

# A GEOGRAPHICAL ANALYSIS ON THE SOCIO-ECONOMIC DISPARITY WITH SPECIAL REFERENCE TO GARHBETA SUB-DIVISION, WEST MEDINIPUR

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## Abstract

*In recent years, policymakers, economists, geographers, and others have been concerned with the disparity between regions in socioeconomic development. Developed and developing nations are experiencing it simultaneously. Due to social, cultural, economic, and demographic forces, regional disparities occur over time due to uneven regional development. A spatial variation in socioeconomic development has been investigated at the village level in Garhbeta subdivision of West Medinipur in the present study. To measure the degree of spatial disparity, 27 indicators were used across six dimensions (education, health, agriculture, banking, and finance, livestock, and basic amenities). A composite development index and mean, standard deviation, and standard deviation are commonly used to examine spatial variations.*

**Keywords:** *Regional Disparity; Socio-Economic Development; Composite Development Index; Garhbeta subdivision*

## 1. Introduction

An objective of socioeconomic development is to enhance the socioeconomic conditions of a region in order to improve the quality of life for its citizens [1]. Comparing different units within a region for living standards, on the other hand, refers to regional disparity. Developmental economies are affected by this disparity as well as developed economies [2], although the impacts are more pronounced for developing economies. Although uneven development has a variety of causes, its consequences have the potential to undermine societal stability. There can be differences in spatial distribution, access to resources, subjective and objective quality of life, economic power sharing, social policies, uncontrolled uneven development, etc. which can increase poverty risk [3]. Due to the free functioning of the market system, the capitalist economy also increases regional inequality as rich countries become richer and poor countries become poorer [4]. The distribution of basic opportunities in life is also unequal [5]. Furthermore, economically marginalized people are socially excluded, and socially marginalized people are economically marginalized, which increases regional disparities [6]. Policy and planning at the regional level are crucial to prevent imbalances between different regions and have varying impacts [7]. Underdeveloped segments of society have more opportunities, poverty decreases, and sustainable economic development is promoted when equity is achieved [8]. Various Five-year Plans have been used to implement development programmes in India in order to provide the

basic necessities of life and to improve the social and economic well-being of the general population in a planned manner. Development programmes in India emphasize balanced regional development as one of their major goals. It is traditionally the intention of the government to provide special support to disadvantaged areas in order to achieve this goal [9]. As a result of partial fulfilment of their targets, most plans have failed to produce the desired results. It has become increasingly difficult to close regional disparities in India [10]. These regional disparities are the result of unchecked, uncontrolled growth [11]. District-level plans were introduced during the Fourth Five-Year Plan (1969-74) to begin decentralizing national planning. In addition, the Sixth Five-Year Plan (1980-85) decentralized district-level planning to block level. Planning in India has remained committed to removing regional imbalances in development [12]. Various instruments such as subsidies and grants are used to transfer resources in underdeveloped regions, such as the Backward Regions Grant Fund (BRGF), the Border Area Development Programme (BADP), the Hill Area Development Programme (HADP), the Integrated Action Plan (IAP) for Left Wing Extremism (LWE)-affected districts, Bharat Nirman, Sarva Shiksha Abhiyan, and the National Rural Health Mission. A wealth of research shows that socio-economic disparities within the country have not reduced over time, resulting in socio-economic exclusion for economically marginalized people [6; 13; 14].

Social and economic disparities are major challenges in Garbeta. An important part of the district's population resides in rural areas and is highly dependent on agriculture for a living. The infrastructure and access to basic services have improved in Paschim Medinipur in recent years, though socio-economic disparities remain, which require more attention and intervention. As a result, this paper provides an assessment of socioeconomic disparities at the block level in Garbeta. This paper examines the causes and consequences of these disparities and the impact they have on local residents. Health outcomes, education attainment, and economic development will also be discussed as consequences of these disparities. As a result of this research, we hope to gain a deeper understanding of socio-economic disparities, as well as solutions for addressing these disparities to promote socioeconomic equity in the region.

## 2. Location of the study Area

Garhbeta blocks (Garbeta Block-I, II, III) are situated in Paschim Medinipur district of West Bengal, India. The area, covering c. 4.66 km<sup>2</sup> of a Pleistocene lateritic upland, is noted for spectacular ravine development on the concave right bank of river Silai. The terrain in and around Garhbeta bad land consists of different topographic cum hydro geomorphic divisions, namely residual hill, dissected lateritic upland upper, dissected lateritic upland lower, remnant of lateritic upland and valley fills. The top and side slopes of these uplands and hills are mostly left abandoned as wastelands. It may be mentioned that large scale exploitation of the terrain for timber (mainly *Sat*), mining activities, shifting cultivation, unscientific grazing etc. have degraded large stretches of land into wastelands. Out of different categories of wasteland about four categories could be identified in and around the study area. These are (i) gullied and / or ravinous land (ii) underutilized / degraded notified forest land (iii) land with and /or without scrub, (iv) degraded land under plantation crop. Major part of the area is occasionally/marginally vegetated. Scattered grasses and thorny shrubs dotted with isolated deciduous trees are common vegetal covers. Rain and runoff not only remove top-soils with nutrients suitable for plant growth but water erosion also in the form of rills and gullies deeply dissects the bare, unvegetated slopes and fallow lands. The soils in these wastelands may vary from coarse (intermixed with cobbles, pebbles) to moderately coarse (gravelly), generally reddish brown in colour and poor in both potassium and phosphorous. The gravelly nature of the soil is the result of mixing up of partially lateritised older alluvium and laterite hill wash from the higher areas. In some wastelands soil is sandy and acidic in reaction.

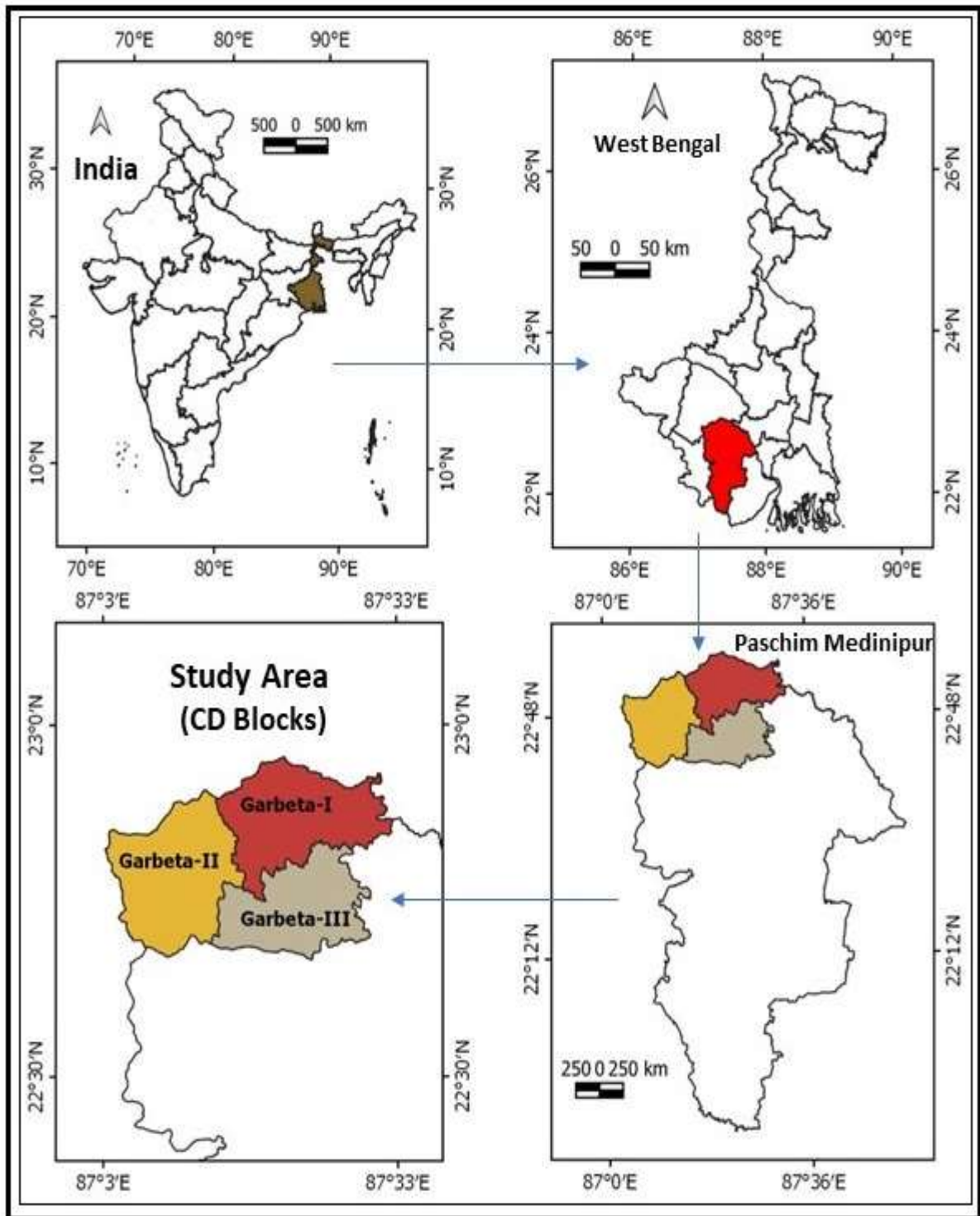


Fig1: Location of the study area

### 3. Objectives Of The Study

The present study has the following objectives:

- Investigating the socioeconomic disparities across the regions.
- Analysing various levels of development for different blocks.
- Suggestions for reducing socioeconomic disparities within blocks.

### 4. Material and methods

Availability and accessibility of data sources have been taken into account when selecting dimensions and indicators of socioeconomic development. The six dimensions of socioeconomic development were considered using 27 indicators. Geographic disparities in socioeconomic development have been investigated based on the following dimensions and indicators:

#### 4.1. Education

- Total literacy rate (A1)
- Literacy among rural females (A2)
- No. of primary schools per 10,000 population (A3)
- No. of high and HS schools per 10,000 population (A4)
- No. of special and non-formal schools per 10,000 population (A5)
- No. of teachers per 1000 of students in primary schools (A6)
- No. of teachers per 1000 of students in high and HS schools (A7)

#### 4.2. Health

- No. of primary health centre per 1,00,000 population (B1)
- No. of beds per 1,00,000 population (B2)
- No. of doctors per 1,00,000 population (B3)
- No. of family welfare centre per 1,00,000 population (B4)
- No. of Nourished children per 1000 children (B5)
- Lavatory facility as % to total no. of household (B6)

#### 4.3. Agriculture

- Net sown area as % to total area (C1)
- Area under more than one crop as % to net sown area (C2)
- Net area under effective pisciculture as % to total area (C3)
- Irrigated area as % to total area (C4)
- Rice production per head in kg (C5)

#### 4.4. Livestock

- No. of ADAC per 1,00,000 livestock animals (D1)
- No. of veterinary personnel per 1,00,000 livestock animals (D2)

#### 4.5. Banking and Finance

- No. of banks per 1,00,000 population (E1)
- No. of co-operative societies per 1,00,000 population (E2)

#### 4.6. Elementary Amenities and Facilities

- No. of cinema houses per 1,00,000 population (F1)
- No. of public library per 1,00,000 population (F2)
- Percentage of mouzas having drinking water facilities (F3)
- Percentage of electrified mouzas (F4)
- Road density in km/sq. km (F5)

Analysing and presenting the data using cartographic techniques using means, standard deviations, Dimension Indexes (DI), and Composite Development Indexes (CDI). To begin with, each block's DI value was calculated for each indicator. Next, each dimension's mean DI was calculated. DIs range from 0 to 1, where 0 indicates the lowest development degree and 1 indicates the highest. As a result, the mean DI values of each dimension were added together to determine the Composite Development Index (CDI) of the entire block. CDI reveals the geographical disparities of socioeconomic development at the block level across an entire district. Development indices were calculated using the following formula:

$$\text{Development Index } (DI_{ji}) = \frac{X_{ij} - \text{Min}_i}{\text{Max}_i - \text{Min}_i}$$

Where,

$DI_{ji}$ = Development Index of  $i^{\text{th}}$  variable at  $j^{\text{th}}$  unit of study.

$X_{ij}$ = Absolute value of the  $i^{\text{th}}$  variable at  $j^{\text{th}}$  unit of study.

$\text{Min}_i$ = Minimum value of  $i^{\text{th}}$  variable.

$\text{Max}_i$ = Maximum value of  $i^{\text{th}}$  variable.



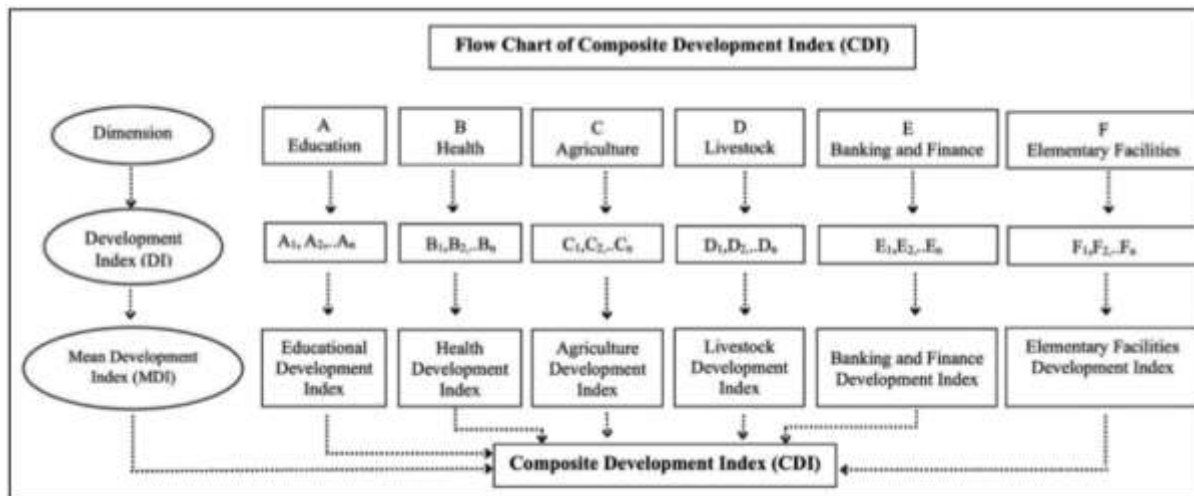


Figure 2 Flow chart of Composite Development Index

### 3. Results and discussion

#### 3.1. Disparity of different socio-economic dimensions at block level in Garhbeta

##### 3.1.1. Education Table 1 Computed value of educational indicators showing the disparity in education

SL. No.	Villages	A1	A2	A3	A4	A5	A6	A7	Average
1	Adalia	0.44	0.43	0.42	1.00	0.37	0.57	0.35	0.51
2	Bagridi	0.73	0.69	0.23	0.22	0.28	0.32	0.43	0.41
3	Chandabila	0.25	0.20	0.84	0.00	0.54	0.72	0.51	0.43
4	Gohaldanga	0.00	0.00	0.21	0.07	0.61	0.00	0.37	0.18
5	Dumardiha	0.32	0.3	0.16	0.12	0.27	0.21	0.11	0.21
6	Keshia	0.40	0.33	0.25	0.22	0.32	0.56	0.34	0.35
7	Umrapata	0.61	0.52	0.32	0.18	0.26	1.00	0.25	0.45
8	Suthanrar	0.26	0.33	0.37	0.07	0.30	0.36	0.10	0.26
9	Tilabani	0.36	0.26	0.54	0.51	0.35	0.68	1.00	0.53
10	Murakati	0.64	0.43	0.41	0.30	0.61	0.73	0.73	0.55
11	Jirapara	0.16	0.06	0.63	0.47	0.00	0.49	0.23	0.30
12	Nischintapur	0.42	0.33	1.00	0.36	1.00	0.48	0.15	0.53
13	Pingbani	0.56	0.58	0.69	0.60	0.37	0.78	0.11	0.53
14	Shyamsundar pur	0.42	0.43	0.77	0.39	0.37	0.75	0.00	0.45
15	Lalitpur	0.59	0.48	0.68	0.60	0.99	0.32	0.34	0.57
16	Erimara	0.77	0.69	0.53	0.42	0.05	0.42	0.37	0.46
17	Ruparghagra	0.29	0.37	0.32	0.10	0.27	0.58	0.31	0.32
18	Humgarh	0.79	0.79	0.44	0.34	0.37	0.87	0.33	0.56
19	Bathantor	1.00	1.00	0.13	0.31	0.33	0.81	0.39	0.57

20	Ruparghagra	0.28	0.37	0.35	0.04	0.43	0.62	0.41	0.36
21	Kurkutbandi	0.20	0.34	0.00	0.11	0.37	0.37	0.10	0.21
22	Indkurii	0.62	0.72	0.13	0.24	0.35	0.47	0.33	0.41
$\bar{x} = 0.41 \sigma = 0.13$									

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

Education is one of the most potent tools for human development; a good education is an engine for income equality, poverty reduction, increased opportunity for all, social integration, and supporting democratic societies [18]. Table 1 reveal the existing status of education in the district. In terms of education, the highly developed Villages (>0.46) are Adalia, Tilabani, Murakati, Nischintapur, Pingbani, Lalitpur, Humgarh, and Bathantor. Bagridi, Chandabila, Umrpata, Shyamsundarpur, Erimara, and Indkurii are moderately developed Villages (0.36-0.46). Low-developed Villages (0.26–0.36) are Keshia, Jirapara, Ruparghagra, and Ruparghagra, and the very low - developed Villages (<0.26) are Kurkutbandi, Suthanrar, Dumardiha, and Gohaldanga.

### 3.1.2. Health

Improved healthcare access and outcomes can reduce poverty and inequality [19]. Health equity is linked to economic growth, various studies reveal that investing in health is critical for economic growth, and that health equity is an important factor in achieving economic growth (20). Healthcare is a fundamental human right, and access to healthcare should be universal. Table 2 and the accompanying figure (refer to Figure 4) illustrate the medical and healthcare facilities. If we look at the table and figure, it can be seen that the most developed Villages in the district (>0.34) are Adalia, Jirapara, Nischintapur, Dumardiha, and Bathantor. Indkurii, Murakati, and Pingbani are moderately developed Villages (0.26-0.34). The least developed Villages (0.19-0.26) are Gohaldanga, Ruparghagra, Humgarh, Tilabani, Shyamsundarpur, and Erimara, while the very least-developed Villages include Kurkutbandi, Suthanrar, Lalitpur, Bagridi, Chandabila, Umrpata, Keshia, and Ruparghagra (< 0.19).

**Table 2 Computed value of health indicators showing the disparity in health status**

Sl. No.	Villages	B1	B2	B3	B4	B5	B6	Average
1	Adalia	0.40	0.66	0.14	1.00	0.00	0.43	0.44
2	Bagridi	0.22	0.39	0.07	0.07	0.15	0.24	0.19
3	Chandabila	0.47	0.14	0.08	0.01	0.22	0.09	0.17
4	Gohaldanga	0.53	0.42	0.13	0.03	0.13	0.11	0.23
5	Dumardiha	0.58	0.95	0.20	0.04	0.57	0.14	0.41
6	Keshia	0.32	0.19	0.12	0.03	0.22	0.12	0.17
7	Umrpata	0.44	0.12	0.07	0.01	0.20	0.04	0.15
8	Suthanrar	0.44	0.00	0.14	0.00	0.15	0.04	0.13
9	Tilabani	0.42	0.30	0.05	0.02	0.18	0.35	0.22
10	Murakati	0.00	0.57	1.00	0.14	0.20	0.15	0.34
11	Jirapara	0.61	1.00	0.28	0.05	1.00	0.11	0.51
12	Nischintapur	1.00	0.55	0.25	0.08	0.26	0.28	0.40
13	Pingbani	0.73	0.35	0.30	0.04	0.47	0.03	0.32
14	Shyamsundarpur	0.49	0.38	0.19	0.02	0.35	0.04	0.25
15	Lalitpur	0.35	0.23	0.20	0.02	0.18	0.00	0.16
16	Erimara	0.03	0.67	0.19	0.28	0.31	0.04	0.25
17	Ruparghagra	0.42	0.30	0.02	0.01	0.14	0.17	0.18
18	Humgarh	0.67	0.30	0.05	0.01	0.25	0.28	0.26

19	Bathantor	0.92	0.16	0.14	0.07	0.24	1.00	0.42
20	Ruparghagra	0.66	0.29	0.05	0.03	0.16	0.16	0.22
21	Kurkutbandi	0.30	0.18	0.00	0.00	0.13	0.00	0.10
22	Indkurii	0.36	0.24	0.08	0.01	0.22	0.98	0.32
$\bar{x}=0.26\sigma=0.11$								

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

**Table 3** Computed value of different agricultural indicators showing the disparity in agricultural development

Sl. No.	Villages	C1	C2	C3	C4	C5	Average
1	Adalia	0.66	0.19	0.71	0.10	0.22	0.38
2	Bagridi	0.37	0.30	0.52	0.13	0.69	0.40
3	Chandabila	0.50	0.09	0.51	0.00	0.01	0.22
4	Gohaldanga	0.49	0.02	0.18	0.06	0.01	0.15
5	Dumardiha	0.42	0.00	0.25	0.15	0.01	0.17
6	Keshia	0.61	0.02	0.58	0.18	0.01	0.28
7	Umrpata	0.39	0.28	0.30	0.19	0.29	0.29
8	Suthanrar	0.46	0.24	0.57	0.41	0.29	0.39
9	Tilabani	0.48	0.13	0.55	0.19	0.00	0.27
10	Murakati	0.27	0.38	0.08	0.37	0.20	0.26
11	Jirapara	0.55	0.24	0.04	0.14	0.22	0.24
12	Nischintapur	0.09	0.18	0.00	0.04	0.38	0.14
13	Pingbani	0.31	0.67	0.00	0.56	0.04	0.32
14	Shyamsundarpur	0.11	0.64	0.28	0.73	0.73	0.49
15	Lalitpur	0.00	0.56	0.11	0.59	0.25	0.30
16	Erimara	0.54	0.95	0.03	0.82	1.00	0.66
17	Ruparghagra	0.27	0.64	0.21	0.65	0.68	0.49
18	Humgarh	0.45	0.72	0.19	0.91	0.32	0.52
19	Bathantor	0.81	1.00	1.00	0.97	0.78	0.91
20	Ruparghagra	0.30	0.74	0.27	0.67	0.50	0.49
21	Kurkutbandi	0.40	0.29	0.19	0.65	0.13	0.33
22	Indkurii	1.00	0.57	0.19	1.00	0.10	0.57
$\bar{x}=0.38\sigma=0.18$							

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

Agriculture is a major contributor to economic growth in India. The sector is an important source of employment, providing jobs for about 40% of the global workforce [21]. Agricultural growth can reduce poverty twice as much as non-agricultural growth [22]. Besides, improving agricultural productivity can contribute to reducing hunger and malnutrition [23]. A study by the International Fund for Agricultural Development (IFAD) found that gender-sensitive agricultural development can significantly improve the livelihoods of rural women [24].

The status of agricultural development in Garbeta is illustrated in Table 3 and Figure 5. It shows that the Bathantor block (0.91) has the highest level of development. Besides, Shyamsundarpur, Erimara, Ruparghagra, Humgarh, and



Indkurii Villages experienced a moderate (0.40-0.66) degree of development. The Villages like Adalia, Bagridi, Keshia, Umrpata, Suthanrar, Tilabani, Murakati, Jirapara, Pingbani, Lalitpur, and Kurkutbandi have the lowest level of development (0.23-0.40). The extremely least developed (<0.23) Villages in the district are Chandabila, Gohaldanga, and Dumardiha.

### 3.1.4. Livestock

**Table 4 Computed value of indicators of livestock showing the disparity in livestock status**

Sl. No.	Villages	D1	D2	Average
1	Adalia	0.00	0.08	0.04
2	Bagridi	0.56	0.65	0.60
3	Chandabila	0.17	0.06	0.12
4	Gohaldanga	1.00	0.90	0.95
5	Dumardiha	0.79	0.70	0.75
6	Keshia	0.13	0.00	0.07
7	Umrpata	0.42	0.30	0.36
8	Suthanrar	0.37	0.38	0.38
9	Tilabani	0.30	0.43	0.37
10	Murakati	0.67	0.91	0.79
11	Jirapara	0.67	0.80	0.74
12	Nischintapur	0.24	0.46	0.35
13	Pingbani	0.12	0.12	0.12
14	Shyamsundarpur	0.57	0.57	0.57
15	Lalitpur	0.59	0.56	0.58
16	Erimara	0.78	1.00	0.89
17	Ruparghagra	0.48	0.48	0.48
18	Humgarh	0.62	0.88	0.75
19	Bathantor	0.24	0.37	0.31
20	Ruparghagra	0.48	0.29	0.38
21	Kurkutbandi	0.08	0.10	0.09
22	Indkurii	0.31	0.17	0.24
$\bar{x}=0.45\sigma=0.27$				

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

Livestock is an alternative source of income; it accounts for around 40% of the global value of agricultural output and provides livelihoods for almost 1.3 billion people worldwide [25]. livestock production has significant positive impacts on socio-economic development. It provides livelihoods, reduces poverty, improves food security and nutrition, enhances resilience to climate change, and promotes gender equality and women's empowerment.

In case of Garbeta, we can see that all the Villages are well developed in livestock except Adalia. However, under various degrees of development, the highly developed (>0.60) Villages are Gohaldanga, Dumardiha, Murakati, Jirapara, Erimara, and Humgarh. Moderately developed Villages (0.38-0.60) are Bagridi, Shyamsundarpur, Lalitpur, and Ruparghagra. Low Developed (0.12-0.38) Villages are Umrpata, Suthanrar, Tilabani, Nischintapur, Bathantor, Ruparghagra and Indkurii. Chandabila, Keshia, Pingbani and Kurkutbandi Villages fall under the category of very low-developed (<0.12) blocks.

### 3.1.5. Banking and Finance

**Table 5** Computed value of different indicators of Banking and finance showing the disparity in Banking and financial service

Sl. No.	Villages	E1	E2	Average
1	Adalia	0.87	0.77	0.82
2	Bagridi	0.65	0.48	0.57
3	Chandabila	0.64	0.46	0.55
4	Gohaldanga	0.52	0.08	0.30
5	Dumardiha	0.38	0.00	0.19
6	Keshia	0.47	0.34	0.41
7	Umrpata	0.98	0.54	0.76
8	Suthanrar	0.31	0.32	0.32
9	Tilabani	0.34	0.64	0.49
10	Murakati	0.95	0.77	0.86
11	Jirapara	0.42	0.44	0.43
12	Nischintapur	0.27	0.36	0.32
13	Pingbani	0.23	0.49	0.36
14	Shyamsundarpur	1.00	0.36	0.68
15	Lalitpur	0.54	0.62	0.58
16	Erimara	0.64	1.00	0.82
17	Ruparghagra	0.50	0.16	0.33
18	Humgarh	0.34	0.18	0.26
19	Bathantor	0.67	0.18	0.43
20	Ruparghagra	0.00	0.35	0.18
21	Kurkutbandi	0.45	0.25	0.35
22	Indkurii	0.26	0.26	0.26
	$\bar{x} = 0.46$ $\sigma = 0.21$			

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

Banking and Finance play a vital role in promoting socio-economic development. By mobilizing savings, providing access to credit, managing financial risk, facilitating trade, and promoting financial inclusion, financial institutions can help to promote economic growth, reduce poverty, and increase access to financial services for underserved populations [26;27;28;29;30].

Paschim Medinipur-1, Umrpata, Murakati, Shyamsundarpur, and Erimara are the most prosperous (0.58) Villages in this district with respect to banking and financial services. Medium-developed (0.43-0.58) Villages are Bagridi, Chandabila, Tilabani, and Lalitpur. These kinds of facilities are less frequently observed (0.26–0.43) in the Villages of Gohaldanga, Keshia, Suthanrar, Jirapara, Nischintapur, Pingbani, Ruparghagra, Bathantor, and Kurkutbandi. The most backward Villages in this district is (< 0.26) Dumardiha, Humgarh, Ruparghagra, and Indkurii.

### 3.1.6. Elementary Amenities and Facilities

**Table 6** Computed value of elementary amenities and facilities showing the disparity in elementary amenities and facilities

Sl. No.	Villages	F1	F2	F3	F4	F5	Average
1	Adalia	0.00	0.60	0.12	0.94	1.00	0.53
2	Bagridi	0.34	0.27	1.00	0.48	0.30	0.47
3	Chandabila	0.25	0.28	0.96	0.72	0.16	0.47
4	Gohaldanga	0.00	0.53	0.51	0.43	0.16	0.32
5	Dumardiha	0.00	0.95	1.00	0.73	0.38	0.61
6	Keshia	0.27	0.03	0.86	0.52	0.22	0.38
7	Umrpata	0.48	0.24	0.28	0.37	0.11	0.29
8	Suthanrar	0.19	0.03	0.36	0.37	0.08	0.20
9	Tilabani	0.00	0.16	0.35	0.00	0.44	0.19
10	Murakati	0.42	0.40	1.00	0.68	0.80	0.72
11	Jirapara	0.00	1.00	1.00	0.72	0.47	0.63
12	Nischintapur	0.41	0.46	0.00	0.21	0.39	0.29
13	Pingbani	1.00	0.42	1.00	0.86	0.47	0.75
14	Shyamsundarpur	0.34	0.14	1.00	0.49	0.00	0.39
15	Lalitpur	0.57	0.25	1.00	0.70	0.52	0.60
16	Erimara	0.46	0.61	0.14	0.22	0.36	0.35
17	Ruparghagra	0.62	0.35	1.00	0.38	0.39	0.54
18	Humgarh	0.94	0.35	0.92	1.00	0.39	0.72
19	Bathantor	0.78	0.00	1.00	0.90	0.55	0.64
20	Ruparghagra	0.00	0.34	0.41	0.60	0.13	0.29
21	Kurkutbandi	0.80	0.34	1.00	0.51	0.39	0.60
22	Indkurii	0.58	0.08	0.83	0.99	0.36	0.56
$\bar{x}=0.48\sigma=0.17$							

Source: Author's computation based on District Statistical Handbook (Paschim Medinipur), 2014 [3].

Access to elementary amenities and facilities can improve socio-economic development, particularly in the areas of education, healthcare, and infrastructure. These investments can lead to improved outcomes in terms of economic growth, poverty reduction, and human development. Access to basic amenities such as clean water, sanitation, and electricity can have a significant impact on school attendance, retention, and academic performance. A study conducted in Ghana found that improved water and sanitation facilities in schools led to a 25% increase in attendance and a 30% decrease in absenteeism among female students [31]. Similarly, a study in India found that access to electricity in schools improved academic performance and reduced drop-out rates [32]. Infrastructure, including roads, electricity, and telecommunications, is also crucial for socio-economic development. Improved infrastructure can help to attract businesses and investments, reduce transportation costs, and increase access to markets and services. For instance, a study conducted in Sub-Saharan Africa found that improving rural roads can increase agricultural productivity by up to 60% [33]. The average value comprising all indicators related to basic amenities and facilities (Please see Table 8) shows the uneven distribution of basic amenities and facilities in different blocks.

Murakati, Pingbani and Humgarh Villages are advanced in terms of getting various basic amenities. The medium-developed Villages are Adalia, Dumardiha, Jirapara, Lalitpur, Ruparghagra, Bathantor, Kurkutbandi, and Indkurii, with average development index values between 0.47-0.64. Villages that received relatively less service (0.32-0.47) are Bagridi, Chandabila, Keshia, Shyamsundarpur, and Erimara. But the most underdeveloped (<0.32) Villages in terms of accessibility of elementary facilities are Umrapata, Ruparghagra, Suthanrar, Tilabani, Gohaldanga, and Nischintapur.

### 3.2. Disparity in socio-economic development at village level in Garhbeta

**Table 7 Composite Development Index of Garhbeta**

Sl. No.	Villages	Education	Health	Agriculture	Livestock	Banking & Finance	Elementary Amenities & Facilities	CDI
1	Adalia	0.51	0.44	0.37	0.04	0.82	0.53	0.45
2	Bagridi	0.41	0.19	0.40	0.60	0.56	0.47	0.44
3	Chandabila	0.43	0.17	0.22	0.11	0.55	0.47	0.32
4	Gohaldanga	0.18	0.23	0.15	0.95	0.30	0.32	0.35
5	Dumardiha	0.21	0.41	0.16	0.74	0.19	0.61	0.38
6	Keshia	0.35	0.17	0.28	0.06	0.40	0.38	0.27
7	Umrapata	0.45	0.15	0.29	0.36	0.76	0.29	0.38
8	Suthanrar	0.26	0.13	0.39	0.37	0.31	0.20	0.27
9	Tilabani	0.53	0.22	0.27	0.36	0.49	0.19	0.34
10	Murakati	0.55	0.34	0.26	0.79	0.86	0.72	0.58
11	Jirapara	0.30	0.51	0.23	0.73	0.43	0.63	0.47
12	Nischintapur	0.53	0.40	0.13	0.35	0.31	0.29	0.33
13	Pingbani	0.53	0.32	0.31	0.12	0.36	0.75	0.39
14	Shyamsundarpur	0.45	0.25	0.49	0.57	0.68	0.39	0.47
15	Lalitpur	0.57	0.16	0.30	0.57	0.58	0.60	0.46
16	Erimara	0.46	0.25	0.66	0.89	0.82	0.35	0.57
17	Ruparghagra	0.32	0.18	0.49	0.48	0.33	0.54	0.39
18	Humgarh	0.56	0.26	0.51	0.75	0.26	0.72	0.51
19	Bathantor	0.57	0.42	0.91	0.30	0.42	0.64	0.54
20	Ruparghagra	0.36	0.22	0.49	0.38	0.17	0.29	0.32
21	Kurkutbandi	0.21	0.10	0.33	0.09	0.35	0.60	0.28
22	Indkurii	0.41	0.32	0.57	0.24	0.26	0.56	0.39

Source: Author's computation based on tables 1, 2, 3, 4, 5, and 6

#### 3.2.1. Highly Developed Villages (> 0.47)

This category includes four Villages of Garbeta, namely, Murakati (0.58), Erimara (0.57), Humgarh (0.51), and Bathantor (0.54). Overall, these four Villages are quite advanced in terms of socio-economic development.

However, Erimara block significantly lacks health facilities (0.25) and elementary facilities (0.35), Murakati has a low level of agricultural facilities (0.26), and Humgarh and Bathantor Villages are poor in terms of banking and finance (0.26) and livestock (0.30), respectively. In this regard, it is noteworthy that the healthcare facilities in these Villages are very poor, as the CDI values of these Villages are below the average in terms of healthcare facilities.

### 3.2.2. Moderately Developed Villages (0.39-0.47)

There are a total of five Villages viz. Adalia, Bagridi, Jirapara, Shyamsundarpur, and Lalitpur Villages fall under this category. Although these Villages are generally moderately developed, differences have been seen in the various development metrics. For instance, the educational facilities in Adalia (0.51) and Lalitpur (0.57) Villages are good enough. Jirapara is the only block with decent healthcare facilities (0.51), but banking and financial services (0.43) are relatively low. If we look at the livestock status, it can be found that except for the Adalia (0.04), all other Villages in this category are extremely good. Besides, Shyamsundarpur (0.39) block has poor elementary facilities, although all other Villages have excellent banking services and elementary facilities.

### 3.2.3. Low Developed Villages (0.33-0.39)

Less development, i.e., high inequality, is observed in seven Villages of Garbeta, i.e., Gohaldanga, Dumardiha, Umrpata, Tilabani, Pingbani, Ruparghagra, and Indkurii. All these Villages are poor in terms of education facilities, health services, agricultural development, banking and financial services, and basic amenities. However, exceptions can be observed in certain cases; for instance, elementary amenities and facilities are good in Ruparghagra (0.54), educational facilities are good in Tilabani (0.53), and Pingbani has good basic amenities and facilities (0.75) as well as a good educational status (0.53). Dumardiha has good elementary amenities and facilities (0.61) and livestock (0.74); Umrpata is good in banking and financial services (0.76); and Indkurii is good in agriculture (0.57) and elementary facilities (0.56).

### 3.2.4. Very Low Developed Villages (<0.33)

The extremely underdeveloped Villages in terms of socio-economic development in the district are Chandabila, Keshia, Suthanrar, Nischintapur, Ruparghagra, and Kurkutbandi. The existing status of education, health, agriculture, livestock, banking and financial services, and basic amenities is very low in these blocks. However, it is worth noting that these Villages are overall very poor, with some exceptions, such as Chandabila, which has better banking and financial services (0.55), Nischintapur, which has better education facilities (0.53), and Kurkutbandi, which has better civic amenities and facilities (0.60).

## 4. Conclusion

Based on the results and discussions, it is possible to infer that the district's degree of socio-economic development varies considerably by region. The inequality results from the uneven distribution of several development elements, including educational facilities, health facilities, agricultural facilities, elementary facilities, banking services, and livestock.

The Villages with a high availability and accessibility to these types of facilities are more developed, whereas those without are less developed. The current study shows, with the help of the Composite Development Index, six Villages in Garbeta (Chandabila, Keshia, Ruparghagra, Kurkutbandi, Suthanrar, and Nischintapur) are severely impoverished. Gohaldanga, Dumardiha, Umrpata, Tilabani, Pingbani, Ruparghagra, and Indkurii are the seven Villages that fall under the low -developed category. Adalia, Bagridi, Jirapara, Shyamsundarpur, and Lalitpur are the moderately developed blocks, whereas Bathantor, Humgarh, Murakati, and Erimara are the highly developed blocks. Finally, keeping in mind the findings, some suggestions are made to reduce the regional imbalances at the block level, which are as follows:



- The government should implement the necessary policies, support successful development initiatives, and end the growing gap between Villages by ensuring that all Villages have equal access to social and economic advantages.
- The government should strengthen its oversight of all operations conducted at the regional or local levels.
- Encouraging animal husbandry in commercial form by providing financial assistance as well as insurance facilities.
- Since most of the people are associated with agriculture, making people aware of various government programmes and policies related to agriculture is important. The focus should be on providing financial support to agriculture and, at the same time, ensuring that the farmers get the right price for their produce.
- Aside from the previously listed measures, regional disparities may be reduced by providing excellent education, raising the teacher-student ratio, expanding the number of hospital beds, increasing the doctorpatient ratio, upgrading the irrigation system, and so on.

