

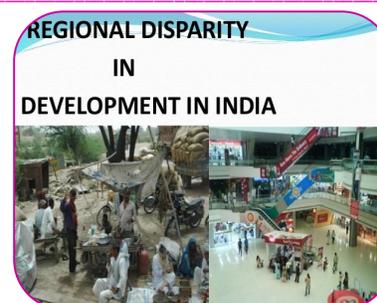


REGIONAL DISPARITY IN THE STATE OF WEST BENGAL: DEVELOPMENT PERSPECTIVE

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ABSTRACT

Regional disparities are manifested in different conditions of life as well as in unequal economic and development potential. The problems of regional disparities are a universal phenomenon which presents significant socio-economic and political challenges for the governments of many developing countries. Like other developing countries, India also suffers from the acute and more explosive problem of regional disparity. The present study tries to highlight on the severity of regional disparity with the help of 50 development indicators. The present study finds out that there are large regional variations in development perspective in the state of West Bengal. There is a group of districts on the northern part of the state and in jangalmahal which are lagging behind most of the southern part of West Bengal both economically and socially.

KEY WORDS: Regional Disparity, West Bengal, India, Developing Countries, Development Indicator.

INTRODUCTION

One of the serious problems which world is facing today is the problem of regional disparity in the level of development. The reasons for regional disparity in developing countries are somewhat different than those prevailing in the developed countries. The term disparity means inequality, imbalances, diversity etc. Regional disparity is defined as differences between economic performance and welfare between countries or regions (OECD, 2002-2003). Although we have passed 12 FYPs, yet our country faces extreme regional disparity. Regions situated in the centre of India like Bihar, UP etc. have remained till now under developed. On the other hand, the periphery regions are more developed. Thus India faces uneven development. West Bengal state also faces the same picture as like as our whole country in respect of unevenness of development.

Regional Disparities and Regional Development Theories

The concept of economic base is the most popular among the theories. It explains the development of a region by dividing the economy into two types of activity (exogenous and endogenous) and by determining the causal relations occurring in the process of the development of a region (Isard, 1965). Regional disparities depend on interregional mobility of capital and labour. These flows continue until prices of capital and labour become equal in each region (Solow, 1956). Borts and Stein (1964) modify the neoclassical growth model for the regional context by allowing for open regional economies with net exogenous labor and capital inflows. According to Myrdal (1957) some developed regions attract capital and labour force, by accelerating competitive advantages compared with other lagging regions. In 1950 Perroux introduced the concept of 'Growth Pole'. The growth pole theory contributes to Myrdal's theory of cumulative causation in a more spatial context. Economic growth at regional level takes place based on amplifying the innovation learning-knowledge-assimilation process corresponding to labour force. This

process presents significant spatial implications up to the moment when transaction costs corresponding to transferring knowledge elements remain very high (Romer, 1986, 1994; Lucas, 1988; Fontagne, et al, 1999; Grossman and Helpman, 1991).

Development Indicators for Evaluating Level of Development

In the Indian context, it has been argued by Wanmali and Islam (1995) that a study at the district level will be more useful to formulate district specific development policies. Since there has been a growing consensus about the need of district-level economic planning and policies formulation, it would be of interest to measure the level of socioeconomic development at the district level. Each region in the state of West Bengal faces situational factors of development unique to it as well as common administrative and financial problems. In this study, the indicators common to all the districts as well as highlighted in most of committee report as development indicators have been included in the analysis for evaluating the level of development of West Bengal. This analysis is mainly based on the following 50 developmental indicators:

1. Percentage forest area (X_1)
2. Percentage net area sown (X_2)
3. Fertilizer consumption (kg. /ha.) (X_3)
4. Yield rate of rice (kg. /ha.) (X_4)
5. Yield rate of wheat (kg. /ha.) (X_5)
6. Yield rate of total pulses (kg. /ha.) (X_6)
7. Yield rate of total cereals (kg. /ha.) (X_7)
8. Yield rate of food grains (kg. /ha.) (X_8)
9. Production of rice per lakh population (X_9)
10. Production of wheat per lakh population (X_{10})
11. Production of total cereals per lakh population (X_{11})
12. Production of total food grains per lakh population (X_{12})
13. Production of jute per lakh population (X_{13})
14. Production of potato per lakh population (X_{14})
15. Number of primary schools per lakh population (X_{15})
16. Number of middle schools per lakh population (X_{16})
17. Number of secondary schools per lakh population (X_{17})
18. Number of sr. secondary schools per lakh population (X_{18})
19. Number of general degree college per lakh population (X_{19})
20. Number of engineering college per lakh population (X_{20})
21. Number of Heath Centre per lakh population (X_{21})
22. Number of primary health centre per lakh population (X_{22})
23. Number of primary health sub-centre per lakh population (X_{23})
24. Number of dispensary per lakh population (X_{24})
25. Number of medical institution per lakh population (X_{25})
26. Number of bed in hospital per lakh population (X_{26})
27. Number of family wealth centre per lakh population (X_{27})
28. Number of ration shops per lakh population (X_{28})
29. Number of primary agricultural co-operative credit society per lakh population (X_{29})
30. Population per bank (X_{30})
31. Number of MSME per lakh population (X_{31})
32. Road network accessibility of village (X_{32})
33. Road density per 100 sq. km. (X_{33})
34. Road density per 1000 population (X_{34})
35. Road density per village (X_{35})

36. Primary level drop-out percentage (X_{36})
37. Upper-primary level drop-out percentage (X_{37})
38. Total literacy rate (X_{38})
39. Male literacy rate (X_{39})
40. Female literacy rate (X_{40})
41. Work participation rate (X_{41})
42. Population density per sq. km. (X_{42})
43. Sex ratio (X_{43})
44. Percentage share of urban population (X_{44})
45. Decennial population growth (X_{45})
46. Employment generated in MSME per lakh population (X_{46})
47. Annual growth rate of Gross Domestic District Product (X_{47})
48. Per capita income per district (X_{48})
49. Per capita bank deposits (X_{49})
50. Per capita bank advances (X_{50})

The state of West Bengal borders with [Nepal](#), Bhutan, Bangladesh and the Indian states of Bihar, Jharkhand, Odisha, Assam and Sikkim. Till 24 June 2014 West Bengal was divided into 19 districts, viz, Bankura, Burdwan, Birbhum, Medinipur-E, Medinipur-W, Hooghly, Puruliya, Jalpaiguri, North Dinajpur, Dakhsin Dinajpur, Cooch Bihar, Darjeeling, Malda, Kolkata, Murshidabad, Nadia, North 24 Parganas, South 24 parganas and Howrah. In this study, the scenario of 18 districts, excluding Kolkata has been analyzed. This study tries to highlight the position of districts in terms of 50 development indicators individually, on the basis of the results of standardized score of the development indicators.

Standardized Score of Development Indicators

To determine the level of development scenario and its uneven distribution in the study area the data of all indicators have been transformed into indices using Z-score technique (Narain, et al, 2009). Variables for different development indicators are taken from different population distributions and these are recorded in different units of measurement. The values of the variables are transferred for the combined analysis.

Let $[X_{ij}]$ be the data matrix.

Where, $i=1, 2, \dots, n$ (Number of Area Unit).
 $J=1, 2, \dots, k$ (Number of Indicators).

Since $[X_{ij}]$ comes from different population distributions and they might be recorded in different units of measurement, they are not quite suitable for simple addition for obtaining the composite index. Therefore, $[X_{ij}]$ is transformed to $[Z_{ij}]$ follows.

$$[Z_{ij}] = (X_{ij} - \bar{X}_j) / S_j$$

Where, \bar{X}_j = Mean of the jth indicator. S_j = Standard Deviation of the jth indicator and $[Z_{ij}]$ = Matrix of the Standardized indicator.

From $[Z_{ij}]$ we have to identify the best value of each indicator. Let it be denoted by Z_{0j} .

The results of Z-score have been shown in Table.1.

Table 1 Z-Score of Development Indicators

District	Z _{i1}	Z _{i2}	Z _{i3}	Z _{i4}	Z _{i5}	Z _{i6}	Z _{i7}	Z _{i8}	Z _{i9}	Z _{i10}
Burdwan	-	0.084	0.022	0.851	-0.855	0.845	0.817	0.955	0.767	-0.781
Birbhum	-	0.621	0.212	0.972	0.494	0.872	0.833	0.692	1.859	1.139
Bankura	0.823	-1.058	1.178	-0.263	-0.638	-0.019	-0.296	-0.131	1.079	-0.692
Medinipur-E	-	0.650	-0.880	0.217	0.207	2.213	0.195	0.307	-0.186	-0.807
Medinipur-	0.608	-0.580	-0.729	0.366	-0.292	-0.225	0.331	0.451	1.122	-0.698
Howrah	-	-0.268	-0.671	-0.049	-1.287	-0.253	-0.074	0.052	-1.415	-0.822
Hooghly	-	0.289	2.042	1.224	0.449	-0.854	1.186	1.346	-0.460	-0.822
24 Pgs-N	-	-0.251	-0.448	0.153	0.514	0.498	0.128	0.135	-1.308	-0.672
24 Pgs-S	2.421	-1.824	-1.022	-0.995	0.170	0.542	-0.999	-0.982	-0.867	-0.750
Nadia	-	0.823	0.342	0.287	0.111	0.753	0.173	-0.345	-0.505	1.170
Murshidabad	-	0.754	0.476	0.495	1.337	0.459	0.606	0.160	-0.344	1.983
Dinajpur-U	-	1.765	0.181	-0.083	0.661	-0.285	0.695	0.775	-0.052	1.384
Dinajpur-S	-	1.445	-0.194	0.837	1.472	-1.395	0.822	0.966	1.254	0.756
Malda	-	-0.083	0.681	1.356	1.495	0.813	1.158	0.977	-0.137	1.460
Jalpaiguri	1.310	-0.697	1.194	-1.273	-0.551	-0.671	-1.124	-1.026	-0.580	-0.112
Darjeeling	1.964	-1.548	0.791	-0.686	-2.160	-1.013	-1.298	-1.204	-1.603	-0.720
Cooch Behar	-	0.897	-1.126	-0.759	-1.303	-0.217	-0.535	-0.453	0.733	-0.255
Purulia	0.160	-1.020	-2.049	-2.650	0.176	-2.063	-2.617	-2.675	0.642	-0.761

Source: Calculated by author

Continued Table 1

District	Z _{i11}	Z _{i12}	Z _{i13}	Z _{i14}	Z _{i15}	Z _{i16}	Z _{i17}	Z _{i18}	Z _{i19}	Z _{i20}
Burdwan	0.485	0.464	-0.564	0.581	-0.502	-0.593	-0.197	-0.428	0.301	-0.451
Birbhum	1.775	1.805	-0.772	0.181	0.641	1.129	0.995	0.495	-0.316	-0.139
Bankura	0.789	0.765	-0.810	0.242	1.746	2.086	1.643	2.174	1.155	0.680
Medinipur-E	-0.406	-0.405	-0.802	-0.862	0.367	0.783	1.040	1.355	-0.388	-0.121
Medinipur-	0.837	0.820	-0.725	0.975	1.901	0.956	1.430	0.388	0.752	0.474
Howrah	-1.552	-1.567	-0.745	-0.574	-1.197	-1.510	-1.438	-1.304	-0.832	-0.710
Hooghly	-0.662	-0.683	-0.218	2.657	-0.468	-0.628	-0.331	-0.467	-0.387	-0.529
24 Pgs-N	-1.430	-1.439	-0.105	-0.805	-1.133	-1.381	-1.302	-1.087	-0.876	-0.710
24 Pgs-S	-1.032	-1.031	-0.783	-0.988	-0.781	-0.650	-0.432	-0.359	0.056	0.148
Nadia	-0.401	-0.327	2.319	-0.785	-0.815	-0.682	-0.870	-0.217	-0.593	-0.710
Murshidabad	-0.115	-0.062	1.683	-0.663	-0.724	-0.374	-0.680	-0.552	-0.375	-0.288
Dinajpur-U	1.050	1.037	0.701	-0.064	0.085	-0.355	-0.821	-0.298	-0.843	-0.377
Dinajpur-S	1.221	1.201	0.576	-0.352	1.190	0.376	0.872	0.555	0.424	2.273
Malda	0.075	0.105	-0.041	-0.671	0.057	0.656	0.633	0.956	-0.852	-0.710
Jalpaiguri	-0.562	-0.575	0.037	1.458	-0.992	-0.873	-1.110	-1.407	0.035	-0.710
Darjeeling	-1.423	-1.435	-0.651	-0.425	-0.544	-0.426	-0.561	-1.235	-0.088	-0.169
Cooch Behar	0.942	0.929	1.710	1.026	-0.256	-0.011	-0.090	0.242	-0.464	-0.710
Purulia	0.409	0.399	-0.809	-0.933	1.426	1.497	1.217	1.187	3.289	2.703

Source: Calculated by author

Continued Table 1

District	Z _{i21}	Z _{i22}	Z _{i23}	Z _{i24}	Z _{i25}	Z _{i26}	Z _{i27}	Z _{i28}	Z _{i29}	Z _{i30}
Burdwan	0.677	0.814	-0.563	0.520	-0.633	0.850	-	0.245	-	-
Birbhum	0.221	0.431	0.982	-0.184	0.357	-0.253	0.714	0.505	0.636	-
Bankura	1.113	1.465	1.083	0.653	1.118	0.252	1.008	1.337	0.639	-
Medinipur-E	0.850	0.090	0.545	0.751	0.726	-0.486	-	-	3.120	0.177
Medinipur-	1.200	1.211	1.419	1.761	0.749	-0.216	0.444	0.179	1.075	-
Howrah	-0.867	-1.348	-1.884	-1.198	-0.968	0.327	-	-	-	-
Hooghly	0.200	-0.245	-0.584	-0.071	0.003	0.252	-	-	-	-
24 Pgs-N	-1.204	-1.169	-1.563	-1.254	-1.937	-0.226	-	-	-	-
24 Pgs-S	-0.729	-0.853	-0.620	-0.567	-0.033	-0.751	-	-	-	0.817
Nadia	0.048	-0.707	-1.257	-0.878	-1.498	0.682	-	0.263	-	0.390
Murshidabad	-0.552	-0.520	-0.654	-0.559	-0.844	-0.819	-	-	-	1.030
Dinajpur-U	-1.448	-1.143	0.112	-0.320	-1.217	-1.206	-	-	-	2.308
Dinajpur-S	0.885	0.666	0.870	-0.901	0.195	-0.430	0.030	-	0.225	0.390
Malda	-1.456	-0.214	0.760	1.750	0.876	-0.593	-	0.236	-	0.817
Jalpaiguri	-0.488	-0.968	-0.174	-0.529	0.143	-0.313	-	-	-	0.604
Darjeeling	-0.033	0.518	-0.357	1.695	1.724	3.424	2.504	2.324	-	-
Cooch Behar	-0.542	-0.212	0.611	-0.983	0.146	-0.323	-	-	0.421	0.177
Purulia	2.115	2.178	1.277	0.313	1.090	-0.169	1.895	1.800	-	0.604

Source: Calculated by author

Continued Table 1

District	Z _{i31}	Z _{i32}	Z _{i33}	Z _{i34}	Z _{i35}	Z _{i36}	Z _{i37}	Z _{i38}	Z _{i39}	Z _{i40}
Burdwan	0.290	0.806	0.464	0.874	0.739	-	-	0.277	0.295	0.194
Birbhum	-0.847	-0.824	-0.464	-0.213	-0.898	-	1.381	-	-	-
Bankura	-1.015	-1.004	-0.913	-0.723	-1.351	-	-	-	-	-
Medinipur-E	0.179	-0.604	2.623	2.404	0.925	-	-	1.635	1.655	1.500
Medinipur-W	-0.685	-0.784	0.534	2.293	-0.754	-	-	0.502	0.685	0.290
Howrah	2.704	1.829	2.083	0.120	1.357	-	-	1.169	0.917	1.284
Hooghly	0.085	0.430	0.228	-0.368	-0.435	-	-	0.979	0.928	0.942
24 Pgs-N	0.534	1.666	0.556	-0.058	0.564	-	-	1.263	1.008	1.385
24 Pgs-S	0.011	1.442	0.379	-0.169	0.317	-	-	0.440	0.423	0.391
Nadia	1.268	0.486	-0.899	-1.388	-1.073	-	-	0.121	-	0.344
Murshidabad	-1.387	-0.438	-0.166	-0.568	-0.239	0.270	0.748	-	-	-
Dinajpur-U	-1.019	-0.677	-0.535	-0.545	-0.867	2.855	2.382	-	-	-
Dinajpur-S	-0.431	-1.340	-0.407	-0.035	-1.073	-	-	-	-	-
Malda	0.183	-0.822	-0.748	-1.055	-1.104	0.064	-	-	-	-
Jalpaiguri	1.289	0.861	-0.632	-0.213	1.368	-	0.011	-	-	-
Darjeeling	-0.596	0.284	-0.722	0.231	-0.198	-	-	0.698	0.733	0.605
Cooch Behar	-0.505	-0.291	-0.726	-0.812	1.368	-	0.076	0.097	0.060	0.067
Purulia	-0.057	-1.020	-0.655	0.231	1.357	2.420	1.941	-	-	-

Source: Calculated by author

Continued Table 1

District	Z _{i41}	Z _{i42}	Z _{i43}	Z _{i44}	Z _{i45}	Z _{i46}	Z _{i47}	Z _{i48}	Z _{i49}	Z _{i50}
Burdwan	0.056	-0.045	-	0.904	-0.821	0.578	-	1.137	1.275	1.037
Birbhum	-0.565	-0.495	0.407	-0.720	0.519	0.950	-	-0.881	-	-
Bankura	-0.743	-0.835	0.513	-0.990	-0.590	-0.655	-	-0.432	-	-
Medinipur-E	-1.776	-0.069	-	-0.792	0.586	0.046	2.327	2.364	-	-
Medinipur-W	-0.725	-0.687	1.466	-0.756	-0.206	-0.608	-	-0.181	-	-
Howrah	0.907	2.984	-	2.314	-0.320	2.970	1.900	0.867	1.119	0.301
Hooghly	0.975	0.853	0.936	0.825	-1.601	0.101	0.063	0.628	0.821	-
24 Pgs-N	0.809	1.802	0.301	1.947	-0.783	0.841	0.272	0.405	2.355	1.112
24 Pgs-S	-1.029	-0.429	0.407	0.045	1.160	0.820	0.935	-0.214	-	-
Nadia	0.917	0.253	-	0.181	-0.726	0.646	-	-0.212	-	-
Murshidabad	0.173	0.278	0.619	-0.306	2.085	-0.920	-	-0.569	-	-
Dinajpur-U	-0.150	-0.238	-	-0.766	-0.428	-0.964	0.450	-1.343	-	-
Dinajpur-S	1.080	-0.517	0.407	-0.643	-0.948	-0.738	0.267	-0.694	-	-
Malda	-0.476	-0.086	-	-0.675	2.126	-0.541	-	-0.726	-	-
Jalpaiguri	0.582	-0.699	0.089	0.153	-0.203	-0.812	0.099	-0.258	-	-
Darjeeling	0.293	-0.749	1.889	0.876	0.082	-0.404	0.239	1.753	1.705	3.366
Cooch Behar	1.089	-0.411	-	-0.873	-0.254	-0.519	-	-0.606	-	-
Purulia	-2.142	-0.910	0.513	-0.725	0.320	-0.793	-	-1.038	-	-

Source: Calculated by author

The highest Z-score value of X_{i1} is found in 24 Parganas (combined) district and that of the second largest value is Darjeeling district. The Hooghly and Howrah districts occupy the lowest value of Z-score of X_{i1} . The highest Z-score value of X_{i2} is found in North Dinajpur district and that of the second largest value is Dinajpur-S district. The 24 Parganas-S and Darjeeling occupy the lowest value of Z-score of X_{i2} . The highest Z-score value of X_{i3} is found in Hooghly district and that of the second largest value is found in Jalpaiguri district. The Purulia and Coochbehar districts occupy the lowest value of X_{i3} . The highest Z-score value of X_{i4} is found in Malda district and that of the second largest value is in Hooghly district. The Jalpaiguri district and 24 Parganas-S district occupy the lowest value of X_{i4} . The highest Z-score value of X_{i5} is found in Malda district and that of the second largest value is in Dinajpur-S district. The Darjeeling district and Coochbehar district occupy the lowest value of X_{i5} . The highest Z-score value of X_{i6} is found in Medinipur-E district and that of the second largest value is found in Birbhum district. The districts of Purulia, Dakhsin Dinajpur and Darjeeling fall under low category in respect of Z-score of X_{i6} . The highest Z-score value of X_{i7} is found in Hooghly district and that of the second largest value of X_{i7} is in Malda district. The districts of Purulia, Darjeeling, Jalpaiguri and 24 Parganas-S fall under low category in respect of Z-score of X_{i7} . The highest Z-score value of X_{i8} is found in Hooghly district and that of the second largest value is in Malda district. The districts of Purulia, Darjeeling and Jalpaiguri fall under low category in respect of Z-score of X_{i8} . The highest Z-score value of X_{i9} is found in Birbhum district and that of the 2nd largest value is in Dinajpur-S district. The districts of Darjeeling, Howrah and 24 Parganas-N fall under low category in respect of Z-score of X_{i8} . The highest Z-score value of X_{i10} is found in Murshidabad district and that of the 2nd largest value is in Malda district. The districts of Hooghly, Howrah, Medinipur-E, Burdwan, Purulia, 24 Parganas, Darjeeling, Medinipur-W, Bankura and 24 Parganas-N fall under low category in respect of Z-score of X_{i10} . The highest Z-score value of X_{i11} is found in Birbhum district and that of the 2nd largest value is in Dinajpur-S. The districts of Howrah, 24 Parganas-N, Darjeeling and 24 Parganas-S fall under low category in respect of Z-score of X_{i11} . The highest Z-score value category of X_{i12} is found in Birbhum district and that of the 2nd largest value is in Dinajpur-S district. The districts of Howrah, 24 Parganas-N, Darjeeling and 24 Parganas-S fall under low

category in respect of Z-score of X_{i12} . The highest Z-score value of X_{i13} is found in Nadia district and that of the 2nd largest value is in Coochbehar district. The districts of Howrah, Medinipur-W and Darjeeling fall under low category in respect of Z-score of X_{i13} . The highest Z-score value of X_{i14} is found in Hooghly district and that of the 2nd largest value is in Jalpaiguri district. The districts of 24 Parganas-S, Purulia, Medinipur-E, 24 Parganas-N, Nadia, Malda, Murshidabad, Howrah and Darjeeling fall under low category in respect of Z-score of X_{i14} . The highest Z-score value of X_{i15} is found in Medinipur-W district and that of the 2nd largest value is in Bankura district. The districts of Howrah, 24 Parganas-N, Jalpaiguri, Nadia and 24 Parganas-S are under low category in respect of Z-score of X_{i15} . The highest Z-score value of X_{i16} is found in Bankura district and the 2nd largest value of that is found in Purulia district. The districts of Howrah, 24 Parganas-N, Jalpaiguri, Nadia and 24 Parganas-S are under low category in respect of Z-score of X_{i16} . The highest Z-score value X_{i17} is found in Bankura district and the 2nd largest value of that is found in Medinipur-W. The districts of Howrah, 24 Parganas-N, Jalpaiguri, Nadia and Dinajpur-U are under low category in respect of Z-score of X_{i17} . The highest Z-score value of X_{i18} is found in Bankura district and that of the 2nd largest value is in Medinipur-E district. The districts of Jalpaiguri, Howrah and Darjeeling are under low category in respect of Z-score of X_{i18} . The highest Z-score value of X_{i19} is found in Purulia district and the 2nd largest value of that is found in Bankura district. The districts of 24 Parganas-N, Malda and Dinajpur-U are under low category in respect of Z-score of X_{i19} . The highest Z-score value of X_{i20} is found in Purulia district and that of the 2nd largest value is in Dinajpur-S district. The districts of Coochbehar, Jalpaiguri and Nadia are under low category in respect of Z-score of X_{i20} . The highest Z-score value of X_{i21} is found in Purulia district and the 2nd largest value of that is found in Medinipur-W district. The districts of Malda and Dinajpur-U are under low category in respect of Z-score of X_{i21} . The highest Z-score value of X_{i22} is found in Purulia district and that of the 2nd largest value is found in Bankura district. The districts of Howrah, 24 Parganas-N, Dinajpur-U, and Jalpaiguri are under low category in respect of Z-score of X_{i22} . The highest Z-score value of X_{i23} is found in Medinipur-W district and that of the 2nd largest value is in Purulia district. The districts of Howrah, 24 Parganas-N, Nadia and Murshidabad are under low category in respect of Z-score of X_{i23} . The highest Z-score value of X_{i24} is found in Medinipur-W district and that of the 2nd largest value is in Malda district. The districts of 24 Parganas-N, Howrah, Coochbehar, and Dinajpur-S are under low category in respect of Z-score of X_{i24} . The highest Z-score value of X_{i25} is found in Darjeeling district and the 2nd largest value of that is found in Bankura district. The districts of Nadia, Dinajpur-U and Murshidabad are under low category in respect of Z-score of X_{i25} . The highest Z-score value in respect of Z-score of X_{i25} is found in Darjeeling district and that of the 2nd largest value is in Burdwan district. The Dinajpur-U district and Murshidabad district are under low category in respect of Z-score of X_{i26} . The highest Z-score value in respect of Z-score of X_{i27} is found in Darjeeling district and that of the 2nd largest value is in Purulia district. The districts of Dinajpur-U, Nadia and Murshidabad are under low category in respect of Z-score of X_{i27} . The highest Z-score value of X_{i28} is found in Darjeeling district and the 2nd largest value is in Purulia district. The districts of 24 Parganas-N, Howrah and Medinipur-E are under low category in respect of Z-score of X_{i28} . The highest Z-score value of X_{i29} is found in Medinipur-E district and that of the 2nd largest value is in Medinipur-W district. The districts of Howrah, 24 Parganas-S and Jalpaiguri are under low category in respect of Z-score of X_{i29} . The highest Z-score value of X_{i30} is found in Darjeeling district and the 2nd largest value of that is found in Burdwan district. The districts of Dinajpur-U, Nadia and Murshidabad are under low category in respect of Z-score of X_{i30} . The highest Z-score value of X_{i31} is found in Howrah district and that of the 2nd largest value is in Jalpaiguri district. The districts of Murshidabad, Dinajpur-U and Bankura are under low category in respect of Z-score of X_{i31} . The highest Z-score value of X_{i32} is found in Howrah district and that of the 2nd largest value is in 24 Parganas-N district. The districts of Dinajpur-S, Purulia and Bankura are under low category in respect of Z-score of X_{i32} . The highest Z-score value of X_{i33} is found in Medinipur-E district and that of the 2nd largest value is in Howrah district. The districts of Bankura, Nadia, Dinajpur-U, Coochbehar, Darjeeling, and Purulia are under low category in respect of Z-score of X_{i33} . The highest Z-score value of X_{i34} is found in Medinipur-E district and that of the 2nd largest value is in Medinipur-W district. The districts of Coochbehar, Darjeeling and Bankura are under low category in respect

of Z-score of X_{i34} . The highest Z-score value of X_{i35} is found in Coochbehar district and that of the 2nd largest value is in Jalpaiguri district. The districts of Bankura, Malda, Nadia and Dinajpur-S are under low category in respect of Z-score of X_{i35} . The highest Z-score value of X_{i36} is found in Darjeeling district and the 2nd largest value of that is found in Nadia district. The districts of Dinajpur-U and Purulia are under low category in respect of Z-score of X_{i36} . The highest Z-score value of X_{i37} is found in Darjeeling district and the 2nd largest value of that is found in Burdwan district. The districts of Dinajpur-U and Purulia are under low category in respect of Z-score of X_{i37} . The highest Z-score value of X_{i38} is found in Medinipur-E district and that of the 2nd largest value is found in 24 Parganas-N district. The districts of Dinajpur-U, Malda and Purulia are under low category in respect of Z-score of X_{i38} . The highest Z-score value of X_{i39} is found in Medinipur-E district and that of the 2nd largest value is in 24 Parganas-N district. The districts of Dinajpur-U, Malda and Murshidabad are under low category in respect of Z-score of X_{i39} . The highest Z-score value of X_{i40} is found in Medinipur-E district and that of the 2nd largest value is in 24 Parganas-N district. The districts of Purulia, Dinajpur-U and Malda are under low category in respect of Z-score of X_{i40} . The highest Z-score value of X_{i41} is found in Coochbehar district and that of the 2nd largest value is in Dinajpur-S district. The districts of Purulia, Medinipur-E and 24 Parganas-S are under low category in respect of Z-score of X_{i41} . The highest Z-score value of X_{i42} is found in Purulia district and that of the 2nd largest value is in Bankura district. The districts of Howrah and 24 Parganas-N are under low category in respect of Z-score of X_{i42} . The highest Z-score value of X_{i43} is found in Darjeeling district and that of the 2nd largest value is found in Medinipur-W district. The districts of Medinipur-E, Howrah and Dinajpur-U are under low category in respect of Z-score of X_{i43} . The highest Z-score value of X_{i44} is found in Howrah district and the 2nd largest value of that is found in 24 Parganas-N district. The districts of Bankura, Coochbehar, Medinipur-E, Dinajpur-U, Medinipur-W and Purulia are under low category in respect of Z-score of X_{i44} . The highest Z-score value of X_{i45} is found in Hooghly district and that of the 2nd largest value is in Dinajpur-S district. The districts of Malda and Murshidabad are under low category in respect of Z-score of X_{i45} . The highest Z-score value of X_{i46} is found in Howrah district and the 2nd largest value of that is found in Birbhum district. The districts of Dinajpur-U, Murshidabad, Jalpaiguri and Purulia are under low category in respect of Z-score of X_{i46} . The highest Z-score value of X_{i47} is found in Medinipur-E district and that of the 2nd largest value is in Howrah district. The districts of Bankura and Purulia are under low category in respect of Z-score of X_{i47} . The highest Z-score value of X_{i48} is found in Medinipur-E district and that of the 2nd largest value is in Darjeeling district. The districts of Dinajpur-U, Purulia, Birbhum and Malda are under low category in respect of Z-score of X_{i48} . The highest Z-score value of X_{i49} is found in 24 Parganas-N districts and the 2nd largest value of that is found in Darjeeling district. The districts of Dinajpur-U, Dinajpur-S, Coochbehar, Murshidabad and Malda are under low category in respect of Z-score of X_{i49} . The highest Z-score value of X_{i50} is found in Darjeeling district and the 2nd largest value of that is found in 24 Parganas-N district. The districts of Purulia, Bankura, Murshidabad and Birbhum are under low category in respect of Z-score of X_{i50} .

Regional Disparity in West Bengal

This study tries to highlight the position of districts in terms of 50 development indicators individually, on the basis of the results of standardized score of the development indicators. Amongst 50 development indicators - 45 are positive indicators, viz, $X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}, X_{18}, X_{19}, X_{20}, X_{21}, X_{22}, X_{23}, X_{24}, X_{25}, X_{26}, X_{27}, X_{28}, X_{29}, X_{31}, X_{32}, X_{33}, X_{34}, X_{35}, X_{38}, X_{39}, X_{40}, X_{41}, X_{43}, X_{44}, X_{46}, X_{47}, X_{48}, X_{49}$ & X_{50} ; and 5 are negative indicators, viz, $X_{30}, X_{36}, X_{37}, X_{42}$ & X_{45} . The best value will be either the maximum value or minimum value of the indicator depending upon the direction of the impact of indicator on the level of development. The lesser the value of Z-score of positive indicator shows that the district is in bad position in respect of that indicator. The larger the value of Z-score of negative indicator shows that the district is in bad position in respect of that indicator. The smaller the value of Z-score of negative indicator shows that the district is in good position in respect of that indicator. The larger the value

of Z-score of positive indicator shows that the district is in good position in respect of that indicator. Extreme regional disparity in West Bengal districts is found in respect of these 50 development indicators.

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