labor, leading to casualisation and feminization of labor market (Deshpande and Deshpande 1992). The present paper examines the 1981, 1991 and 2001 Census data on the distribution of rural workers in 14 major states in India. We also compare the result of 2001 census with 1991 and see why there is a fall in agricultural employment.

Objectives

- How far has the employment on the agricultural sector declined during the last decade?

- Are there inter-state differentials in this respect?

- Are there significant differences between trends for male and female workers in these respects?

The analysis is confined to rural areas and only main workers, i. e, those who have worked for more than 180 days during the year preceding the census. Workers engaged in agricultural sector include both cultivators (Category I) and agricultural laborers (Category 2).

Change in Agricultural employment during 1981-2001: Inter-State Analysis

It is very distressing to note that even in 1991 nearly 80 per cent of rural workers are engaged in agriculture and the last decade witnessed decline in it by less than 1 per cent. In rural Bihar and Madhya Pradesh even today, the percentage of those engaged in agriculture is as high as 88 percent. With only exception of Kerala (45.6 per cent), all the other states have revealed that as per 1991 Census data, 70-84 per cent of their rural workers are engaged in agriculture (Table I). Not only there is no evidence of decline in the dependence on agriculture but there are four states where the percentage of workers engaged in agricultural sector has increased as shown in Table 1. In Bihar and Rajasthan the percentage of agricultural workers has increased by more than 1 percentage point while in Andhra and Madhya Pradesh the increase is slightly more than 1/2 per cent. Among the remaining states Gujarat and West Bengal does show a definite decline in the dependence on agriculture (decline by more than 3 percentage points) whereas three other states Haryana, Kerala and Punjab indicate the decline in the percentage of agricultural workers within the range of 2 to 3 percentage points. The decline revealed by a more developed state like Tamil Nadu and relatively backward states like Uttar Pradesh and Orissa is almost of the same order. Maharashtra, which is the most industrialized state in India, has shown decline of only 0.13 percentage points as far as the dependence of rural workers on agriculture is concerned. It obviously reflects the excessive concentration of

industrialization in big cities not accompanied by the success in bringing about transformation in rural areas. It should be noted that after the economic reform still 71 percent of the rural workers are engaged in agricultural sector despite the serious effort of the government to reduce it which is illustrated through census data 2001. There is a 9.63 percent fall of agricultural employment during the years. After the economic reforms some way the burden of employment on agricultural sector has reduced but that is not satisfactory at all if we compare with the developed countries. It is very distressing to note that in Bihar and MP still 81 percent 84 percent of the rural laborers engaged in agricultural sector respectively. This can be clearly understood from the following table and figure. There is a fall of employment of rural workers on agricultural sector after economic reform in all the states. The fall of dependence on agricultural sector is very spectacular in the highest literate state Kerala i.e. 20.46 percent. The most agricultural developed states like Punjab, Haryana and West Bengal do show a definite decline of dependence of agricultural sector (decline by more than 19 percent in Punjab, 11.5 percent in Haryana and 14.7 percent in West Bengal).As the Data reveals the industrially developed states like Maharashtra, AP, and Tamilnadu , do not show a spectacular decline of dependence on agricultural sector. Still a large percentage of rural workers are engaged in agricultural sector (78.97 percent in Maharashtra, 73.21 percent in AP and 67.38 percent in Tamilnadu). The states like Gujarat, Karnataka, Rajasthan, and UP show a decline of agricultural workers within the range of 8 to 9 percent.

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

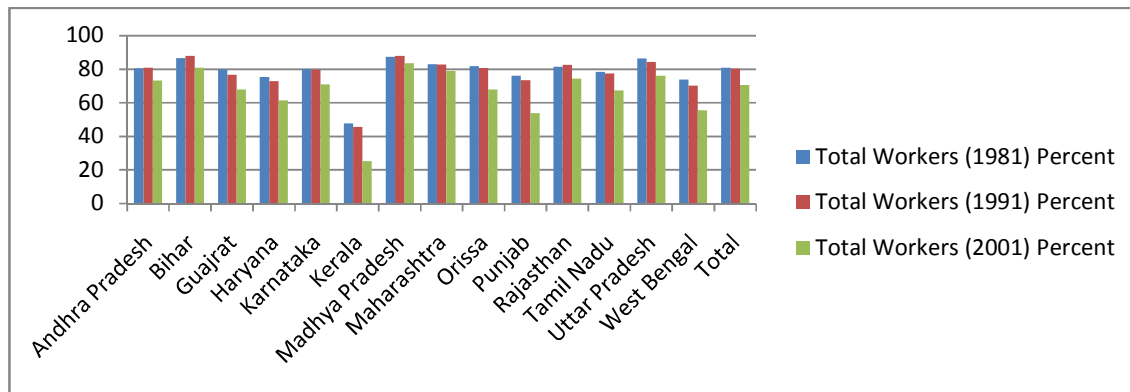
International Manuscript ID : 23482001V2I101022014-07

(Approved and Registered with Govt. of India)

Table-1: Percentage of Main Workers Engaged in Agricultural Sector during 1981-2001

STATE	Total Workers (1981) Percent	Total Workers (1991) Percent	Total Workers (2001) Percent	Change in Percent (1981- 2001)
Andhra Pradesh	80.4	80.96	73.21	-7.19
Bihar	86.66	88	81.07	-5.59
Guajrat	79.96	76.79	67.88	-12.08
Haryana	75.48	72.94	61.44	-14.04
Karnataka	80.18	79.73	70.94	-9.24
Kerala	47.77	45.65	25.19	-22.58
Madhya Pradesh	87.4	88.08	83.69	-3.71
Maharashtra	83	82.87	78.97	-4.03
Orissa	81.93	80.81	67.93	-14.00
Punjab	76.25	73.56	53.95	-22.30
Rajasthan	81.49	82.56	74.38	-7.11
Tamil Nadu	78.55	77.49	67.38	-11.17
Uttar Pradesh	86.32	84.48	76.19	-10.13
West Bengal	73.78	70.21	55.51	-18.27
Total	81.04	80.32	70.69	-10.35

Source: Census 1981, 1991, and 2001.

Fig. 1 Percentage of Workers employment in Agricultural Sector

During the last two decades from 1980-2001, dependence on agricultural sector has only declined 10.35 percent. But if we divide two decades into 1980-91 and 1991-2001, we can say that in first one decade decline of employment of rural workers in agricultural sector is very marginal, it is 0.72 percent only. But after 1991, due to adoption of economic reforms packages, expansion of industrial sector, robust expansion of service sector, a sharp reduction of agricultural employment has been seen during the last decade.

Trends of Male and Female Workers in Agriculture 1981-91

There is clear cut evidence that as far as all-India picture is concerned, for rural male workers at least there is some evidence of decline in the dependence of agriculture (by 1.61 percentage points) but for female workers it indicates change in the other direction, i.e., slight increase in the percentage of female workers engaged in agricultural sector. This can be seen from the following table and figure.

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

International Manuscript ID : 23482001V2I101022014-07

(Approved and Registered with Govt. of India)

Table-2 Trend of Male Workers in Percentage

STATE	Male Workers (1981)percent	Male Workers (1991)percent	Change in Percent(1981-91)
Andhra Pradesh	76.54	76.41	-0.13
Bihar	85.61	86.74	1.13
Guajrat	77.87	74.01	-3.86
Haryana	74.63	71.37	-3.26
Karnataka	78.94	77.06	-1.88
Kerala	45.7	44.69	-1.01
Madhya Pradesh	85.04	85.17	0.13
Maharashtra	77.08	75.54	-1.54
Orissa	81.61	79.72	-1.89
Punjab	76.93	74.16	-2.77
Rajasthan	80.09	79.35	-0.74
Tamil Nadu	74.75	73.35	-1.40
Uttar Pradesh	85.89	83.46	-2.43
West Bengal	74.65	70.92	-3.73
Total	79.16	77.55	-1.61

Source: As on Table 1

Table-3 Trend of Female Workers in Percentage

STATE	Female Workers (1981) Percent	Female Workers (1991) Percent	Change in Percent(1981-91)
Andhra Pradesh	87.22	88.22	1
Bihar	92.34	94.15	1.81
Guajrat	88.59	85.73	-2.86
Haryana	87.11	86.48	-0.63
Karnataka	83.4	85.24	1.84
Kerala	53.9	48.78	-5.12
Madhya Pradesh	92.68	94.14	1.46
Maharashtra	93.3	93.73	0.43
Orissa	83.46	85.44	1.98
Punjab	52.31	56.45	4.14
Rajasthan	88.73	93.79	5.06

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

International Manuscript ID : 23482001V2I101022014-07

(Approved and Registered with Govt. of India)

Tamil Nadu	86.57	85.16	-1.41
Uttar Pradesh	90.44	91.38	0.94
West Bengal	66.53	65.76	-0.77
Total	87.3	87.9	0.6

Source: As on Table 1

Trends for Male and Female Workers 1991-2001: Dependence on agricultural sector has declined both for male and female workers, but decline of rural female workers (10.71) is slightly higher than rural male workers (9.17).

Table-4 Trend of Male Workers in Percentage

STATE	Male Workers (1991) Percent	Male Workers (2001) Percent	Change in (1991-2001) Percent
Andhra Pradesh	76.41	68.61	-7.80
Bihar	86.74	79.88	-6.87
Guajrat	74.01	67.80	-6.21
Haryana	71.37	60.15	-11.22
Karnataka	77.06	68.94	-8.12
Kerala	44.69	24.75	-19.93
Madhya Pradesh	85.17	81.51	-3.66
Maharashtra	75.54	72.07	-3.47
Orissa	79.72	67.82	-11.91
Punjab	74.16	59.87	-14.29
Rajasthan	79.35	68.78	-10.58
Tamil Nadu	73.35	62.63	-10.72
Uttar Pradesh	83.46	76.20	-7.26
West Bengal	70.92	57.56	-13.37
Total	77.55	68.38	-9.17

Source: As on Table 1

Table-5 Trend of Female Workers in Percentage

STATE	Female Workers (1991) Percent	Female Workers (2001) Percent	Change in (1991-2001) Percent
Andhra Pradesh	88.22	81.03	-7.19
Bihar	94.15	86.67	-7.48
Guajrat	85.73	68.11	-17.62
Haryana	86.48	65.50	-20.98
Karnataka	85.24	75.26	-9.98
Kerala	48.78	26.74	-22.04
Madhya Pradesh	94.14	88.84	-5.30
Maharashtra	93.73	90.19	-3.54
Orissa	85.44	68.47	-16.97
Punjab	56.45	30.94	-25.51
Rajasthan	93.79	87.43	-6.36
Tamil Nadu	85.16	75.55	-9.61
Uttar Pradesh	91.38	76.14	-15.24
West Bengal	65.76	44.54	-21.22
Total	87.9	77.20	-10.70

Source: As on Table 1

The fall of employment of rural female workers on agricultural sector is remarkable in Punjab (25.51), Kerala (22.04) and Haryana (20.98). The most distressing fact is that after the long two decades of serious effort of the govt. The scenario of the rural female workers has not changed. It is clearly visible from the above table for example in Maharashtra and Madhya Pradesh still 90.14 and 88.84 percent female workers employment in agricultural sector respectively. It clearly indicates the failure of the policy of the government. It would be therefore interesting to seek answer to another important question what percentage of the increase in the main workers during the last decade was absorbed in the agricultural sector and how far there are sex wise and state wise differences in this respect.

Fig. 2 Trend of female worker 1981-2001

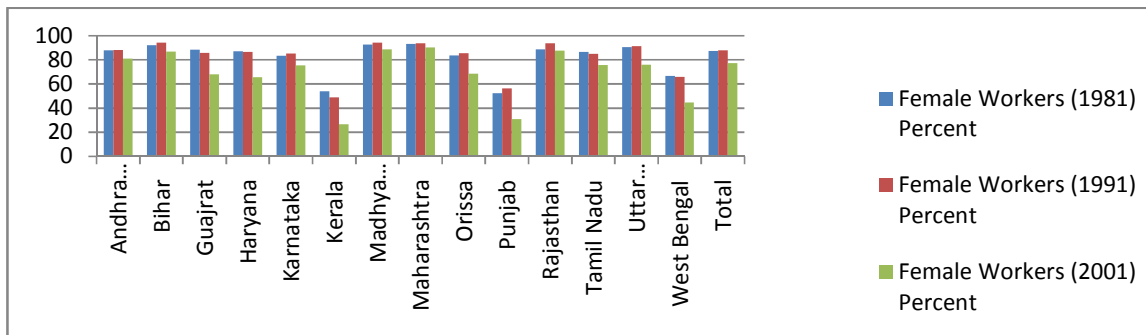
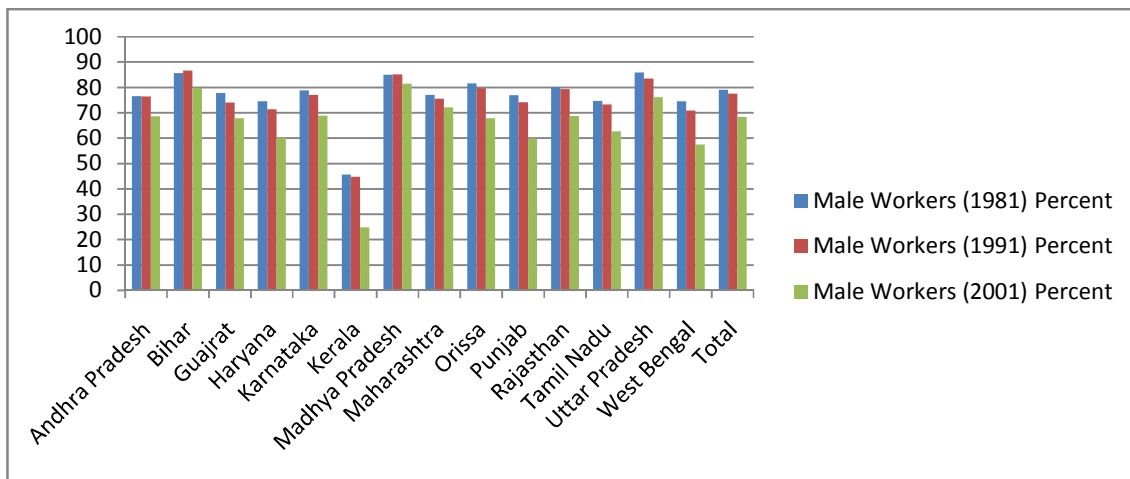


Fig. 3 Trend of Male Worker during 1981-2001



On the basis of the above table and chart we can divide the 14 states on the following categories. (1) States where dependence on agriculture has increased for both male and female (Bihar, Madhya Pradesh) (2) States where dependence on agriculture has increased for female workers but declined for male workers (Andhra Pradesh, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh). (3) States where dependence on agriculture has

declined for both male and female workers (Gujarat, Haryana, Kerala, Tamil Nadu, West Bengal).

Category 3 indicates the healthy trend that both male and female workers are being absorbed outside the agricultural sector in rural areas. The category 2 shows some amount of substitution process in the agricultural sector in which male workers (who possibly get the jobs in the non-agricultural sector) are now substituted by female agricultural workers. Partly this can be the result of better reporting of female workers in 1991 Census. The process of substitution is perhaps going on moderately as shown by the small magnitude of figures but it indicates the direction in which change is taking place. The worst is the case of Bihar and Madhya Pradesh where for both male and female workers, the dependence on agricultural sector as a source of livelihood has increased. This, however, does not imply that in these states, where there is evidence of substitution of female workers by male workers, agriculture has become a predominantly female activity. After all, work participation rates of female in all the states are much lower than males. In rural areas of India almost half of the males participate in economic activity as main workers (around 52 per cent in both 1981 and 1991) while hardly 16 to 18 percent of females participate in economic activity as main workers.

Sex Ratio of Rural Workers: Inter- State Differentials

Though there is some evidence of substitution of male workers by female workers in the rural agricultural sector, it is obvious that the sex-ratio of agricultural as well as non-agricultural workers is always likely to be favorable to males due to the much higher male participation rates. First we see the change in 1981 to 1991 then we analyze the changes in 1991 and 2001.

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

International Manuscript ID : 23482001V2I101022014-07

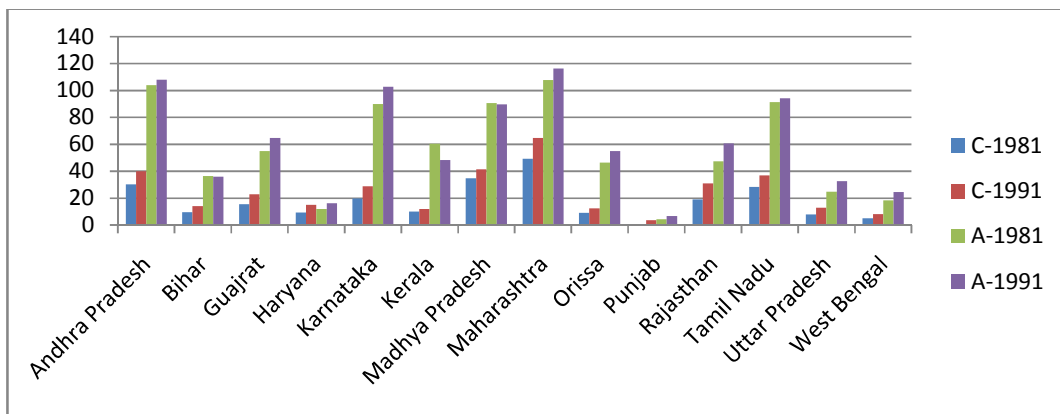
(Approved and Registered with Govt. of India)

Table-6 Change in sex ratio of rural worker in different categories 1981-1991

STATE	Cultivators		Agricultural laborers	
	C-1981	C-1991	A-1981	A-1991
Andhra Pradesh	30.1	40	104.05	107.97
Bihar	9.62	14.04	36.38	35.93
Gujarat	15.49	22.87	55.12	64.71
Haryana	9.42	15.02	11.82	16.15
Karnataka	19.79	28.94	89.97	102.88
Kerala	10.05	11.78	60.44	48.41
Madhya Pradesh	34.92	41.45	90.63	89.74
Maharashtra	49.31	64.94	107.69	116.24
Orissa	9.26	12.34	46.49	54.92
Punjab	0.57	3.59	4.3	6.63
Rajasthan	18.99	30.88	47.36	60.56
Tamil Nadu	28.49	36.81	91.44	94.18
Uttar Pradesh	7.74	13.05	24.85	32.75
West Bengal	5.08	8.07	18.34	24.69

Source: As on Table 1

$$* \frac{\text{Female Workers in the given category}}{\text{Male Workers in the given category}} \times 100$$

Fig.4 Change in sex Ratio of Rural worker in different categories 1981-1991

Though there is some evidence of substitution of male workers by female workers in the rural agricultural sector, it is obvious that the sex-ratio of agricultural as well as non-agricultural workers is always likely to be favorable to males due to the much higher male participation rates. Table 3 however reveals that there are extreme variations in this respect. Female participation in economic activity, though largely induced by poverty, also depends to a large extent on the cultural factors leading to inter-state variations. The sex ratios in both 1981 and 1991 are favorable to men in all the categories except for agricultural laborers in some states indicating that female agricultural laborers outnumbered male agricultural laborers in both 1981 and 1991 and in Karnataka only in 1991. Sex ratios though unfavorable to women, have been higher among agricultural laborers compared to other category (cultivators) which indicates that the proportion of female workers is higher among agricultural laborers both in 1981 and 1991. Among the 14 states, it is relatively higher in Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu and Madhya Pradesh (90-116 females per 100 male agricultural

laborers). At the other extreme are Punjab (4 -6 percent) and Haryana (12-16 per cent). As for the change during 1981-91, Kerala is the only state where the sex-ratio of agricultural laborers has gone down indicating that compared to 1981; relatively fewer females are working as agricultural laborers than males. In Bihar and Madhya Pradesh there is hardly any change, while in all other states relatively more females were working as agricultural laborer in 1991 than in 1981. The sex ratio among agricultural laborers in Gujarat, Karnataka, Maharashtra, Orissa, Rajasthan and Uttar Pradesh has increased by 9 to 13 points during 1981-91. Compared to the category of agricultural laborer, sex ratios in this category are less favorable to women. In 1991 for most of the states they are in the range 11 to 41. In Punjab and West Bengal there are hardly three and eight women respectively per 100 men working on family farms. In Andhra Pradesh, Madhya Pradesh and Maharashtra the corresponding percentage is as high as 40, 41 and 65, respectively. In all the states except Kerala, this ratio has improved during 1981-91.

Table-7 Change in sex ratio of rural worker in different categories 1981-1991)

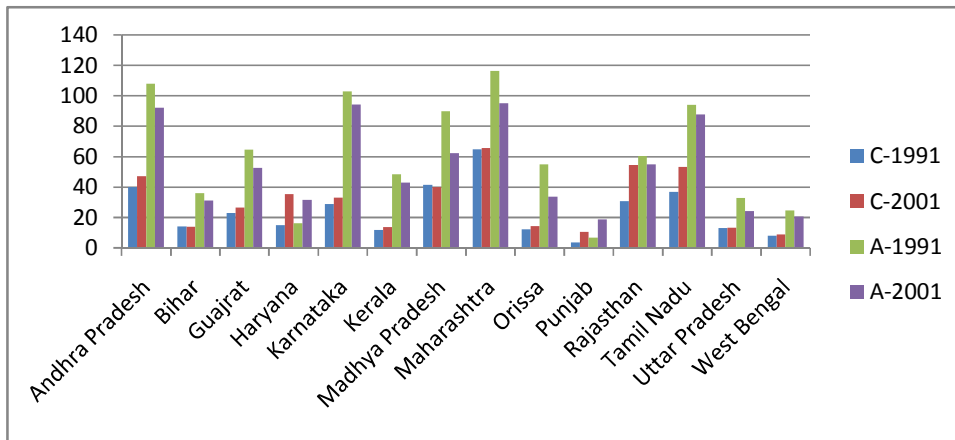
STATE	Cultivators		Agricultural labor	
	C-1991	C-2001	A-1991	A-2001
Andhra Pradesh	40	46.97	107.97	92.18
Bihar	14.04	13.85	35.93	31.22
Guajrat	22.87	26.46	64.71	52.65
Haryana	15.02	35.36	16.15	31.67
Karnataka	28.94	32.97	102.88	94.26
Kerala	11.78	13.58	48.41	42.90
Madhya Pradesh	41.45	39.97	89.74	62.36
Maharashtra	64.94	65.68	116.24	95.16
Orissa	12.34	14.38	54.92	33.68

Punjab	3.59	10.57	6.63	18.78
Rajasthan	30.88	54.49	60.56	54.95
Tamil Nadu	36.81	53.15	94.18	87.86
Uttar Pradesh	13.05	13.26	32.75	24.38
West Bengal	8.07	8.82	24.69	20.82

Source: As on Table 1

$$* \frac{\text{Female Workers in the given category}}{\text{Male Workers in the given category}} \times 100$$

Fig. 5 Change in Sex ratio of rural workers in different categories 1991-2001



The sex ratio of cultivators are increased in almost all the states except only two states Bihar and Madhya Pradesh where sex ratio of cultivators has decreased. It clearly indicates the feminization of agricultural employment; it is partially due to the poverty which compels the women to work as cultivators. It is surprised to notice that in the poor states like Bihar and MP the sex ratio has been fallen from 14.04percent to 13.85 percent and 41.45 percent to 39.97 percent respectively during the decade 1991-2001. But the most agriculturally

developed states Punjab; there is a 7 percent increase in participation of woman in cultivation. The most important thing is that sex ratio in agricultural laborers has drastically reduced in 2001 as compare to 1991. No where the female workers has outnumbered the male workers as we have seen in 1991 census. It reveals that social condition of female workers has improved during the last decades. In Karnataka, Maharashtra, AP, and Tamilnadu, the sex ratio is very high, it is 94.26 percent, 95.16 percent, 92.18 percent and 87.86 percent respectively. The sex ratio is very low in Punjab, UP, West Bengal it varies from 18 percent to 24 percent.

Conclusion

The analysis presented here brings out certain facts which have serious implications for the future prospects of employment generation in rural India. Firstly, there is hardly any evidence of a substantial decline in the excessive dependence on agriculture in rural areas. It is heartening to note that more women are economically active but the fact that relatively their proportion is higher among agricultural laborers (working for wages on other's farms) than among cultivators. In short, during the last decade, in most of the states dependence on agricultural employment in rural areas has declined but still it is very high. Sex ratio has increased in recent decade in form of agricultural laborers, which shows the push factor i.e. low family income and poverty which compels women to work as agricultural labor. One really wonders if a solution to the employment problem is left to the market forces, whether it will release the forces strong enough to generate dynamism in the non-farm sector of rural India and reduce the pressure on the agricultural sector. A proper strategy of employment generation therefore needs to be evolved taking into account employment trends revealed in rural areas of various states during the last decade.

International Refereed Journal of Reviews and Research

Volume 2 Issue 1 January-February 2014

International Manuscript ID : 23482001V2I101022014-07

(Approved and Registered with Govt. of India)

REFERENCES

- Bhattacharya, B.B and A Mitra (1993), "Employment and Structural Adjustment - A Look at 1991 Census Data," *Economic and Political Weekly*, September 18.
- Deshpande, S and L K Deshpande (1992), "New Economic Policy and Female Employment," *Economic and Political Weekly*. October 10.
- Bhalla, G.S. and G. Singh (1997), "Recent Developments in Indian Agriculture- A State Level Analysis" *Economic and Political Weekly*, Vol. 32, No. 13 (March 29).
- Unni, Jeemol (1998), "Non-agricultural Employment and Poverty in Rural India: A review of evidence," *Economic and Political Weekly*, Vol. 33, No. 13 (March 28).
- (NSSO, 1997). *Employment and Unemployment in India, 1993-94, NSS Fiftieth Round (July 1993- June 1994)*, NSS Report no. 409, New Delhi.
- (NSSO 2001) *Employment and Unemployment Situation in India, 1999-2000, NSS Fifty-fifth Round (July 1999-June 2000)*, NSS Report no. 458, Key Results, Part-I, Part-II, New Delhi.