International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

HUMAN-DEVELOPMENT INDEX OF INDIA: CONCEPT AND MEASUREMENT

Dr. Tejbir Singh Rana

Associate Professor, Department of Geography, Shivaji College,
University of Delhi, Delhi-110027.

ABSTRACT

The development of any region is determined by the qualitative improvement in overall lifestyle of the inhabitants in spatio-temporal perspective. The application of technology, monetary flow, mobility and inter-regional exchange of goods are reflected in the form of improved quality of life of overall population in a region. The measurement of Human Development Index (HDI) is based on normalization index (quantitative measurement) where value of data of each state is calculated from 0.000 (zero as lowest value) to 1.000 as highest value (subject to the range of minimum and maximum value) in a given set of data. As per the UNDP standardization, three indicators are taken into consideration for the calculation of human development index of various administrative units (states/UT's) of India. These indicators are a). Average Life Expectancy which reflects the health indicators of the people in a particular region b). Literacy Rate which denotes the awareness and knowledge base of society and c). Per Capita Income indicates the economic parameters of the social group in a region.

Considering the extreme range of data of Indian states and union territories, the HDI is calculated in two categories of states and UT's as Major and Minor States. This division is based on minimum geographical area of 2% to the total geographical area of the country and minimum 0.5% population of an administrative unit to the total population of India. Subsequently 21 Major and 15 Minor states and union territories (as administrative units) reflected the justifiable categorization and ranking of data of Indian states/UTs. Further, on the basis of final range of normalization index, three categories of Indian states/UT's developed as Progressive, Dynamic and Prospective states/UT's.

Keywords:

1. Normalization Index: It is the statistical technique to manipulate, calculate and arrange the data of given areas from higher order to lower order within the range of zero to 1.000.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

2. Inclusive Development: It is the pro-poor approach of state administration that equally values and incorporates the contributions of all stake holders – including marginalized groups –in addressing development issues.

3. Major and Minor States: In Indian perspective, Major and Minor states are divided on the basis of 2% area and 0.5% population to the total area and population of India respectively. States which does not fulfill both the conditions are included in Minor States and rest in Major States category.

4. Cultural Traits: A cultural trait is a characteristic of human action that is acquired by people socially and transmitted through various modes of communication. It allows the knowledge and things part of one culture transmitted to another.

5. Sustainable Development: It is the organizing principle for meeting human development goals while at the same time sustaining the ability of natural system to provide the natural resources and ecosystem upon which the economy and society depend.

6. Demographic: It's the quantifiable characteristics of a given area of population. Demographic analysis can cover criteria such as population size, growth rate, sex-ratio, literacy, religion etc of an area.

INTRODUCTION

Human Development Index (HDI) is the quantitative measurement of human development (which is qualitative in nature) of a region subject to the availability of given data on comparative basis. It is the measurement of development of most developed sub region to the least developed sub region in a larger region subject to availability of data. The demographic and physical size of different region may vary in shape and size which is the drawback of measurement. The human development index is prepared by using the different statistical techniques and ranking from higher to lower level. Various indicators of development are identified and ranked using the derived statistical technique. It is the ranking of states within the given set of data of states which changes with time at different rates.

The nature of ranking the different states or any geographical region shifted from one indicator to multiple indicators. Simultaneously, over the time economic growth as indicator become rapid economic growth as indicator and further which become development as indicator. The development become human-development which is the manifestation of application of technology and utilizing the natural resources in accordance to the availability in a region, Nowadays, human-development become sustainable human development. Though, many state

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

government policies further shifted their objectives to achieve 'sustainable inclusive human development' for equitable accessibility of resources to all sections of society.

Development is a process that creates economic growth, infrastructural progress and constructive change or positive increase in physical, environmental, economic, social and demographic components. It is the systematic use of scientific and technical knowledge to meet specific objectives in enhancing the human capabilities in utilizing the given natural resources and overcoming the natural adversaries. The evolution of cultural traits of a specific society for maintaining self-controlled social order, formation of infrastructure for nurturing the human talent, needs, potential and value addition along with the management of both biotic and abiotic natural resources altogether determines the development. The term development implies to determine the level of living standard of people living in a particular region.

Development indicates the different levels of lifestyle of people of the region, which is the composite outcome of technological advancement and skills of the people in combination with the exploitation of natural resources. Chhota Nagpur Plateau (CNP) is known as mineral-storehouse of India which is rich in variety of metallic, non-metallic and fossil fuel minerals along with rich forest or biotic resources. Even after rich natural resources, the CNP is considered as underdeveloped human resource region in comparison to other regions which are deficient in natural resources. It means development pertains to human lifestyle, cultural traits and living standard of a region and not the availability of natural resources in isolation.

Indicators:

United Nations Development Programme (UNDP) considered three basic parameters or indicators for calculating the HDI of different countries of the world. These three basic parameters are:

a. **Average Life Expectancy** which covers health related indicators of the given society of a region with time as IMR (Infant Mortality Rate) CMR (Child Mortality Rate) CDR (Crude Death Rate), immunization and disease prevention programmes.

b. **Literacy Rate** is an indicator which determines the level of human skill, acceptance of technology and deviation from traditional way of life. It is measured in percent of 7^{+} year population to the total population of an region during particular time.

c. **Per Capita Income** is the economic indicator which determines the employability, economic growth rate and sectoral division of employment in primary, secondary and tertiary activities.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

Normalization of Indicators of Indian States and Union Territories:

To measure the levels of development of Indian states/UT's equal weightage is given to all the three UNDP indicators as:

a. Average Life Expectancy (years) ----- One third weightage (33.33%)
b. Literacy Rate (share of 7^{+} year literate population) ----- One third weightage (33.33%)
c. Per Capita Income (Rs/annum) ----- One third weightage (33.33%)

Total = 100%

The normalization of indicators is the statistical exercise by considering the data/value of highest ranking state of a particular indicator and the data/value of lowest ranking state from the set of data. Further, the difference is obtained of each state by subtracting the value of lowest state data. For example, during 2011 census of India, the Bihar state was the lowest ranking state among the Indian states in literacy rate. So, the literacy rate data/value of each state should be subtracted from the data of Bihar and obtain the value from the data of each administrative units as state or union territories.

After obtaining the difference from lowest ranking state data it should be further divided from the difference of minimum and maximum value of state or union territories data. Subsequently, a range of data from 0.000 (zero value of lowest ranking state) to 1.000 (value of highest ranking state) will be obtained from the set of data. Finally, same calculation should be done for all the three indicators of all the states/data and clubbing all the values of three indicators and calculate the normalization index with equal weightage i.e. one third each.

Formula:

Step I. Calculate the difference (value) of lowest and highest ranking from the set of data/states.

Step II. Subtract the data of individual states from the lowest ranking state data (the value will be known as X).

Step III. The value X is divided from the maximum difference or range of data of each state/UT's as calculated in step I.

Tabulation of Set of Data:

Since all the three indicators carry equal share of value ($1/3^{rd}$ each), therefore the finally obtained data of each state/UTs be added together to procure the level of human development of a

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

particular region.

Further, to measure the levels of human development in Indian states and union territories, it is observed that all the states/administrative units are varying exorbitantly in terms of its population size and geographical area. Therefore, comparison among states/UTs may not be rational. Considering the vast continentality of India and great range of data of different states/UTs, two categories of states a). Major States and b). Minor States are evolved on the basis of following parameters.

a. **Geographical area:** It should be at least **2% area** to the total area of the country for Major States/UTs category.

b. **Population size:** It should be at least **0.5%** population to the total population of the country for Major States/UTs category.

Further, both the conditions should be fulfilled to be considered as Major States/UTs. Otherwise the administrative unit (States or UTs) from the set of data will be considered as Minor State/UTs. The categorization may be justified as the level of development of Delhi where 93% urban population, 1.68 crore population (2011) and 0.04% area to the total area of India where as Uttar Pradesh have 19% urban population, 19.98 crore population size (2011) and 7.33% area to the total population of India. So, comparing both the states does not give justifiable therefore and divided all the states in two categories. In order of categorization, separate tabulation is prepared from the set of data of Major and Minor States of India respectively.

Subsequently, following 21 Major States and 15 Minor States are listed on the basis of identified criteria as follows.

S.No	Major States	Area%	Population % (2011)
1	Rajasthan	10.41	5.67%
2	MadhyaPradesh	9.37	6.00%
3	Maharashtra	9.36	9.28%
4	Uttar Pradesh	7.33	16.49%
5	Gujarat	5.96	5.00%
6	Karnataka	5.83	5.05%
7	Andhra Pradesh	4.87	4.08%
8	Odisha	4.73	3.47%
9	Chhattisgarh	4.11	2.11%

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

10	Tamil Nadu	3.95	5.96%
11	Telangana	3.49	2.97%
12	Jammu and Kashmir	6.76	1.04%
13	Bihar	2.86	8.58%
14	West Bengal	2.70	7.55%
15	Jharkhand	2.42	2.72%
16	Assam	2.38	2.58%
17	Himachal Pradesh	1.70	0.57%
18	Uttarakhand	1.62	0.84%
19	Punjab	1.53	2.30%
20	Haryana	1.34	2.09%
21	Kerala	1.18	2.76%

S.No	**Minor States**	**Area%**	**Population % (2011)**
1	Meghalaya	0.68	0.24%
2	Manipur	0.68	0.22%
3	Mizoram	0.64	0.09%
4	Nagaland	0.50	0.16%
5	Tripura	0.31	0.30%
6	Sikkim	0.21	0.05%
7	Goa	0.11	0.12%
8	Andaman and Nicobar	0.25	0.03%
9	Delhi	0.04	1.38%
10	Puducherry	0.01	0.10%
11	Dadra and Nagar Haveli	0.01	0.03%
12	Chandigarh	0.003	0.09%
13	Daman and Diu	0.003	0.02%
14	Lakshadweep	0.001	0.01%
15	Arunachal Pradesh	2.54	0.11%

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

Normalization of various indicators to measure the human resource development is further tabulated as follows:

A. Normalization Index of Average Life Expectancy of Major and Minor Indian States/UTs.

MAJOR STATES:

S. No.	Major States	Average Life Expectancy(years)	Average Life Expectancy(years) of each states - Average Life Expectancy(years) of lowest value state (Assam) = X	NORMALIZATION INDEX X/value of maximum difference in Average Life Expectancy (years) i.e. 11.
1	Kerala	**74.9 maximum value**	11	1.000
2	Jammu & Kashmir	72.6	8.7	0.791
3	Uttarakhand	71.7	7.8	0.709
4	Himachal Pradesh	71.6	7.7	0.700
5	Maharashtra	71.6	7.7	0.700
6	Punjab	71.6	7.7	0.700
7	Tamil Nadu	70.6	6.7	0.609
8	West Bengal	70.2	6.3	0.573
9	Karnataka	68.8	4.9	0.445
10	Gujarat	86.7	4.8	0.436
11	Haryana	68.6	4.7	0.427
12	Andhra Pradesh	68.5	4.6	0.418
13	Bihar	68.1	4.2	0.382
14	Rajasthan	67.7	3.8	0.345
15	Jharkhand	66.6	2.7	0.245
16	Odisha	65.8	1.9	0.173
17	Chhattisgarh	64.8	0.9	0.082
18	Madhya Pradesh	64.2	0.3	0.027

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

19	Uttar Pradesh	64.1	0.2	0.018
20	Assam	63.9 minimum value	0	0.000
21	Telangana	71.3	7.4	0.673

Difference between minimum and maximum value = 11.

MINOR STATES/UT's

S. No.	Minor States	Average Life Expectancy(years)	Average Life Expectancy(years) of each states - Average Life Expectancy(years) of lowest value state (Assam) = X	NORMALIZATION INDEX X/value of maximum difference in Average Life Expectancy (years) i.e. 11.
1	Delhi	70.4	2.7	0.370
2	Dadra & Nagar Haveli	**67.6 minimum value**	0	0.000
3	Lakshadweep	75	7.3	1.000
4	Meghalaya	68	0..3	0.041
5	Mizoram	75	7.3	1.000
6	Arunachal Pradesh	70.4	2.7	0.370
7	Chandigarh	75	7.3	1.000
8	Tripura	70.4	2.7	0.370
9	Andaman & Nicobar Islands	75	7.3	1.000
10	Sikkim	72.4	4.7	0.644
11	Daman & Diu	70.4	2.7	0.370
12	Nagaland	74	6.3	0.863
13	Puducherry	75	7.3	1.000
14	Goa	**75 maximum value**	7.3	1.000
15	Manipur	74	6.3	0.863

Difference between minimum and maximum value =2.7

B. Normalization Index of Literacy Rate (% of 7^{+}years of population) of Major and Minor Indian States/UTs.

MAJOR STATES:

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

S. No.	Major States	Literacy Rate (%)	Literacy Rate (%)of each states - Literacy Rate (%) of lowest value state (Bihar) = X	NORMALIZATION INDEX X/value of maximum difference in Literacy Rate(%) i.e. 30.09.
1	Kerala	**93.91 maximum value**	30.09	1.000
2	Jammu & Kashmir	68.74	4.92	0.164
3	Uttarakhand	79.63	15.81	0.525
4	Himachal Pradesh	83.78	19.96	0.663
5	Maharashtra	82.91	19.09	0.634
6	Punjab	76.68	12.86	0.427
7	Tamil Nadu	80.33	16.51	0.549
8	West Bengal	77.08	13.26	0.441
9	Karnataka	75.6	11.78	0.391
10	Gujarat	79.31	15.49	0.515
11	Haryana	76.64	12.82	0.426
12	Andhra Pradesh	67.66	3.84	0.128
13	Bihar	63.82 minimum value	0	0.000
14	Rajasthan	67.06	3.24	0.108
15	Jharkhand	67.63	3.81	0.127
16	Odisha	73.45	9.63	0.320
17	Chhattisgarh	71.04	7.22	0.240
18	Madhya Pradesh	70.63	6.81	0.226
19	Uttar Pradesh	69.72	5.9	0.196
20	Assam	73.18	9.36	0.311
21	Telangana	66.46	2.64	0.088

Difference between minimum and maximum value = 30.09.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

MINOR STATES/UT's

S. No.	Major States	Per capita Income(Rs./annum)	Per capita Income (Rs./annum) of each states - Per capita Income (Rs./annum) of lowest value state (Bihar) = X	NORMALIZATION INDEX X/value of maximum difference in Per capita Income (Rs./annum) i.e. 117,105.
1	Kerala	139,195	107,815	0.921
2	Jammu & Kashmir	62,857	31,477	0.269
3	Uttarakhand	134,784	103,404	0.883
4	Himachal Pradesh	124,500	93,120	0.795
5	Maharashtra	134,081	102,701	0.877
6	Punjab	114,561	83,181	0.710
7	Tamil Nadu	130,197	98,817	0.844
8	West Bengal	78,903	47523	0.406
9	Karnataka	132,880	101,500	0.867
10	Gujarat	124,678	93,298	0.797
11	Haryana	**148,485 maximum value**	117,105	1.000
12	Andhra Pradesh	**93,699**	62,319	0.532
13	Bihar	**31,380 minimum value**	00,000	0.000
14	Rajasthan	**76,881**	45,501	0.389
15	Jharkhand	**56,737**	25,357	0.217
16	Odisha	**64,869**	33,489	0.286
17	Chhattisgarh	**78,001**	46,621	0.398
18	Madhya Pradesh	**56,182**	24,802	0.212
19	Uttar Pradesh	**43,861**	12,481	0.107
20	Assam	**54,618**	23,238	0.198
21	Telangana	**125,832**	94,452	0.807

Difference between minimum and maximum value = 117,105.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

MINOR STATES/UT's

S. No.	Minor States	Per capita Income (Rs./annum)	Per capita Income (Rs./annum) of each states - Per capita Income (Rs./annum) of lowest value state (Lakshadweep) = X	NORMALIZATION INDEX X/value of maximum difference in Per capita Income (Rs./annum) i.e. 206,444.
1	Delhi	**249,004 maximum value**	206,444	1.000
2	Dadra & Nagar Haveli	69,287	26,727	0.129
3	Lakshadweep	**42,560 minimum value**	00,000	0.000
4	Meghalaya	68,202	25,642	0.124
5	Mizoram	85,659	43,099	0.209
6	Arunachal Pradesh	103,633	61,073	0.296
7	Chandigarh	225,369	182,809	0.886
8	Tripura	71,666	29,106	0.141
9	Andaman & Nicobar Islands	121,954	79,394	0.385
10	Sikkim	210,394	167,834	0.813
11	Daman & Diu	225,003	182,443	0.884
12	Nagaland	78,526	35,966	0.174
13	Puducherry	158,830	116,270	0.563
14	Goa	242,745	200,185	0.970
15	Manipur	52,436	9,876	0.048

Difference between minimum and maximum value = 206,444.

Composite normalization index of all the 3 parameters/indicators for the calculation of Human Development Index of Major and minor states/UT's:

(Average Life Expectancy, Literacy Rate (7^{+} years population) and Per Capita Income).

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

MAJOR STATES:

S. No.	Major States	Normalization of Average Life Expectancy.	Normalization of Literacy Rate	Normalization of Per Capita Income	Total of 3 parameters	Value of each state – value lowest state (UP)= X	Normalization Index. X/valve of highest state (Kerala,2.6)
1	Kerala	1	1	0.921	**2.921 maximum value**	2.6	1
2	Jammu & Kashmir	0.791	0.164	0.269	1.224	0.903	0.347
3	Uttarakhand	0.709	0.525	0.883	2.117	1.796	0.691
4	Himachal Pradesh	0.7	0.663	0.795	2.158	1.837	0.707
5	Maharashtra	0.7	0.634	0.877	2.211	1.89	0.727
6	Punjab	0.7	0.427	0.71	1.837	1.516	0.583
7	Tamil Nadu	0.609	0.549	0.844	2.002	1.681	0.647
8	West Bengal	0.573	0.441	0.406	1.42	1.099	0.423
9	Karnataka	0.445	0.391	0.867	1.703	1.382	0.532
10	Gujarat	0.436	0.515	0.797	1.748	1.427	0.549
11	Haryana	0.427	0.426	1	1.853	1.532	0.589
12	Andhra Pradesh	0.418	0.128	0.532	1.078	0.757	0.291
13	Bihar	0.382	0	0	0.382	0.061	0.023
14	Rajasthan	0.345	0.108	0.389	0.842	0.521	0.2
15	Jharkhand	0.245	0.127	0.217	0.589	0.268	0.103
16	Odisha	0.173	0.32	0.286	0.779	0.458	0.176

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

17	Chhattisgarh	0.082	0.24	0.398	0.72	0.399	0.153
18	Madhya Pradesh	0.027	0.226	0.212	0.465	0.144	0.055
19	Uttar Pradesh	0.018	0.196	0.107	0.321 minimum value	0	0
20	Assam	0	0.311	0.198	0.509	0.188	0.072
21	Telangana	0.673	0.088	0.807	1.568	1.247	0.480

Difference between minimum and maximum value = 2.6

MINOR STATES/UT's

S. No.	**Minor States/UTs.**	**Normalization of Average Life Expectancy.**	**Normalization of Literacy Rate**	**Normalization of Per Capita Income**	**Total of 3 parameters**	**Value of each state – value lowest state (Meghalaya) =X**	**X/value of highest state (Goa, 2.6)**
1	Delhi	0.37	0.765	1	2.135	1.633	0.718
2	Dadra & Nagar Haveli	0	0.422	0.129	0.551	0.049	0.022
3	Lakshadweep	1	1	0	2	1.498	0.658
4	Meghalaya	0.041	0.337	0.124	**0.502 minimum value**	0	0
5	Mizoram	1	0.972	0.209	2.181	1.679	0.738
6	Arunachal Pradesh	0.37	0	0.296	0.666	0.164	0.072
7	Chandigarh	1	0.769	0.886	2.655	2.153	0.946
8	Tripura	0.37	0.821	0.141	1.332	0.83	0.365

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

9	Andaman & Nicobar Islands	1	0.763	0.385	2.148	1.646	0.724
10	Sikkim	0.644	0.602	0.813	2.059	1.557	0.684
11	Daman & Diu	0.37	0.794	0.884	2.048	1.546	0.68
12	Nagaland	0.863	0.52	0.174	1.557	1.055	0.464
13	Puducherry	1	0.774	0.563	2.337	1.835	0.807
14	Goa	1	0.807	0.97	2.777 maximu m value	2.275	1
15	Manipur	0.863	0.509	0.048	1.42	0.918	0.404

Difference between minimum and maximum value = 2.275

Final List of Human Development Index based on Normalization of Major and Minor Indian States/UTs.

S.No.	Major States	Normalization Index in descending order
1	Kerala	1
2	Maharashtra	0.727
3	Himachal Pradesh	0.707
4	Uttarakhand	0.691
5	Tamil Nadu	0.647
6	Haryana	0.589
7	Punjab	0.583
8	Gujarat	0.549
9	Karnataka	0.532
10	Telangana	0.48
11	West Bengal	0.423
12	Jammu & Kashmir	0.347
13	Andhra Pradesh	0.291
14	Rajasthan	0.2
15	Odisha	0.176
16	Chhattisgarh	0.153
17	Jharkhand	0.103
18	Assam	0.072

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

19	Madhya Pradesh	0.055
20	Bihar	0.023
21	Uttar Pradesh	0

S.No.	Minor States	Normalization Index in descending order
1	Goa	1
2	Chandigarh	0.946
3	Puducherry	0.807
4	Mizoram	0.738
5	Andaman & Nicobar Islands	0.724
6	Delhi	0.718
7	Sikkim	0.684
8	Daman & Diu	0.68
9	Lakshadweep	0.658
10	Nagaland	0.464
11	Manipur	0.404
12	Tripura	0.365
13	Arunachal Pradesh	0.072
14	Dadra & Nagar Haveli	0.022
15	Meghalaya	0

CATEGORISATION OF LEVELS OF HDI IN INDIA:

On the basis of composite normalization index, all the 21 Major states and 15 Minor States/UT's are categorized in following three categories of human development index as:

Major States:

1. **Progressive States**: (Normalization IndexRange : 0.500 and above): Kerala, Maharashtra, Himachal Pradesh, Uttrakhand, Tamil Nadu, Haryana, Punjab, Gujarat and Karnataka.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

2. **Dynamic States**: (Normalization Range 0.200 to 0.500) Telangana, West Bengal, Jammu and Kashmir, Andhra Pradesh and Rajasthan.

3. **Prospective States:** (Normalization Index Range: Less than 0.200) Odisha, Chhatisgarh, Jharkhand, Assam, Madhya Pradesh, Bihar and Uttar Pradesh.

Minor States/UT's

1. Progressive States/UT's: (Normalization Index Range 0.700 and above) Goa, Chandigarh, Puducherry, Mizoram, Andaman and Nicobar Islands and Delhi.

2. Dynamic States/UT's: (Normalization Index Range 0.401 to 0.700) Sikkim, Daman and Diu, Lakshadweep, Nagaland, Manipur.

3. Prospective States/UT's: (Normalization Range Less than 0.400): Tripura, Arunachal Pradesh, Dadra and Nagar Haveli and Meghalaya.

CONCLUSION

The Human Development Index (HDI) evolved on the basis of three parameters identified by UNDP. Average life Expectancy of each administrative region (states and UTs) is based on 2011 census. The Literacy Rate (percent of 7^{+}year population 2011) reflected the levels of application of technological tools and general awareness of social groups in accordance to administrative units which provided the set of data. The Per Capita Income denoted the varied economic activities and employment of the people in a particular region as per 2014-15 calculations.

The normalization index is calculated on the basis of minimum value of states/UTs and maximum value of states/UTs of all the three parameters. Subsequently, a value is obtained from 0.000 to 1.000 of all the states/UTs and of all the three parameters. Further, the sum total of all three indicators/parameters is tabulated and final normalization index is obtained by applying the same formula.

For the tabulation, calculation and analysis, all the administrative units (states and union territories) are divided into two categories of Major States and Minor States/UTs. The categorization is based on the share of geographical area i.e. 2.00% to the total area and share of population of administrative unit (state/UTs) is 0.50% to the total population of India. When both the criterion falls above the given standardization, those administrative units (states) are considered as Major States otherwise the set of data of administrative units (states/UTs) are considered as Minor states/UTs.

ISSN: 2455-8834

Volume:04, Issue:03 "March 2019"

Among the major States, the coastal and Himalayan states tops the HDI list as Kerala, Maharashtra, Himachal Pradesh, Uttarakhand and Tamil Nadu. While continental fertile flood plains with foodgrain based agrarian dominance states are the lowest in HDI list. UP state is the lowest ranked state followed by Bihar, Madhya Pradesh, Assam and Jharkhand. The HDI is calculated by giving equal weightage to all the three indicators.

In the category of Minor States/UTs more urbanized and non-agrarian states listed top as Goa, Chandigarh and Puducherry are leading the HDI. On the other hand, rural and tribal dominate administrative units are in the lowest strata of HDI among the Minor States/UTs. Meghalaya state listed the lowest HDI followed by Dadra Nagar Haveli, Arunachal Pradesh and Tripura. Among all the 15 administrative units of Minor States/UTs, NCT of Delhi listed 6th rank probably due to large share of slum inhabited population.

REFERENCES

1. Census of India, 2011, office of the Registrar General and Census Commissioner, India.

2. Press Information Bureau, Govt. of India, Ministry of statistics and Programme Implementation dtd. 3-8-2017.

3. Govt. of India website, data.gov.in , key indicators of National Family Health survey (NFHS-3 and NFHS-4).

4. Literacy Rate in India, NSSO, Ministry of Statistics and Programme Implementation, Govt. of India, 2014 (Table 29.5).

5. Suryanarayana, M.H and et. al, 2011, Inequality adjusted Human Development Index of India's States, UNDP, 55, Lodhi Estate, New Delhi-110003, India.

