



REGIONAL IMBALANCES IN THE LEVELS OF SOCIO-ECONOMIC DEVELOPMENT IN KOLLEGAL TALUK CHAMARAJANAGAR DISTRICT

Bhuvanesh G¹, Arun Das S², Ravikumar M³, Sawant Sushant Anil⁴

^{1,4}JSS Academy of Higher Education & Research, India

²University of Mysore, India

³College of Arts and Commerce, India

Article Info

Article history:

Received : 11 April 2024

Revised : 27 May 2024

Accepted : 30 June 2024

Keywords:

Regional imbalance, Backwardness, Aggregate Weightage Score, GIS, Kollegal

ABSTRACT

Regional disparities are common in almost all nations globally inattentive of whether being under-developed, developing, or developed. With the new conversion of target towards human development, the existence of inequalities on rural development is one of the primary issues faced by developing countries. It attempted to examine the spatial inequalities in the rural amenities in Kollegal taluk, Chamarajanagar district. The level of development is estimated separately for education, health, economic, and communication sectors and the taluk is classified into three categories according to the values of the Aggregate weightage scores. An attempt has been made to analyze the level of regional development among different villages in Kollegal. According to the regional disparity, the development index shows that some regions are far more systematically developed in the center of the taluk headquarters. The result shows that vast disparities in the level of regional overall development lie among various villages of Kollegal. The extent of the infrastructure services sector's development has been shown statistically and favorably related to overall socio-economic development, suggesting that the two sectors' development and expansion have been advancing concurrently throughout the country. The result shows that merely a few villages have the highest scores in overall development.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Bhuvanesh M.

JSS Academy of Higher Education & Research, India

Email: bhuvaneshgbhuvi@gmail.com

1. INTRODUCTION

Regional development encompasses various dimensions aimed at enhancing the quality of life for individuals, primarily focusing on fulfilling basic needs such as food, water, clothing, and shelter to fully fill these other requirements, need to access socio-economic, cultural and political, proper distribution of development opportunity and benefits of the poor and marginalized (Parry, Ganaie, and Sultan Bhat 2018) The spatial distribution of rural amenities is unequal as the

human population on the earth surface and the factors for such inequality distribution is almost similar. The inequality distribution of amenities is observed even at the micro level not only between the regions but within the region also depending upon the demand for the basic amenities and the supply of the people (Parvin, Najmul Islam Hashmi, and Ali 2021).

Although amenities and infrastructure are crucial and integral aspects of life in any community, whether rural or urban, their distribution is unequal across different areas. The term "civic" refers to the life of a town or city, and "amenities" pertain to features that make a town or city pleasant, comfortable, and easy to live in. Amenities encompass the goods and basic services collectively required by rural society (Borana and Yadav 2017), Districts and states exhibit vast disparities in socio-economic development. The elements identified as most important for long-term development include necessities such as food, education, and healthcare services. To achieve true development, the government must take necessary steps to improve primary education, healthcare services, and drinking water facilities, and to remove barriers against social minorities, particularly women (Dadashpoor, Rostami, and Alizadeh 2016).

Through an extensive literature review, it is evident that regional development initiatives have been undertaken at district, state, and national levels. Various studies, such as those by Sultana and Aktar n.d.) have argued the regional imbalances in the levels of socio-economic development at the district level of West Bengal. However, there is still a lack of detailed analysis regarding socio-economic development in specific districts of West Bengal. To address regional socio-economic disparities, this study aims to compare and assess the socio-economic development levels across different districts of West Bengal. The primary objective is to measure development in agriculture, animal husbandry, industry, transport, and communication by creating a composite index of socio-economic development at the district level. Additionally, the study seeks to accurately evaluate and rank districts from various regions of West Bengal, identifying areas for potential improvement in less developed block levels in the district. Ultimately, the study proposes recommendations for enhancing socio-economic development across various indicators.

Access to basic public facilities such as food, drinking water, education, health services, sanitation, and electricity significantly impacts the quality of life in rural areas. Numerous studies have shown that basic amenities are unevenly distributed between rural and urban regions, affecting a large portion of the population's quality of life, whether rural or urban. According to the (Markon 2003) availability of good amenities is crucial for the overall economic development of any region. Enhancing basic facilities contributes to poverty reduction, population growth, economic trade, and improved environmental conditions.

According to (Garg 2008) a study on Spatial analysis of the provision of Urban Amenities and their Deficiencies in Srinagar City of Jammu and Kashmir. Using two variables such as educational and fire services with the help of the Z score technique. The level of development I.e Rank 1,2,3,4, and 5 was calculated for the respective variables. The finding of the work is a clear shortage of urban services in the south and north parts of the city. (Rahaman 2020) highlighted in their research work that urban infrastructural facilities in Berhampore Town of West Bengal. There is a lack in the provision of Urban Facilities services. This study aims to identify the availability of Rural facilities in selected Towns. The study is focused on eight major social amenities such as Road, Cinema Hall, auditorium, parks, police station, bus stop, electric office, market, and bus stop. The degree of spatial disparity concerning these eight facilities using the location quotient method and Composite score was worked out. The result shows that there is an uneven distribution of spatial facilities in Berhampore Town, West Bengal.

(Ahmed 2013) has developed an Inter Block Analysis of Regional Disparities in Socio-economic conditions of Hathras District of Uttar Pradesh. This study shows Negative outcomes by calculating each parameter index of fourteen different variables. according to the overall socioeconomic condition of facilities with the help of the Human Development Index (HDI) and Principal Component Analysis (PCA). Each of the 14 variables is related to socioeconomic development. This study aims to monitor Block-level geographical analysis highlighting in their work that analysis and planning of inter-block analysis had a negative impact on the Hathras district. (Shaikh and Sonar n.d.) has developed Interstate disparities in socio-economic development in the northeast region of India using 48 various variables that come under 4 different sectors. It is clear from the above analysis vast socio-economic development in 3 states of the northern region. (Gupta n.d.) has examined modeling district-level economic disparities across Uttarakhand. There are 6 variables using the weighted sum method. The result shows that there is a lack of basic socio-economic development in the district Uttarakhand.

Kollegal is strategically situated in the region's southeast. which has an average elevation of 588 m above mean sea level and a surface area of 385.73 sq. km. Kollegal taluk is situated at 11 45' to 12 45' N latitude and 77 00' to 77 46' E longitude. The average rainfall is 843 mm (District Glance, 2020-21). The Cauvery River flows along the northern boundary of Kollegal taluk and its tributaries such as Moyar, Palar, Bhavani, and Suvarnavathi of the study area. This taluk is a very attractive tourist place like Gagana Chukki and Bara Chukki waterfalls.

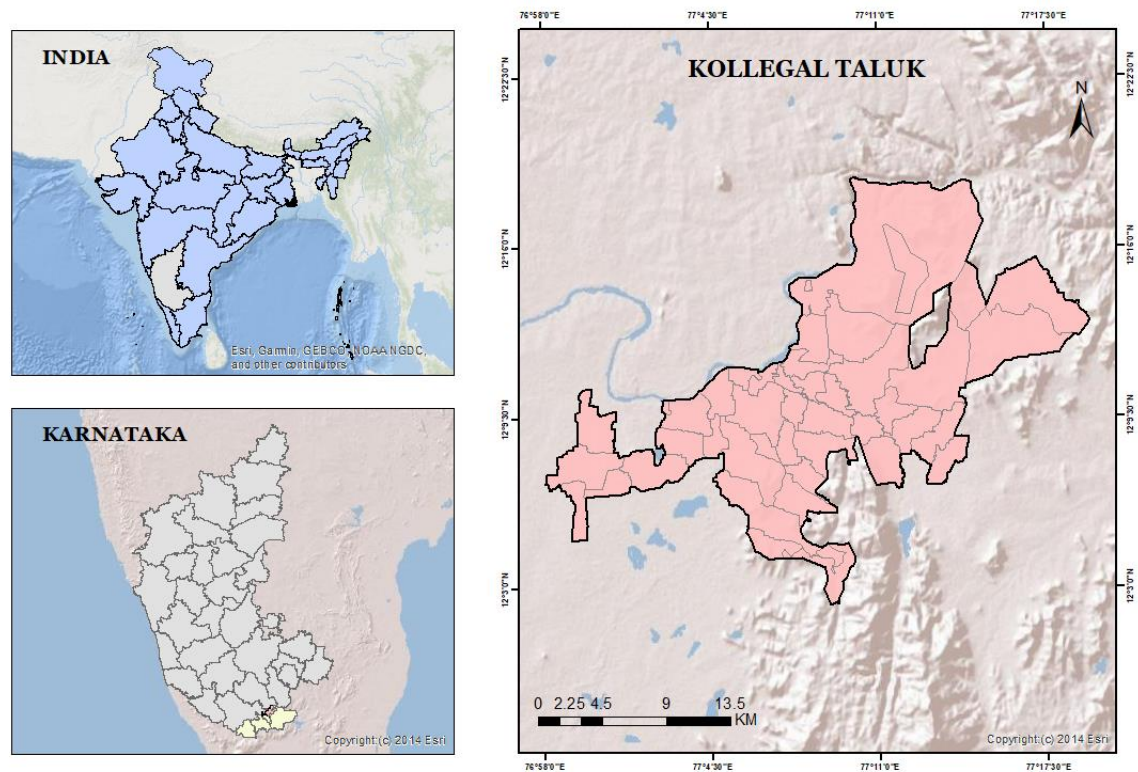


Fig: 1 Study Area: The Kollegal Taluk in Chamarajanagar District

2. RESEARCH METHOD

The database of the present research study was based on a secondary source of data collected from authenticated sources. The data has been compiled by the 2011 Census and District Fact Book (DFB). Data concerning amenities (Educational, Health, Economic, and Communication facilities), and population data are mainly used in this study area.

Moreover, when discussed separately, several indicators fail to present a comprehensive and readily understandable depiction of reality. It limits the system's ability to weight regional growth in aggregate based on the best possible synthesis of different developmental indicators. The Aggregate Weightage Score method was used to calculate each parameter of all amenities and determine the level of amenities development is total of 18 parameters are considered, which come under 4 major categories viz, Educational, Health, Economic, and Communication facilities. The thematic maps for each parameter have been created manually with parameters weighted according to their aggregate score with the help of the ArcGIS 10.7.1 platform. Finally, a spatial distribution of amenities map was created, and it is divided into five main categories: highly developed, developed, moderately developed, backward, and highly backward. the geographic difference in the density of facilities at the village level.

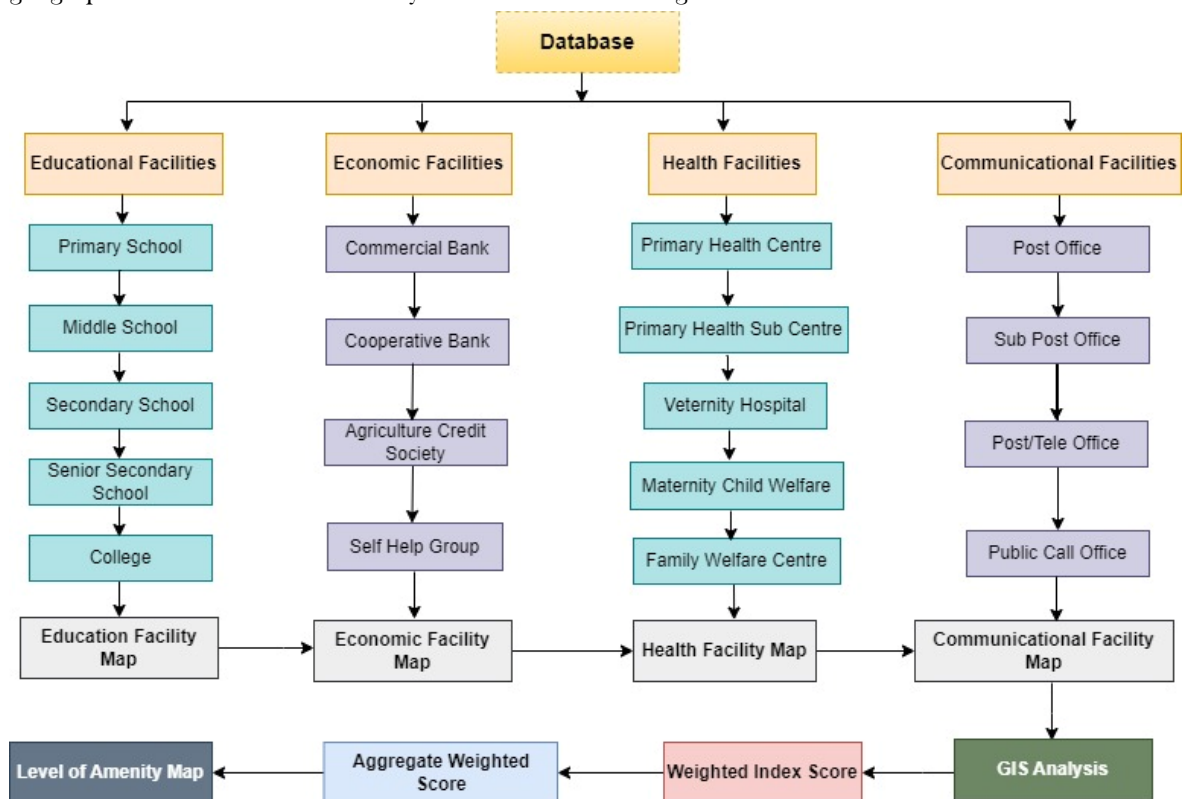


Fig: 2 Flow chart methodology

3. RESULT AND ANALYSIS

Identification of Gaps In The Amenities

To pinpoint disparities in accessibility within Kollegal taluk, a weighted index score was devised. The weighting for various amenities was determined based on their quality and quantity, drawing from research by Kundu (1975) and Borysowich (1988). Each amenity's weight was calculated by dividing the total number of amenities by the number of instances of each amenity. These individual weighted scores were then categorized to ascertain the composite score for each village. Subsequently, the composite score was utilized to generate a spatial concentration map of Kollegal Taluk.

Tab 2: Weighted Index Score of Amenities of Kollegal Taluk

Name of the Villages	PM	MS	SS	SSS	CLG	PHC	PH SC	M C W	V H	F W C	P O	S P T O	P C O	C B O B	A S G	S H	Total	AWS	
Agrahara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alahalli	2	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	1	8	79.55
Arepalya	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	33
C.M.Samudra	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	33
Chikkilur	4	3	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	13	126.58
Chikkinduvadi	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	33
Chilakavadi	2	1	0	0	0	1	1	1	1	1	0	1	1	1	0	0	1	12	302.2
Dasanapura	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6	38.56
Dhanagere	2	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	8	64.24
Doddinduvadi	2	2	2	0	0	0	1	0	1	1	0	1	0	1	0	1	1	14	302.2
Gundegala	2	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	8	86.51
Hampapura	2	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	8	64.24
Harale	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	33
Haravanapura	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	19.36
Hondarabalu	2	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	7	58.68
Hosamalangi	2	2	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	8	87.26
Ikkadahalli	4	3	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	11	77.88
Jakkalli	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	33
Jinakanahalli	2	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	8	64.24
Kongarahalli	3	3	1	1	0	1	1	1	1	1	1	0	0	1	1	1	1	19	1209.4
Kunagalli	2	2	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	11	2
Kunthur	3	2	0	0	0	0	1	0	0	1	0	1	1	1	0	1	1	13	140.77
Lakshmipura	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	306.25
Linganapura	3	2	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	12	9.54
Madhuvanahalli	3	2	1	0	0	1	2	1	1	2	0	1	0	1	0	0	1	16	144.81
Mullur	3	2	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	12	281.81
Palya	2	1	1	0	0	1	1	1	0	1	0	1	0	1	0	0	1	11	144.81
Saragur	2	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	7	218.7
Sathegala	5	1	1	1	0	1	3	1	1	3	0	1	0	1	0	1	1	22	137.37
Singanallur	2	1	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	10	610.61
Tagarapura	4	4	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	12	135.21
Tellanur	4	7	0	0	0	1	1	1	1	1	0	1	0	1	0	1	1	21	83.44
Teramballi	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5	393.74
Thinmarajipura	3	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6	33
Uganiya	2	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	8	37.04
Uttamballi	2	1	0	0	0	0	1	0	1	1	0	1	1	1	0	0	1	10	64.24
																		10	190.88

									1	2	1	3		3				
Total	83	60	12	2	0	6	26	6	2	6	1	6	4	5	1	5	5	4

Note: P.S: Primary School, M.S: Middle School, S.S: Secondary School, S.S.S: Senior Secondary School, C.L.G: College, P.H.C: Primary Health Centre, P.H.S.C: Primary Health Sub Centre, M.C.W: Maternity Child welfare, V.H: Veternity Hospital, F.W.C: Famiy Welfare Centre, P.O: Post Office, S.P.O: Sub Post Office, P.T: Post/Tele office, P.C.O: Public Call Office, C.B: Commercial Bank, C.O.B: Cooperative Bank, A.C.S: Agriculture Credit Society, S.H.G: Self Help Group, and A.W.S: Aggregate Weighted Score.

Table 3: Number of Villages And Different Levels of Development

S.N.	Level of development	No of villages	Percentage
1	Highly Developed	1	2.33
2	Developed	6	16.28
3	Moderately Developed	8	13.95
4	Backward	10	27.91
5	Highly Backward	17	39.53
Total		42	100

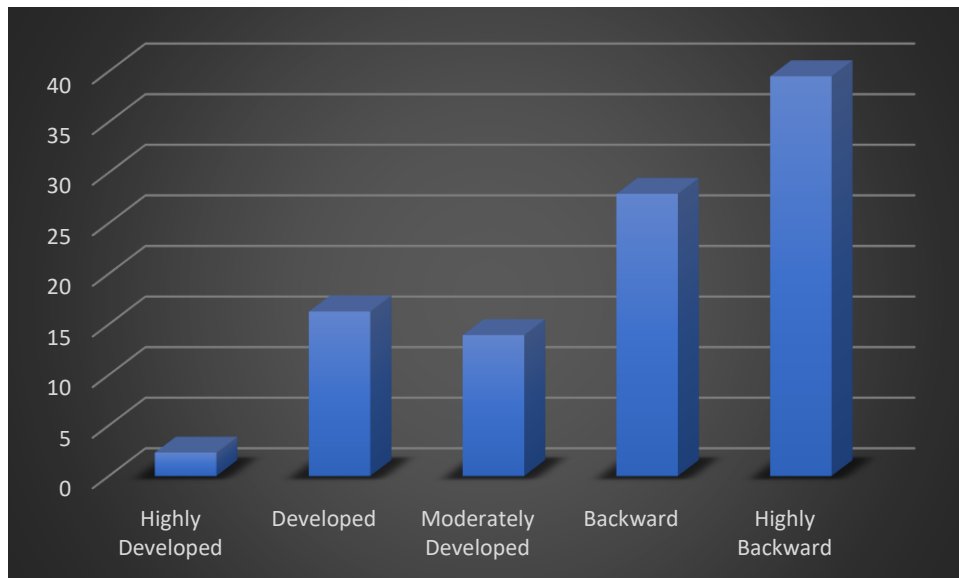


Fig 3: Levels of Amenities development

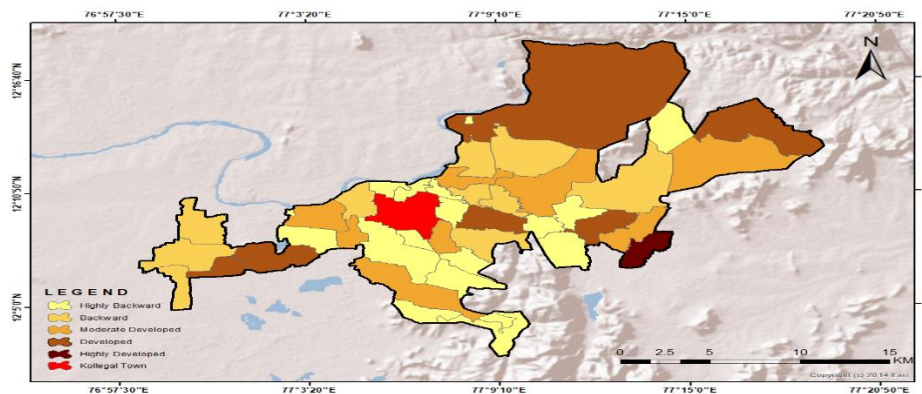


Fig 4: Levels of Amenities Development in Kollegal Taluk

The Levels of Development

The presence of adequate infrastructure facilities significantly influences the advancement of various sectors within the economy. The diagram illustrates the spatial concentration of rural amenities. One village stands out as more developed than others within the taluk in terms of overall regional progress. The map indicates that all rural facilities within the taluk are situated in its central region.

1. Highly Developed

The regional development of rural amenities is unequally distributed in the taluk. The taluk in this category is far widely a small portion of the taluk. 1 out of 43 villages namely Kamagere (2.72), population has the highest share of different facilities and more collection points of aggregate weighted scores compared to other villages of the Kollegal taluk.

2. Developed

There are Kunthuru, Chilakavadi, Maduvanahalli, Dodda induvadi, Sathegala, and Thellanuru have good levels of all amenities development in the study region.

3. Moderately Developed

Six villages—Mulluru, Saraguru, Palya Singanalluru, Linganapura, and Kunagalli fall into the moderately developed category. To address the regional disparity and uplift development levels, there is a need for rapid enhancement of infrastructural services, including educational, health, and banking facilities, in these villages.

4. Backward and Highly Backward

This classification encompasses a significant portion of the taluk. In backward villages, strategic measures are essential to achieve the set objectives and elevate the level of development. Despite being labeled as backward, these villages exhibit high or intermediate levels of development in certain aspects. This discovery suggests the necessity for tailored policies to address distinct dimensions of socio-economic development in these villages. Notably, the most pressing shortages among them follow a decreasing order. Additionally, there is a decline in the concentration of civic amenities from the core part of the Taluk.

Potential target for Backward villages

One of the primary objectives of the study is to identify the necessary improvements in developmental infrastructure to facilitate the enhancement of development levels in low or backward villages. This step is crucial for effectively allocating resources to improve development levels in these regions. To assess potential targets for developmental indicators in low-developed or backward villages, model villages are selected based on their Aggregate Weighted Score

4. CONCLUSION

This study presents the measured regional disparity levels among various villages in Kollegal taluk, utilizing the Aggregate Weighted Score (AWS) through an optimal combination of selected parameters. It evaluates the relationship between economic development across different regions and accurately ranks villages based on their overall development levels. Regional disparity in development is assessed across educational, health, economic, and communication sectors separately. All 43 villages in the taluk are included in the analysis and categorized into five groups based on their aggregate scores.

The result reveals significant discrepancies in overall development levels among the villages of Kollegal taluk. To systematically improve overall development, model villages have been identified, and diverse development parameters have been proposed for backward villages. It is imperative to take action to enhance basic infrastructural facilities such as education, healthcare,

communication, and economic opportunities in these backward villages to elevate the quality of life and foster sustainable socioeconomic development. Notably, while some dimensions of backward villages in Kollegal taluk are indeed underdeveloped, others exhibit intermediate or even high levels of development.

References

- [1] Ahmed, Nawaz. 2013. "Identification of Micro Regional Disparities in The Level of Development in The Rural Areas: A Case Study of Malda District of West Bengal (India)." *International Journal of Management and Social Sciences Research* 2(5).
- [2] Borana, S. L., and S. K. Yadav. 2017. "Spatial Disparity Analysis of Public Amenities in Jodhpur City." *International Research Journal of Engineering and Technology*.
- [3] Dadashpoor, Hashem, Faramarz Rostami, and Bahram Alizadeh. 2016. "Is Inequality in the Distribution of Urban Facilities Inequitable? Exploring a Method for Identifying Spatial Inequity in an Iranian City." *Cities* 52:159-72. doi: 10.1016/j.cities.2015.12.007.
- [4] Garg, PK. 2008. *India Integrating Generations FIG Working Week*.
- [5] Gupta, R. D. n.d. *GEOSTATISTICAL MODELLING FOR ASSESSMENT OF DEVELOPMENT AT MICRO LEVEL*.
- [6] Markon, Carl J. 2003. "A Temporal Study of Urban Development for the Municipality of Anchorage, Alaska." *Geocarto International* 18(3):21-33. doi: 10.1080/10106040308542278.
- [7] Parry, Jahangeer A., Showkat A. Ganaie, and M. Sultan Bhat. 2018. "GIS Based Land Suitability Analysis Using AHP Model for Urban Services Planning in Srinagar and Jammu Urban Centers of J&K, India." *Journal of Urban Management* 7(2):46-56. doi: 10.1016/j.jum.2018.05.002.
- [8] Parvin, Farhana, S. Najmul Islam Hashmi, and Sk Ajim Ali. 2021. "Appraisal of Infrastructural Amenities to Analyze Spatial Backwardness of Murshidabad District Using WSM and GIS-Based Kernel Estimation." *GeoJournal* 86(1):19-41. doi: 10.1007/s10708-019-10057-7.
- [9] Rahaman, Mustafijur. 2020. *Spatial Concentration of Urban Infrastructural Facilities: A Case Study of Berhampore Town, West Bengal*.
- [10] Shaikh, Nikhat, and S. G. Sonar. n.d. *Rationalization of Regional Plan Preparation Process in Indian Context*. Vol. 7.
- [11] Sultana, Chand, and Nasim Aktar. n.d. *Regional Imbalances in the Levels of Socio-Economic Development: A Case Study of Malda District, West Bengal*.