

# LEVELS OF SOCIAL DEVELOPMENT AND INTRA-STATE REGIONAL DISPARITIES IN RAJASTHAN

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## ABSTRACT

*In the multifaceted approach of the development, the role played by social development has become a fundamental approach in the developmental discourse. Recently launched ambitious programme of 'Swach-Bharat' shows the importance of social development, through health and hygiene. This aims the social transformation of the citizens through social development. Social development involves learning the values, knowledge and skills that enable masses and classes to relate to others effectively and to contribute in positive ways to individual in particular and to nation in general. Regions which excel in the economic development don't necessarily excel in the social development.*

**Keywords:** Social development, Intra-state, Disparity, Rajasthan, Levels.

## Introduction:

Development is one of the most discussed issue of our time. Scholars of every stream agree that development is much debated and argued process in the holistic progress of the society. Furthermore, it has become more relevant for a developing economy like India. Conceptually, it significantly differs from the concept of economic growth. Initially, in preindustrial societies it was treated as synonyms of economic growth but with the passage of time in the welfare economies development is completely treated different from the economic growth. Economic development in terms of per capita income doesn't capture the all aspects of development (Roy: 1998). Hence, development is a much wider and multi-dimensional phenomenon, which not only includes progress at the economic front but also at social, political, environmental fronts etc.

Planning Commission's, now *NITI Aayog*, twelfth five year plan has push the social development into the right perspective, which simultaneously focus on the indicators of social development like literacy, mortality, urbanisation, health, hygiene, nutrition etc.

For this study, the Indian state of Rajasthan is selected. This state is lagging behind in the developmental trajectory. In the state, there are notable disparities at the social fronts between and among the districts. Recently state has shown the remarkably high performance at the economic fronts but in the indicators of social development are still not appreciable. Thus it is worth to analyze the inequality at the social fronts.

## Objective:

The general objective of this study is to analyze the inter-district variations, levels and patterns of social development in the state of Rajasthan. The study will highlight the inequality among the indicators of social development and an attempt would be made to understand the differentials at the district level. The specific objectives of the study are as follows:

1. To examine the inequality in the social indicators (stated in table: 2) in Rajasthan,
2. To analyze the spatial variations in the indicators of social development.
3. To prepare the composite index of social development and
4. To present the social development index through cartographic techniques.

## Date base:

The present study is based on the primary as well as secondary data. All data have been collected from the various government reports, monograms, abstract, etc. which are published by various ministries and departments of government of Rajasthan. Various surveys conducted by government of Rajasthan are the primary sources of data and secondary sources include articles, monographs, various 'e' resources available on the websites of the ministries and department of government of Rajasthan.

<sup>1</sup> *NITI* (National Institute for Transforming India) *Aayog* has replaced the Planning Commission.

**Methodology:**

The study is quantitative and analytical in nature. Thus, quantitative techniques and qualitative analysis form the integral part of the methodology for this study. In order to analyze the inequality and variation in the social indicators various statistical, cartographic, geo-informatics etc. techniques have been used. SPSS version 21.0 (Statistical Package for Social Science) and Microsoft Excel have also been used for processing the compiled data. Statistical measures such as mean, standard deviation, variation have been used to summarize the patterns and differentials. In order to bring all the data at the comparable platform, standardization technique of 'z' score has been used. The standard 'z' score may be represented as:

$$z = \frac{x - \mu}{\sigma}$$

$\mu$  = Mean

$\sigma$  = Standard Deviation

Where x = individual value in the indicator

**Table no. : 1**

$\mu = \frac{1}{n} \sum_{i=1}^n x_i$	<p><math>\sigma</math> = Standard deviation of indicator</p> <p><math>\Sigma</math> = sum of the indicator 'i'</p> <p><math>x_i</math> = each value in the indicator 'i'</p> <p><math>\mu_i</math> = mean of the indicator 'i'</p> <p><math>N_i</math> = number of the value in the indicator 'i'</p>	$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$
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Furthermore, the results of the standard 'z'-score obtained from different indicators were aggregated in order to obtain a composite 'z'-score. So, the levels of social development of every district can be made comparable. Based on composite 'z'-score, the mapping is done by using Q-GIS software.

**Discussion of the Indicators:**

Rajasthan is a biggest state of India. There are the significant variations not only in the physiographic, topographic, climatic conditions but also in the indicators of the social development. As stated earlier that more than two third part of Rajasthan is desert and known as *Thar Marusthal* or Desert. Thus Rajasthan is considered most diversified state of the Indian nation. A brief discussion of the indicators has been presented in table no. 2.

**Table no. : 2. Selected indicators**

S. No.	Indicator	Unit	Definition
$X_i$	Urban Population	Rate (%)	It refers the population residing in the urban areas to total population
$X_{ii}$	Sex Ratio	Per thousand	Number of female per thousand male population
$X_{iii}$	Literacy	Rate (%)	Number of literates per hundred population
$X_{iv}$	Electricity Connection	Rate (%)	Number of household with electricity connection per hundred households
$X_v$	Safe Drinking Water	Rate (%)	Number of household with safe drinking water facility per hundred households
$X_{vi}$	Toilet facility	Rate (%)	Number of household with toilet facility per hundred households
$X_{vii}$	Infant Survival	Rate (%)	Number of infants (less than one year) survived out of hundred live births
$X_{viii}$	Child Survival	Rate (%)	Number of children (one year to five year) survived out of hundred live births

**Table no.: 3 Distribution of the 'z'-score of the Indicators**

S. No.	District	Urban Population (X <sub>1</sub> )	'z'-score of A (X <sub>1</sub> )	Sex Ratio (X <sub>2</sub> )	'z'-score of (X <sub>2</sub> )	Literacy (X <sub>3</sub> )	'z'-score of (X <sub>3</sub> )	Electricity Connection (X <sub>4</sub> )	'z'-score of (X <sub>4</sub> )	Safe Drinking Water (X <sub>5</sub> )	'z'-score of (X <sub>5</sub> )
		A	B	C	D	E	F	G	H	I	J
1	Kota	60.31	3.240	911	-0.425	76.56	2.058	89.5	1.646	98.9	0.715
2	Jaipur	52.4	2.569	910	-0.450	75.51	1.874	86.4	1.441	93.2	0.306
3	Jhunjhunu	22.89	0.069	950	0.550	74.13	1.633	77.6	0.861	93.8	0.349
4	Ajmer	40.08	1.525	951	0.575	69.33	0.794	81.3	1.105	94	0.363
5	Churu	28.25	0.523	940	0.300	66.75	0.343	66.7	0.142	90	0.076
6	Hanumangarh	19.75	-0.197	906	-0.550	67.13	0.409	73.9	0.617	84.7	-0.304
7	Sikar	23.68	0.136	947	0.475	71.91	1.245	76.2	0.768	94.6	0.406
8	Jodhpur	34.3	1.036	916	-0.300	65.94	0.201	65.2	0.043	69.1	-1.424
9	Pali	22.58	0.042	987	1.475	62.39	-0.420	76.2	0.768	82.9	-0.434
10	Bikaner	33.86	0.998	905	-0.575	65.13	0.059	58.7	-0.386	74.6	-1.029
11	Sriganganagar	27.2	0.434	887	-1.025	70.25	0.955	63.28	-0.084	76.4	-0.900
12	Chittaurgarh	18.47	-0.306	972	1.100	61.71	-0.538	82.1	1.158	98	0.650
13	Bharatpur	19.43	-0.225	880	-1.200	70.11	0.930	68.2	0.241	96.5	0.543
14	Alwar	17.81	-0.362	895	-0.825	67.85	0.535	77.2	0.834	96.9	0.571
15	Baran	20.79	-0.109	929	0.025	66.66	0.327	67.1	0.168	98.5	0.686
16	Rajsamand	15.89	-0.525	990	1.550	63.14	-0.288	78.7	0.933	97.5	0.615
17	Took	22.35	0.023	952	0.600	61.58	-0.561	59.1	-0.359	98	0.650
18	Bhilwara	21.28	-0.068	973	1.125	61.37	-0.598	75.7	0.735	96.7	0.557
19	Jhalawar	16.25	-0.494	946	0.450	61.5	-0.575	78.1	0.894	98.5	0.686
20	Dhaulpur	20.51	-0.133	846	-2.050	69.08	0.750	47.5	-1.125	98.7	0.701
21	Nagaur	19.26	-0.239	950	0.550	62.8	-0.348	59.5	-0.333	62.2	-1.920
22	Dausa	12.35	-0.825	905	-0.575	68.16	0.589	67.1	0.168	96.5	0.543
23	Banswara	7.1	-1.269	980	1.300	56.33	-1.479	32.9	-2.088	97.6	0.622
24	Udaipur	19.83	-0.191	958	0.750	61.82	-0.519	57.9	-0.439	97.3	0.600
25	Bundi	20.05	-0.172	925	-0.075	61.52	-0.572	62.2	-0.155	97.6	0.622
26	Sirohi	20.13	-0.165	940	0.300	55.25	-1.668	66.3	0.115	95.7	0.485
27	SawaiMadhopur	19.95	-0.181	897	-0.775	65.39	0.105	55.5	-0.597	97.8	0.636
28	Dungarpur	6.39	-1.330	994	1.650	59.46	-0.932	49.8	-0.973	98.5	0.686
29	Karauli	14.96	-0.603	861	-1.675	66.22	0.250	50.3	-0.940	94.4	0.392
30	Jaisalmer	13.29	-0.745	852	-1.900	57.22	-1.323	38	-1.751	51.4	-2.695
31	Jalore	8.3	-1.168	952	0.600	54.86	-1.736	49.1	-1.019	74.8	-1.015
32	Barmer	6.98	-1.280	902	-0.650	56.53	-1.444	28.2	-2.398	50.7	-2.745

Source: compiled from various sources by author. All data are of the year 2010-2012

In continuation with table no. 2

S. No. of the district as given at previous page	House Hold with Toilet Facility (X <sub>1</sub> )	'z'-score of (X <sub>1</sub> )	Infant Survival Rate (X <sub>2</sub> )	'z'-score of (X <sub>2</sub> )	Child Survival Rate (X <sub>3</sub> )	'z'-score of (X <sub>3</sub> )	Σ of all 'z'-score	Mean 'z'-score
	K	L	M	N	O	P	Q	R
1	51.4	0.942	96.5	3.054	95.6	3.302	14.531	1.816
2	60.6	1.412	94.8	0.757	93.2	0.802	8.712	1.089
3	53.6	1.054	94.8	0.757	92.8	0.385	5.658	0.707
4	42.3	0.476	94.7	0.622	92.5	0.073	5.333	0.692
5	57.8	1.269	94.9	0.892	93.5	1.115	4.659	0.582
6	82.6	2.537	95	1.027	93.4	1.010	4.548	0.569
7	50	0.870	94.7	0.622	92.1	-0.344	4.178	0.522
8	39.7	0.344	95	1.027	93.3	0.906	1.832	0.229
9	29	-0.203	94.6	0.486	92.4	-0.031	1.684	0.211
10	51.9	0.967	94.8	0.757	93	0.594	1.385	0.173
11	80.9	2.450	94	-0.324	92.1	-0.344	1.161	0.145
12	20.8	-0.623	93.8	-0.595	92.4	-0.031	0.815	0.102
13	20.3	-0.648	94.8	0.757	92.8	0.385	0.783	0.098
14	27.5	-0.280	94.4	0.216	92.3	-0.135	0.555	0.069
15	17.6	-0.786	94.2	-0.054	92.6	0.177	0.434	0.054
16	20	-0.664	93.9	-0.459	91.6	-0.865	0.297	0.037
17	18.7	-0.730	94.5	0.351	92.2	-0.240	-0.266	-0.033
18	23.4	-0.490	93.4	-1.135	91.6	-0.865	-0.738	-0.092
19	16.6	-0.837	93.7	-0.730	92	-0.448	-1.054	-0.132
20	51	0.921	93.9	-0.459	92.6	0.177	-1.218	-0.152
21	35.8	0.144	94.5	0.351	92.8	0.385	-1.409	-0.176
22	17.4	-0.797	94.5	0.351	91.5	-0.969	-1.513	-0.189
23	12.4	-1.052	94.3	0.081	94.3	1.948	-1.938	-0.242
24	24.4	-0.439	93.9	-0.459	91.2	-1.281	-1.978	-0.247
25	19.1	-0.710	93.7	-0.730	91.8	-0.656	-2.448	-0.306
26	26.8	-0.316	93.7	-0.730	91.6	-0.865	-2.843	-0.355
27	20.7	-0.628	93.4	-1.135	92.1	-0.344	-2.918	-0.365
28	13.4	-1.001	93.6	-0.865	91.6	-0.865	-3.629	-0.454
29	15.9	-0.873	93.3	-1.270	92.1	-0.344	-5.064	-0.633
30	23.3	-0.495	94.7	0.622	92.6	0.177	-8.111	-1.014
31	15.5	-0.894	92.6	-2.216	90.4	-2.115	-9.562	-1.195
32	14.9	-0.924	93.1	-1.541	91.8	-0.656	-11.638	-1.455

Source: compiled from various sources by author. All data are in between year of 2008-2013

Urban population refers, to majority of extent, the higher level of social development which is highest in Kota (60.31%) and lowest in Dungarpur (6.39%). Sex Ratio and literacy are also important indicators of the social development. Highest sex ratio is recorded in Dungarpur (994) which is least

urbanized district, and lowest in Dhaulpur (846) which is agriculturally developed district of the state. Literacy is highest in Kota (76.56%) and lowest in Jalore (54.86%) (Table no 3).

Electricity connection, safe drinking water and toilet facility are also other important indicators of the social infrastructure. In electricity connection and safe drinking water Kota (89.5% and 98.9%) tops the list and Barmer is at the least place (28.2% and 50.7% respectively). In Hanumangarh more than 82 per cent household enjoy the toilet facility and on the other extreme in Banswara where only 12 per cent have such facility. Scholars across the disciplines agree that infant and child survival rates are the most important indicators of social development. In both the indicators again Kota tops (96.5% and 95.6%) the list and Jalore is at the lowest (92.6% and 90.4%) rank (Table no. 3).

**Discussion of the Results**

The uneven development of such infrastructural facilities has caused the asymmetrical levels of the social development across the districts in the state. And it has led to the regional imbalance in the social development. In order to depict the unequal levels of social development all the districts are classified into five major categories viz. Very High, High, Medium, Low and Very Low. It is presented in table no. 4 and fig 1.

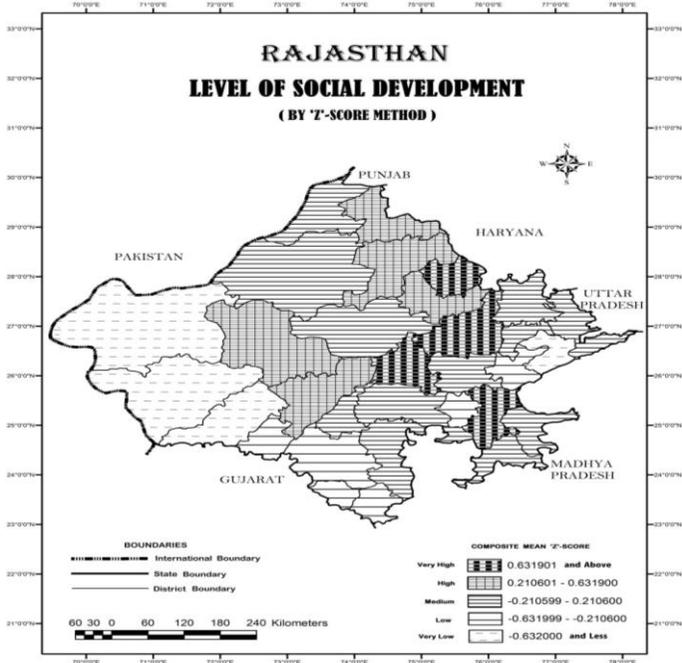
**Table no. 4**

S. No.	Level of Social Development	Combined 'z'-score of all the indicators ( $X_i$ to $X_{iii}$ )	Name of the district
1.	Very High	+0.6320 and above	Kota, Jaipur, Jhunjhunu, Ajmer
2.	High	+0.6319 to +0.2106	Churu, Hanumangarh, Sikar, Jodhpur, Pali
3.	Medium	+0.2106 to -0.2106	Bikaner, Sriganganagar, Chittaurgarh, Bharatpur, Alwar, Baran, Rajsamand, Tonk, Bhilwara, Jhalawar, Dhaulpur, Nagaur, Dausa
4.	Low	-0.2106 to -0.6320	Banswara, Udaipur, Bundi, Sirohi, Sawai Madhopur, Dungarpur
5.	Very Low	-0.6320 and less	Karauli, Jaisalmer, Jalore, Barmer

**Very High level of Social development:**

Four districts, namely Kota, Jaipur, Jhunjhunu and Ajmer are included in this class (table no. 4 and fig 1) where 'z'-score ranges from 0.692 to 1.816. The district of Kota ('z'-score 1.816) topped in the integrated score of the social development and followed by Jaipur ('z'-score 1.089). Both are the industrial hubs as well as the attractive tourist destinations in the state. Both the districts have shown the remarkable progress at the fronts of social development except sex ratio where their performance is very low. Jhunjhunu ('z'-score 0.707) is a semi arid district and Ajmer ('z'-score 0.692) is famous tourist destination, are at third and fourth ranks respectively (table no. 3).

**Fig: 1**



**High Level of Social Development:**

The combined 'z'-score in this level ranges 0.6319 to 0.2106 (table no. 4 and fig 1). Five districts viz. Churu, Hanumangarh, Sikar, Jodhpur and Pali are included in this category. Geographically all the district lay to the west of Aravali Mountain ranges and have arid and semi arid climate conditions. Hanumangarh is a northern most district of the state which ranks first in the toilet facility. Churu and Sikar are in the *Shekhawati* region where semi arid characteristics prevail. Historically Jodhpur has been very famous and an important tourist destination in the world map, also reports good performance in the social development.

**Medium level of Social Development:**

This level consists as many as 13 districts, namely Bikaner, Sriganganagar, Chittaurgarh, Bharatpur, Alwar, Baran, Rajsamand, Tonk, Bhilwara, Jhalawar, Dhaulpur, Nagaur and Dausa (table no. 4 and fig 1). All the districts display a very high diversity with each other. The districts of Bharatpur, Alwar, Tonk, Dhaulpur and Dausa occupy the eastern plains of the Rajasthan which are developed in agriculture but level of social development is not appreciable. Districts like Chittaurgarh, Baran and Rajsamand lay in the southern Rajasthan where the concentration of tribal population is very high. Nagaur and Bhilwara are to the west of Aravali range, where semi desert characteristics are prominent.

**Low level of Social development:**

This class of categorization includes six districts, namely Banswara, Udaipur, Bundi, Sirohi, Sawai Madhopur and Dungarpur (table no. 4 and fig 1). Banswara, Udaipur and Dungarpur are the parts of southern hilly area of the state and also tribal dominated area. Agriculturally very developed district of Sawai Madhopur is located in the eastern alluvial plains of state and reports the low level of social development but its neighbouring district Kota ranks at first.

**Very Low level of Social Development:**

There are four districts in this class of categorization, namely Karauli, Jaisalmer, Jalore and Barmer (table no. 4 and fig 1). Karauli is located in the eastern alluvial plains of the state which is agriculturally very developed but its performance at social front is very low. Jaisalmer ('z'-score -1.014) and Barmer ('z'-score -1.455) are the part of western *Thar Marusthal*, which lack in the most of the infrastructural facilities. Jalore ('z'-score -1.195) occupies the second last rank after Barmer but performances, in sex ratio, better than most developed district of Kota.

**Conclusion:**

Discussion in previous paragraphs reveals that there are the significant variations in the levels of social development in the state of Rajasthan. Surprisingly in the backward districts like Dungarpur, Banswara, Jalore etc. sex ratio is very high even better than the developed districts Kota and Jaipur. Social and economic developments are the two facets of the same coin. Research on economic development is much discussed but with the recent present social development getting its due credits. Regions which are economically developed are not necessarily socially developed and *vice versa*.

Evaluation of social development is an imperative process not only for Rajasthan but also for every region. The frequent exercise about social development is a pre-requisite condition for the balanced regional development. For the interest and welfare for the masses, improvements in social development will be a milestone for the nation building. Thus it becomes worth to put forward the path of social development.

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