Socio-Economic Disparities In Post Reform Period: A Geographical Study Of Rural Haryana

Chanan Mal^{*1}, Dr. Karuna Raj², Dr. Annad Kumar³, Pooja⁴

¹Ph.D. Scholar, Lovely Professional University, Jalandhar, Punjab.
²Assistant Professor, Lovely Professional University, Jalandhar, Punjab.
³Assistant Professor, Lovely Professional University, Jalandhar, Punjab.

⁴M. Sc. Geography.

Abstract:

In the current study, an effort has been made to identify socio-economic inequalities in rural Haryana during the postreform period. Secondary data has been used in this study to quantity socioeconomic inequalities in rural Haryana. The socio-economic gaps in rural Haryana have been quantified using secondary data from the Census of India (2011). Numerous factors, including social and economic indicators, are used to analyse the regional disparities in socioeconomic development levels. The ultimate outcome has been determined using a composite index development All districts have been divided into three technique. categories based on their development indexes, high, medium, and low. Three of the state's twenty-one districts (Fatehabad, Hisar, Sirsa) had high socio-economic development, fifteen district (Ambala, Bhiwani, Faridabad, Jhajjar, Jind, Kaithal, Karnal Kurukshetra, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sonipat, Yamunanagar) had medium socio-economic development, and three district (Mahendergarh, Gurgaon, Mewat) had low socio-economic development.

Keyword: Socio-economic Disparities, Composite Index development Technique & Level of Development.

Introduction:

A process of improvement for a sizable human population, socio-economic development also includes societal transformation. Redevelopment and system reorientation are on-going processes that involve the entire social and economic system. The nation has to develop its human resources in a balanced way. In the process of any region's growth, socioeconomic amenities are crucial. These are improving the social situation of the local population. This study advances the application of modern technology, which advances the development of facilities including those for health, education, electricity, communication, and capital generation as well as the advancement of agriculture.

The study highlight on the connections between socioeconomic development and the growth in various industries, infrastructural facilities and the level of literacy in various districts. The aim of the current study is to assess the socio-economic progress made in rural Haryana at the district level. The differences in the nature of social-economic forces are what cause the regional disparities. 35 indicators are chosen to measure disparities. and are divided into two groups, namely social and economic, while keeping in mind the region's current socio-economic environment

The Z score method and secondary data were used to determine the degree of development in the tribal area of Akole Tehsil in Ahmednagar district, Maharashtra state, India. The study region lacked adequate infrastructure (healthcare, drinking water, markets, and financial communications) (Pralhadgiri & Janardhan 2020). The Z-score approach was used to gauge the growth of agriculture in the Satara district. Three Tehsils, Satara, Phaltan, and Karad, fall within the category of highly developed agricultural growth Mahabaleshwar and Man Tehsils fall under the low development group, while Phaltan, Koregaon, Patan, Khandala, Khatav, and Wai Tehsils fall into the moderately developed category (Koli & Khyat 2020). Although Kerala State's performance in terms of social development advancement was not uniform across all states and UTs, it was still the best among them (Kumar & Rani 2019). Ahmednagar district in Maharashtra state's 2010-2011 agricultural land use was described by sown area, current fallows, and acreage under tree crops and groves. Ramnath & Khakre (2018). Anlaysised that the percentage area of vegetables, fodder, sugarcane, and fruits had increased while the area under cultivation of bajra, jowar, oilseeds, wheat, pulses and rice had

dropped. Three-dimensional analysis in Uttar Pradesh, there is infrastructure, social and agricultural facilities (Kumar, Mourya, Gupta, & Singh 2018). Badaun district needed development programmes to be implemented in all three of its infrastructure, social, and agricultural sectors. According to the demographic, agricultural, infrastructural, and economic spatial variation measured by the principal component method at the district level in Western Rajasthan, the eastern part of the region was emerging while the western part, primarily the ones by the border, were lagging behind (Sharma & Sagar, 2017). This research may help to create a future plan for the balanced regional development. Rural areas in the state have lower educational levels than urban areas, (Karamvir 2016). The level of education in the State of Haryana is not consistent; it was discovered that some districts, including Ambala, Panchkula, and Gurgaon, performed well on nearly all educational levels, while others, including Sirsa, Fatehabad, Mewat, and Palwal, did not change or improve at all. She recommended that the State government take decisive action to create a decentralised form of decision-making for the educational sector (Saini 2015). Regional differences in educational attainment between men and women were discovered, and Gurgaon district was determined to have the highest total literacy rating while Mewat district had the lowest (Meena & Singh 2015). Examined the situation of infrastructure development in Haryana and recommended the government focus on equal development of all districts rather than just infrastructure development for a specific region (Kumar, Singh, & Anil, 2015).

Study Area:

The state of Haryana is the subject of the current study. Haryana became a state on November 1st, 1966. Haryana is a landlocked state in northern India, and Chandigarh, a union territory, serves as both the state's capital and the provincial capital of Punjab. It is bordered on the east by Uttar Pradesh, on the west by Punjab, on the north by a small piece of Himachal Pradesh, and on the south by the vast swaths of Rajasthan. It was situated between 74036' and 77036' East longitude and 27039' and 30095' North latitude. According to the 2011 census, Haryana contains 74 tehsils, 21 districts, and 4 administrative. According to the 2011 census, Haryana State has a population of 2,53,53,081 people, of which 13494734 (53.23%) are men and 11856728 (46.77%) are women, covering only 1.34 percent of the total geographic area of India. Of the 16509359 rural residents in Haryana, 8774006 (53.15%) are men and 7735353 (46.85%) are women. Out of the state's total population, 65.12% of people lived in rural homes (62.66%) and 34.88% in urban households (37.34%). Variation in literacy rates at the district level have been reported in Haryana, total 72.04%, with male literacy rates at 82.03% and female literacy rates at 60.83%.

Objectives:

1. To examine socioeconomic differences in rural Haryana at the district level.

2. To identify the factors that contributes to social and economic disparity at the district level in rural Haryana.

Database and Research Techniques:

The current investigation is supported by secondary information. The 2011 District Census Handbook was used to obtain the secondary data. In order to determine the outcome, the composite index development technique was applied. The choropleth approach has been used to visualise the spatial variance in socioeconomic development at the district level by using Arc GIS 10.3. 35 indicators are chosen from the area and divided into the social and economic categories. These indicators are included:

Social Indicators:

Population size, Sex ratio, density, Birth and death rates, Population of schedule castes, Literacy rate, Male and Female literacy rates, Number of PHCs, PHSCs, CHCs, Dispensaries, Number of Primary Schools; Number of Middle Schools; Number of Secondary Schools, Number of Senior Secondary Schools, Number of Colleges, Work participation rate, Postal Service, Commercial & co-operative Bank, and Metalled Road.

Economic Indicators:

Size of the land holding, Net area sown, Cropping Intensity, Percentage of Rice, Wheat, Cotton, Percentage of Net Irrigated Area, Irrigation intensity, Number of tube wells and pump sets per 1,000 hectares of total cropped area, Agricultural labour, number of tractors per 1,000 hectares of total cropped area, and number of livestock. Applying statistical methods like the composite index of development, the relationship between social and economic growth has been clarified. These indicators were derived using the coefficient of development formula shown below.

C.D.I. = Pi/Mi*100

Where C.D.I. stands for the variable's coefficient of development (I).

PI = Variable 'I' in the unit's percentage

MI stands for the mean percentage of the 'l' variable

The composite index of development score has been determined for all selected districts on the basis of the following formula using the above formula to calculate the coefficient of development for variable "I" in each district.

CID = CDI / N

C.I.D. stands for the composite index of development.

CDI is the total coefficient of development for a set of variables.

N is the number of variables

Importance of the present study:

The purpose of the current study is to identify distinct levels of social and economic development at the district level and to comprehend socio-economic development discrepancies. This kind of research has implications for long-term planning that seeks to realise total growth. Planners, agencies responsible for implementation, and researchers would all find it extremely beneficial. These studies can serve as an excellent illustration of the value of geography for socioeconomic development

Results & Discussion:

1. Disparities in Social Development Level

Social inequalities have a variety of historical as well as current physical causes, including Haryana's demographics, school system, health care system, and other similar amenities. There are 22 indicators that are calculated as part of the calculations, which are based on the composite index of development technique, to determine the level of social development. The patterns of spatial distribution draw attention to regional social differences at the district level. There are three categories for social development levels: low, medium, and high. Low, medium, and high social development are the three categories into which the composite development index scores fall.

Hisar, Sonipat, and Bhiwani are considered to be highly developed districts, according to Table 1 (Level of Social Development). According to an examination of 22 factors, these districts have a composite development index score that is higher than 119.23, which is an excellent score. Ambala, Faridabad, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Palwal, Panipat, Rohtak, Yamunanagar, Mahendergarh, Rewari, Gurgaon, Mewat, Fatehabad, and Sirsa are among the medium-developed districts. According to an analysis of 22 factors, these districts' composite development index scores range from 81.21 to 119.23, with Panchkula being the least developed district. According to an examination of 22 factors in table 1, this district's composite development index score is less than 81.21

Table 1 Composite index of Social Developme

	District	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	19	20	2	22	CID
											0	1	2	3	4	5	6	7	8			1		
1	Ambala	3.	8	4	10	12	5.	77	84	69	4	2	1	7	2	1	1	3	0	31.	12	3	97.	96.4
		8	9	3	.2	.0	6	.1	.1	.3	1	4	4	2		7	0			21	2	4	61	6
		2	2	9	8	2	0	3	7	6	8	5	4				0							
2	Bhiwani	7.	8	2	13	6.	7.	73	84	61	4	3	2	1	2	3	2	5	5	40.	20	9	99.	146.
		9	6	7	.6	75	3	.6	.9	.0	3	7	7	7		8	1			07	0	5	77	76
		0	6	7	8		9	7	9	0	5	6	8	9			4							
3	Faridab	2.	8	7	21	20	1.	73	84	60	1	8	5	3	1	1	5	1	1	28.	22	2	94.	81.2
	ad	2	7	0	.5	.5	9	.1	.6	.1	2	8	6	1		0	7			89		1	44	8
		4	2	8	7	2	2	8	6	3	5													
4	Fatehab	4.	9	3	15	6.	6.	65	74	55	2	1	1	6	2	1	1	2	1	41.	12	6	85.	90.6
	ad	6	0	0	.5	89	4	.5	.0	.6	3	8	2	5		4	0			00	4	2	71	5
		1	2	4	4		3	2	5	5	7	9	9				6							
5	Gurgao	2.	8	4	26	15	2.	80	89	69	2	1	9	4	1	1	7	1	0	33.	60	2	98.	83.4
	n	8	7	8	.4	.8	4	.0	.8	.1	1	5	7	8		2	1			56		3	69	1
		6	8	3	5	5	2	8	6	1	9	0												
6	Hisar	7.	8	3	14	10	8.	68	79	56	2	2	2	1	1	3	2	5	3	42.	20	9	98.	128.
		2	7	1	.7	.0	1	.7	.0	.6	5	4	1	1		2	0			60	0	2	88	57
		0	7	0	1	1	3	4	4	4	7	3	4	8			0							

						1	1	1																
7	Jhajjar	4.	8	4	9.	7.	3.	79	88	68	2	1	1	1	4	2	1	4	0	35.	14	4	99.	99.6
		3	6	0	01	50	5	.3	.9	.4	3	9	5	1		2	2			50	4	1	69	6
		2	1	7			2	9	4	6	8	7	1	1			3							
8	Jind	6.	8	3	11	7.	6.	68	78	57	2	2	1	1	1	2	5	4	1	41.	16	4	100	104.
		2	6	9	.5	70	1	.8	.8	.3	9	6	9	0		5	8			82	7	4	.0	93
		2	8	1	0		5	5	9	4	9	8	7	5										
9	Kaithal	5.	8	3	11	7.	5.	66	76	56	2	1	1	7	2	2	1	3	1	35.	11	3	99.	92.8
		0	8	7	.7	67	4	.6	.0	.1	5	9	2	5		0	4			89	7	2	63	9
		6	0	8	4		5	7	2	4	6	0	2				4							
1	Karnal	6.	8	4	10	8.	6.	71	79	62	3	2	1	8	1	2	1	2	5	34.	12	6	96.	118.
0		3	8	2	.6	77	9	.3	.0	.2	9	5	5	4		2	4			57	8	7	14	78
		5	6	8	6		8	7	5	8	0	7	5				1							
1	Kuruksh	4.	8	4	10	8.	4.	73	80	64	3	2	1	6	0	1	1	1	0	36.	10	5	95.	93.0
1	etra	1	9	7	.0	13	6	.1	.8	.6	8	8	2	2		8	0			08	5	9	58	3
		5	9	1	6		7	1	5	1	9	7	9				7							
1	Mahend	4.	8	4	8.	6.	3.	76	89	63	3	2	1	1	0	2	1	2	0	37.	10	4	97.	96.4
2	ergarh	7	9	2	74	90	6	.8	.5	.0	6	6	7	1		0	0			25	6	8	29	2
		7	6	3			6	8	6		0	4	2	0			3							
1	Mewat	5.	9	6	26	3.	1.	51	68	33	3	2	7	3	0	1	8	1	1	26.	71	2	98.	84.3
3		8	0	7	.8	79	5	.9	.5	.7	9	6	4	2		0	4			81		9	03	8
		4	7	0	1		4	9	6	1	2	4												
1	Palwal	4.	8	6	20	6.	4.	66	81	49	2	1	1	6	0	1	7	2	0	30.	64	3	99.	84.3
4		8	8	1	.3	48	0	.7	.5	.8	5	9	1	0		3	8			05		9	85	8
		7	0	3	1		0	2	9	5	8	8	0											
1	Panchku	1.	8	3	10	15	1.	75	82	67	1	1	5	2	1	7	5	1	0	38.	32	1	98.	65.3
5	la	5	6	0	.0	.4	3	.6	.6	.0	7	1	8	8			1			19		0	06	9
		3	3	5	6	8	8	4	6	5	3	4												
1	Panipat	3.	8	5	17	8.	3.	72	81	61	1	1	9	6	2	1	9	1	1	34.	82	3	93.	86.6
6		9	6	4	.7	83	5	.0	.8	.7	6	3	8	2		5	0			12		5	75	8
		3	0	7	3		0	5	2	4	5	8												
1	Rewari	4.	9	4	11	7.	3.	79	91	67	3	2	1	9	4	1	1	4	2	39.	12	5	99.	
7		0	0	3	.7	92	7	.6	.4	.0	6	4	5	1		5	0			64	1	4	49	105.
		2	7	5	3		8	9	1	3	5	5	6				7							63
1	Rohtak	3.	8	3	8.	19	3.	76	86	66	1	1	1	8	2	2	1	6	1	34.	10	4	99.	
8		7	5	7	38	.6	6	.8	.0	.0	2	2	1	2		1	1			58	8	0	26	99.3
		1	2	5		9	3	1	1	8	8	1	4				3							4
1	Sirsa	5.	8	2	12	7.	8.	65	73	56	3	2	1	7	4	2	1	2	3	40.	17	7	98.	
9		9	9	3	.5	57	3	.4	.8	.0	1	6	7	9		1	4			65	3	8	78	109.
		3	8	2	8		9	1	2	1	7	7	9				6							68
2	Sonipat	6.	8	5	10	8.	5.	76	85	66	3	2	2	1	2	2	1	4	4	37.	17	8	96.	
0		2	5	0	.9	42	1	.9	.9	.3	1	6	0	4		7	6			75	6	3	24	131.
		2	0	4	2		8	3	7	9	4	3	8	0			1							61

2	Yamuna	4.	8	4	12	10	6.	73	80	65	5	3	1	4	0	1	1	2	2	31.	5	96.	
1	nagar	4	8	4	.5	.0	2	.0	.8	.9	4	5	1	5		4	1			74	8	56	104.
		8	2	2	3	8	8	8	1	2	2	4	5				1						72



Figure 1

Disparities in the Level of Economic Development:

The overall district level inequalities in the level of economic development are also a result of the spatial patterns of such development diversity. The many districts of the state have different levels of economic development as well. Developmental inequality at the district level is shown by a composite index development approach of all indicators of the economy. The district-level disparities in development are displayed by the composite development index value of all economic sector variables. The total state of economic development disparity at the district level is shown by all of the chosen economic development indicators. The state has been

separated into the following degrees of inequality in order to understand the economic inequality at the district level that is currently being presented. (Figure 2 and Table 02).

Table 2 demonstrates that Fatehabad, Hisar, and Sirsa are highly developed districts in terms of economic development. According to an examination of 13 factors, these districts have a composite development index score better than 119.23, which is an excellent score. Ambala, Bhiwani, Faridabad, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Palwal, Rewari, Panchkula, Panipat, Rohtak, Sonipat, and Yamunanagar are among the medium-developed districts. Mahendergarh, Gurgaon, and Mewat are among the districts with a composite development index score that ranges from 65.24 to 134.78, or less than 134.78, according to an examination of 13 variables. According to a review of 13 factors in table 2, this district's composite development index score is less than 65.24.

Table 2 Composite index of Economic development

	District	1	2	3	4	5	6	7	8	9	10	11	12	13	CID
1	Ambala	1.73	3.72	156.81	0.7	0.6	0	3.68	167.3	127	25.57	41	271	0.11	66.78
2	Bhiwani	3.05	10.45	192.45	1.6	6.3	6.5	6.58	199.5	72	18.21	30	83	2.68	110.34
3	Faridabad	1.88	1.04	183.78	0.8	1.4	0	1.17	188.9	148	16.31	56	271	1.67	70.63
4	Fatehabad	2.44	6.31	185.26	6.7	7.5	17.0	7.23	183.8	92	30.31	39	249	1.55	135.38
5	Gurgaon	1.62	2.37	139.28	0.4	2.1	0	2.31	146.5	210	12.02	45	142	0.70	61.55
6	Hisar	3.25	9.35	185.53	3.6	9.0	26.3	8.70	202.2	51	26.00	35	185	2.72	158.06
7	Jhajjar	2.09	4.59	142.33	2.1	4.1	0.2	3.94	157.0	126	16.37	70	90	1.17	76.98
8	Jind	2.61	6.70	196.21	9.0	8.6	9.1	7.53	192.2	107	22.24	30	219	2.38	130.69
9	Kaithal	2.75	5.69	188.11	13.1	6.9	0.7	6.55	188.6	160	26.55	32	224	1.77	119.77
10	Karnal	2.47	5.55	197.46	14.2	6.9	0	6.42	197.0	104	25.91	48	299	1.98	122.15
11	Kurukshetra	2.67	4.23	188.66	9.8	4.6	0	4.92	187.4	254	33.23	49	344	1.28	116.34
12	Mahendergarh	1.82	4.25	177.48	0	1.6	0.2	4.11	119.8	103	12.32	21	119	1.34	60.35
13	Mewat	1.48	3.01	161.68	0.5	3.0	0	2.18	152.2	91	20.42	26	130	1.55	61.81
14	Palwal	1.67	2.93	182.69	2.5	4.0	0	3.06	191.5	132	22.80	76	318	1.57	88.28
15	Panchkula	1.76	0.68	162.5	6.8	3.5	0	0.52	156.3	119	11.43	284	131	0.41	96.82
16	Panipat	1.49	2.68	198.94	6.4	3.5	0	3.10	198.9	169	25.52	11	254	1.13	83.29
17	Rewari	1.81	3.55	152.38	0.2	1.9	0.1	3.55	137.6	175	10.07	45	239	0.89	67.40
18	Rohtak	2.58	3.94	160.00	2.9	4.2	1.6	3.65	175.0	89	15.13	56	251	1.32	84.20
19	Sirsa	2.80	11.13	173.67	5.1	11.2	38.2	12.09	178.4	82	35.47	34	208	2.40	192.65
20	Sonipat	1.35	4.31	194.11	7.5	5.7	0.1	4.95	192.1	149	24.70	56	291	1.63	102.16



Figure 2

Disparities in the Level of Socio-Economic Development:

The goal of the current study is to determine the level of socioeconomic development in the state of Haryana, which is the study's central focus. By using a level method, an effort is made to categorise each district's socioeconomic development level. This will make it easier to identify the regions at various socioeconomic development levels. This could be helpful in coming up with a strategy to lessen the inequality in regional growth. It will be helpful to address the concerns of inclusive and sustainable development by using the district level socio-economic development evaluation. This will help categorise the districts with socioeconomic development that is quite similar. Three groups are used to categorise the socioeconomic

development level. Table 3 and Figure 3 illustrate Haryana's level of socioeconomic development.

Hisar, Sirsa, and Bhiwani are among the districts with the highest socioeconomic development, according to table 3. According to an analysis of socio-economic variables, these districts have a strong score for their composite development index, which is more than 246.23. The following districts are considered to be of medium development: Ambala, Jhajjar, Jind, Kaithal, Karnal Kurukshetra, Palwal, Panipat, Rewari, Rohtak, Yamunanagar, Mahendergarh, Fatehabad, Sonipat, and Panchkula. According to a review of socio-economic variables, Gurgaon, Mewat, and Faridabad are low developed districts with composite development index scores that range from 154.22 to 246.23, which is lower than the overall score of 246.23. According to a review of the socio-economic indicators in the table, this district's composite development index score is lower than 65.24.

Table 3 Composite index of Socio-Economic development -2011

Sr.	District	Composite index of	Composite index of	Composite index of Socio-
No.		Social development -	Economic development -	Economic development -2011
		2011	2011	
1	Ambala	96.46	66.78	163.24
2	Bhiwani	146.76	110.34	257.1
3	Faridabad	81.28	70.63	151.91
4	Fatehabad	90.65	135.38	226.03
5	Gurgaon	83.41	61.55	144.96
6	Hisar	128.57	158.06	286.63
7	Jhajjar	99.66	76.98	176.64
8	Jind	104.93	130.69	235.62
9	Kaithal	92.89	119.77	212.66
10	Karnal	118.78	122.15	240.93
11	Kurukshetra	93.03	116.34	209.37
12	Mahendergarh	96.42	60.35	156.77
13	Mewat	84.38	61.81	146.19
14	Palwal	84.38	88.28	172.66
15	Panchkula	65.39	96.82	162.21
16	Panipat	86.68	83.29	169.97
17	Rewari	105.63	67.40	173.03
18	Rohtak	99.34	84.20	183.54
19	Sirsa	109.68	192.65	302.33
20	Sonipat	131.61	102.16	233.77

21	Yamunanagar	104.72	94.56	199.28
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Conclusion

Regional disparities and the socioe-conomic growth of the state of Haryana are connected. Growth on a social and economic level Both of these districts have fairly middling levels of development: Ambala, Faridabad, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Palwal, Panipat, Rewari, Rohtak, and Yamunanagar. Therefore, it is necessary to lessen the difference in development between districts. Therefore, this might help to lessen the differences in socioeconomic development levels. It is envisaged that this kind of research would successfully provide adequate proof regarding the challenges and opportunities of socioeconomic development of micro level areas. Therefore, it is likely that the results of this research will add to knowledge of the regional breadth of socioeconomic growth of India as a whole and of the state of Haryana.

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