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Regional Disparities in Socio-Economic Development: Case of Jalpaiguri and Alipurduar Districts

Bulti Das[1], Tuhin Kanti Ray, and Eshita Boral

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Abstract

The development of socio-economic conditions plays a crucial role in enhancing living standards, as development is a multifaceted process that improves the quality of life, particularly in regions where regional disparities pose significant challenges or barriers to development. Regional inequalities occur when one region becomes more developed than another. Therefore, balanced regional development is an important principle for overall socio-economic development. This paper examines regional inequalities in Jalpaiguri and Alipurduar districts using 35 indicators across demographic, economic, and social sectors. Based on the composite index, backward blocks have been identified within the two districts. Kendall's ranking coefficient method was used to compare and assess the overall development among the blocks of the two districts. The study is also associated with Principal Component Analysis. The study reveals significant regional disparities in terms of development. Therefore, governments, policymakers, and planners should develop diagnostic plans to reduce the gap in development levels.

***Keywords*:** regional disparities, inequality, level of development, socio-economic condition

Introduction

In India, addressing regional disparities is a major concern for policymakers (Gaur, 2010). Achieving balanced regional development is central to India's strategy for ensuring a minimum standard of living (Janardhan, 2016; Sharma, 2016). The country faces uneven socio-economic development across states and districts, which has affected planning processes since independence (Dinesha, 2015). Improving socio-economic conditions

[1]Corresponding Author

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is critical for enhancing human well-being (Chandra, 2015; Roy & Mondal, 2015).

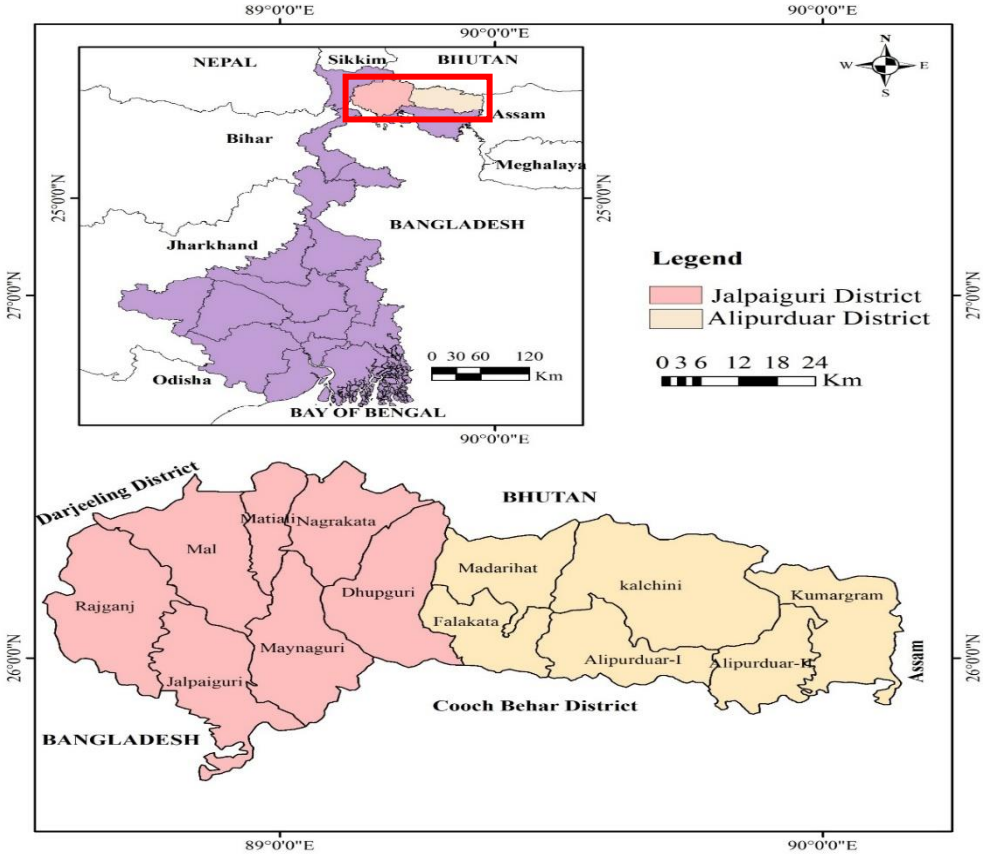
Development is a multidimensional process that reshapes the economic and social systems (Sultana & Aktar, 2016), focusing on economic growth, education, healthcare access, and the distribution of resources (Khan, 2007). Various programmes have been initiated to reduce regional disparities in development (Narain et al., 2000).

Regional inequalities, characterised by the coexistence of developed and underdeveloped areas, hinder socio-economic progress in India, particularly at the inter-regional level (Ahmad et al., 2019; Bose et al., 2020).

This study aims to analyse development levels in the Jalpaiguri and Alipurduar districts of West Bengal.

Figure 1

Location Map



Study Area

Jalpaiguri district, located in the northern part of the state, shares international borders with Bhutan to the north and Bangladesh to the south. It borders Darjeeling to the

west, Kalimpong to the north, Cooch Behar to the southeast, and Alipurduar to the southwest. Covering an area of 3,386.18 square kilometres, it has a population of 2,381,596 (as of the 2011 Census). The district comprises two subdivisions—Jalpaiguri and Mal—along with seven community development blocks, three municipalities, and eighty Gram panchayats. The economy is primarily driven by tea, timber, and tourism, with a significant presence of Scheduled Castes and Scheduled Tribes.

Alipurduar district, established on June 25, 2014, is known for its tea plantations, diverse flora, and tiger population. It covers 2,788 square kilometres and has a population of about 1,501,983 (2011 Census). Bordered by Bhutan to the north and Cooch Behar to the south, it shares an eastern boundary with Assam. The district includes nine census towns and 66 Gram panchayats, organised into six community development blocks: Kumargram, Falakata, Madarihat, Kalchini, Alipurduar I, and Alipurduar II.

Materials and Methodology

The present study is based on secondary data from various sources, particularly the District Census Report 2011 and the District Statistical Handbook, Jalpaiguri 2014. As development is a multidimensional process, its effects cannot be adequately assessed by a single indicator (Narain et al., 2002). In this research, several statistical techniques have been employed to examine the level of development and regional disparities among blocks based on selected indicators. The composite score method, Kendall's rank score method, and Principal Component Analysis (PCA) have been utilised. Regional disparities arise from differences in social, economic, and demographic factors.

Given the current socio-economic conditions of the two districts, 35 indicators have been chosen and organised into three groups: demographic, economic, and social.

These indicators are:

Demographic Indicators

Density of population (V1), decadal growth of population (V2), sex ratio (V3), child sex ratio (V4), % of SC population (V5), % of ST population (V6), % of literacy rate (V7), % of male literacy rate (V8), % of female literacy rate (V9), % of gap in literacy (V10).

Economic Indicators

Percentage of total workers (V11), % of female workers (V12), % of male workers (V13), % of main workers (V14), % of marginal workers (V15), % of cultivators (V16), % of agricultural labour (V17), % household and industrial labour (V18), % of others worker (V19), number of commercial banks (V20), number of Gramin bank (V21), % of cultivated area to total area (V22), % of irrigated area to cultivated area (V23), number of cooperative society (V24).

Social Indicators

The number of primary schools

(V25), middle schools (V26), high schools (V27), higher secondary schools (V28), colleges (V29), libraries (V30), hospitals (V31), health centres (V32), doctors (V33), hospital beds (V34), and post offices and sub-post offices (V35).

Z Score and Composite Score

By utilising these data and selected variables, an effort has been made to investigate the spatial pattern of development in the Alipurduar and Jalpaiguri districts. The Z-score method has been employed to analyse the level of development at the block level. The Z score is algebraically expressed as

$$Zi = \frac{Xi - \bar{X}}{SD}$$

Where Zi represents the standard score of the ith observation and Xi denotes the actual value of the ith observation. $\bar{X}$ stands for the mean of the values of the X variable, while SD represents the standard deviation of the X variable.

Additionally, the results of the Z-scores obtained for various indicators were aggregated by composite standard score (CSS). The formula for the composite score is

$$CSS = \frac{\sum Zij}{N}$$

Where CSS represents the Composite Standard Score, Zij denotes the Z-score of an indicator j in block I, and N signifies the number of indicators. (Sharma, 2014).

To categorise the block variables, an effort has been made to compute the mean and standard deviation. The standard deviation is divided by two, and half of it is added to the calculated mean value to form the high category. In contrast, half of the standard deviation is subtracted from the mean to create the low category. Subsequently, pairwise correlation coefficients have been calculated using SPSS software.

Kendall's Rank Score Method

Kendall's ranking coefficient method was employed to analyse spatial disparities among the blocks. Initially, selected variables of demographic, economic, and social indicators were ranked according to their total numbers; the variable with the highest number was assigned a rank of 1, followed by 2, 3, and so on. Subsequently, the total and average rankings were computed. Based on the total rank of the three sectors, the total rank and combined average rank were calculated. The highest average score signifies a less developed region, whereas a lower average score indicates a highly developed region.

Principal Component Analysis (PCA)

Principal Component Analysis (PCA) is a dimensionality reduction technique that employs mathematical principles to transform a large number of potentially correlated variables into a smaller set of variables. In the present study, PCA has been utilised with the varimax rotation method in SPSS software to identify relatively underdeveloped and developed blocks within Alipurduar and Jalpaiguri districts.

Results and Discussion

Level of Development in Jalpaiguri District

Composite development indices were calculated individually for two districts, concentrating on demographic, economic, social, and overall socio-economic aspects. Subsequently, the blocks were categorised into three groups based on these calculated values.

Demographic Condition

Ten variables were chosen to assess the demographic situation in the Jalpaiguri district. Figure 2 (A) illustrates the inter-block variations in demographic conditions. The composite score for demographic conditions indicates that only two blocks, Jalpaiguri and Dhupguri, are classified as highly developed, with a composite value exceeding 0.096. Blocks with index values ranging from -0.096 to 0.096 are regarded as medium-developed, comprising the Matiali, Maynaguri, Rajganj, and Mal blocks. Only the Nagrakata block is categorised as the least developed region in the district, concerning demographic conditions.

Economic Condition

Disparities in economic sectors are a significant concern for policymakers and economists. For sustainable growth, advancements must be inclusive, avoiding the exclusion of certain regions or groups.

To analyse economic conditions, 14 key indicators were evaluated using SPSS software to calculate combined Z-scores across various blocks. The Jalpaiguri and Dhupguri blocks exhibited favourable conditions with index values exceeding 0.179, while the Rajganj, Maynaguri, and Matiali blocks displayed moderate conditions. Poor economic conditions were observed in the Mal and Nagrakata blocks, with index values falling below -0.179 (see Figure 2(B).

Social Condition

Social and economic inequalities are increasing despite numerous governmental efforts aimed at developing underdeveloped regions throughout the country. Social conditions play a significant role in the overall development of the region. Social services, such as healthcare, education, and postal services, along with other amenities, enhance people's quality of life. The current study has assessed social conditions using 11 indices. Figure 2(C) depicts the standard score and combined score for the social condition of the Jalpaiguri district. The composite score indicates favourable social conditions in the Maynaguri, Jalpaiguri, and Dhupguri blocks. Conversely, Nagrakata and Matiali have faced poor social conditions, with index values below -0.354. Moderate social conditions are evident in the Rajganj and Mal blocks, with composite score ranges from 0.354 to -0.354.

Overall Development: Jalpaiguri District

The Jalpaiguri district shows varied demographic, economic, and social conditions across its blocks. Some blocks exhibit high social development, while others

demonstrate significant economic progress. To evaluate overall development, three main parameters are considered.

The highly developed areas of Jalpaiguri and Dhupguri excel in demographic, social, and economic indicators shows in Figure 2(D).

In contrast, moderately developed regions, such as Maynaguri, Rajganj, and Mal blocks, exhibit scores ranging from -0.186 to 0.186. Table 1 outlines the Composite Score values for each block, reflecting their overall development and specific components.

Correlation Among the Different Sectors: Jalpaiguri District

Pairwise correlations have been calculated to analyse the relationship among the different sectors, i.e., demographic, economic, social, and overall development.

Figure 2

(A) Level of Demographic Condition, (B) Level of Economic Condition, (C) Level of Social Condition, (D) Level of Overall Development of Jalpaiguri District

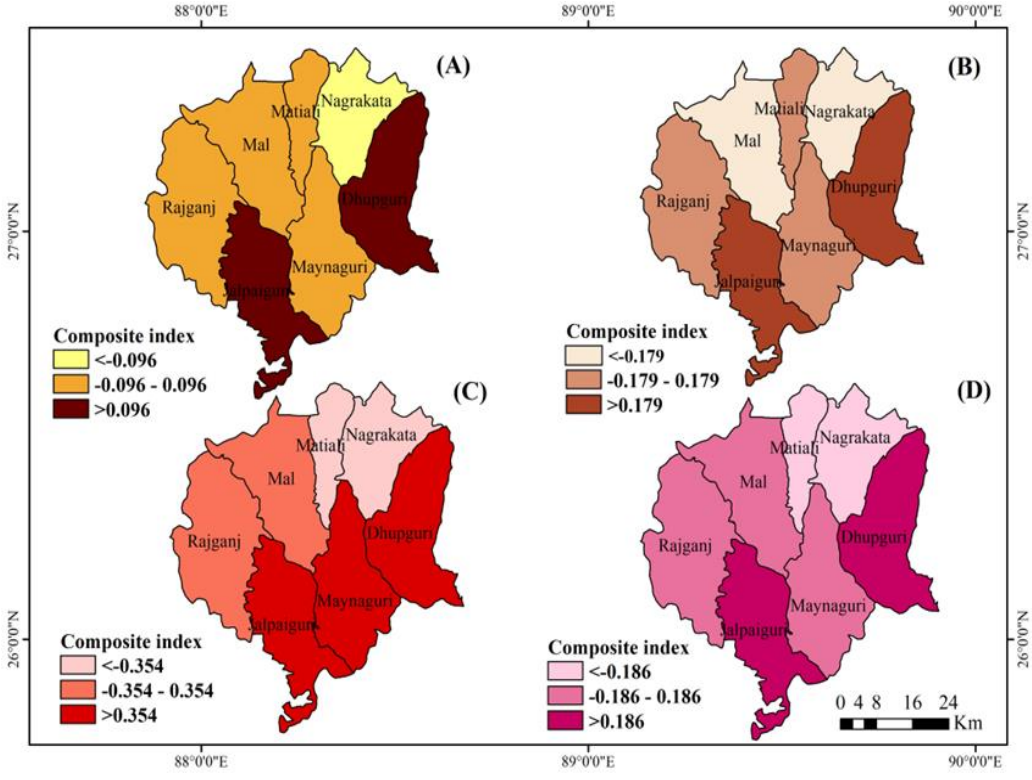


Table 1

Block-wise Composite Score Values in Jalpaiguri District

Block	Demographic Condition	Economic Condition	Social Condition	Overall Development
Nagrakata	-0.393	-0.492	-0.871	-0.583
Matiali	0.082	-0.013	-1.048	-0.311
Mal	-0.073	-0.239	0.004	-0.155
Rajganj	0.011	0.011	0.059	0.026
Maynaguri	0.077	-0.120	0.660	0.182
Dhupguri	0.098	0.211	0.554	0.287
Jalpaiguri	0.197	0.642	0.642	0.515

Source: Census 2011 and District Statistical Handbook, Jalpaiguri 2014

Table 2

Jalpaiguri District: Correlation Matrix

Category	Demography	Economic	Social	Overall development
Demography	1			
Economic	.843*	1		
Social	0.598	0.585	1	
Overall development	.832*	.866	.907**	1

**Correlation is significant at the 0.05 level*
***Correlation is significant at the 0.01 level*

From the correlation matrix, it has been observed that demographic and economic sectors are positively correlated with each other at a significant level of 0.05 (Table 2). However, while demographic, economic, and social conditions are positively correlated, this correlation is not statistically significant. On the other hand, demographic and social development exhibit a very significant correlation with overall development at the 0.05 and 0.01 probability levels. The level of economic development is also positively associated with overall development (r = 0.866).

Level of Development in Alipurduar District

Demographic Condition

Demographic composition is closely linked to regional development. Figure 3 (A) illustrates that Alipurduar-I is the only highly developed block, with a composite score exceeding 0.066, attributed to favourable indicators such as high population density and literacy rates.

Alipurduar-II and Falakata are moderately developed, with composite scores ranging from -0.066 to 0.066. Both areas feature high population densities and moderate literacy rates for both genders.

Madarihat, Kalchini, and Kumargram are the most underdeveloped blocks in the district according to demographic conditions.

Economic Condition

Economic disparity is linked to

equality, opportunity, and outcomes, thus reducing economic development gaps—a significant challenge in regional policy. Figure 3(B) illustrates that blocks with composite scores above 0.110, such as Alipurduar-I and Alipurduar-II, exhibit strong economic conditions. These areas benefit from a high percentage of agricultural labourers and cultivators, primarily due to employment in the tea garden sector and other industries, as well as a considerable cultivated area relative to the total area and a notable presence of cooperative societies.

In contrast, blocks such as Madarihat, Kalchini, and Kumargram exhibit poor economic conditions, with scores below -0.109. Blocks scoring between -0.109 and 0.110, such as Falakata, are deemed moderately developed. The presence of specific indicators is vital in determining the economic status of these regions.

Social Condition

Drewnowski (1972) describes socio-economic indicators as measurable phenomena that reveal how effectively human needs are being met. In this study, we utilised 11 key indicators to assess social conditions at the block level in the Alipurduar district. The analysis indicates that Alipurduar-II, Madarihat, and Falakata are highly developed regions. In contrast, Kumargram and Alipurduar-I are the least developed areas, exhibiting concerning composite scores of -0.183 (Figure 3C). The index values range from -0.183 to 0.183, placing Kalchini in the moderately developed category, highlighting the need for targeted intervention.

Overall Development: Alipurduar District

Using the composite score method, we assessed the overall development of the district. Alipurduar-II and Falakata, with scores exceeding 0.057, are recognised as highly developed (Figure 3 D). As the district headquarters, Alipurduar-II demonstrates strong performance across various dimensions. In contrast, Alipurduar-I, Madarihat, and Kalchini exhibit moderate levels of development, while Kumargram lags behind, reflecting substantial developmental challenges with an index value of -0.057. This disparity highlights the urgent need for investments and policies to foster development in underdeveloped areas.

Table 3 illustrates significant variations in the demographic, social, and economic conditions across the blocks of Alipurduar District. Alipurduar-I has favourable demographic and economic conditions but suffers from poor social conditions, leading to a moderate overall development index. Kumargram is the most disadvantaged block, while Madarihat and Kalchini exhibit poor demographic and economic conditions but better social conditions, resulting in moderate overall development. Falakata displays moderate demographics and economic statistics but excels in social development, achieving a high

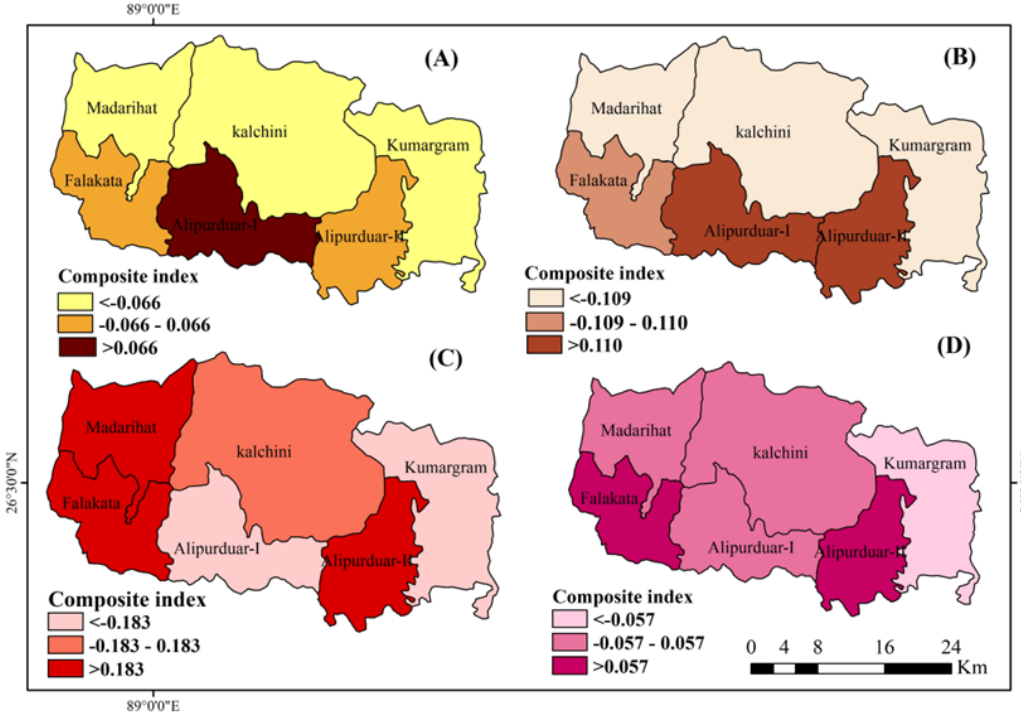
overall development level. Alipurduar-II has a moderate demographic profile characterised by good economic and social conditions, making it a highly developed region.

Correlation among the Different Sectors of Development in Alipurduar District

The correlation between the demographic and economic sectors is significant at the 0.01 probability level (Table 4). However, the correlations between the economic and social sectors, as well as between the social and demographic sectors, are negative. This indicates that economic and demographic growth in the Alipurduar district has not fully utilised social services, such as education and healthcare, which are unevenly distributed. Overall, demographic, economic, and social conditions are positively linked to development.

Figure 3

(A) Level of Demographic Condition, (B) Level of Economic Condition, (C) Level of Social Condition, (D) Level of Overall Development of Alipurduar District



Source: Prepared by authors based on Census 2011 and District statistical handbook, Jalpaiguri 2014.

Table 3
Block-wise Composite Score Values in Alipurduar District

Block	Demographic Condition	Economic Condition	Social Condition	Overall Development
Alipurduar-II	0.045	0.115	0.281	0.147
Falakata	0.050	0.029	0.241	0.102
Alipurduar-I	0.217	0.364	-0.645	0.005
Madarihat	-0.078	-0.230	0.278	-0.027
Kalchini	-0.085	-0.113	0.044	-0.056
Kumargram	-0.149	-0.164	-0.199	-0.171

Source: Census 2011 and District Statistical Handbook, Jalpaiguri 2014

Table 4
Correlation Matrix

Category	Demography	Economic	Social	Overall Development
Demographic	1			
Economic	.953**	1		
Social	-0.459	-0.578	1	
Overall development	0.599	0.499	0.415	1

**. *Correlation is significant at the 0.01 level*

Disparities among the Blocks of Jalpaiguri and Alipurduar Districts

Identifying backward blocks is crucial for addressing disparities and developing effective plans. In this study, blocks are classified as high, medium, or low based on the average rank score of 35 indicators. A spatial disparities index indicates that a low score represents favourable conditions, while a high score signifies poor socio-economic circumstances.

Demographic Condition

The highly developed region comprises Jalpaiguri, Alipurduar-I, Dhupguri, and Maynaguri, known for their high population density, favourable sex ratios, and impressive literacy rates. The moderate category includes Rajganj, Matiali, Madarihat, Falakata, and Alipurduar-II, with scores ranging from 6.59 to 7.41. The less developed region encompasses Mal, Kalchini, Kumargram, and Nagrakata, distinguished by unfavourable sex ratios and low female literacy rates (Fig. 4A).

Economic Condition

Highly developed blocks (Jalpaiguri, Dhupguri, Alipurduar-I, and Alipurduar-II) have a significant percentage of workers and plentiful banking resources. In contrast, Kalchini, Mal, and Nagrakata suffer from poor economic conditions due to limited employment opportunities and restricted access to financial services. Six blocks—Falakata, Rajganj, Matiali, Maynaguri, Kumargram, and Madarihat—display moderate economic conditions (Fig. 4 B).

Social Condition

Blocks such as Jalpaiguri, Maynaguri, and Dhupguri provide sufficient public services, while the moderately developed blocks include Madarihat,

Alipurduar-II, Falakata, Rajganj, Kalchini, Mal, and Kumargram, which score between 5.78 and 7.92. Alipurduar-I, Nagrakata, and Matiali offer the fewest educational and healthcare facilities (Fig. 4C).

Disparities in Overall Socio-Economic Development

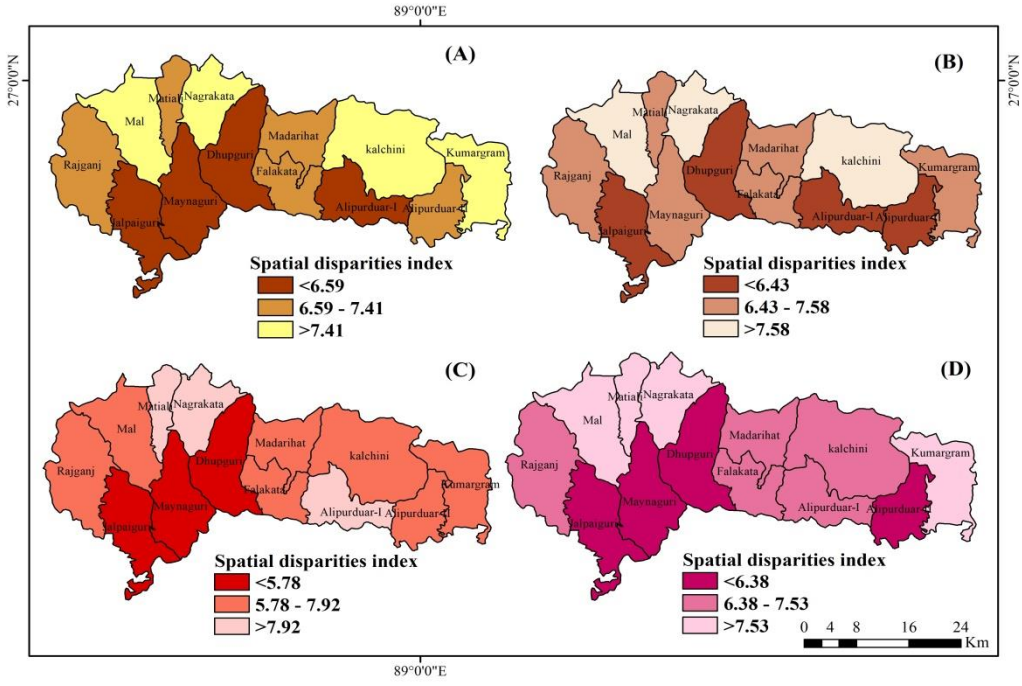
The highly developed region comprises Jalpaiguri, Dhupguri, Maynaguri, and Alipurduar-II. Moderately developed blocks include Falakata, Rajganj, Madarihat, Alipurduar-I, and Kalchini, with scores ranging from 6.38 to 7.53. Less developed blocks—Nagrakata, Matiali, Mal, and Kumargram—face challenges such as low literacy rates, unfavourable sex ratios, and inadequate services (Fig. 4D).

Principal Component Analysis

In the current study, PCA has been utilised to understand the inter-block regional disparities in the Jalpaiguri and Alipurduar Districts. It has helped to extract maximum variance and reduce a large number of variables into a smaller set. 35 demographic, economic, and social variables were grouped into seven components, which together explain over 91% of the total variance. Table 7 displays the rotated component matrix.

Figure 4

(A) Disparities in Demographic Condition, (B) Disparities in Economic Condition, (C) Disparities in Social Condition, (D) Disparities in Overall Socio-Economic Condition of Jalpaiguri and Alipurduar Districts



Source: Prepared by authors based on Census 2011, District statistical handbook, Jalpaiguri 2014

Table 5
Overall Disparities in Socio-Economic Development: Jalpaiguri and Alipurduar Districts

Blocks	Demographic Indicator	Economic Indicator	Social Indicator	Grand Total Rank	Average rank
Nagrakata	83	126	114.5	323.5	9.24
Matiali	68	102.5	119	289.5	8.27
Kumargram	78	106	82	266	7.60
Mal	77	115.5	73.5	266	7.60
Kalchini	78	106.5	71	255.5	7.30
Madarihat	74	106	72.5	252.5	7.21
Alipurduar-I	60.5	84.5	101.5	246.5	7.04
Rajganj	72.5	95.5	70.5	238.5	6.81
Falakata	69	90.5	65.5	225	6.43
Alipurduar-II	69	89.5	64	222.5	6.36
Maynaguri	62.5	105.5	43	211	6.03
Dhupguri	65	84	52	201	5.74
Jalpaiguri	53.5	63	51	167.5	4.79

Source: Calculated by the authors based on Census 2011 and District statistical handbook data

Table 6
Overall Development Scenario of Socio-Economic Condition: Jalpaiguri and Alipurduar Districts

Sectors	Level of development	No. of blocks	Name of the blocks
Demographic	High = < 6.59	4	Jalpaiguri, Alipurduar-I, Dhupguri and Maynaguri
	Moderate = 6.59 to 7.41	5	Rajganj, Matiali, Madarihat, Falakata and Alipurduar-II
	Low = >7.41	4	Mal, Kalchini, Kumargram and Nagrakata
Economic	High = < 6.43	4	Jalpaiguri, Dhupguri Alipurduar-I and Alipurduar-II
	Moderate = 6.43 to 7.58	6	Maynaguri, Madarihat, Falakata, Matiali, Rajganj and Kumargram
	Low = > 7.58	3	Kalchini, Mal and Nagrakata
Social	High = < 5.78	3	Jalpaiguri, Maynaguri and Dhupguri
	Moderate = 5.78 to 7.92	7	Madarihat, Alipurduar-II, Falakata, Rajganj, Kalchini, Mal and Kumargram
	Low = > 7.92	3	Alipurduar-I, Nagrakata and Matiali
Overall development	High = < 6.38	4	Jalpaiguri, Maynaguri, Dhupguri and Alipurduar-II
	Moderate = 6.38 to 7.53	5	Falakata, Rajganj, Madarihat, Alipurduar-I and Kalchini
	Low = > 7.53	4	Nagrakata, Matiali, Mal and Kumargram

Source: Compiled by the authors

Table 7
Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
V19. Others worker	-0.96						
V17. Agricultural labour	0.95						
V16. % of cultivators	0.92						
V9. Female literacy	0.83						
V10. Gap in literacy	-0.82						
V4. Child sex ratio	-0.82						
V7. % of literacy rate	0.81						
V22. % of cultivable area of total area	0.77						
V5. % of SC population	0.77	0.56					
V8. Male literacy	0.75						
V35. Number of post offices	0.69						
V6. % of ST population	-0.69						
V13. % of male workers	0.67				0.64		
V30. Number of libraries	0.61						
V25. Number of Primary schools	0.61						
V32. Number of health centres		0.81					
V21. Number of Gramin Bank		0.80					
V20. Number of commercial banks		0.78					
V24. Number of cooperative societies		0.76					
V27. Number of high schools		0.76					
V28. Number of higher secondary schools		0.67					
V15. % of marginal worker			0.89				
V11. % of total workers			0.82				
V12. % of female workers	-0.589		0.71				
V2. Decadal growth of population			-0.66				
V33. Number of doctors				0.89			
V34. Number of beds in the hospital				0.76			
V23. % of irrigated area to cultivated area				-0.69			
V14. % of main worker					0.86		
V3. Sex ratio					-0.60		
V1. Density of population					0.55		
V31. Number of hospitals						0.82	
V29. Number of colleges						0.66	
V18. % of household and industrial labour						0.58	
V26. Number of middle school							0.93
Extraction Method: Principal Component Analysis. *Rotation Method: Varimax with Kaiser Normalisation.*							
a. Rotation converged in 16 iterations.							

Source: Calculated by the authors based on Census 2011 and the District Statistical Handbook

Table 8

Total Variance Explained by the Components using Principal Component Analysis (PCA)

Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
16.122	46.063	46.063	11.272	32.207	32.207
4.949	14.139	60.202	5.855	16.730	48.936
3.286	9.389	69.591	3.410	9.744	58.680
3.105	8.871	78.462	3.309	9.454	68.135
1.993	5.694	84.156	3.280	9.370	77.505
1.460	4.172	88.329	2.868	8.194	85.699
1.189	3.398	91.727	2.110	6.028	91.727

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalisation

Source: Calculated by the authors based on Census 2011 and the District Statistical Handbook

Component 1 is associated with 16 variables, the majority of which are positively correlated, with the exception of five: (V4) child sex ratio, (V6) ST population, (V10) literacy gap, (V12) female workers, and (V19) other workers, indicating a need for further development. It explains 32% of the variance, making it the most significant component.

Component 2 comprises seven variables that are positively correlated with one another. Component 3 consists of four variables, with V2 (% of decadal growth rate) exhibiting a negative correlation. Component 4 is characterised by a strong positive loading for the number of doctors and hospital beds, whereas the % of irrigated area demonstrates a negative loading.

Component 5 contains four variables, with (V3) sex ratio showing a negative correlation. Component 6 displays positive correlations across three variables, while

Component 7 consists of a single variable: (V26) number of middle schools, which exhibits a high positive loading value.

Overall, the following variables require attention for development: (V2) percentage of decadal growth rate, (V3) sex ratio, (V4) child sex ratio, (V6) Scheduled Tribe population, (V10) literacy gap, (V12) female workforce, (V19) other workforce, (V23) percentage of irrigated area, and (V26) number of middle schools in Jalpaiguri and Alipurduar districts.

Conclusion

Development is an ongoing process designed to enhance the quality of life for individuals and communities. It necessitates a comprehensive approach to human resource development within a region. Tackling regional inequalities presents a considerable challenge in achieving development goals.

The present study indicates that Jalpaiguri and Dhupguri are the more developed blocks, while the Nagrakata block is the least developed in the Jalpaiguri district. In terms of overall development in the Alipurduar district, the Alipurduar-II and Falakata blocks are more developed than the others. Conversely, the Kumargram block is a poorly developed area. The level of development in the other blocks is moderate. Both the backwards and moderate blocks are making strides towards further development. The discussion highlights significant regional disparities in development levels. Backward blocks, in particular, require enhancements across various dimensions of socio-economic sectors to elevate their development status. Therefore, the government should take proactive measures or formulate diagnostic plans to achieve balanced regional development across all sectors at the grassroots level.

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Authors

Bulti Das and Eshita Boral
@ Department of Geography and Disaster Management, Tripura University
Suriyamaninagar, Agartala, 799022, Tripura, India

Bulti Das
Research Scholar
Email: ishupb6@gmail.com

Tuhin Kanti Ray
Assistant Professor
Department of Geography,
Vidyasagar College, Kolkata, West Bengal 700006, India
Email: tuhinkanti2008@gmail.com

Eshita Boral
Assistant Professor
Email: eshitaboral2024@gmail.com