Investigation about the Relation between Literacy Rate and Sex Ration: A Case Study in Medinipur Mouza, Onda Block, Bankura District

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Abstract

Education status is a social indicator which signifies a different aspect of societal status. Generally, high literate society has high sex ratio. That means an equal trend will be found in an educated society where a number of male and female may be the same. Does the present study investigate that educational status has any significance on sex ratio? To investigate this statement study uses 2011 census data of 26 villages of Medinipur mouza under Onda block as a case study. This data is analyzed in GIS platform through ArcGIS 10.1 software. After that, a correlation method is applied to know the relation between literacy rate and sex ration status. Correlation analysis suggests that there has no positive relation between literacy rate and sex ration in Medinipur mouza.

Keywords: Census, Correlation Method, GIS, Literacy rate, Sex ratio, Society.

Introduction:

An educated person has better appreciative and can build a non-discriminatory background for girls/females. So, this can be supposed that in a literate society, the sex ratio will be high. That means the number of males and females both in population will be approximately equal (Veerannachari, 2016). Literacy rate and sex ratio are the two most significant aspect of any society as they decide the development stage of society. Literacy is one of the important aspects of demography and considered as a fairly reliable index of socio-cultural and economic advancement (Chandna, 2015). The region having low sex ratio and low literacy rate are considered as a backward or undeveloped area of the world (Sharma, 2012). Different ways are there to calculate the literacy rate and sex ratio. In our country, the literacy rate is calculated on the basis of the literate person aged 7 years old and above to the total population of the country at a particular period of time. Sex ratio is also an important social indicator to measure the equity between males and females in a society at a given point of time (Majumdar, 2013).

Generally, both literacy and sex ratio is different in rural and urban areas (Pakhare, 2015). In urban areas, society becomes more educated as a result of its number different between males and females is very low. But, in remote villages in a rural area, other demographic factors are responsible for the low sex ratio (Barkade, 2012). Literacy factor becomes insignificant to control the sex ratio in rural areas. Are these approaches is true? It is the question of the present study. To get the answer the study makes a case study in Medinipur mouza in Onda block under Bankura district.

Materials: and methods:

Study area:

Medinipur mouza in Onda block is a remote mouza under Bankura district. This mouza located at 87°10°3.48 E to 87°11°8.64 E and 23°7°39.83 N to 23°7°18.46 N with 3681.3196 ha geographical area (Fig-1). In this mouza 26 villages are there with 17770 populations. Maximum people of this mouza depended on agricultural activities. The people are coming from different castes i. e. General, Schedule tribe, schedule caste.

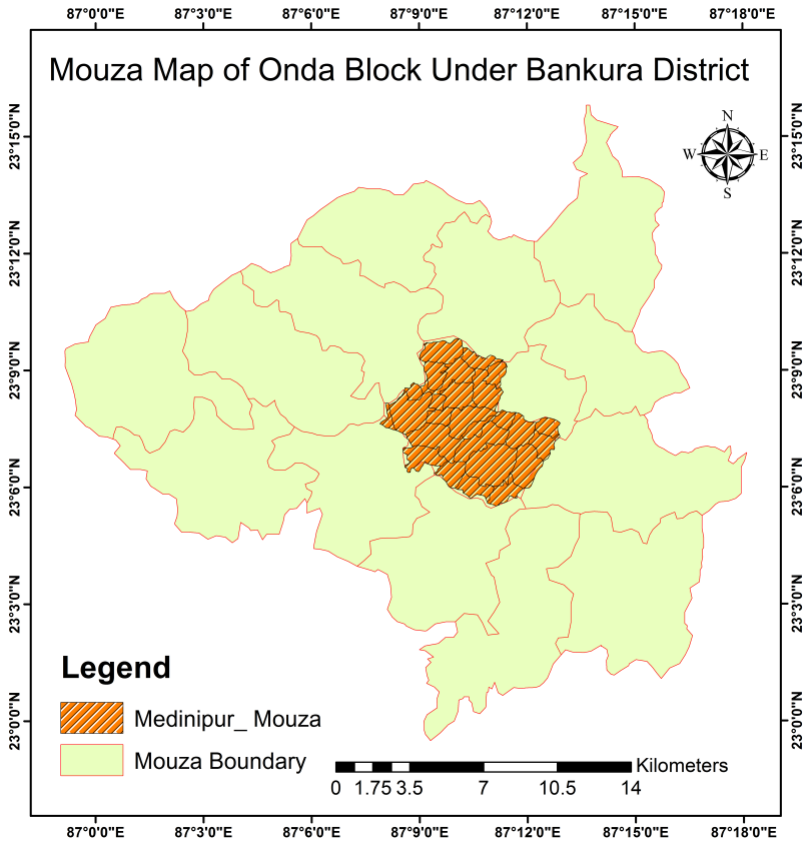

Fig-1: Location map of Medinipur Mouza in Onda block under Bankura district.

Method:

At first mouza wise Onda block map was collected from block office. This map was rectified through the image to map the georeferencing method in ArcGIS 10.1 software version. Then Medinipur mouza is clipped and 26 villages are demarcated (Fig-2). Village wise information is manipulated from 2011 census data for analysis. To calculate literacy rate simple method is applied that is individual village literate person divided by total population multiplied by 100. Similarly, to calculate sex ratio the method is used that is female population divided by male population multiplied by 100. After getting the village wise values of literacy rate and sex ration simple correlation method is used for understanding the relationship between them.

1. $LR = \frac{L}{T} \times 100$ 'L' is literate population and 'T' total population
2. $SR = \frac{f}{m} \times 100$ 'f' is female population and 'm' is male population

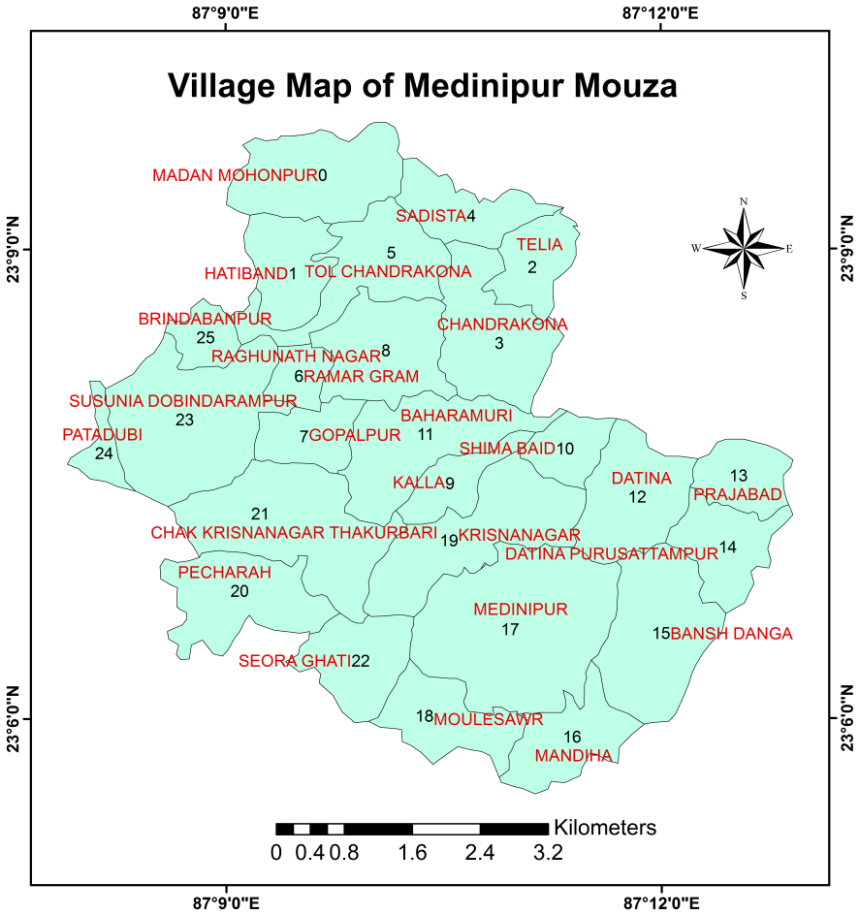

Fig-2: Map of Villages under Medinipur Mouza

Result and Discussion:

Medinipur mouza consists of 26 villages but in 4 villages are uninhabited. These are Susunia Gobindarampur, Ramar Gram, Sima Baid and Parajbad. In inhabited 22 villages, the highest population found in 2662 in Medinipur village and lowest found 28 in Bansh Danga (Fig-3). In Medinipur village, 1500 persons are literate out of 2662 persons and in Bansh Danga 10 persons are literate out of 28 persons. The lowest literacy rate is found in Moulesawr village which is 33.94 % and highest 68.63 % in Mandiha village (Table-1).

ID	NAME	Total Population Person	Literates Population Person	% Literate person	Total Population Male	Total Population Female	Sex Ratio/100 males
1	MADAN MOHONPUR	1147	669	58.32	610	537	0.88
2	HATIBAND	145	64	44.13	71	74	1.04
3	TELIA	476	244	51.26	252	224	0.88
4	CHANDRAKONA	1239	778	62.79	638	601	0.94
5	SADISTA	912	576	63.15	465	447	0.96
6	TOL CHANDRAKONA	276	144	52.17	148	128	0.86
7	RAMAR GRAM	0	0	0	0	0	0

8	GOPALPUR	1538	848	55.13	775	763	0.98
9	RAGHUNATH NAGAR	1095	554	50.59	553	542	0.98
10	KALLA	133	77	57.89	65	68	1.046
11	SHIMA BAID	0	0	0	0	0	0
12	BAHARAMURI	1547	972	62.83	813	734	0.90
13	DATINA	963	578	60.02	509	454	0.89
14	PRAJABAD	0	0	0	0	0	0
15	DATINA PURUSATTAMPUR	1181	704	59.61	591	590	0.99
16	BANSH DANGA	28	10	35.71	14	14	1
17	MANDIHA	542	372	68.63	280	262	0.93
18	MEDINIPUR	2662	1500	56.34	1368	1294	0.94
19	MOULESAWR	109	37	33.94	58	51	0.87
20	KRISNANAGAR	864	566	65.50	449	415	0.92
21	PECHARAH	342	221	64.61	173	169	0.97
22	CHAK KRISNANAGAR THAKURBARI	345	128	37.10	173	172	0.99
23	SEORA GHATI	1530	714	46.66	766	764	0.99
24	SUSUNIA GOBINDARAMPUR	0	0	0	0	0	0
25	PATADUBI	521	271	52.01	273	248	0.90
26	BRINDABANPUR	175	96	54.85	90	85	0.94

Table-1: Village wise information of Medinipur Mouza, Onda Block.

Source: After modification of 2011 census

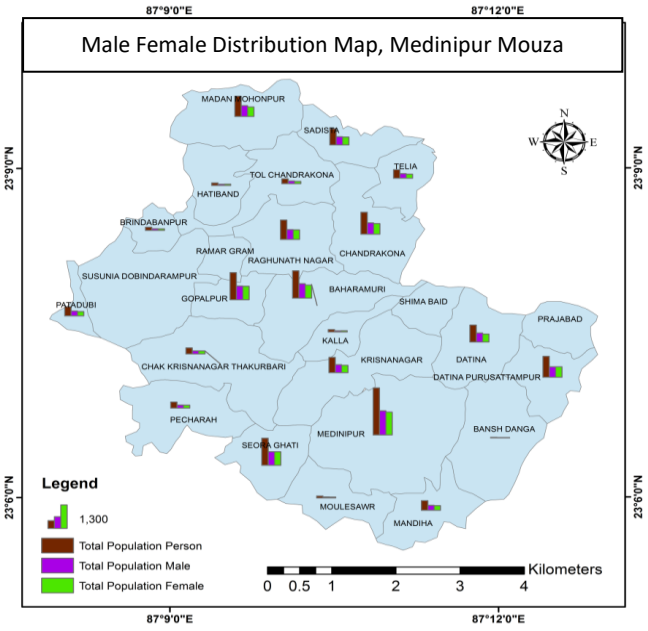

Fig-3: Graphical presentation of village wise male female population.

The higher literacy (56 % – 68 %) rate is found in 11 villages and moderate literacy found in 8 villages and low rate found in 4 villages (Fig-4).

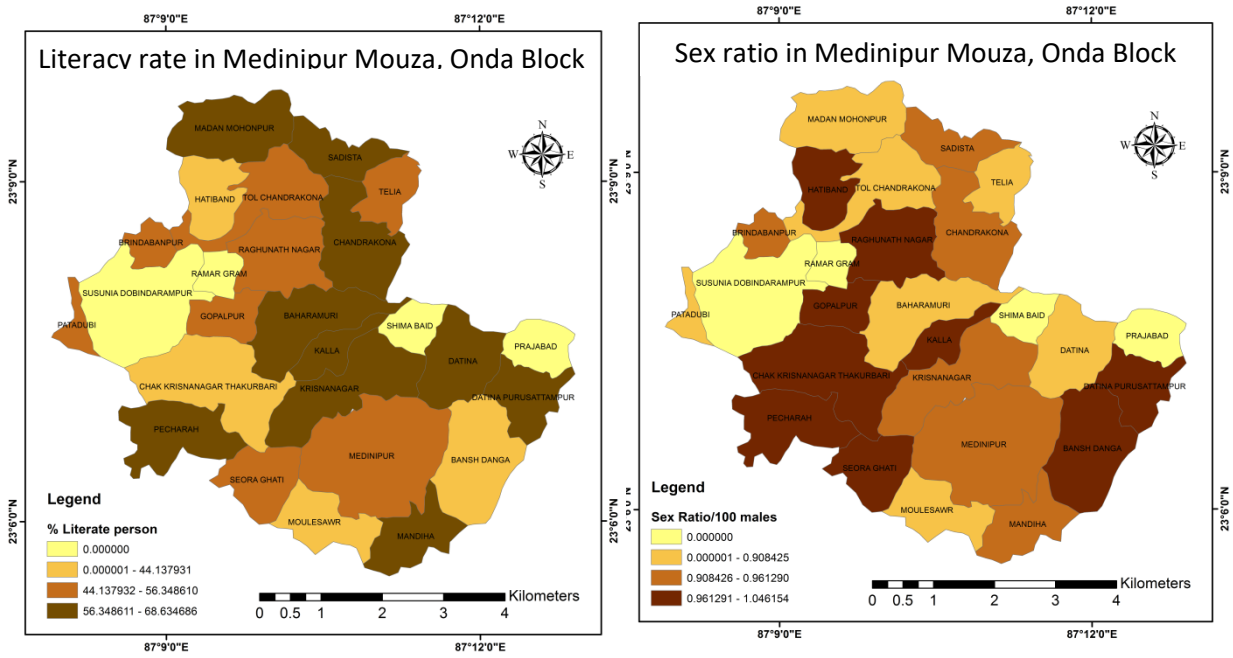

Fig-4 and 5: Village wise distribution of literacy rate and sex ratio in Medinipur mouza under Onda block.

The higher sex ratio is found in 9 villages. The lowest sex ratio is found in 6 villages (Fig-5). Considering the literacy rate as an independent variable and sex ratio as the dependent variable correlation method is done to know the relation between both variables. The correlation result presents that there is an insignificant relation between both variables (Fig-6). That means the trend line does not follow positively i.e. when literacy rate increase sex ratio does not increase. Rather the trend line is more haphazard.

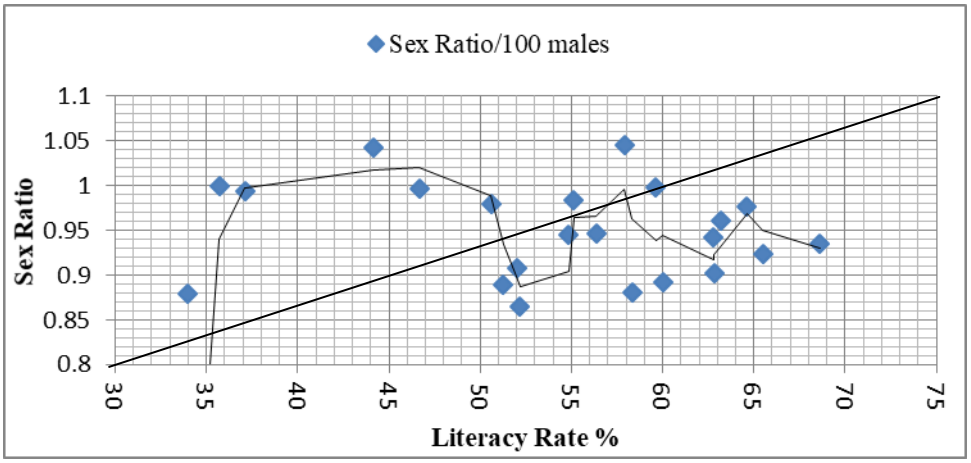

Fig-6: Correlation graph between literacy rate and sex ration about 22 villages in Medinipur mouza under Onda block

Conclusion:

After analysis the information it is found that there is no positive relation between literacy rate and sex ratio in Midinipur mouza under Onda block. Other factors like agricultural base society,

unawareness, working population, death rate are the causes of this type of results. Ultimately, villages under Medinipur mouza there is no educational effect on sex ratio.

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