

A COMPARATIVE GEOGRAPHICAL ANALYSIS OF RURAL-URBAN LITERACY LEVELS IN AJMER DIVISION

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Abstract: *Literacy is the primary indicator of development of society. The present paper is based on the census data for the year of 2011. Literacy is defined by census as the ability to read and write with understanding excluding the population age group 0-6. The main objective of present study is to find the level of literacy and social ecology of rural-urban literacy. The paper is focused to analyse a comparatively geographical analysis of rural-urban literacy level in Ajmer division of Rajasthan state. It is focused to measure the relationship between literacy and various socio-economic variables like density of population, sex ratio, urban population, total workers, scheduled caste, scheduled tribe population and percent workers engaged in non agricultural activities using regression coefficient and coefficient of determination. The rural and urban literacy rate of Ajmer division is 58.79 and 78.64 percent respectively. Beawar tehsil registered highest rural literacy rate (68.64%) and Sarwar tehsil registered lowest rural literacy rate (50.80%) in Ajmer division in 2011. Nasirabad tehsil registered highest urban literacy rate (88.39%) and Sarwar tehsil registered lowest urban literacy rate in Ajmer division in 2011 (64.56%). It is suggested that there is a need to extend the educational infrastructure facilities within the rural areas. Literacy and educational acquisition will bring improvement and development in rural areas. Rural literacy is about 20 percent less than the urban literacy. The rural population lags behind its urban counterpart in the literacy rates. The main factors behind this difference are social life and economic patterns of urban places, educational facilities, awareness, economic capability.*

Key words: Literacy, Relationship, Regression, Suggested, Infrastructure, Counterpart.

Introduction

Literacy is primary factor of economic and social development in a region. Literacy is a qualitative attribute of population which is fair index of socio-economic development of the area. Literacy and education are essential for social reconstruction, improvement in the quality of the life and preparation of manpower for rapid development. However, literacy works for moulding the younger generation to assume the future responsibilities and develop appropriate values of life. On the other hand, the lack of literacy can certainly be an obstacle in the development process. A certain level of literacy is, therefore, a basic requirement for the people to get out of ignorance and backwardness. Thus literacy is essential for economic development and social advancement which measure overall development of a country. Literacy is defined by census as the ability to read and write with understanding excluding the

population age group 0-6. The main objective of present study is to find the level of literacy and social ecology of rural-urban literacy.

Objective of the Study

The main objective of present research paper is to study the level of urban-rural literacy and socio-ecology of urban-rural literacy. The social life and economic patterns of urban places are such that the “need to get educated is more in urban areas than in agricultural countryside”.

1. Educational facilities are concentrated more in urban areas while these may be completely absent in certain rural areas.
2. Urban population is socially more awakened and economically more capable of imparting education to their children in comparison to rural population.
3. Urban females enjoy relatively higher status in comparison to rural females and are generally not denied the opportunities of education as is the case in many rural areas.
4. A part of educate rural population migrates to urban area for better opportunities.

Location and Size

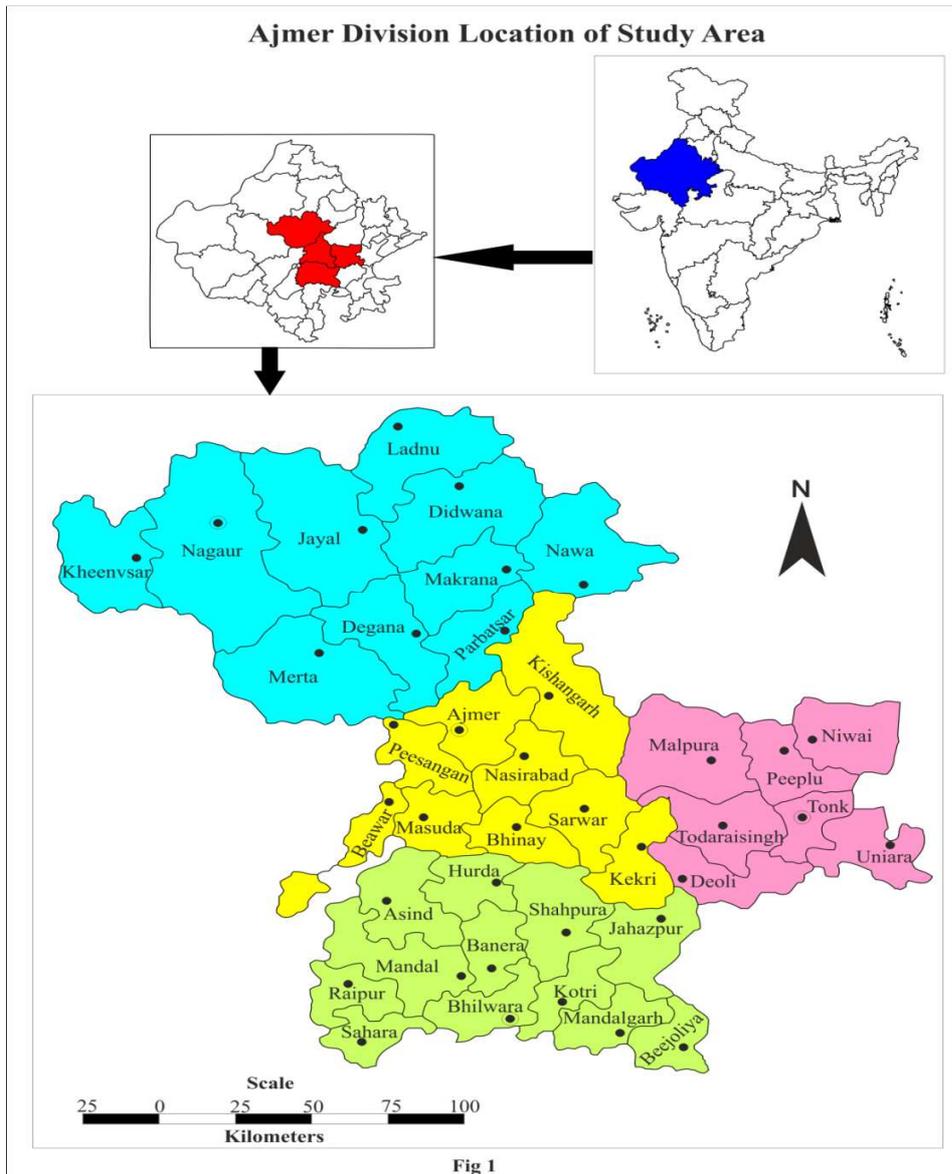
Ajmer Division is one of the administrative geographical units, called a division, of Rajasthan state. The division comprises of four districts: Ajmer, Bhilwara, Nagaur and Tonk and 38 tehsils. It is situated in the Middle Eastern part of Rajasthan and lies between 26⁰ 25'N - 27⁰50'N latitudes and 73⁰10'E -76⁰16'E longitudes (Fig 1). It is bounded by Bikaner, Churu, Jaipur and Sikar districts in the north & Bundi, Dausa and Sawai Madhopur in east & Chhitorgarh and Rajsamand district and Madhya Pradesh state in south & Pali and Jodhpur in west. The total area of Ajmer division is 43,848 Km² which is 12.81% of total area of Rajasthan (3, 42,239 Km²).

Research Methodology

Besides various measures of cartographic representation like bar diagram and choropleth method, we have employed various statistical methods to measure the relationship between various types of literacy and different socio-economic variables. In this regard, the present thesis is of socio-ecological in kind. In order to measure the degree of relationship between various type of literacy and different socio-ecological analysis at the tehsil level:

Level of Urban Literacy

In 2011, one out of five persons was illiterate in the urban area of Ajmer division of Rajasthan. Economic development and literacy of a region are closely linked. A strong positive correlation has often been observed between the diffusion of literacy and economic progress. The degree of urbanization affects the rate of literacy. Those areas which are more urbanized are also generally characterized by higher rates of literacy in comparison to those which still are at low level of urbanization.



There also exists a positive correlation between literacy rates and standard of living. Higher the standard of living, higher will be literacy and vice-versa.

The development of means of transportation and communication has opened new vistas in the field of literacy. Because it has increased the degree of spatial interaction and the educational institutions in the urban areas now have become accessible to the students living in countryside also. Literacy to large extent is dependent upon the number of educational institutions. The larger the number of schools and other sources of getting education, the higher are the literacy rates. The type of economy is also one of the most powerful parameter in the field of literacy. In a predominantly agricultural economy, the literacy is generally low, in contrast to those areas where the industries constitute the main activity and the workers are employed in service sector.

Table 1: Urban Literacy Rate in Ajmer Division – 2011

Category	No. of Tehsils	Percent
>86	2	6.90
81-86	5	17.24
76-81	8	27.59
71-76	10	34.48
<71	4	13.79
Total	29	100.00

Source: Census of India 2011, Final Population Total, Brief Analysis of Primary Census Abstract

On the basis of urban literacy rates as shown in table, the tehsils of Ajmer division can be classified into five categories as:

Regions Having Very High Level of Urban Literacy (More than 86%)

Nasirabad tehsil of Ajmer district and Deoli tehsil of Tonk district have the highest level of urban literacy more than 86 percent. The urban literacy rate is very high in Nasirabad tehsil because it was primarily a centre of military and its associated activities. Deoli tehsil has experienced very high literacy rate because of industrially development, economically sound and having specialized educational institutions. The very high urban literacy rate among these tehsils is also due to favourable impact of big towns. The development of transportation and communication network has not only increased the degree of spatial interaction but also helped in the breaking up of rural isolation. It covers central region of Ajmer district and southern region of Tonk district (Fig. 2).

Regions Having High Level of Urban Literacy (81-86%)

Reasons for high level of literacy rate are the availability of more educational facilities, high degree of urbanization and good economic conditions. Ajmer, Beawar tehsils of Ajmer district; Bhilwara, Hurda tehsils of Bhilwara district; and Niwai tehsil of Tonk district have experienced high level of literacy which is more than 81 percent and confirm with that of availability of educational facilities. High level of urban literacy is concentrated on north-eastern region of Tonk district, north and southern region of Bhilwara district and north-eastern region of Ajmer district (Fig. 2).

Regions Having Moderate Level of Urban Literacy (76-81%)

The moderate level of urban literacy rate was found in Nawa tehsil of Nagaur district; Malpura tehsil of Tonk district; Kishangarh, Kekri, Masuda tehsils of Ajmer district; Shahpura, Sahara and Beejoliya tehsils of Bhilwara district. Moderate level of urban literacy is concentrated on eastern region of Nagaur district, north-western region of Tonk district, northern and southern region of Ajmer district and northern and southern region of Bhilwara district (Fig. 2).

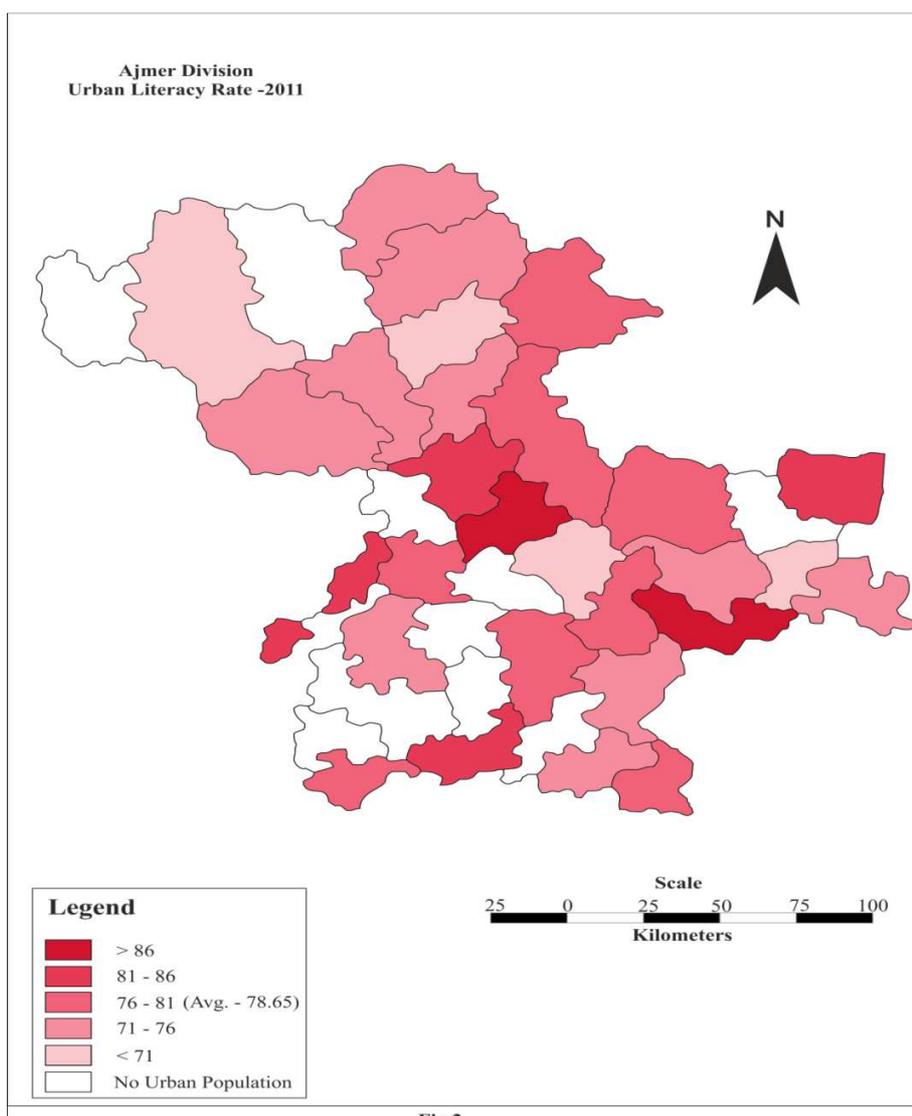


Fig 2

Regions Having Low Level of Urban Literacy (71-76%)

Ladnu, Didwana, Merta, Degana, Parbatsar tehsils of Nagaur district; Todaraisingh, Uniara tehsils of Tonk district; Asind, Jahazpur and Mandalgarh tehsils of Bhilwara district have a low level of urban literacy rate. Low level of urban literacy is concentrated on northern and southern region of Nagaur district, central and south-eastern region of Tonk district, north-eastern and southern region of Bhilwara district (Fig. 2).

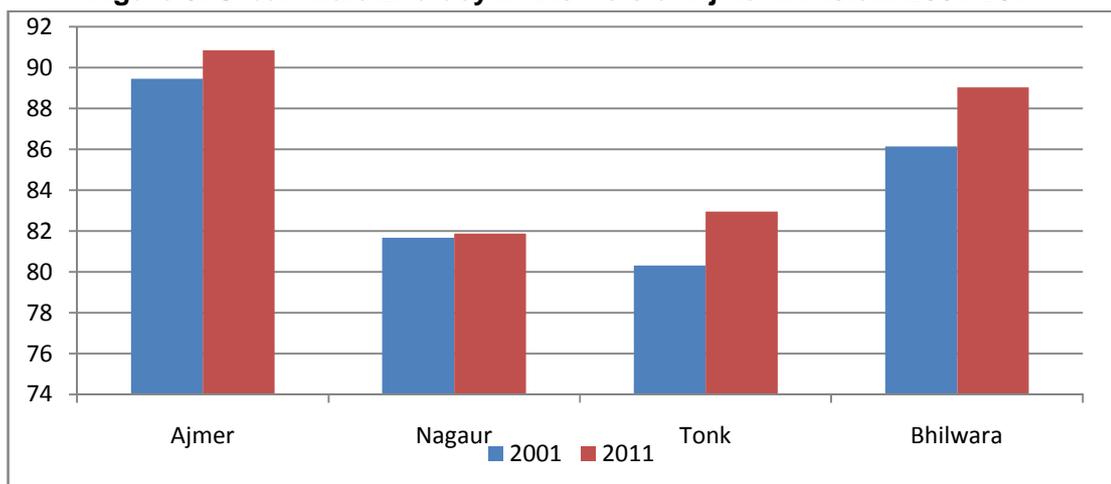
Regions Having Very Low Level of Urban Literacy (Less than 71%)

Nagaur, Makrana tehsils of Nagaur district; Sarwar tehsil of Ajmer district and Tonk tehsil of Tonk district have very low level of urban literacy rate. Very low level of urban literacy is mainly concentrated on central and northern region of Nagaur district, south-eastern region of Ajmer district and central region of Tonk district (Fig. 2).

Levels of Urban Male Literacy

There has been a considerable increase in the percentage of urban male literacy in Ajmer division. This increase is more in the decade of 1991- 2001. Ajmer district has the highest urban male literacy rate in the division from last two decades whereas Nagaur district has the lowest urban male literacy rate in 2011. Bhilwara district recorded highest growth rate of 2.9% in urban male literacy rate from 2001-2011. Nagaur district recorded the lowest growth rate of 0.2% in urban male literacy rate from 2001-2011.

Figure 3. Urban Male Literacy in Districts of Ajmer Division: 2001-2011



Levels of Urban Female Literacy

Female literacy is one of the crucial indicators of development process in any region. The female literacy helps the area to build up a resourceful economy and healthy socio-economic environment. Ajmer district has the highest urban female literacy rate in the division from last two decades whereas Nagaur district has the lowest urban female literacy rate from last two decades. Bhilwara district recorded highest growth rate of 9.81% in urban female literacy rate from 2001-2011. Ajmer district recorded the lowest growth rate 4.34% in urban female literacy rate.

Table 3: Urban Female Literacy in Ajmer Division

Sr. No.	District	Female Literacy	
		2001	2011
1	Ajmer	72.15	76.49
2	Nagaur	53.41	58.84
3	Bhilwara	61.98	71.79
4	Tonk	56.03	64.76

Source: Census of India 2011, 2001, Final Population Total, Brief Analysis of Primary Census Abstract.

LEVEL OF RURAL LITERACY

The rural literacy levels represent a wide difference between the lowest and highest literacy rates. In Ajmer division, the rural literacy rate are found in most tehsils are between 55 to 60 percent. In Ajmer division, rural literacy is found very less as compared to the urban literacy. In 2011, rural literacy rate was just 58.79, whereas the urban literacy rate is 78.65 percent. On

the basis of rural literacy rates as shown in table, the tehsils of Ajmer division can be classified into five categories as:

Table 4: Rural Literacy Rate in Ajmer Division – 2011

Category	No. of Tehsils	Percent
More Than 65	3	7.89
61-65	5	13.16
57-61	18	47.37
53-57	9	23.68
Less Than 53	3	7.89
Total	38	100.00

Source: Census of India 2011, Final Population Total, Brief Analysis of Primary Census Abstract

Regions Having Very High Level of Rural Literacy

Nawa and Didwana tehsils of Nagaur district and Beawar tehsil of Ajmer district have recorded very high level of rural literacy rate. It is mainly concentrated in region of Nagaur district; and south-western region of Ajmer district (Fig. 5).

Regions Having High Level of Rural Literacy

High level of rural literacy is found in Peesangan and Ajmer tehsils of Ajmer district; Makrana and Ladnu tehsils of Nagaur district; Hurda tehsil of Bhilwara district. It is mainly concentrated in north-western region of Ajmer district; northern and central region of Nagaur district; and northern region of Bhilwara district (Fig. 5).

Regions Having Moderate Level of Rural Literacy

Kheenvsar, Degana, Nagaur, Jayal and Merta tehsils of Nagaur district; Banera, Sahara, Jahazpur and Bhilwara tehsils of Bhilwara district; Malpura, Peeplu, Uniara, Todaraisingh, Deoli, Tonk and Niwai tehsils of Tonk district; Masuda and Nasirabad tehsils of Ajmer district have moderate level of rural literacy rate. It is mainly concentrated in northern, western and southern region of Nagaur district; central, north-eastern and southern region of Bhilwara district; north-western, central and southern region of Tonk district; and north-eastern and southern region of Ajmer district (Fig. 5).

Regions Having Low Level of Rural Literacy

Mandalgarh, Raipur, Mandal, Beejoliya and Asind tehsils of Bhilwara district; Parbatsar tehsil of Nagaur district; Kishangarh, Kekri and Bhinay tehsils of Ajmer district have low level of rural literacy. It is mainly concentrated in western, north-western and south-eastern region of Bhilwara district; south-eastern region of Nagaur district; and north-eastern and south-eastern region of Ajmer district (Fig. 5).

Regions Having Very Low Level of Rural Literacy

Shahpura and Kotri tehsils of Bhilwara district; and Sarwar tehsil of Ajmer district have recorded very low level of rural literacy in the division. It is mainly concentrated in the northern and central region of Bhilwara district and south-eastern region of Ajmer district (Fig. 5).

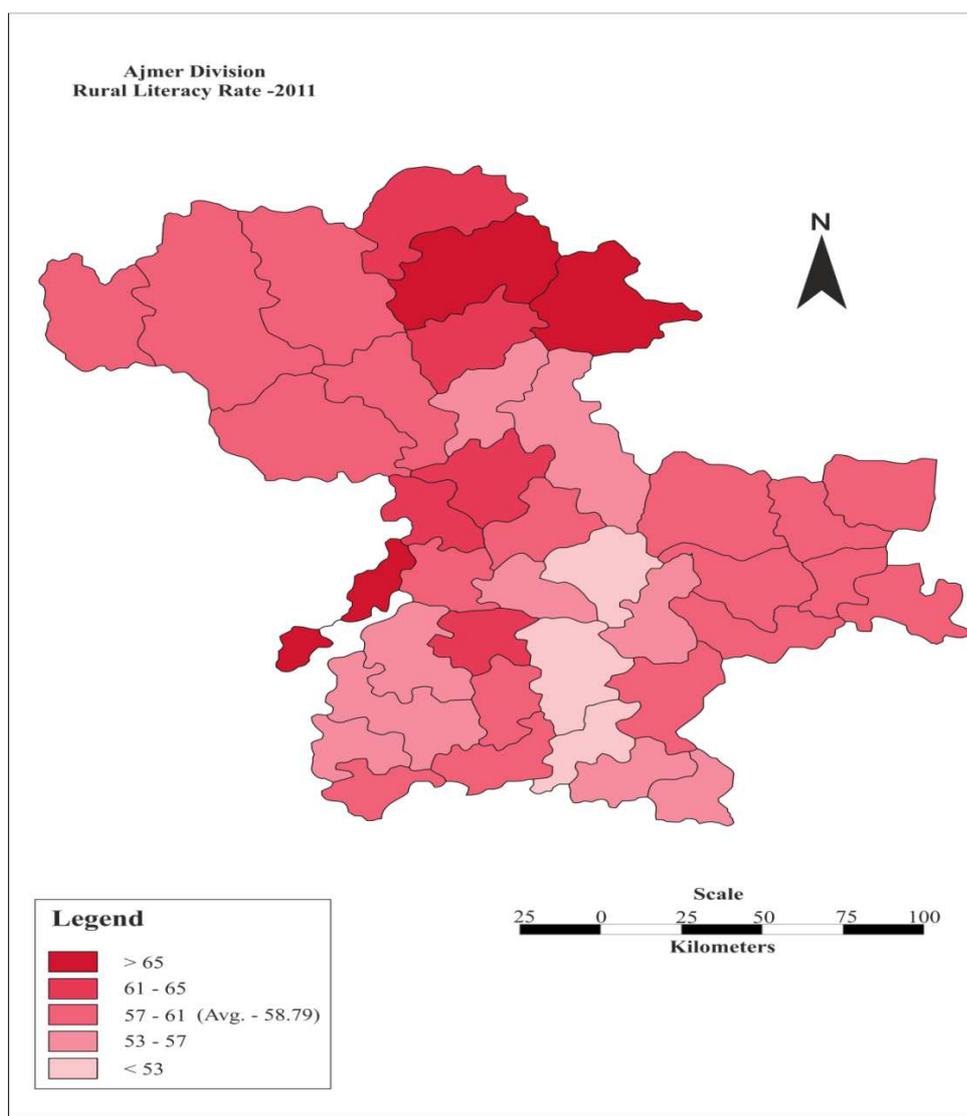


Fig 5

Levels of Rural Male Literacy

Ajmer district has the highest rural male literacy rate in the division. Bhilwara district has the lowest rural male literacy rate from last two decades. Bhilwara district recorded highest growth rate of 9.20% in rural male literacy rate from 2001-2011. Nagaur district recorded the lowest growth rate of 3.58% in rural male literacy rate from 2001-2011.

Table 5: Rural Male literacy in Ajmer Division 2001-2011

Sr. No.	District	Male Literacy	
		2001	2011
1	Ajmer	71.90	76.45
2	Nagaur	72.46	76.04
3	Tonk	67.90	75.46
4	Bhilwara	62.12	71.32

Source: Census of India 2001, 2011, Final Population Total, Brief Analysis of Primary Census Abstract.

Levels of Rural Female Literacy

Female literacy is one of the crucial indicators of development process in any region. The female literacy helps the area to build up a resourceful economy and healthy socio-economic environment. Nagaur district has the highest rural female literacy rate in the division from last two decades whereas Tonk district has the lowest rural female literacy rate from last two decades. Bhilwara district recorded highest growth rate of 14.38% in rural female literacy rate from 2001-2011. Nagaur district recorded the lowest growth rate 8.33% in rural female literacy rate.

Table 6: Rural Female Literacy in Ajmer Division

Sr. No.	District	Female literacy	
		2001	2011
1	Ajmer	32.63	41.29
2	Nagaur	36.85	45.18
3	Bhilwara	26.20	40.58
4	Tonk	25.66	39.66

Source: Census of India 2011, 2001, Final Population Total, Brief Analysis of Primary Census Abstract.

SOCIAL ECOLOGY OF RURAL LITERACY

The result drawn from the regression analysis between rural literacy and socio-economic variables has shown that density of population (0.0166), percent urban population (0.1061), percent workers engaged in non-agricultural activities (0.1216) are positively associated. The major explanatory variables in the case of rural literacy are: percent total workers and density of population which has explained 53.31 and 27.76 per cent respectively in rural literacy. In addition to these percent workers engaged in non-agricultural activities, per cent urban population and sex ratio have explained 25.42, 23.79, 9.17 per cent variation respectively in rural literacy. The inversely related variables are sex ratio (-0.0453), percent scheduled caste population (-0.1118), percent scheduled tribe population (-0.1295) and percent total workers (-0.6291).

Table 7: Regression Co-efficient and Co-efficient of Determination between Rural Literacy Rate and socio-economic variables, 2011

Sr. No.	Variables	Regression Co-efficient	Co-efficient of determination (R ²)
1	Density of Population	0.0166	27.76%
2	Percent urban Population	0.1061	23.80%
3	Sex Ratio	-0.0453	9.17%
4	Percent Schedule Caste Population	-0.1118	0.68%
5	Percent Schedule Tribe Population	-0.1295	6.78%
6	Percent total workers	-0.6291	53.31%
7	Percent workers engaged in non-agricultural activities	0.1216	25.42%

SOCIAL ECOLOGY OF URBAN LITERACY

The result drawn from the regression analysis between urban literacy and socio-economic variables has shown that density of population (0.0903), percent urban population (1.0375), percent schedule tribe population (0.6658) and percent workers engaged in non-agricultural activities (0.8657) are positively associated. The major explanatory variables in the case of urban literacy are: percent urban population and percent workers engaged in non-agricultural activities which have explained 32.83 and 18.59 per cent respectively in urban literacy. In addition to these percent total workers, density of population and sex ratio have explained 16.37, 11.78 and 7.90 percent variation respectively in urban literacy. This regression analysis shows that sex ratio (-0.3497), percent scheduled caste population (-1.1617) and percent total workers (-2.930) are negatively associated variables.

Table 8: Regression Co-efficient and Co-efficient of Determination between Urban Literacy Rate and socio-economic variables, 2011

Sr. No.	Variables	Regression Co-efficient	Co-efficient of determination (R ²)
1	Density of Population	0.0903	11.78%
2	Percent urban Population	1.0375	32.83%
3	Sex Ratio	-0.3497	7.90%
4	Percent Schedule Caste Population	-1.1617	1.06%
5	Percent Schedule Tribe Population	0.6658	2.58%
6	Percent total workers	-2.9030	16.37%
7	Percent workers engaged in non-agricultural activities	0.8657	18.59%

Conclusion

In Ajmer division, the case of rural-urban literacy also the gap is alarming. However the difference in level of literacy goes on decreasing. The narrowing down of difference between the levels of urban and rural literacy is due to enhancement of rural urban interaction, increase socio-economic functional value of education in the countryside, improve standard of living, increase facility of schooling, waning social taboos and prejudices against female education particularly in rural areas. The urban literacy rate of Ajmer division in 2011 is 78.65 percent, whereas the rural literacy is 58.79 percent. This gap is considered to be the result of better facilities available in urban area. Out of total 29 urban tehsils, 25 tehsils recorded more than 70 percent urban literacy rate, however no tehsil recorded more than 70 percent rural literacy rate. There is no tehsil recorded less than 60 percent urban literacy rate, however 29 tehsils out of 38 tehsils recorded less than 60 percent rural literacy rate. This reflects a critical differentiation between urban and rural literacy. Within the tehsils, there is a huge disparity. On one hand, Nasirabad has recorded 88.39 percent urban literacy and on other hand, Sarwar has recorded 64.56 percent urban literacy.

The regression analysis of rural-urban literacy with selected seven socio-economic variables shows that out of the total seven, rural literacy is positively associated with three variables and urban literacy are positively related with four variables. The analysis shows that positively related variables are density of population (0.0166 for rural literacy and 0.0903 for urban literacy), percent urban population (0.1061 for rural literacy and 01.0375 for urban

literacy) and percent workers engaged in non-agricultural activities (0.1216 for rural literacy and 0.8657 for urban literacy). Percent scheduled tribe population is positively associated with urban literacy (0.6658) whereas negatively associated with rural literacy (-0.1295). Density of population has emerged as the most important variable in explaining variance 27.76 percent to rural literacy and percent urban population has emerged as the most important variable in explaining variance 32.83 percent to urban literacy. Similarly the variables percent urban population has explained 23.80 percent variations in rural literacy. Percent workers engaged in non agricultural activities has explained 25.42 percent and 18.59 percent variance in rural literacy and urban literacy respectively. The negatively associated variables are sex ratio (-0.0453 for rural literacy and -0.3497 for urban literacy), percent scheduled caste population (-0.1118 for rural literacy and -1.1617 for urban literacy), and percent total workers (-0.6291 for rural literacy and -2.9030 for urban literacy).

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