



## **SPATIO - TEMPORAL ANALYSIS OF DISPARITY IN LITERACY PATTERN OF ALIPURDUAR DISTRICT OF WEST BENGAL, INDIA**

***Dr. Tarun Das***

Assistant Professor,  
Department of Geography,  
Siliguri College, Darjeeling, West Bengal

### **Abstract**

Literacy is an indicator for measuring wellbeing of the society and it helps for further planning strategy of human development. The rural-urban and male-female literacy rate of an administrative region has direct or indirect influenced on socio- economic as well as socio-political development. Literacy rate always differ from place to place according the spatio-temporal characteristics the region. Similarly, in 2011 Census, literacy rate of India was 74.04 % and literacy rate of West Bengal was 76.26 % where an uneven spatial distribution of literacy rate was recorded among several districts of West Bengal. Specially in different blocks of Alipurduar District, there is significant variation of literacy rate in rural-urban as well as male-female literacy for its geographical and diverse socio-cultural behavior. Therefore, the present study is tried to compare and contrast on spatio-temporal change of literacy trend in Alipurduar District through the Sopher's Disparity Index method. The result shows that change of disparity in literacy pattern in between 2001 to 2011 census is differ from block to block. It is also observed that the disparity of rural-urban as well as male-female literacy rate has been decreased from 2001 to 2011, but not in satisfactory line. Some attempts have also been made to point out short and long term development strategy to eradicate disparity in rural-urban and male female literacy among the inter-blocks of the District.

**Key words:** Census, Disparity Index, Literacy, Rural-Urban, Spatio-Temporal.

<b>CORRESPONDING AUTHOR:</b>	<b>RESEARCH ARTICLE</b>
<b>Dr. Tarun Das</b> Assistant Professor, Department of Geography, Siliguri College, Darjeeling, West Bengal Email: <a href="mailto:das.tarun999@gmail.com">das.tarun999@gmail.com</a>	

## **1. Introduction**

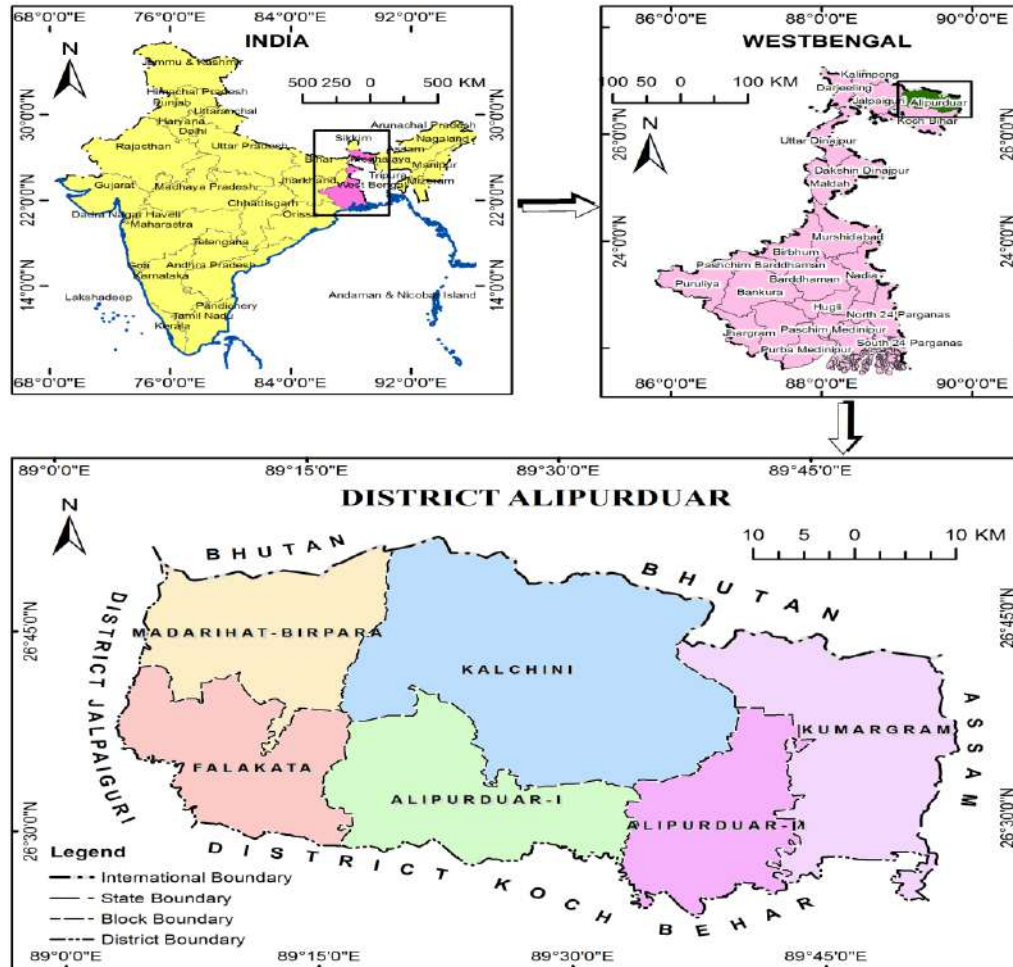
The concept of literacy is varies from country to country and it is generally refers to the minimum level of ability to communicate orally, writing and reading power, and to check of varieties difficult calculations. Literacy defined by UNESCO as the “ability to identify, understand, interpret, create, compute and written material associate with varying contracts” (Chandna, 1980). Trewartha, (1969) ‘considers the basis of length of schooling not a valid measurement of educational accomplishments and disapproves of the ability to read and write one’s name in the language of his country as the criterion for defining a literate. The Population Commission of United Nations considers the ability to both read and write a simple message with understanding in any language a sufficient basis for classifying a person as literate (Chandna, 2006). Literacy is a device to possess women in the extensive struggle against inequality and injustice in society (Patel & Dighe, 1997). Literacy is one of the utmost necessary indicative of the quality of a country’s human capital (Chandra, 2019). Collectively, literacy is considered a precondition for democracy and socioeconomic development (Bonikowska et al. 2008; Gerger, 2008). On the other hand, illiteracy takes away from man his stature, eternizes ignorance, penury and mental isolation, resist peaceful and friendly international connection and hampers social advancement, economic growth and political maturity (Sawant and Athawale, 1994). For individuals, the lack of literacy concern is related with shortened access to education (Kirsch et al. 2002; Kutner et al. 2007; Schütz et al. 2008), employment (Kirsch et al. 2002; Kutner et al. 2007; Ferrer et al. 2006; Bonikowska et al. 2008), social benefits (Schwerdt et al. 2020), as well as poorer health outcomes (Dewalt et al. 2005; Desjardins et al. 2013) and lower civic engagement (Kirsch et al. 2002; Kutner et al. 2017; Desjardins et al. 2013; Gerger, 2008). Besides, the educational gender difference is not only a reflex of the low economic returns to female education but is also a syndrome of the entrenched in society biases that throw down the aspirations of female and other marginalized communities (McDougall, 2000). Literacy augments social transformation and well-being of a society which constituent of Human Development Index (HDI), furthermore gender disparity in literacy put back the society and must be deleted for entire growth (Choubey, et al. 2019). In many Asian countries, it can be seen that rural and urban population display wide disparity in their literacy levels, although such data are not available for all countries. Both for male-female and rural-urban disparity in literacy in India as well as other countries of Asia emanate from a variety of socio-cultural and economic factors. India is one of the high rate of gender disparity country in literacy and is the major concerns of population issues where female face prejudice in the society and are not treated equal with male weather culturally, socially, economically or politically, and as a consequence females are go down far away behind male almost in all spheres of their life (Katiyar, 2016; Kumar, et al. 2016). This gender inequality is especially unfortunate not only because it throws away women from basic social opportunities, but also because it importantly endangers the life prospects of future generations where Indian families often prefer boys to girls (Thomas, 2013). Indian literacy is characterized with sharp differences between the literacy rate of males-females, rural-urban areas; and of various subgroups. While 46.9 % of the male population was literate, the corresponding figure for the females was only 24.8 % in the census of 1981. So, it is very relevant

that although an undeniable increase in global literacy rates was observed in recent decades, where there were still 750 million adults but among them two-thirds were women still sharing illiterate in 2016 (Morocco World News, 2016). These rural- urban as well as male-female differentials in the literacy rates of population generate from the differences in the type of economy, social life and migratory patterns where literacy is doing an important role to determine the level of the society not only the economic point of view but also a good sign for healthy environment (Coulombe et al., 2004). However, the rate of literacy of India has been increased from 18.33 % to 74.04 % in between 1951 to 2011, where female literacy has increased from 8.86 % to 65.46 % within the same period of time. The statistics on literacy rates for urban and rural population for 1991 reveal that 73 % of the urban population and 44.5 % of rural population in the country was literate. In 1981, the literacy rates in rural areas were just half of the literacy rates in urban areas. In West Bengal, literacy rate has been increased from 24.61 % to 76.26 % in between 1951 to 2011, which is above the national average of 74.04 %. But it differs from district to district where the highest literacy rate is observed about 87.66 % in Purba Mednipur District and lowest is about 60.13 % in Uttar Dinajpur District in the year of 2011. So, district wise high literacy gap has been noticed in West Bengal as a challenging issue.

Therefore, present research work is tried to show block level disparity pattern of rural-urban and male-female literacy of Alipurduar District based on census report of 2001 to 2011. Thus, the investigation of spatial variation of rural-urban and male-female literacy gap will helps to identify the areas with deficiency, which can further help the policy makers to overcome problems with relevant development project of this region.

## **2. Study Area**

Alipurduar District is in North Bengal, covering an area of 2526.30 sq. km. (Statistical Hand Book of Jalpaiguri District, 2011). It is bounded between  $26^{\circ}23'11''$  and  $26^{\circ}52'30''$  North latitudes and  $89^{\circ}02'30''$  and  $89^{\circ}53'07''$  East longitudes. The headquarter is at Alipurduar town, and it has special importance in respect of tourism, tropical and subtropical forests, tea gardens, hill, scenic beauty as well as a variety of tribes like the Dukpa (Dukpa, 2021), Totos (Chakrabarty, et al., 2018), Rava (Ahmed, et al., 2021), Santal (Deb, 2022), Mech (Roy, 2022), (Grunning, 1911). The area is known as three 'T', that is 'Tea, Timber and Tourism'. The area is bounded by Assam in the east and Jalpaiguri district in the west and the Bhutan in the north, Kochbehar district in the south. Topographically, entire area is crisscrossed with springs, rivers and hills; northern part of the district is adjacent to the Bhutan hill relatively with high altitude. Comparatively low lying foot hill and plain cultivated lands are extended in the southern part of the district. The area is flowed out by various rivers; important are being the Sonkosh, Torsa, Kaljani, Raidak, Mujnai, Gaburbasra, Dima, Pana, Bala and Jainti which are also subjected to occasional flooding (Grunning, 1911). The area is belonging to the monsoon climate so heavy rainfall comes in between June to September every year (Statistical Hand book of Jalpaiguri District, 2018).



**Fig. 1:** Site map and Administrative Divisions (Block-wise), Alipurduar District

There are some important pockets of wilderness which have been reserved carefully where wild animals are wandering without disturbance. These are i) Buxa wildlife sanctuary & tiger reserve: 761.09 sq. km ii) Jaldapara wildlife sanctuary: 216.51 sq. km, (State Forest Report, 2013). The region is inhabited by 1491250 persons (Census, 2011) where density of population is 525 persons/ sq. km (Census, 2011). Besides, major ethnic groups are Mechs, Ravas, Rajbanshi, Totos, Santals, Garos, Oraons, Nepalees, etc. (Kar, 2003). The District consists of Alipurduar Municipality and six other Community Development (CD) blocks which are Alipurduar-I, Kalchini, Alipurduar-II, Falakata, Madarihat and Kumargram.

### 3. Objectives

This article aimed

- a. In showing the block wise disparity of literacy position in Alipurduar district.
- b. To recognize the comparison of spatio-temporal change of literacy rate between rural-urban as well as male-female literacy during 2001 to 2011.

#### **4. Materials and Methods**

This study has been prepared based on secondary data source which obtained from the published Census data of India, of 2001 and 2011 census. The relevant data has been collected from published general population tables; sub-district wise number of literate and illiterate table, sub-district and sex wise literate and illiterate table, District Census Handbook of Jalpaiguri and Alipurduar District of 2001 and 2011 census. A large number of books related with population studies, including project and dissertation, published articles from different sources have been followed for this work. However, different relevant web sites were visited during this study for data authentication as well as to collect more supporting information.

Thereafter, Sopher's Disparity Index method has been applied to show the block level disparity pattern as well as changing position of disparity of rural-urban and male-female literacy of Alipurduar District in between 2001 to 2011. There are six C.D blocks in Alipurduar district which have been considered as most appropriate administrative unit for this study where relevant data have collected from census report of 2001 and 2011. Sopher's Disparity Index (David V. Sopher's DIs, 1974) is an appropriate technique to measure the disparity between rural-urban as well as male-female literacy in different blocks of the study where following formula has been applied to compute the disparity range as well as disparity zone map (Sopher, 1974; Sarkar, et al. 2018; Hira, et al. 2018; Choubey, et al. 2019).

$$DI = \text{Log} (X_2 / X_1) + \text{Log} (100 - X_1) / (100 - X_2)$$

Or

$$DI = \text{Log} \frac{X_2}{X_1} + \text{Log} \frac{(100 - X_1)}{(100 - X_2)}$$

Where, DI = Disparity Index,  $X_2$  = Percentage of Urban Literates.

$X_1$  = Percentage of Rural Literates. i.e.  $X_2 \geq X_1$  ( $X_2$  is equal or more than  $X_1$ ).

The value of Disparity Index may be zero in case of equality between variables. Thus, greater the value of D.I, which indicates higher the extent of disparity and lower the D.I value means, lower the disparity between rural-urban literacy. Moreover a statistical tool such as Coefficient of Variation (CV) of Disparity Index has been applied to determine the uniformity or consistency of literacy gap among blocks of the district in 2001 and 2011 census.

Lastly, the collected data on percentage of rural-urban and male-female literacy were sorted out, arranged and calculated from 2001 and 2011 census also presented it by using statistical and cartographic techniques through MS excel software i.e. tables, percentage and graphs.

#### **5. Results and Discussions**

##### **5.1 Disparity in Male-Female and Rural-Urban Literacy Rate**

The unequal ratio between male-female as well as rural-urban literacy rate in both rural and urban areas is a special demographic character which has been always sustained in developing and underdeveloped countries of the world. Practically, urban and male literacy rate is always more than that of rural and female literacy rate in third world developing countries. The calculation of

Disparity Index shows the block wise relative disparity in literacy as well as consistency in disparity rate between rural-urban and male-female of the district.

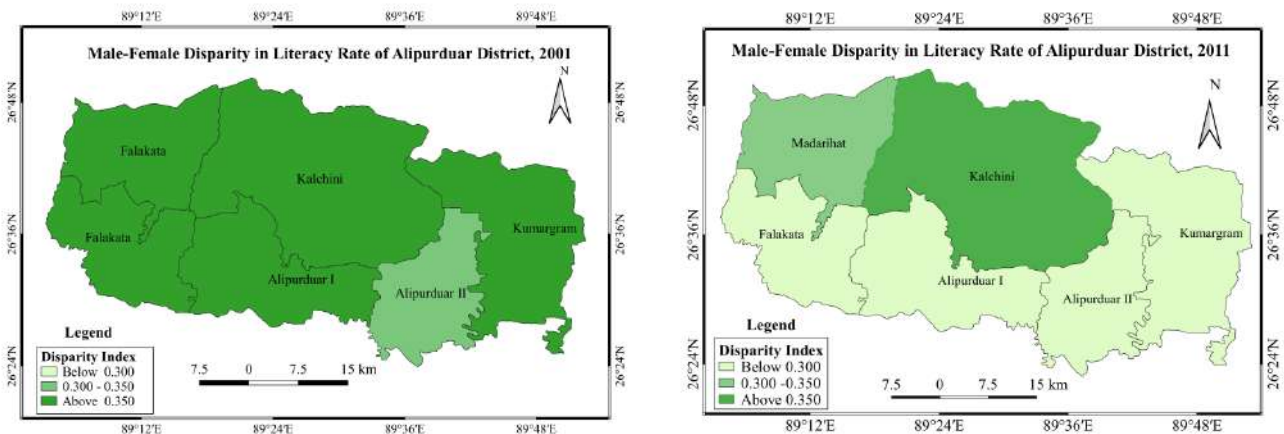
**5.2 Disparity in Male-Female Literacy Rate, 2001-2011**

Regional disparity in the context of literacy levels of the district has been calculated based on percentage of male- female literacy. The variation of male-female Disparity Index of literacy rate of two censuses (2001 and 2011) has been shown in the table 1 and figure 2. In 2001, the results shows that the Madarihat block (0.388) have recorded the maximum DI value which indicates the high level of gender disparity in the district and minimum disparity is noticed in Alipurduar-II block (0.349) which also strike less gender disparity. But in 2011, the highest DI value is observed in Kalchini (0.364) which reveals high gender disparity and lowest is found in Falakata block (0.281). However, it is apparent that all blocks have less DI value in 2011 census in comparison to 2001 census, but in Falakata block (0.098) reduction of DI value is more than other block, that meant gender gap has been reduced much more in this block within ten years than the other blocks (Fig. 3).

**Table 1:** Male-Female Disparities in Literacy of Alipurduar District (CD block wise), 2001-11

Sl. No	Name of C.D Blocks	Census 2001			Census 2011			Change in disparity (2001–2011)
		Literacy Rate (%)		Disparity Index (DI)	Literacy Rate (%)		Disparity Index (DI)	
		Male (X <sub>1</sub> )	Female (X <sub>2</sub> )		Male (X <sub>1</sub> )	Female (X <sub>2</sub> )		
1	Kumargram	69.7	49.6	0.369	78.76	65.71	0.287	0.082 (Decreased)
2	Falakata	73.0	53.0	0.379	78.83	66.08	0.281	0.098 (Decreased)
3	Madarihat	64.9	43.1	0.388	75.92	59.55	0.330	0.058 (Decreased)
4	Kalchini	65.2	43.7	0.383	77.45	59.77	0.364	0.019 (Decreased)
5	Alipurduar-I	76.9	57.9	0.384	82.09	69.71	0.294	0.090 (Decreased)
6	Alipurduar-II	73.7	55.6	0.349	81.48	69.70	0.282	0.067 (Decreased)

Source: Calculated by Researcher, 2023, Literate population excludes children of age group 0-6 years



**Fig. 2:** Spatio-temporal variation of Disparity Index in Male-Female Literacy, 2001-2011

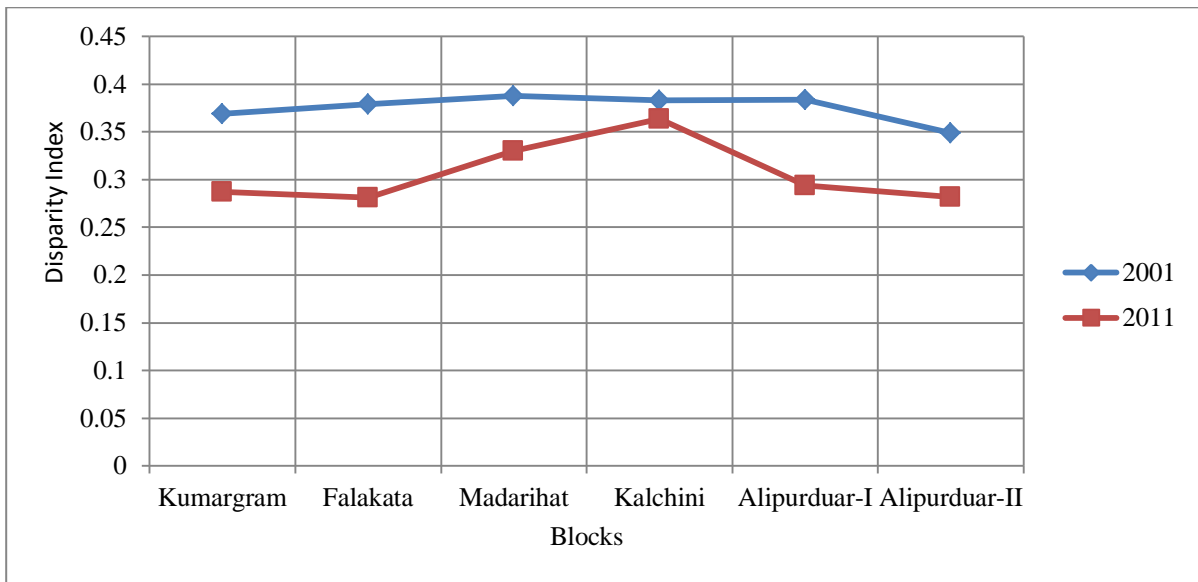


Fig.3: Block wise Male-Female Disparity Index in Literacy, 2001-2011

### 5.3 Disparity in Rural-Urban Literacy Rate, 2001-2011

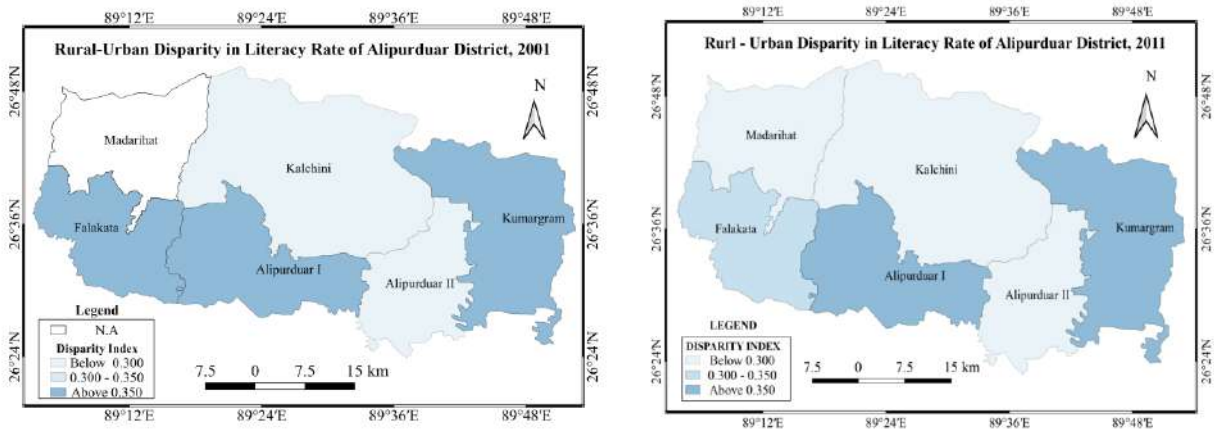
The disparity in the context of literacy levels of the district has been calculated based on percentage of rural - urban literacy. The table 2 explains the census wise (2001 and 2011 census) DI value which has been computed on percentage of literacy in rural and urban area of different blocks.

Table 2: Rural-Urban Disparities in Literacy of Alipurduar District (CD block wise), 2001-2011

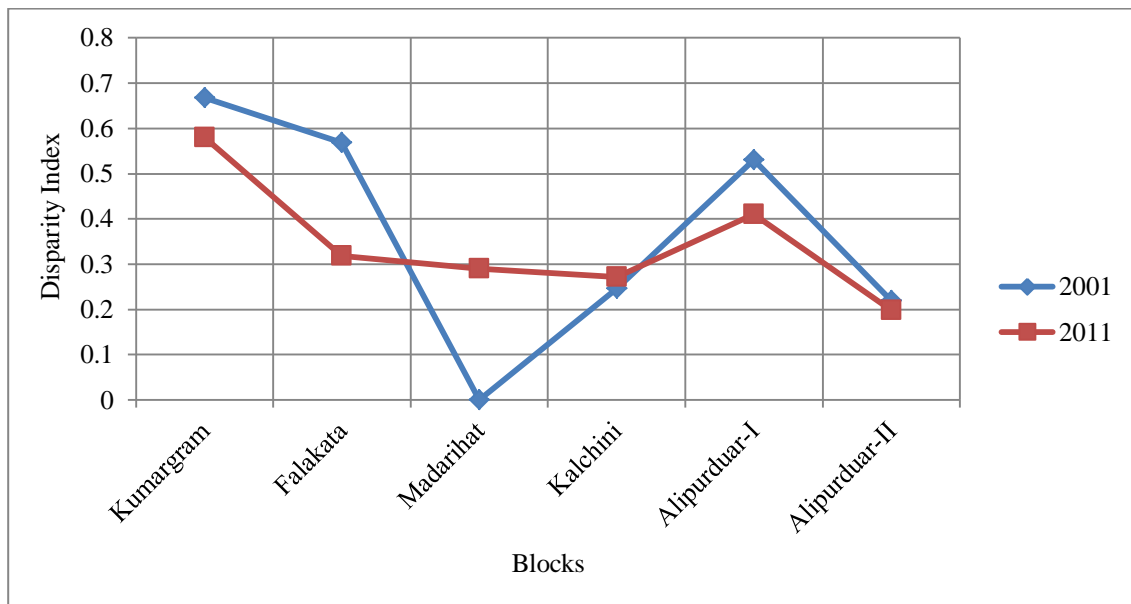
Sl. No.	Name of C.D Blocks	Census 2001			Census 2011			Change in disparity (2001–2011)
		Literacy Rate (%)		Disparity Index (DI)	Literacy Rate (%)		Disparity Index (DI)	
		Rural (X <sub>1</sub> )	Urban (X <sub>2</sub> )		Rural (X <sub>1</sub> )	Urban (X <sub>2</sub> )		
1	Kumargram	58.80	86.92	0.667	69.79	89.71	0.580	0.087 (Decreased)
2	Falakata	62.39	86.03	0.569	70.56	83.30	0.318	0.251(Decreased)
3	Madarihat	54.81	00	N.A	66.89	79.76	0.290	N.A
4	Kalchini	52.54	66.13	0.246	65.32	77.87	0.271	0.025 (Increased)
5	Alipurduar-I	62.78	85.13	0.530	72.26	87.02	0.410	0.120 (Decreased)
6	Alipurduar-II	65.77	76.11	0.219	75.29	82.79	0.198	0.021 (Decreased)

Source: Calculated by Researcher, 2023, Literate population excludes children of age group 0-6 years

The rural-urban disparity gaps of literacy of different blocks have been identified with noticeable variation in the table 2 and it shows in figure 4. The Disparity Index varies from 0.219 in Alipurduar II block to 0.667 in Kumargram block in 2001; and in 2011, it was 0.198 in Alipurduar II block to 0.580 in Kumargram block. So, it is clear that higher rural-urban literacy gap is identified in Kumargram block which is 0.667 in 2001 and 0.580 in 2011 but it is low in Alipurduar-II block in both censuses which was 0.219 in 2001 and 0.198 in 2011 ( Fig. 5).



**Fig. 4:** Spatio-temporal variation of Disparity Index in Rural-Urban Literacy, 2001-2011



**Fig.5:** Block wise Rural-Urban Disparity Index in Literacy, 2001-2011

However, it has been noticed that almost in all blocks rural-urban DI value has been decreased in 2011 than 2001, except Kalchini block where it is increased from 0.246 to 0.271 in between 2001-2011 censuses although it is less.

#### 5.4 Factors for internal variation of disparity

A relatively high level of disparity in rural-urban literacy has been recorded than male-female disparity. However, it has been noted that gap of DI value of male-female and rural-urban literacy has been reduced in all blocks in 2011 in comparison with 2001, but still disparity is existed there. Although there were less DI value recorded in Alipurduar-II, Kalchini, Madarihat and Falakata block in both male-female and Rural-urban literacy in 2011 than 2001 due to some remarkable



*Spatio - Temporal Analysis of Disparity in Literacy Pattern of Alipurduar...*

factors such as growth of urbanization though growing of census towns, the development of good connectivity and accessibility where State highway, National Highway of 31 and broad gauge railway line of North Frontier Railway have been passed almost middle of the blocks which also influenced directly for the progress of tourism industry in this area. In this context, it has been referred that urbanization is the both causes and effect of education & literacy in the society (Som et al. 2012). Besides, establishment of new education institute for primary, upper primary as well as higher education, growing of small scale industries as ceramic, tiles, marble, pillar, brick making industries; establishment of hotels and restaurants in small tourist places by Government as well as private entrepreneurship are the boosting factor for enhancement of financial growth which directly or indirectly support to enhanced quality of life which further influenced to reduce the literacy gap in these block.

On the other hand, high disparity was observed in Alipurduar I, Falakata and Kumargram block in 2001. Even in 2011, DI value has been recorded quite higher in those blocks than other due to their remote and backward location as well as its poor connectivity and accessibility with main stream transport line, tea garden and forest cover of village surroundings where labour based economy is permanently sustained. It is also mentioned that lower the literacy is barrier for not only the economy but also the society (Mulimani and Pujar, 2015). However many Indian studies have described that (Basu, 1997; Devi, 2001; Nambissan and sedwall, 2002; Dholakia, 2003) economic backwardness is an important cause behind the low literacy rate and lower educational level of population (Som et al. 2012).

**Table 3: Co-efficient of Variation (C.V) of D.I in Male-Female and Rural-Urban Disparity (2001-11)**

Sl. No.	Name of C.D Blocks	Census 2001				Census 2011			
		Rural - Urban Disparity Index	C.V of Disparity Index	Male - Female Disparity Index	C.V of Disparity Index	Rural - Urban Disparity Index	C.V of Disparity Index	Male - Female Disparity Index	C.V of Disparity Index
1	Kumargram	0.667	<b>C.V=68.93</b>	0.369	<b>C.V= 3.84</b>	0.580	<b>C.V=39.00</b>	0.287	<b>C.V=10.96</b>
2	Falakata	0.569	(Parameter) <b>S.D= 0.256</b>	0.379	(Parameter) <b>S.D= 0.014</b>	0.318	(Parameter) <b>S.D=0.134</b>	0.281	(Parameter) <b>S.D=0.034</b>
3	Madarihat	N.A	<b>Mean=0.372</b>	0.388	<b>Mean=0.375</b>	0.290	<b>Mean=0.344</b>	0.330	<b>Mean=0.306</b>
4	Kalchini	0.246		0.383		0.271		0.364	
5	Alipurduar-I	0.530		0.384		0.410		0.294	
6	Alipurduar-II	0.219		0.349		0.198		0.282	

Source: Calculated & prepared by Researcher, 2023

Moreover, insufficiency of primary and high school, and higher educational institution, high concentration of SC (Scheduled Caste) and ST (Scheduled Tribe) population in rural areas who are socio-economically backward in the society. Lastly, It has been pointed out that, failure of the village development schemes of Central and State Government to reach properly among the village community, regular strikes in tea gardens work, natural obstacles and inaccessible village site location such as in the dense forests as well as in hill top and hill slope terrain location of settlements are also responsible factor for upward increasing literacy gap.

For better analysis of comparison of DI value of rural-urban and male-female literacy disparity, Coefficient of Variation (CV) has been calculated to recognize the consistency of literacy gap among the different blocks of the study area. From the table no. 3, it has been revealed that Coefficient of Variation (CV) of DI of Male-Female Disparity Index is less (3.84) than Rural-Urban Disparity Index (68.93) in 2001; And in 2011, again CV of Rural-Urban Disparity Index is more (39.00) than CV of Male-Female Disparity Index (10.96). So it determined that, there is more consistency of Male -Female Disparity Index among the blocks than Rural-Urban DI in both censuses. So, it can be concluded that, disparity in literacy of Rural-Urban areas is comparatively more as well as it is heterogeneous in nature in than Male -Female Disparity among different administrative blocks of this study area where administrator must be serious concern of attention to get over the difference between the literacy of males and females in both rural and urban areas (Grover & Bhardwaj, 2002).

## **5.5 Future planning to control the disparity**

Some important attempts have been made to point out short and long term development strategy on the context of physical, socio-economic, political as well as cultural characteristics of the district to eradicate disparity in rural-urban and male female literacy among the blocks.

### **5.5.1 Infrastructural development strategy**

- a. Establishment of modern education technology based free primary schools as well as children attractive up gradation of existed schools in the tea garden area, forest and hilly area villages of educationally backward blocks by applying Govt. scheme.
- b. Easy permission and provision of special tax rebate from Central and State Government in connection with transport network and educational infrastructure development work to the remote villages of hill, forest and tea garden area.
- c. 'Special Area development programmes' could be applied for backward blocks through district level planning.
- d. Implementation of 'Master plan project' for step by step overall infrastructure development associated with education, employment and administration through Block Level Administration.
- e. Special attention for improvement of better accessibility of transport network and communication of hill top, forest remote villages with education institution, health

institution, local markets as well as respective block and district head quarters through the Central and State Government 'Sarak Yojna Project'.

- f. E-choupal, Kisan call centre, Gyandoot Project, Warana Wired Village Project could be initiated properly through local administration for farmers development.
- g. State and Central Government's 'Life insurance Bima' and 'Health Bima' should be mandatory for economically and educationally backward villagers.
- h. Proper implementation of rural development schemes such as 'Deen Dayal Upadhyay Grameen Kaushal Yojna' for skill development of rural poor youth, 'Roshni: skill development of tribals', 'Mahatma Gandhi National Rural Employment Guarantee Scheme' (MGNREGS) for BPL as work right, National Rural Livelihood Mission for empower of women's in backward blocks.

### **5.5.2 Financial support strategy**

- a. 'DWCRA' project (Development of Women and Children in Rural Area) could be initiated according to potentiality of backward rural women for employment.
- b. Creation of proper financial support through SHG activities as well as providing contemporary job creating training for women of the backward villages.
- c. Provision of micro finance facilities jointly from bank and local administration to the backward villagers for agriculture, horticulture, duck and poultry firm, handloom and other small business as well as for SHGs beneficiaries by less interest and easy terms and conditions.
- d. Implementation of 'Jan-Dhan Yojana' should be a mandatory rule for opening of bank account of village women and children also it must be documented and associated with Government office, Backward Class Office as well as education institutions for direct access of financial assistance as well as other monetary works.
- e. Once or twice a week banking service could be provided at remote villages opening small branches of nationalized bank for easy transaction of villagers as well as direct involvement of village women in banking activity.
- f. Proper implementation of 'Pradhan Maantri Mudra Yojana' (PMMY), 'Atal Pension Yojana' (APY), 'Stand up India scheme' for financial support to backward blocks.
- g. Financial support to the backward area farmers through 'PM Kisan Yojana' and 'PM Awas Yojana' to rural poor for concrete house facility.

### **5.5.3 Educational support strategy**

- a. Provision of financial support and incentives for poor students in less literate blocks through local NGOs and Government Administration.
- b. State, Central and Non Govt. Education related scholarship must be continued without any irregularities for remote village specially for tea garden, forest and hill top village students.

### *Spatio - Temporal Analysis of Disparity in Literacy Pattern of Alipurduar...*

- c. Initiative for establishment of new Girl's school must be taken through Government, semi Govt. or NGOs in remote areas of backward blocks.
- d. Residential school for girls must be established in backward blocks through 'KGBV' scheme.
- e. Initiatives for 'Eklavya Model Residential School' of 'EMRS' scheme for tribal forest villagers through District level administration.
- f. District level initiatives for establishment of 'Jahawar Navodaya Vidyalaya' for rural children through Govt. scheme.
- g. School infrastructure development through proper application of 'Samagra Shiksha scheme as well as 'Digital Initiatives' scheme (such as e-pathshala, Diksha, National Digital Library).
- h. Block wise local experts, teachers, administrators must be appointed in education institutions who have emotional connection with the backward villagers.
- i. Provision of special incentives/ scholarship for higher education degree among female students.
- j. Preparation of Government approved 'village education committee' 'village women education committee' through panchayet for regular monitoring of children specially girls education issues.
- k. 'Drop out' cases must be monitor by 'village education committee' and 'village women education committee' for further necessary steps to study of students.

#### **5.5.4 Administrative support strategy**

- a. Strict and regular monitoring to stop 'child trafficking' and 'female child marriage' through Panchayet and Block level administration.
- b. Direct involvements of maximum number of village women in different society reform and development work by preparing 'village family planning committee', 'village cultural committee', 'village women education committee' through Panchayet and Block level planning.
- c. Formation of a transparent and good local body to supervise proper implementation of village development projects of the Government.
- d. Once or twice a week of compulsory free health checkup centre should be arranged in each village mainly for women and child care through local health administration.
- e. Proper supervision of local Govt. for food grains distribution through 'AAY' (Antyodaya Anna Yojana) for BPL families.
- f. Proper implementation of 'Village Grain Bank scheme' to provide safeguard against famine.
- g. Appropriate advertisement and lawful application of the 'National Rural Health Mission' (NRHM) and 'Aam Aadmi Bima Yojna' (AABY) to the rural poor.

## 6. Conclusion

The study shows that, there is a huge gap in rural-urban disparity among the blocks than male-female disparity. Although, the literacy gap is being reduced in rural-urban and male-female disparity in 2001 to 2011, but the rate of literacy of the rural population comparatively far behind the urban population. The study also highlighted that rural-urban disparity is higher than male-female disparity. Although disparity in some blocks is less due to its relatively adequate educational facilities, progress of tourism industry and urbanization activities, modernization of agriculture as well as good connectivity and accessibility network comparatively than other blocks which is considerable and manageable further. But steel disparity in male-female as well as in rural-urban literacy is really a serious issue for the district, which needs to take necessary action whether short term or long-term master plan basis by giving special priority according to the referred future planning strategy with taking care of suggestions of Local/ Regional Planners, Researchers, Educationists, Administrators and other responsible Decision Makers to eradicate disparity of literacy in this study area.

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