

# Measuring the Quality of Life: Some Emerging Trends in the Indian Context

**Dr. Rajrupa Mitra**

Assistant Professor, Department of Economics  
Raja Peary Mohan College, Uttarpara, West Bengal

## **Abstract**

Quality of life enjoyed by individuals and the nature and magnitude of human development are quite interrelated. Human development enlarges people's freedom and opportunities and improves their physical and mental well-being. Consequently, it implies an enhanced quality of life and incorporates expansion of the richness of human life, rather than simply the richness of the economy. It is basically an approach focused on people and their opportunities and choices. Although human development has substantially contributed to enrichment of human lives, it has not benefitted everyone in the same manner. There are barriers to universal development in the form of deprivations and inequalities, discrimination and exclusion, social norms and values, prejudice and intolerance. The inevitable result of such deprivations is a steep deterioration in the quality of life. The objective of this paper is to measure and assess the 'quality of life' in different states of India. This is done in respect of certain vital indicators of human development (as well as the quality of life), namely educational attainment, health and standard of living. Findings of the study confirm an emerging trend of gross disparity among Indian states as far as the level and magnitude of human development as also the quality of life is concerned.

**Keywords:** Quality of life, Freedom, Choice, Human Development, Literacy, Health, Well-being.

## **Quality of Life and Human Development**

Quality of life enjoyed by individuals and the nature and magnitude of human development are quite interrelated. Human development enlarges people's freedom and opportunities and improves their physical and mental well-being. Consequently, it implies an enhanced quality of life and incorporates expansion of the richness of human life, rather than simply the richness of the economy. It is development of the people through building human capabilities, by the people through active participation in the processes that shape their lives and for the people by improving their lives (HDR, 2016). It is basically an approach focused on people and their opportunities and choices. It revolves around enhancement of human well-being rather than pursuing material opulence, around expansion of capabilities rather than maximization of income and around enlargement of freedom rather than optimization of growth.

Human development is incomplete without human freedom; and freedom is the most vital component of human development strategies. Needless to say, freedom enhances the quality of life enjoyed by individuals during their lifetime and absence of freedom would absolutely negate the living standards. There are two vital aspects of such freedom---freedom of well-being represented by functioning and

capabilities and freedom of agency represented by voice and autonomy. It has been rightly asserted---- *If human development is the outer shell, freedom is its priceless pearl* (HDR 1990).

However, although human development has substantially contributed to enrichment of human lives, it has not benefitted everyone in the same manner. There are barriers to universal development in the form of deprivations and inequalities, discrimination and exclusion, social norms and values, prejudice and intolerance. Such shocks and vulnerabilities thwart and even reverse the progress of the development process, and inevitably lead to a steep deterioration in the quality of life.

### **Methodology of Study**

The objective of this paper is to measure and assess the ‘quality of life’ in different states of India. This is done in respect of certain vital indicators of human development (as well as the quality of life), namely educational attainment, health and standard of living. As a matter of fact, human development incorporates many indicators which promote and improve the quality of life. But these three parameters have been chosen in view of their indispensability in determination of ‘quality living’. A composite index termed the Modified Development Index (MDI) comprising the three sub-indices of educational attainment, health and standard of living has been constructed. The different states are ranked in accordance with their scores, as computed by the MDI, and necessary policy interventions in the context of the states are outlined. For the purpose of this study, data have been collected from secondary sources.

### **Determinants of Quality of Life and Human Development**

Quality of life is invariably enhanced with the ability to choose and human development is a process of enlarging people’s choices. It is a multi-dimensional concept involving a wide array of indicators and parameters. In any system for measuring and monitoring human development, the ideal would be to include as many variables as possible for obtaining a comprehensive picture. However, the scope of this paper is restricted to three broad indicators ----Education, Health and Standard of living. The choice of these variables may be justified by the fact that, at all levels of development, the three essential choices are for people to acquire knowledge, to lead a long and healthy life and to have access to basic amenities needed for a decent standard of living.

At the very outset we focus on Educational Attainment.

### **Educational Attainment**

For the purpose of simplicity, we have taken up adult literacy and GER as variables determining educational attainment. Literacy rate as per Census 2011 has been used here. Literacy figures are a crude reflection of access to education. Hence, in addition to literacy rates, Gross Enrolment Ratio (GER) has also been used. GER is the ratio of the number of students enrolled in higher education to the total population in that age group.

The table below presents the adult literacy rates and GER of major Indian states.

**Table 1: Literacy and GER in Major States**

State	Literacy (%) (2011)	GER
Andhra Pradesh	67.0	32.4
Assam	72.2	17.2
Bihar	61.8	14.4
Gujarat	78.0	20.2
Haryana	75.6	29.0
Himachal Pradesh	82.8	36.7
Jammu and Kashmir	67.2	25.6
Karnataka	75.4	26.5
Kerala	94.0	34.2
Madhya Pradesh	69.3	20.0
Maharashtra	82.3	30.2
Odisha	72.9	21.0
Punjab	75.8	28.6
Rajasthan	66.1	20.5
Tamil Nadu	80.1	46.9
Uttar Pradesh	67.7	24.9
West Bengal	76.3	18.5

Source: Office of the Registrar General of India and AISHE 2016-17

States with high literacy rates are Kerala, Himachal Pradesh, Maharashtra, Tamil Nadu, Gujarat, West Bengal, Punjab, Haryana and Karnataka. On the other hand, states with high GER are Tamil Nadu, Himachal Pradesh, Kerala, Andhra Pradesh and Maharashtra. Bihar occupies the lowest position among the states in terms of both literacy rate and GER.

We now take up a very vital and core component namely, health.

❖ **Health**

Life expectancy at birth, child immunization and nutritional status of children have been taken as variables determining health index. Life expectancy is important because long life is valuable in itself. Immunization of children, as also their nutritional status through adequate diet, is important for health and nourishment.

The table below shows the life expectancy, child immunization and child nutrition in major Indian states.

**Table 2: Life Expectancy, Child Immunization and Child Nutrition in Major States**

State	LE*	CI** (%)	CN*** (%)
Andhra Pradesh	69.0	65.3	7.6
Assam	64.7	47.1	8.9
Bihar	68.4	61.7	7.5
Gujarat	69.1	50.4	5.2
Haryana	69.1	62.2	7.5
Himachal Pradesh	72.0	69.5	10.9
Jammu and Kashmir	73.2	75.1	23.5
Karnataka	69.0	62.6	8.2
Kerala	75.2	82.1	21.4
Madhya Pradesh	64.8	53.6	6.6
Maharashtra	72.0	56.3	6.5
Odisha	66.9	78.6	8.5
Punjab	72.1	89.1	5.9
Rajasthan	67.9	54.8	3.4
Tamil Nadu	71.0	69.7	30.7
Uttar Pradesh	64.5	51.1	5.3
West Bengal	70.5	84.4	19.6

Source: Women and Men in India 2017, NFHS 4 2015-16

\*LE stands for Life Expectancy at Birth

\*\*CI stands for Child Immunization (children aged 12-23 months fully immunized (BCG, Polio, DPT and Measles)

\*\*\*CN stands for Child Nutrition (children aged 6-23 months receiving adequate diet)

With regard to the parameters underlying health, Kerala tops the list in life expectancy, while Punjab and Tamil Nadu rank first in child immunization and child nutrition respectively. Lowest life expectancy, child immunization and child nutrition have been recorded in the states of Uttar Pradesh, Assam and Rajasthan respectively. In the context of health, states with appreciable performance are Kerala, Himachal Pradesh, West Bengal, Jammu & Kashmir, Punjab and Tamil Nadu.

Finally, we focus on standard of living, which, unarguably, influences the quality of life of individuals.

### ❖ **Standard of Living**

Access to basic goods and services is extremely important from the point of view of development. The extent to which people can improve their capabilities depends largely on their access to basic goods and services, which are the minimum requirements for decent living. Some such basic amenities which have been cited and used, as determinants of standard of living, are supply of electricity, improved drinking water sources, improved sanitation facilities and usage of clean fuel for cooking. In the context of our study, clean fuel implies electricity, LPG, biogas etc. and improved sanitation implies flush to pipe sewer systems and/or toilets not shared with any other household.

We present the percentages of households with electricity, improved drinking water sources, improved sanitation practices and using clean fuel for cooking.

**Table 3: Supply of Electricity, Safe Water, Improved Sanitation and Clean Fuel in Major States**

State	Households with electricity (%)	Households with improved drinking water source (%)	Households with improved sanitation (%)	Households using clean fuel for cooking (%)
Andhra Pradesh	98.8	72.7	53.6	62.0
Assam	78.2	83.8	47.7	25.1
Bihar	58.6	98.2	25.2	17.8
Gujarat	96.0	90.9	64.3	52.6
Haryana	98.8	91.7	79.2	52.2
Himachal Pradesh	99.5	94.9	70.7	36.7

Jammu and Kashmir	97.4	89.2	52.5	57.6
Karnataka	97.8	89.3	57.8	54.7
Kerala	99.2	94.3	98.1	57.4
Madhya Pradesh	89.9	84.7	33.7	29.6
Maharashtra	92.5	91.5	51.9	59.9
Odisha	85.5	88.8	29.4	19.2
Punjab	99.6	99.1	81.5	65.9
Rajasthan	91.0	85.5	45.0	31.8
Tamil Nadu	98.8	90.6	52.2	73.0
Uttar Pradesh	70.9	96.4	35.0	32.7
West Bengal	93.7	94.6	50.9	27.8

Source: NFHS 4 2015-16

All most all the states (Punjab, Himachal Pradesh, Kerala, Haryana, Andhra Pradesh, Tamil Nadu, Karnataka, Jammu & Kashmir, West Bengal, Maharashtra and Rajasthan) have done well in the matter of supply of electricity to households. As far as households with improved and safe drinking water facilities are concerned, Punjab tops the list followed by Bihar, Uttar Pradesh, Himachal Pradesh, West Bengal, Kerala, Haryana, Maharashtra and Tamil Nadu. There is a vast difference among states with regard to improved sanitation practices. Kerala is the first ranker in this regard (98.1%), followed by Punjab, Haryana, Himachal Pradesh and Gujarat. Other states are lagging behind in this respect. Tamil Nadu records the highest number of households using clean fuel for cooking, followed by Punjab, Andhra Pradesh, Maharashtra, Jammu & Kashmir and Kerala.

### Constructing the Modified Development Index

The main motive of this paper is to have an understanding of the performances of the major Indian states with regard to important indicators of quality of life and human development. The ambit of the word ‘development’ is huge involving a wide gamut of social as well as economic indicators. For the sake of brevity and simplification, the ‘quality of life’ and the level of human development in 17 major states of India have been examined from the purview of educational attainment, health and standard of living.

A composite index, which we have termed the Modified Development Index (MDI), is constructed with the help of data from Tables 1, 2 and 3. For measuring the quality of life, the paper draws from and is based on the method of calculation adopted in case of Human Development Index of the United Nations---although it differs in the choice of parameters. This is mainly because some parameters used in this

study are of prime significance in the context of Indian states e.g., child immunization, child nutrition, supply of electricity, safe drinking water, improved sanitation and clean fuel. Access to these parameters is taken for granted in the developed countries, and studying them in the context of development becomes meaningless there. However, these parameters assume huge importance in the context of a developing country like India, where majority of the people are dependent on the primary sector for living and where many of the remote parts still lack access to basic amenities of life.

The MDI considers only a few of the socio-economic indicators---- there are many others which have been kept outside the purview of this study. Such a simplistic measure depicts the performances of the states in respect of three broad areas viz. education, health and standard of living.

The MDI consists of 3 sub-indices viz. Educational Attainment Index, Health Index and Standard of Living Index. Each of these sub-indices has underlying parameters. The parameters underlying educational attainment are literacy and Gross Enrolment Ratio (GER), those underlying health are life expectancy, child immunization and child nutrition, while the parameters underlying standard of living are access to electricity, safe drinking water, improved sanitation and usage of clean fuel. Equal weightage is attached to parameters/indicators within a sub-index. The MDI is calculated as a simple average of the three sub-indices. Finally, we have ranked the states in accordance with their MDI scores and tried to assign to which level of human development, the states may be categorized into.

The MDI has been calculated as:

$$MDI = 1/3 (EAI + HI + SOLI)$$

[Where Educational Attainment Index (EAI) =  $\frac{1}{2}$  (Literacy rate + GER)

Health Index (HI) =  $\frac{1}{3}$  (Life Expectancy+ Child Immunization+ Child Nutrition)

Standard of Living Index (SOLI) =  $\frac{1}{4}$  (Supply of Electricity + Access to safe Water + Improved Sanitation + Usage of Clean Fuel)]

Although this analysis is a departure from the conventional analysis with respect to the social indicators, nevertheless its relevance is aptly justifiable in the context of a developing country like India.

The table below depicts the scores of the major Indian states in Educational Attainment Index, Health Index and Standard of Living Index and finally the Modified Development Index. The ranks of the states are also shown.

**Table 4: Ranks and Scores of Major States in Modified Development Index**

State	Educational Attainment Index Score	Health Index Score	Standard of Living Index Score	Modified Development Index Score	Rank in MDI
Andhra Pradesh	0.35	0.33	0.54	0.41	10
Assam	0.21	0.07	0.33	0.20	14
Bihar	0	0.29	0.24	0.18	15

Gujarat	0.34	0.19	0.69	0.41	10
Haryana	0.44	0.31	0.76	0.50	8
Himachal Pradesh	0.67	0.50	0.70	0.62	4
Jammu and Kashmir	0.25	0.74	0.66	0.55	5
Karnataka	0.40	0.32	0.68	0.47	9
<b>Kerala</b>	<b>0.80</b>	<b>0.83</b>	<b>0.88</b>	<b>0.84</b>	<b>1</b>
Madhya Pradesh	0.20	0.10	0.38	0.23	13
Maharashtra	0.56	0.34	0.68	0.53	6
Odisha	0.27	0.39	0.34	0.33	11
Punjab	0.43	0.60	0.91	0.65	3
Rajasthan	0.16	0.17	0.45	0.26	12
Tamil Nadu	0.78	0.72	0.76	0.75	2
Uttar Pradesh	0.25	0.05	0.40	0.23	13
West Bengal	0.29	0.68	0.55	0.51	7

Source: Author's computations

### MDI: Performance of the Indian States

In the EAI, Kerala ranks first followed by Tamil Nadu, Himachal Pradesh, Maharashtra and Haryana. Bihar has the lowest score of 0. Other poor performers in this sub-index include Rajasthan, Madhya Pradesh and Assam. The states with appreciable performance in case of both literacy and GER are Kerala, Himachal Pradesh, Karnataka, Maharashtra, Punjab and Tamil Nadu. The states, in order of their ranks in EAI are: Kerala, Tamil Nadu, Himachal Pradesh, Maharashtra, Haryana, Punjab, Karnataka, Andhra Pradesh, Gujarat, West Bengal, Odisha, Jammu and Kashmir, Uttar Pradesh, Assam, Madhya Pradesh, Rajasthan and Bihar.

In the HI too, Kerala ranks first with impressive performances in each of the three indicators. Jammu & Kashmir ranks second, followed by Tamil Nadu, West Bengal and Punjab. Uttar Pradesh has the lowest HI score, mainly due to poor performance in respect of all the three indicators. Other states with low scores are Assam, Madhya Pradesh, Rajasthan, Gujarat and Bihar. Life expectancy is very low in Assam, Madhya Pradesh and Uttar Pradesh. The ranks of the states, as per the HI are: Kerala, Jammu & Kashmir, Tamil



Nadu, West Bengal, Punjab, Himachal Pradesh, Odisha, Maharashtra, Andhra Pradesh, Karnataka, Haryana, Bihar, Gujarat, Rajasthan, Madhya Pradesh, Assam and Uttar Pradesh.

Most of the states have performed well in the SOLI barring a few. In the context of SOLI, the states which have performed reasonably well, in each of the indicators are –Kerala, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Punjab and Tamil Nadu. Punjab ranks first in the SOLI followed by Kerala, Haryana, Tamil Nadu and Himachal Pradesh. Other states which have performed well in this index are Gujarat, Karnataka, Jammu & Kashmir, West Bengal and Andhra Pradesh. The states with low scores in SOLI are Bihar (lowest) followed by Assam, Odisha and Madhya Pradesh.

The ranks of the states, in SOLI, in order, are: Punjab, Kerala, Haryana, Tamil Nadu, Himachal Pradesh, Gujarat, Karnataka, Maharashtra, Jammu and Kashmir, West Bengal, Andhra Pradesh, Rajasthan, Uttar Pradesh, Madhya Pradesh, Odisha, Assam and Bihar.

As far as the overall score of MDI is concerned, Kerala assumes the first position. Performance of Kerala is laudable because it is a consistent performer, occupying first position in the sub-indices of EAI and HI and second in case of SOLI. Tamil Nadu is another consistent state which is 2<sup>nd</sup> in overall MDI, 2<sup>nd</sup> in EAI and 3<sup>rd</sup> in HI and SOLI. Punjab ranks 3<sup>rd</sup> in MDI. Its high score in MDI is mainly attributable to very high (0.91) score in the SOLI. Other states with reasonably good MDI scores are Himachal Pradesh, Jammu & Kashmir, Maharashtra, West Bengal and Haryana. Bihar is at the bottom of the list with the lowest MDI score of 0.18. It scores 0 in EAI being the state with the lowest literacy rate and lowest GER. It ranks lowest in SOLI as well. Its score in HI is marginally better than the other two sub-indices.

### **Conclusion**

The findings of the study confirm an emerging trend of gross disparity among Indian states as far as the level and magnitude of human development as also the quality of life is concerned. Moreover, as per the MDI scores, the gap between the states with very high human development (or superior quality of life) viz. Kerala and Tamil Nadu and the state with alarmingly low score, in this regard, is quite massive. This is indicative of regional disparity in development, which, if not redressed at the proper time will only widen the ‘development gap’ between the so-called advanced and backward states. It is clear from our findings that the states in need of government intervention are Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh, Assam and Odisha. It is only through appropriate policies by Central and State Governments that the level of human development in these states can be elevated.

Thus, it is apparent from our study that deprivations of various forms and magnitudes still persist and human development has been uneven across the states. Hence, policy formulations should aim at bridging the gap between the states with regard to the socio-economic indicators and ensure parity in the levels of ‘human’ development such that improvement in the quality of life is uniform across length and breadth of the country.

Development being a multi-dimensional process involving stability, social justice, and self-reliance, also incorporates the welfare of masses with a humane orientation. Universal human development necessitates a multipronged set of policy initiatives—reaching those left out, pursuing special measures for those with special needs and empowering the stakeholders. Shortfalls or divergences in the values of quality of life

and/or development indicators often ensue due to deprivations and discriminations of various kinds. Hence, for attainment of universal human development and enhancement in the quality of life, first and foremost, barriers and various forms of exclusion have to be overcome and this is what the current Indian scenario calls for, on an urgent basis.

## References

1. Twelfth Five Year Plan (2012-2017), Economic Sectors, volume II, Planning Commission, Government of India.
2. India Human Development Report 2011, Towards Social Inclusion, Institute of Applied Manpower Research, Planning Commission Government of India.
3. All India Survey on Higher Education 2016-17, Ministry of Human Resource Development, Government of India.
4. Millennium Development Goals, Final Country Report of India, Social Statistics Division, Ministry of Statistics and Programme Implementation, Government of India, November 2017.
5. National Family Health Survey 4 (2015-16), India Fact Sheet and State Fact Sheets, Ministry of Health and Family Welfare, Government of India, International Institute of Population Sciences, Mumbai, December 2017.
6. NSS Report 574, Health in India, NSS 71<sup>st</sup> Round, (January-June 2014), Ministry of Statistics and Programme Implementation, Government of India, April 2016. Human Development Report 2016, Human Development for Everyone, United Nations Development Programme.
7. Economic Survey 2017-18, Ministry of Finance, Department of Economic Affairs, Economic Division, Government of India, January 2018.
8. Women and Men in India 2017, Ministry of Statistics and Programme Implementation, Government of India, January 2018.
9. Human Development Report 2016, Human Development for Everyone, United Nations Development Programme.
10. Office of the Registrar General, Ministry of Home Affairs, Government of India.
11. Human Development Report 1990, United Nations Development Programme.