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Human Development in Telangana – An Analytical Study

Dr. M. Vara Prasad[1]

Dr.V. Ramesh[2]

ABSTRACT:

This paper is a study of regional disparities across states of India in terms of human development focusing on the health and education aspects. The study tries to look at the human development aspects of Telangana state at a District level. The study reveals that higher the per capita income of the State or District the higher is the literacy rate and the lower the Infant Mortality rate, which implies the higher the income the higher the education and health indicators. For all India the Per capita NSDP has declined but the IMR has risen showing an increase in disparities across the States with respect to Health during 2001 and 2011. When HDI index is calculated for the Districts of Telangana, it is clear that the HDI index has improved for all the districts but the rate of change of improvement varied from district to district.

An important objective of development is to reduce regional disparities. Government has been helping the backward States with higher allocations, so that regional disparities could be reduced. But the reform process has been emphasising the use of market forces to attract investments. Experience reveals that the relatively developed regions are able to attract more resources - both economic and social - if markets are given a free play. The question of reducing regional disparities is sidelined. It would, therefore, be advisable to understand the impact of economic reforms on regional disparities among the States especially with respect to health and education.

Health and education are the important sectors in Social Sector. The objective of growth with equity has been the planned strategy since fifth plan onwards. This comes true with the spread of the fruits of these two sectors to the down trodden. Keeping this in view, the researchers made a maiden attempt to examine the regional disparities as regards to the health and education in the country and the State of Telangana as well.

[1] Associate Professor, Dept. of Economics, University College, Satavahana University, Karimnagar.
[2] Assistant Professor, Dept. of Sociology, University College, Satavahana University, Karimnagar.

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Objectives:

The broad objectives of the study are mentioned hereunder:

i. to understand the relationship between income, education and health indicators for India and Telangana;
ii. to study the Health disparities in India and Telangana;

Hypotheses:

The hypotheses of the study are as follows:

i. The higher the Per capita income of the region the higher the Health and Education indicators

Methodology:

The present study is primarily based on the secondary data. The data is collected for different variables of health and education from Economic Survey 2013-14 for all India and from Statistical Abstract of Andhra Pradesh 2007, census of India, 2011,Govt.of India and Directorate of Economics and Statistics, Govt. of Telangana and Socio-economic outlook Report prepared by Center for Economics and Social Studies (CESS). The data is compared for 2001 and 2007 to cover the post reform period. Correlation co-efficients and measures of the dispersion have been utilized for the analysis of the data. The limitation being the Infant Mortality Rate (IMR) is taken for 2007 only across the Districts for comparison as it is not available for 2011. For Per capita Gross District Domestic Product (GDDP), 1993-94 and 2003-04 data is used across the Districts of Andhra Pradesh due to non-availability of data. Similar limitations exist for Infant Mortality Rate (IMR) and Gross Enrolment Ratio (GER).

Growth Rates of Income across the States:

Data provided in Table-1 reveal that NSDP in forward States indicates a growth rate of 7.73 per cent per annum during the period 1990-91 to 2000-01, but as against this, it grew in backward States at merely 1.87 per cent. This only underlined the fact that instead of reducing, it has further widened regional inequalities. This can be observed by making a comparison of per capita NSDP. In case of Bihar, the per capita NSDP growth was negative to the extent of (-) 2.52 per cent during 1990-91 and 2000-01. In case of Uttar Pradesh, it was just 0.80 per cent. These two States account for 27 per cent of total population and thus, they pulled down the average all-India growth of per capita NSDP. Obviously, the period of economic reforms has resulted in increasing regional disparities. This was due to the fact that approval of investment proposals and grant of financial assistance helped the forward States to further accelerate growth leaving behind the backward States which were not favoured by the market forces. Naturally, regional disparities in terms of growth of NSDP - both total and

per capita - widened further. But after 2000-01 when the second phase of reforms started the backward States Assam and Orissa have recorded a two digit growth of 22 percentage and 24 percentage respectively during 2001-05 in the State NSDP with respect to percapita NSDP too these two states recorded a major growth as compared to the forward States. This underlines the fact that the second phase of economic reforms to some extent benefitted some of the backward States.

Education and Health indicators across the States:

Tables -2 & 3 present data on education and health indicators. Literacy rate and Gross Enrolment Ratio of children going to school between the classes I to V and VI to VIII are considered as a good indicator of human development in terms of education. For health, the indicators used are life expectancy, infant mortality, birth and death rates.

While it is possible to achieve higher levels of human development even with relatively lower levels of economic development has been demonstrated by Kerala and Tamil Nadu, yet, by and large, better levels of per capita NSDP are associated with higher levels of human development in terms of education and health. For this purpose, it is necessary to step up investment in education and health infrastructure. Among the backward States Bihar, Uttar Pradesh and Rajasthan have very poor record in literacy, more especially female literacy. Even among the forward States - Haryana, Gujarat and Andhra Pradesh have a very poor record in female literacy.

Most of the backward States have poor record in health indicators like infant mortality, birth and death rates. It may be pointed out that among the forward states, Haryana indicates a poor record in terms of infant mortality, though it enjoys a third rank in per capita NSDP. While Kerala and Tamil Nadu represent cases where with a relatively lower level of economic development, a high level of human development has been achieved, Haryana is on the other extreme, where a high level of economic development has not succeeded in ushering higher levels of human development, although some progress has been achieved.

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Table – 2 Human Development Indicators

Table – 1 Net State Domestic Product and Percapita Net State Domestic Product during 1990-91 to 2005-06

.	NSDP					Per Capita NSDP				
	1990-91	2000-01	2005-06	Average growth rate 1990-91to 2000-01	Average growth rate 2000-01 to 2005-06	1990-91	2000-01	2005-06	Average growth rate 1990-91 to 2000-01	Average growth rate 2000-01 to 2005-06
Pun	23,693	37,413	57477.02	5.79	10.73	11,776	15,390	21695.03	3.07	8.19
Har	18,215	28,655	55811.80	5.73	18.95	11,125	14,331	24119.25	2.88	13.66
Mah	79,869	145734.00	239901.24	8.25	12.92	10,159	15,172	23031.68	4.93	10.36
Guj	36,207	63,161	115926.71	7.44	16.71	8,788	12,975	21215.53	4.76	12.70
TN	43,937	79,121	120824.84	8.01	10.54	7,864	12,779	18607.45	6.25	9.12
AP	45,131	75,868	130842.86	6.81	14.49	6,873	9,982	16280.12	4.52	12.62
Ker	19,774	34,451	63669.57	7.42	16.96	6,851	10,627	19048.45	5.51	15.85
Karn	29,845	62,477	94909.94	10.93	10.38	6,631	11,910	16950.93	7.96	8.47
WB	40,633	78,108	132918.01	9.22	14.03	5,991	9,778	15666.46	6.32	12.04
Raj	29,713	44,335	68736.02	4.92	11.01	6,760	7,937	11095.03	1.74	7.96
MP	41,833	41,530	64057.14	-0.07	10.85	6,350	7,003	9718.63	1.03	7.76
Assam	12,299	15,470	32608.70	2.58	22.16	5,574	5,867	11551.55	0.53	19.38
UP	74,791	94,612	149811.18	2.65	11.67	5,342	5,770	8237.27	0.80	8.55
Bihar	37,607	27,383	44103.11	-2.72	12.21	4,474	3,345	4891.30	-2.52	9.25
Orissa	13,450	18,690	41670.81	3.90	24.59	4,300	5,187	10744.72	2.06	21.43
India	623407.00	1062616.00	1783683.85	7.05	13.57	7,430	10,428	15972.67	4.03	10.63

Source: Economic Survey (2007-08) and the same is for Table-2

		Life expectance at birth (2006-10)			Infant Mortality Rate (Per 1000 live births) (2011)			Birth rate (Per 1000) (2011)	Death rate (Per 1000) (2011)
		Male	Female	Total	Male	Female	Total	Total	Total
1	Andhra Pradesh	63.50	68.20	65.80	40	46	43	17.50	7.50
2	Assam	61.00	63.20	61.90	55	56	55	22.80	8.00
3	Bihar	65.50	66.20	65.80	44	45	44	27.70	6.70
4	Gujarat	64.90	69.00	66.80	39	42	41	21.30	6.70
5	Haryana	67.00	69.50	67.00	41	48	44	21.80	6.50
6	Karnataka	64.90	69.70	67.20	34	35	35	18.80	7.10
7	Kerala	71.50	76.90	74.20	11	13	12	15.20	7.00
8	Madhya Pradesh	61.10	63.80	62.40	57	62	59	26.90	8.20
9	Maharashtra	67.90	71.90	69.90	24	25	25	16.70	6.30
10	Odisha	62.20	63.90	63.00	55	58	57	20.10	8.50
11	Punjab	67.40	71.60	69.30	28	33	30	16.20	6.80
12	Rajasthan	64.70	68.30	66.50	50	53	52	26.20	6.70
13	Tamil Nadu	67.10	70.90	68.90	21	23	22	15.90	7.40
14	Uttar Pradesh	61.80	63.70	62.70	55	59	57	27.80	7.90
15	West Bengal	67.40	71.00	69.00	30	34	32	16.30	6.20
	India	**64.60**	**67.70**	**66.10**	**43**	**46**	**44**	**21.80**	**7.10**

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Table-3

GER(2004-05)LITERACY RATE(2011)

	GER classes I-V 2011-12	GER classes VI-VIII 2011-12	Literacy rate 2011
Andhra Pradesh	99.50	80.10	60.4
Assam	94.30	67.90	69.3
Bihar	127.70	64.60	59.8
Gujarat	120.30	85.70	71.7
Haryana	94.90	83.50	71.4
Karnataka	104.70	90.70	68.7
Kerala	91.40	103.90	93.0
Madhya Pradesh	135.20	101.40	63.9
Maharashtra	104.70	92.40	77.0
Odisha	119.40	82.00	70.2
Punjab	108.80	94.00	71.4
Rajasthan	**109.90**	**82.40**	61.4
Tamil Nadu	111.80	112.30	73.5
Uttar Pradesh	126.90	79.90	65.5
West Bengal	92.70	86.30	72.1
INDIA	**116.00**	**85.50**	**67.8**

Source: Economic Survey (2007-08)

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Correlation between Health and Education Indicators of India and Andhra Pradesh:

When we observe the Net State Domestic Product (NSDP), Literacy rate, Infant Mortality Rate (IMR) and Gross Enrolment Rate (GER) for 2001 it is clear that there is a positive and significant correlation between Per-capita NSDP and Literacy rate as expected but insignificant relationship between Per capita NSDP and GER. Per capita income has a negative correlation with IMR as expected meaning higher income States are witnessing a lower level of IMR. The correlation value is high 0.63 for Percapita NSDP and adult literacy and -0.53 between Percapita NSDP and IMR meaning strong correlation but whereas the correlation value is low at 0.06 with positive sign between Per capita NSDP and GER. The literacy rate and IMR are also highly correlated with negative sign which means literacy rate has a strong relationship with the decline of IMR. (Refer Table-4)

Table - 4

Correlation Matrix of Education and Health in India for 2001

	NSDP 2000-01	LITERACY RATE	IMR 1999	GER 2001 I-V classes
NSDP2000-01	1			
LITERACY RATE	0.637683	1		
IMR 1999	-0.53744	-0.72891	1	
GER 2001 I-V classes	0.061373	0.138838	0.202194	1

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Table - 5

Correlation Matrix of Education and Health in India for 2011

	NSDP2005-06	LITERACY RATE 2011	IMR 2010	GER 2011 I-V classes
NSDP2005-06	1			
LITERACY RATE 2011	0.717359	1		
IMR 2011	-0.582	-0.6978	1	
GER 20011 I-Vclasses	-0.28211	-0.00733	0.28369	1

Table - 6

Correlation Matrix of Education and Health in Telangana for 2011

	Gr 2004-05 to 2011-12	LITERACY 2011	IMR 2007
Gr 2004-05 to 2011-12	1		
LITERACY 2011	0.724	1	
IMR 2007	-0.864	-0.47603	1

When compared with per capita NSDP and IMR, with literacy rate and IMR it is found that literacy rate and IMR relationship is stronger than that of the Per capita NSDP and IMR. Therefore, it can be inferred that higher literacy rate has significant effect in reducing IMR compared to per capita NSDP. Similar findings are found with respect to Correlation matrix for 2001 too except that there is an insignificant and negative correlation between NSDP and GER. (Refer Table. 4)

When we observe the correlation matrix of Per capita income of GDDP, literacy rate,

IMR and GER for 2011 it is clear that per capita income has a positive correlation on literacy rate as expected, but unexpectedly a negative correlation with Gross enrolment ratio. Whereas Per capita income has a negative correlation with IMR as expected meaning higher income Districts are witnessing a lower level of IMR. From the correlation matrix is given below it is clear that the correlation value is high about 0.69 for Per capita GDDP and adult literacy and Per capita GDDP and IMR meaning strong correlation but whereas the correlation value is low at 0.10 with negative sign between Per capita GDDP and GER. (Refer Table. 5). The literacy rate and IMR are also highly correlated with negative sign which means literacy rate has a strong relationship with the decline of IMR. When compared with per capita GDDP and IMR, with literacy rate and IMR it is found that literacy rate and IMR relationship is stronger than that of the Per capita GDDP and IMR. Therefore, it can be inferred that higher literacy rate has significant effect in reducing IMR compared to per capita GDDP. The correlation matrix of Telangana for 2011 has shown a proper sign as expected but insignificant relationship.

Table-7

DISTRICTS ARRANGED BY RANK

DISTRICT	2001	Rank 2007	Rank 2011
Hyderabad	1	1	1
Rangareddy	2	2	2
Medak	5	3	9
Khammam	4	4	7
Karimnagar	3	5	4
Warangal	6	6	3
Adilabad	8	7	6
Nalgonda	9	8	5
Nizamabad	7	9	10
Mahabubnagar	10	10	8

Conclusion:

From the above analysis, it can be summarized that the higher the per capita income of the State or District the higher is the literacy rate and the lower the Infant Mortality rate, which implies the higher the income the higher the education and health indicators. For all India the Per capita NSDP has declined but the IMR has risen showing an increase in disparities across the States with respect to Health during 2001 and 2011. When HDI index is calculated for the Districts ofTelangana, it is clear that the HDI index has improved for all the districts but the rate of change of improvement varied from district to district.

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