
REGIONAL INEQUALITY IN INDIA: A STATE LEVEL ANALYSIS

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Abstract: *This paper tries to understand the nature and extent of inequality across states of India with special reference to Bihar. The study is based on secondary data collected from various sources, including NSSO, NFHS and other government/non-government documents and reports. The study analyzes inequalities under four themes: livelihood, education, health and gender. The analysis finds that, however, some positive changes can be seen in terms of enrolment in case of primary education, but still, productivity of education is the lowest in Bihar. The state government has invested money in attracting students to government schools, but because of a low per capita expenditure on education, access to facilities like computers in schools is the lowest in Bihar. In the case of health expenditure, the people of Bihar have to bear significantly higher per capita out of pocket expenditure. Though, Bihar has achieved higher growth in the last couple of years but the level of female empowerment is still very low in the state. Thus, this study finds that Bihar is still at lowest position in all four themes across states of India and, people of this state are facing grim challenges related to livelihood, quality education and health.*

Keywords: *Bihar, education, health, India, inequality, livelihood, empowerment index*

Introduction

India is a country marked by contrasts and diversity (some of these are geographical in nature, and others are caste, religion and class). India obtained its independence in the year 1947. The size of population was around 361 Million in 1951, around 14 percent of the total world population. At present, India constitutes around 17.7 percent of total world population. The increase in population has not only opened new challenges in the country, but it has also been seen as dividend. The size of the economy has also changed tremendously. In 1951 per capita income was Rs. 7114, while in 2013-2014 (at 2004-05 prices) it was Rs. 39904 and Rs. 100151 in 2017-18 (at 2011-12 prices)³. Still,

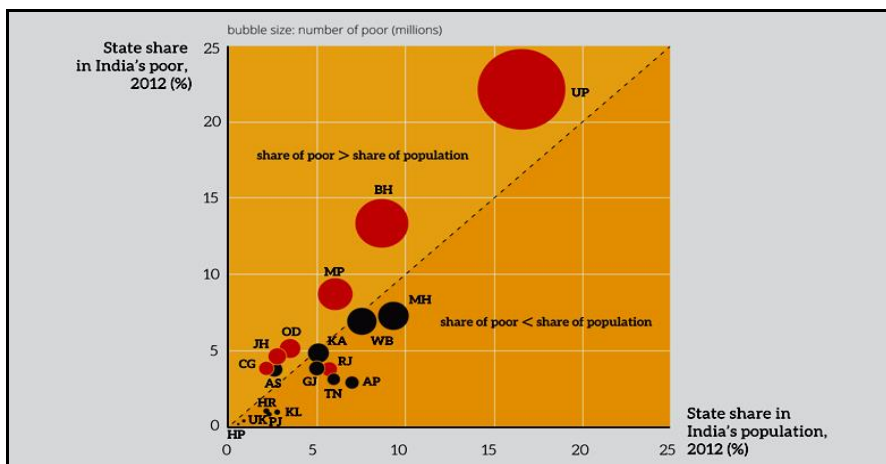
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³ <http://mospi.nic.in/data>, http://www.mospi.gov.in/sites/default/files/press_release/Press%20Note%20PE%202018-19-31.5.2019-Final.pdf.

challenges lie in terms of rising inequality in India. It is also true that India is no stranger to income inequality, but the inequality is widening at faster rate in the country. Previous year's OXFAM survey had showed that India's richest 1% held 58% of the country's total wealth, which was higher than the global figure of about 50%. Between 2006 and 2015, ordinary workers saw their incomes rise by an average of just 2% a year, while billionaire wealth raised almost six times faster (OXFAM, 2018). Similarly, one can also see emerging inequalities within states of India. There are cities like Mumbai, in the state of Maharashtra, where 233 billionaire people live. On the contrary, in Mumbai, millions of people live in slums. It is known that Bihar has one of the lowest per capita incomes among all states of India. This shows some of the emerging dimensions of inequality within states of India. Such situations not only affect the development of the concerned state, but also the development of the country. For inclusive growth/development, it is essential that every sector (economics, services etc.) and every state should perform equally well. But, the situation is gloomy in a state like Bihar, where more than 50 percent of workers are dependent on the agriculture sector, which in the last couple of years did not perform well. A World Bank analysis (2018) shows that populated states, including Bihar, are home of poor people in India (See Figure 1).

Figure 1. State Share in India's Poor and India's Population



Source World Bank (2018)¹

One possible reason for such a situation is that most of the households in these states are highly dependent on the agriculture sector. So, even if Bihar has achieved higher growth in overall state's income, a large chunk of population are not getting benefit out of this growth, as they are dependent on a slow growing sector (agriculture). Thus, it can be said that economic growth in Bihar has been less inclusive than in India as a

¹ <https://www.worldbank.org/en/news/feature/2016/05/26/india-states-briefs>.

whole. In the case of Bihar, data also shows that construction activities, and government expenditure on administration (that can be seen in terms of increasing amount of expenditure on salary also), are two major sectors which have increased rapidly in the state. Unfortunately, most of the people who are in non-farm sector in Bihar are working mainly as low paid wage labour/worker in tertiary sector (Anubandhit, Niyojit, and outsourced workers are emerging categories of workers in Bihar). So, growth in the tertiary sector cannot be said to be inclusive in nature in Bihar.

It is also seen that poor states need high government investment on sectors like health and education. But, an analysis of the states' budgets shows that in a state like Bihar, per capita investment by government on education and health is the lowest across states of India (Suhag, Tiwari, 2018). Due to low government expenditure on health and education, people of Bihar are spending higher amounts of their income on private education/tuition and private health care (either in the state or outside the state). Among all states, the share of OOPE (out of Pocket Expenditure) on health against the overall expenditure was highest in Bihar, at 77.6 per cent, against the national average of 60.6 per cent. On the other hand, central and State governments spent Rs. 5740 crore on healthcare in Bihar, where OOPE stood at Rs. 20857 crore in Bihar (NHA 2016-2017). Studies have also tried to explain the factors responsible for inequality in India. It cannot be denied that to some extent situations promoting inequality are already rooted in the history and administrative legacy of India. Just after the independence, the art of governance was highly influenced by the colonial legacy and emphasis was given on the role of government. After the 1980's it can be seen that processes of liberalisation in different areas have been progressing at faster speed in India. Liberalisation has redefined the nature of governance in India as well. There has been a decline in the role of the state and the role of market has gained in importance in India. Thus, changes in nature and extent of inequality over the period are a combined result of internal and external factors and India's excessive income inequality is associated with both market and non-market factors. Inequality is also likely to be present in India as large numbers of the work force are employed in sectors with low productivity, such as agriculture, which provides jobs to around 50 percent of the workforce, but the sector is contributing with only 17 per cent to the GDP of India. On the other hand, after the introduction of LPG regime, labour movements (Labour Union) are weakening day by day and are also affecting the share of labour in total production. It is also true that the privatisation of education and health also forces the poor to expend more on these services. This may affect the wealth creative capacity of poor people and thus it also contributes to a growing wealth inequality. On the opposite, tax benefits to corporate and NPAs (Non Performing Assets) may promote inequality.

On this background, this paper tries to understand the nature and extent of inequality across state of India and also tries to identify the position of Bihar in India in terms of inequality. This study is based on secondary data collected from various sources including NSSO, NFHS and other government/non-government documents and reports. Simple tabular and statistical tools have been used to fulfil the objectives of this study. This work is divided into five parts. Detailed methodology used in any particular section is explained in the concerned section.

Section I: Livelihood Inequality

Rising out migration from some states shows that situation of development is not as good as it is reported via GDP. Thus, growth in GDP data cannot be considered as indicator of inclusive development. Recent migration data released by the Census shows the emerging situation of livelihood crisis faced by households in some states and can be understood through analysing changing dimensions of migration in India. The analysis of Census data shows that the “Hindi Belt” is the main source of migrants in India. According to the 2011 Census, four states (Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh) accounted for 50 per cent of India’s total inter-state migrants. Uttar Pradesh and Bihar are responsible for most of the migrants in India. According to the 2011 Census, 20.9 million people migrated outside the state from these two states. This is 37% of the total number of people who were inter-state migrants according to that enumeration. The major destination states for migrants are Delhi, Maharashtra, Tamil Nadu, Gujarat, Andhra Pradesh and Kerala. Interestingly, Uttar Pradesh figures in both lists (emigration and immigration). Unfortunately, the situation of Bihar is different from any other state in India. The extent of emigration (work or business is one of the most significant reasons behind this situation) shows how limited/good livelihood options are available to the people in Bihar. Although Bihar has experienced higher growth between 2005 and 2015, it seems that growth in income could not able to generate good livelihood options for its people.

One important section of academia believes that the growth outcome has not been very inclusive in nature in India, thus inequality can be witnessed between rural and urban areas and between different states of India. In this backdrop, an analysis has been done to see existing inequality across states. Inequality has been seen under physical capital, human capital and natural capital (as these are important for generating livelihood options in any particular location/region/state).

Physical Capital at Household Level: Inequality in Access to Assets in states of India

Assets are one of the important factors that are correlated with livelihood options. Correlation analysis between per capita income and value of households’ assets score at state level shows that asset scores are positively correlated with income level at state level in India. Including other sources, NFHS also provides data on household asset. Comparison of reports of different rounds of NFHS (National family Health Survey) shows the changing dimensions of inequality in India. Recently Mishra and Joe (2020) have estimated composite household assets score to see inequality in access to assets across households in India. Interestingly, the comparison of two data points (2005-06 and 2015-16) shows that access to assets has increased at overall level in India. The study also points out that the inequality has increased across states in terms of household economic well-being and ownership of assets (few exceptions are there). Still, Bihar is at the lowest level across states in India. In the case of Bihar, very small progress can be seen, as the value of composite household assets score has increased from 0.212 in 2005-06 to 0.227 in 2015-16. The Gini coefficient for the assets score has declined from 0.446 in 2005-06 to 0.401 in 2015-16. Bihar is at the top in terms of level

of inequality in asset score in India. On the other hand, one can find significant decline in inequality in asset score in case of Odisha, Tamil Nadu, Uttar Pradesh, and West Bengal (See Table 1).

Wealth quintiles wise distribution of assets also provides a way to understand interstate inequality in terms of distribution of economic well-being of households. In Jharkhand, Chhattisgarh and Odisha, more than 40 percent of the households were identified in the lowest income quintile in 2005-06. By 2015-16, the situation has improved in Odisha, Jharkhand and Chhattisgarh. On the other hand, more than 45 percent of the households are still in the group of lowest quintile in Jharkhand and Bihar. Thus, it seems that the situation has deteriorated in Bihar, and every second household in Bihar belongs to the lowest wealth quintile group category.

Table 1: Statewise Mean and Gini Coefficient for Household Asset Scores, NFHS 2005–06 and 2015–16

States	Mean Asset Score		Gini Coefficient	
	2005–06	2015–16	2005–06	2015–16
Andhra Pradesh(including Telangana)	0.286	0.357	0.394	0.270
Arunachal Pradesh	0.294	0.331	0.426	0.306
Assam	0.282	0.313	0.413	0.289
Bihar	0.212	0.227	0.446	0.401
Chhattisgarh	0.231	0.312	0.460	0.342
Delhi	0.594	0.533	0.236	0.194
Goa	0.560	0.576	0.263	0.180
Gujarat	0.399	0.410	0.333	0.269
Haryana	0.416	0.516	0.331	0.200
Himachal Pradesh	0.448	0.491	0.277	0.200
Jammu and Kashmir	0.405	0.444	0.322	0.256
Jharkhand	0.212	0.255	0.535	0.396
Karnataka	0.331	0.410	0.396	0.257
Kerala	0.495	0.577	0.241	0.169
Madhya Pradesh	0.247	0.316	0.498	0.376
Maharashtra	0.376	0.408	0.375	0.275
Manipur	0.360	0.403	0.307	0.256
Meghalaya	0.292	0.326	0.366	0.270
Mizoram	0.433	0.458	0.278	0.252
Nagaland	0.311	0.355	0.332	0.274
Odisha	0.223	0.274	0.486	0.360
Punjab	0.505	0.580	0.272	0.164
Rajasthan	0.279	0.355	0.481	0.340
Sikkim	0.366	0.396	0.293	0.163
Tamil Nadu	0.317	0.435	0.404	0.237
Tripura	0.288	0.326	0.336	0.263
Uttar Pradesh	0.264	0.319	0.460	0.363
Uttarakhand	0.410	0.434	0.351	0.254
West Bengal	0.261	0.311	0.455	0.312
All India	0.307	0.365	0.431	0.323

Source: Mishra and Joe (2020)

Table 2: Statewise Distribution of Households by Wealth Quintile, As per NFHS 2005–06 and 2015–16

States	Lowest		Second		Middle		Fourth		Highest	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
Andhra Pradesh (including Telangana)	12	7	18	17	29	29	25	28	16	19
Arunachal Pradesh	21	19	24	24	20	26	17	22	18	9
Assam	20	25	30	38	22	18	15	13	13	6
Bihar	31	53	30	22	18	13	13	9	9	3
Chhattisgarh	43	35	26	24	13	16	8	12	9	13
Delhi	0	0	3	2	10	15	20	22	67	61
Goa	3	0	6	5	14	12	22	28	55	55
Gujarat	7	9	15	16	19	20	27	25	32	30
Haryana	4	2	13	8	25	18	28	26	30	46
Himachal Pradesh	1	2	9	10	23	23	31	33	35	32
Jammu and Kashmir	3	7	13	19	28	24	29	24	28	26
Jharkhand	52	48	15	20	10	13	11	10	12	9
Karnataka	11	7	22	20	23	26	22	26	21	21
Kerala	1	0	5	3	13	14	37	35	45	48
Madhya Pradesh	38	33	24	22	13	15	12	14	13	16
Maharashtra	12	10	16	16	18	22	23	25	32	26
Manipur	3	10	17	31	34	30	31	19	15	9
Meghalaya	12	12	22	35	23	31	26	16	16	7
Mizoram	2	6	6	11	19	21	36	29	37	33
Nagaland	7	12	22	31	30	27	26	20	15	10
Odisha	42	38	20	26	17	18	12	11	9	7
Punjab	1	1	7	4	17	12	30	22	45	61
Rajasthan	25	18	17	24	21	21	17	18	20	19
Sikkim	2	1	10	7	22	41	31	40	35	12
Tamil Nadu	12	5	16	15	29	27	23	31	19	22
Tripura	11	13	25	42	40	23	16	15	8	6
Uttar Pradesh	28	32	25	22	18	16	16	14	13	16
Uttarakhand	7	5	16	18	21	25	23	23	33	29
West Bengal	25	24	24	29	19	20	18	17	15	9
All India	20	20	20	20	20	20	20	20	20	20

Source: Mishra and Joe (2020)

Table 2 also points out that around 40 percent households with low wealth score in India are found in Bihar and Jharkhand. In terms of wealth score, 40 percent of the households are poor (at least relatively poor) in Bihar. On the other hand, between 2004-05 and 2014-15, Bihar emerged as one of the fastest growing states of India,

clocking over 10 per cent annual growth for the past decade. Thus, it can be concluded that economic growth has not affected the asset based economic well-being situation of households in Bihar (as around 50 percent of households are still in the lowest wealth quintile group). Here, we have also tried to understand how inequality in terms of human capital and natural capital can explain the existing nature on livelihood inequality across states of India.

Human Capital

India is the second populated country of world. The human capital index prepared by the World Bank points out towards some important facts. This index is supposed to present the value of productivity of the next generation workers. It covers three major dimensions, including survival, expected years of quality adjusted school and health environment. Recent report on this index (2018) shows that only 8% of the population is expected to be 75% as productive as they could be. The value of this index for India has been estimated at 0.44. This shows that a child born in India today will be only 44 percent as productive as she/he could be (if he/she enjoyed complete education and full health facilities/situation). Unfortunately, data related to all variables (those are used to measure human capital index) at state level is not available. So we have used proxies to understand the situation of human capital in the states of India using the ASER report¹ and NFHS reports. Stunted percentage is one of the important variables of human capital index. NFHS 4 (2015-16) shows some emerging trend of child healthy growth in India. In states like Bihar, Uttar Pradesh, Jharkhand, Meghalaya, Madhya Pradesh, Dadar Nagar Haveli, more than 40 percentage of children below five years are stunted. In terms of percentage of children stunted, Bihar is at the lowest rank (see Table 3).

Table 3: Statewise Child Stunted Rate in India

Name of State	Stunted	Name of State	Stunted
Bihar	48.3	Sikkim	29.6
Uttar Pradesh	46.3	Arunachal Pradesh	29.4
Jharkhand	45.3	Manipur	28.9
Meghalaya	43.8	Nagaland	28.6
Madhya Pradesh	42	Telangana	28.1
Dadar Nagar Haveli	41.7	Mizoram	28
Rajasthan	39.1	Chandigarh	27.6
Gujarat	38.5	Jammu & Kashmir	27.4
Chhattisgarh	37.6	Tamil Nadu	27.1
Assam	36.4	Lakshadweep	27
Karnataka	36.2	Himachal Pradesh	26.3
Maharashtra	34.4	Punjab	25.7
Odisha	34.1	Tripura	24.3
Haryana	34	Puducherry	23.7

¹ The ASER survey is a nationwide household survey, covering 596 districts in rural India. A total of 354,944 households and 546,527 children between ages three and 16 were surveyed to evaluate learning outcomes.

Name of State	Stunted	Name of State	Stunted
Uttarakhand	33.5	Daman & Diu	23.4
West Bengal	32.5	Andaman and Nicobar	23.3
NCT Delhi	32.3	Goa	20.1
Andhra Pradesh	31.4	Kerala	19.7

Source: NFHS4

There is no such data related to quality of education at overall level for states of India. But ASER provides data on the quality of students of schools in India. It can be used to understand the situation of quality of education in school education in India and its probable effect on productivity. Table 4 and Table 5 show reading and analytical capacity of students (of Fifth Class) for enrolled students (of year 2018). If we consider the learning levels of children as an indicator of productivity of the education system, then the levels of productivity in 2008 and 2018 show that productivity of education has declined by nearly 9 percentage points, or about 17 percent (in terms of reading capacity) and nearly 12 percentage points, or about 34 percent (in terms of analytical capacity). Table 4 and Table 5 show significant disparities in terms of learning outcomes, progress made with reference to RTE Act 2009 and facilities at schools across states of India.

Table 4 and Table 5 show how each state has performed over the years in terms of productivity of education system. Overall, the performances of Bihar, Jharkhand, and Rajasthan have not been found very satisfactory during 2008 to 2018. Thus, parameters of malnutrition and education show that productivity of children in Bihar, Jharkhand and Rajasthan is lower than other states of India. These states are already at lower rank in terms of per capita income. Further, low productivity of children in these states in comparison to other states will increase the gap between the rich and poor states of India. The situation is more disastrous for Bihar, as more than 37 per cent of Bihar's current population is below the age of 14 and productivity level of state's education and health system (in terms of IMR and situation of malnutrition) system are in bad situation in India.

Table 4: Percentage of Children in Government Schools in Std. V who can read Std. II level text, 2008-2018

	2008	2010	2012	2014	2016	2018
India	53.1	50.7	41.7	42.2	41.7	44.2
Kerala	73.3	74	59.9	61.3	63.3	73.1
Maharashtra	74.3	71	55.3	51.7	63.1	66
Punjab	61.3	68.7	69.5	60.9	64	68.7
Uttarakhand	64.6	63.7	52.2	52	55.9	58
Haryana	61.1	60.7	43.5	53.9	54.6	58.1
Chhattisgarh	74.1	61	44	47.1	51	57.1
Assam	40.9	42.6	33.3	30.6	32.2	33.5
Madhya Pradesh	86.8	55.2	27.5	27.5	31.4	34.4
Karnataka	42.9	42.9	47.2	45.7	41.9	47.6
Himachal Pradesh	73.6	75.7	71.2	71.5	65.3	74.5
Odisha	59.6	45.5	46.1	49.1	48.8	56.2

	2008	2010	2012	2014	2016	2018
Uttar Pradesh	33.4	36	25.6	26.8	24.3	36.2
Jharkhand	51.9	48.4	32.5	29.1	31.4	29.4
West Bengal	45.2	54.2	48.7	51.8	50.2	50.5
Gujarat	43.8	43.5	46.3	44.6	52.3	52
Rajasthan	45.1	44.2	33.3	34.4	42.5	39.1
Tamil Nadu	26.7	30.9	30.2	49.9	49.4	46.3
Bihar	62.8	57.9	43.1	44.6	38	35.1

Source: ASER (2018)

Table 5: Percentage of Children in Government Schools in Std. V who can do Division, 2008-2018

India	34.4	33.9	20.3	20.7	21.1	22.7
Himachal Pradesh	57.4	61.8	40.7	37.9	47.4	51.5
Punjab	39.7	70.8	48.6	37.1	42.4	50.1
Uttar Pradesh	15.8	18.7	9.1	12.1	10.4	17
Kerala	38.3	43.1	38	25.6	27.1	33.5
Chhattisgarh	59.5	37.8	13.1	14.1	18.6	26.1
Maharashtra	46.9	39.9	20.2	16.6	19.7	31.7
Madhya Pradesh	77.5	38	8.9	10	15.3	16.5
Gujarat	24.1	19.6	12.4	13.9	14.5	18.4
Uttarakhand	38.4	48.7	27.3	21.4	25.5	26.7
Assam	15.5	22.6	8.9	9	9.1	14.4
West Bengal	29.4	38.1	28.7	31.3	28.6	29.2
Haryana	45.7	50.5	25.4	30.8	30.1	34.4
Karnataka	14.9	18.7	17.4	16.7	17.2	19.6
Tamil Nadu	9	14.1	9.6	25.6	21.4	27.1
Bihar	50.9	51	30	31.4	28.9	24.1
Jharkhand	30.5	40.1	20.1	17.6	20	15.6
Rajasthan	25.9	25.2	9.9	12	15.6	14.1
Odisha	36	31.3	17.2	19.9	23.8	23.8

Source: ASER (2018)

Natural Capital

Normally, inequality seen in terms of income and consumption ignores the aspect of natural capital. Thus, it underestimates the existing level of inequality. This is true if some states are using natural capital faster than others. Like financial savings, the possibility of future growth also depends on the level of natural capital that one state or region keeps for use in future. If a region uses natural capital at a faster rate it will lead to another crisis that the region may have to face in near future. So, the importance of natural capital must not be ignored.

Table 6: Level of change in Natural Capital during year 2005 and 2015 in India

Level of change in natural capital during 2005-15	States
Increase greater than 5%	Madhya Pradesh, Maharashtra, Manipur and Rajasthan
Increase between 0-5%	Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Meghalaya, Nagaland, Odisha, Sikkim, Uttar Pradesh and West Bengal
Negative change	Assam, Bihar, Gujarat, Jharkhand, Karnataka, Kerala, Mizoram, Punjab, Tamil Nadu, Tripura and Uttarakhand

Source: *EnviStats-India 2018*

Natural (or ecological) capital is an outcome of the natural system (ecological system). The natural system provides goods that depletes due to production of goods and services, and we ignore to depreciate the value of such depletion during estimation of GDP. It means that if we reduce the amount of the natural capital at higher rate it will affect the future ability to produce goods and services. A report on environment accounts released by the MoSPI (The Ministry of Statistics and Programme Implementation) shows that during 2005-15 for almost all states the average growth rate of gross state domestic product (GSDP) was around 7-8 per cent. During same years, 11 states registered a decline in their natural capital, 13 states showed a marginal growth in the range 0-5 per cent, and only four states saw their natural capital increase by more than 5 per cent (See Table 6). It seems that the present model of economic growth may not be sustainable for some states in India.

The report also reveals that states like Andhra Pradesh, Gujarat, Jharkhand, Kerala, Maharashtra and Odisha show an increase in parameters such as transition of fallow land to farmland, increase in forest cover along with growing carbon stock and new sources of minerals. The report shows 24% decline in the area under snow and glacier in some states and also shows the impact of climate change on wetlands/water bodies in Himachal Pradesh, Sikkim and Jammu Kashmir. Unsustainable extraction of groundwater resources is resulting into decline in the water levels in Tamil Nadu, Chhattisgarh, Goa, Odisha and Rajasthan. Down to Earth's State of India's Environment 2018 had also talked about increasing dependency and unsustainable use of groundwater resources. It had revealed that in 2013, the country used 62 per cent of the net available annual groundwater, which is a 58 per cent increase from 2004.

In the last 6 years, the rate of growth of forest stock has reduced by more than 10% in almost all states. From 2006-07 to 2010-11, all states, except Goa and Sikkim, have shown such a decline. However, from 2010-11 to 2015-16, even though there was a marginal change in forest coverage in Assam and Uttarakhand, growing stock (of forest) has reduced by more than 10 per cent. But in the case of Jharkhand, Madhya Pradesh, Maharashtra and Rajasthan, despite a marginal change in forest cover, growing stock has significantly increased by more than 10 per cent. Conversion of agricultural land to meet needs of urban population also affects its productive capacity. The report says that high rate of urban growth is likely to affect a productive capacity (of

agriculture) in states like Punjab, Haryana, Karnataka, Telangana and West Bengal. Livelihood options in agriculture may be affected in Punjab, Haryana, Karnataka, Telangana and West Bengal in upcoming years. Because natural capital is one of the important sources of livelihood in most of the states India, an analysis of access to natural capital across state level is important. We have analysed the situation of states as per two most important natural capitals (forest and wetland) and these are also very important for livelihood diversification in states of India, mostly in states where those are highly dependent on primary sector. Table 7 and Table 8 show distribution of states as per forest coverage in India. We can see that with reference to population the forest coverage is low in almost 20 states of India. States like Jharkhand, Uttar Pradesh and Bihar are also included in the list of these 20 states.

Table 7: Forest Coverage in India (A)

Per thousand area under tree (Sq.KM/Person)	Name of States
less than 1	Jharkhand, Kerala, Karnataka, Dadra & Nagar Haveli ,Telangana, Andhra Pradesh, Maharashtra, Lakshadweep, Tamil Nadu, Gujarat, Rajasthan, West Bengal, Daman & Diu, Uttar Pradesh, Bihar, Punjab, Haryana, Puducherry, Chandigarh, Delhi.
1 to less than 10	Nagaland, Manipur, Meghalaya, Sikkim, Uttarakhand, Himachal Pradesh, Chhattisgarh, Tripura, Goa, Odisha, Madhya Pradesh
Greater than 10	Arunachal Pradesh, Andman & Nicobar is.. Mizoram

Source: *EmiStats-India 2018*

Table 8: Forest Coverage in India (B)

Area under Forest Coverage (Area in percentage)	Name of States
Greater than 75	Lakshadweep, Mizoram, Andman & Nicobar is., Arunachal Pradesh, Meghalaya, Manipur, Nagaland
Less than 75 and greater than 50 percent	Tripura, Goa, Kerala
50 to greater than 25	Sikkim, Uttarakhand, Dadra & Nagar Haveli, Chhattisgarh, Assam, Odisha, Jharkhand, Himachal Pradesh, Madhya Pradesh
0-25	Tamil Nadu, Karnataka, Chandigarh, West Bengal, Daman & Diu, Telangana. Andhra Pradesh, Maharashtra, Delhi, Puducherry, Bihar, Gujarat, Uttar Pradesh, Rajasthan, Punjab, Haryana

Source: *EmiStats-India 2018*

In terms of area under forest coverage, states like Bihar and Uttar Pradesh are poor performer states in India. Similarly, in case of availability of wetland (see Table 9 and Table 10) Bihar is the poor performer. Significantly, one third of the countrys population is living in Bihar and Uttar Pradesh. And more than 50 percent of population of these two states are dependent on primary sector in India. Wetland and forest coverage is important for the reduction in the impacts of floods. They also absorb pollutants and improve water quality. Unfortunately, the situation of wetland and forest coverage is very poor in Bihar and Uttar Pradesh. Such situations may

further lead to decrease in livelihood potential in states like Bihar and Uttar Pradesh and, thus inequality may further lead to increase across states of India in near future.

Table 9: Wetlands in India (A)

Per lakh Population number of Wetland	States
Higher than 100	Andaman & Nicobar Is.
100 to 10	Arunachal Pradesh, Tripura, Mizoram, Chhattisgarh, West Bengal, Sikkim, Madhya Pradesh
less than 10 and greater than 5	Nagaland, Odisha, Meghalaya, Maharashtra, Manipur, Gujarat, Rajasthan, Assam, Jharkhand
Less than 5	Goa, Karnataka, Telangana, Andhra Pradesh, Uttarakhand, Tamil Nadu, Himachal Pradesh, Dadra & Nagar Haveli, Uttar Pradesh, Kerala, Puducherry, Punjab, Chandigarh, Haryana, Bihar, Delhi

Source: *EmviStats-India 2018*

Table 10: Wetlands in India (B)

Area under Wetland (in percentage)	Name of States
Greater than 10	Puducherry, Gujarat, West Bengal, Andaman & Nicobar is.
10 to 3	Chandigarh, Haryana, Punjab, Uttar Pradesh
less than 3 to 1	Assam, Uttarakhand, Tamil Nadu, Maharashtra, Kerala, Andhra Pradesh, Madhya Pradesh, Karnataka, Rajasthan, Dadra & Nagar Haveli, Odisha, Chhattisgarh, Meghalaya, Nagaland, Arunachal Pradesh, Telangana
Less than 1	Sikkim, Jharkhand, Goa, Manipur, Tripura, Bihar, Mizoram, Himachal Pradesh, Delhi

Source: *EmviStats-India 2018*

Section II: Inequality in Education

It can be seen that situation of enrolment in educational institutions in state like Bihar has improved after implementation of RTE (Table 11). Bihar and Jharkhand are performing well in case of primary and upper primary education. But as the level of education increases, we see a fall in the ranks of these states (as per gross enrolment ratio). In terms of access to facilities like computers, the situation has deteriorated in Bihar and Chhattisgarh in the last couple of years. As per the ASER report 2018, Bihar stands at lowest rank in terms of schools with computers. Figure 2 also shows the level of inequality across states in terms of availability of computers in schools. The situation of higher education is also gloomy in Bihar. Table 12 shows that Bihar is at lowest rank (excluding union territory) in terms of GER (Gross Enrolment Ratio) in higher educational institutions.

Table 11: State wise Gross Enrolment Rates in India (2015-16)

Sl. No.	Level of Education	Primary			Upper-Primary			Secondary			Senior Secondary			Higher Education		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Male	Female	Total	Male	Female	Total
1	A&N Islands	91.13	86.76	88.93	86.35	81.97	84.14	89.07	84.28	86.69	72.92	76.40	74.62	22.3	24.7	23.5
2	Andhra Pradesh	84.88	84.05	84.48	81.12	81.56	81.33	74.63	76.48	75.51	58.28	62.27	60.16	34.7	26.9	30.8
3	Assam	127.61	125.88	126.76	127.14	133.20	130.13	91.66	87.58	89.63	62.02	61.60	61.81	28.8	28.5	28.7
4	Bihar	104.70	107.59	106.11	87.65	98.75	93.05	72.48	83.04	77.59	38.22	39.47	38.81	16.2	14.7	15.4
5	Chandigarh	104.35	111.30	107.67	98.21	119.39	107.89	72.42	85.43	78.37	34.76	36.66	35.62	15.8	12.6	14.3
6	Chhattisgarh	77.42	86.57	81.44	90.42	102.40	95.53	85.23	89.84	87.19	80.86	86.75	83.28	48.4	70.4	57.6
7	D&N Haveli	100.17	99.87	100.02	101.62	103.08	102.33	89.44	94.48	91.93	53.89	54.11	54.00	15.7	14.6	15.1
8	Daman & Diu	84.69	80.21	82.53	93.71	87.97	90.96	91.56	85.17	88.57	45.29	52.60	48.49	7.8	11.3	9.1
9	Delhi	79.68	84.95	82.03	74.86	84.64	79.15	67.05	81.44	72.97	16.32	32.27	21.54	4.6	9.2	5.7
10	Goa	108.04	113.93	110.71	118.86	140.55	128.12	103.23	111.27	106.81	73.25	83.60	77.90	43.0	48.2	45.4
11	Gujarat	100.89	104.45	102.57	96.83	100.93	98.74	103.03	105.44	104.16	70.79	81.59	75.84	25.0	30.9	27.6
12	Haryana	95.64	99.11	97.24	94.70	96.99	95.73	80.26	66.82	74.13	45.17	41.42	43.43	22.9	18.3	20.7
13	Himachal Pradesh	89.96	93.21	91.41	87.39	99.22	92.39	84.20	84.23	84.22	59.68	59.48	59.59	25.9	26.4	26.1
14	Jammu and Kashmir	97.97	99.73	98.80	103.37	105.47	104.36	108.44	105.53	107.08	94.58	96.60	95.53	29.6	35.5	32.5
15	Karnataka	84.86	87.24	85.98	68.77	71.85	70.20	67.55	65.88	66.81	61.01	55.98	58.60	23.5	26.2	24.8
16	Kerala	108.56	109.92	109.22	97.75	108.19	102.73	70.70	76.93	73.65	47.75	48.98	48.32	16.2	14.8	15.5
17		102.93	103.04	102.98	92.43	94.39	93.37	82.35	84.19	83.22	37.12	42.87	39.86	26.3	25.9	26.1
18		95.45	95.44	95.44	94.55	96.28	95.39	102.31	102.58	102.44	72.88	82.44	77.56	26.6	35.0	30.8

Sl. No.	Level of Education	Primary			Upper-Primary			Secondary			Senior Secondary			Higher Education		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Male	Female	Total	Male	Female	Total
19	Lakshadweep	77.90	69.90	73.80	92.53	75.67	83.26	105.39	102.06	103.66	93.23	102.35	98.16	4.1	10.2	7.1
20	Madhya Pradesh	95.35	93.52	94.47	90.49	98.13	94.02	81.54	79.30	80.49	47.04	43.24	45.25	21.1	17.9	19.6
21	Maharashtra	97.86	97.60	97.74	97.44	101.38	99.24	91.97	87.62	89.95	68.74	66.74	67.81	31.9	27.6	29.9
22	Manipur	128.91	132.90	130.85	127.00	132.94	129.89	93.61	92.52	93.07	71.10	64.81	67.95	35.3	33.1	34.2
23	Meghalaya	138.75	143.12	140.90	126.00	146.20	135.89	80.73	93.94	87.27	39.77	47.03	43.35	20.4	21.1	20.8
24	Mizoram	124.91	121.00	122.99	135.90	133.60	134.78	107.26	110.85	109.02	53.57	57.86	55.68	25.2	23.0	24.1
25	Nagaland	98.14	100.96	99.50	98.55	106.40	102.28	68.90	74.57	71.62	36.42	36.44	36.43	14.2	15.6	14.9
26	Odisha#	104.91	102.50	103.73	94.86	93.63	94.26	79.40	79.83	79.61	-	-	-	21.5	17.8	19.6
27	Puducherry	80.20	90.23	84.79	82.41	92.57	87.04	83.59	95.38	88.95	64.74	86.95	74.80	44.2	42.1	43.2
28	Punjab	99.87	103.99	101.70	95.01	102.92	98.38	87.12	86.97	87.06	69.03	71.69	70.19	25.8	28.5	27.0
29	Rajasthan	101.27	99.48	100.43	91.46	91.21	91.34	81.15	70.12	76.06	66.09	51.59	59.31	21.8	18.5	20.2
30	Sikkim	107.27	98.32	102.87	143.72	157.85	150.61	113.52	126.14	119.78	60.72	75.88	68.23	36.7	38.5	37.6
31	Tamil Nadu	103.39	104.43	103.89	92.55	95.65	94.03	91.86	96.18	93.92	74.14	90.60	82.03	46.3	42.4	44.3
32	Telangana	103.13	102.90	103.02	88.61	90.27	89.41	80.73	84.44	82.53	57.99	64.88	61.32	39.3	33.4	36.3
33	Tripura	107.58	108.36	107.96	125.75	130.33	127.97	116.17	120.91	118.49	45.24	41.53	43.46	19.9	14.0	16.9
34	Uttar Pradesh	88.63	96.16	92.15	68.24	83.49	75.08	67.65	67.86	67.75	62.21	59.26	60.78	24.2	24.9	24.5
35	Uttarakhand	98.87	99.76	99.29	85.84	88.07	86.89	85.71	85.73	85.72	73.36	78.54	75.83	33.6	32.9	33.3
36	West Bengal	103.13	104.26	103.68	97.90	112.64	105.00	74.92	92.65	83.56	48.98	54.36	51.54	19.1	16.2	17.7
	All India	97.87	100.69	99.21	88.72	97.57	92.81	79.16	80.97	80.01	55.95	56.41	56.16	25.4	23.5	24.5

Source: Educational statistics at a Glance, MHRD 2018

Table 12: Rank wise distribution of State as per Gross Enrolment Ratio

Primary	Upper Primary	Secondary	Upper Secondary	Higher Education
Meghalaya	Sikkim	Sikkim	Lakshadweep	Chandigarh
Manipur	Meghalaya	Tripura	Himachal Pradesh	Delhi
Arunachal Pradesh	Mizoram	Mizoram	Chandigarh	Tamil Nadu
Mizoram	Arunachal Pradesh	Himachal Pradesh	Tamil Nadu	Puducherry
Delhi	Manipur	Delhi	Delhi	Sikkim
Jharkhand	Delhi	Goa	Kerala	Telangana
Tripura	Tripura	Lakshadweep	Goa	Manipur
Bihar	Bihar	Kerala	Uttarakhand	Uttarakhand
Assam	West Bengal	Tamil Nadu	Puducherry	Himachal Pradesh
Tamil Nadu	Himachal Pradesh	Manipur	A & N Islands	Andhra Pradesh
Odisha	Jharkhand	Chhattisgarh	Punjab	Kerala
West Bengal	Chhattisgarh	Maharashtra	Sikkim	Maharashtra
Telangana	Nagaland	Arunachal Pradesh	Manipur	Arunachal Pradesh
Karnataka	Maharashtra	Puducherry	Maharashtra	Goa
Sikkim	Goa	Dadra & Nagar Haveli	Arunachal Pradesh	Punjab
Goa	Punjab	Meghalaya	Telangana	Haryana
Punjab	Gujarat	Chandigarh	Uttar Pradesh	Karnataka
Rajasthan	Chandigarh	Punjab	Andhra Pradesh	Jammu and Kashmir
Chhattisgarh	Kerala	A & N Islands	Haryana	Uttar Pradesh
Nagaland	Odisha	Uttarakhand	Rajasthan	Mizoram
Uttarakhand	Tamil Nadu	Haryana	Jammu & Kashmir	Andaman & Nicobar Islands
Himachal Pradesh	Madhya Pradesh	West Bengal	Mizoram	Meghalaya
Maharashtra	Karnataka	Karnataka	Chhattisgarh	Gujarat
Gujarat	Assam	Telangana	West Bengal	Rajasthan
Kerala	Haryana	Madhya Pradesh	Dadra & Nagar Haveli	Odisha
Madhya Pradesh	Rajasthan	Odisha@	Jharkhand	Madhya Pradesh
Uttar Pradesh	Dadra & Nagar Haveli	Bihar	Madhya Pradesh	West Bengal
Haryana	Telangana	Assam	Tripura	Tripura
A & N Islands	Puducherry	Rajasthan	Gujarat	Jharkhand
Jammu & Kashmir	Uttarakhand	Andhra Pradesh	Meghalaya	Assam
Puducherry	A & N Islands	Gujarat	Karnataka	Chhattisgarh
Andhra Pradesh	Lakshadweep	Jharkhand	Assam	Nagaland
Dadra & Nagar Haveli	Andhra Pradesh	Daman & Diu	Nagaland	Bihar
Daman & Diu	Daman & Diu	Nagaland	Bihar	Dadra & Nagar Haveli
Chandigarh	Uttar Pradesh	Uttar Pradesh	Daman & Diu	Lakshadweep
Lakshadweep	Jammu & Kashmir	Jammu & Kashmir		Daman & Diu

Notes: Name of state has been given on the basis of ranks as per Gross Enrolment ratio. Names of states have been mentioned in descending order.

Source: Author's Calculation based on data given in Educational statistics at a Glance, MHRD 2018.

Table 13: Inequality among Male in School Attendance Rate (6–17) Years

State	SC/gen	State	ST/gen	State	OBC/gen
Mizoram	-	Mizoram	-	Mizoram	-
Arunachal Pradesh	1.06	Punjab	-	Meghalaya	1.14*
Goa	1.05*	Arunachal Pradesh	1.12	Assam	1.07
Maharashtra	1.04	Assam	1.11	Nagaland	1.05*
Assam	1.04	Nagaland	1.09	Goa	1.03
West Bengal	1.01	Meghalaya	1.01	Jammu & Kashmir	1.03
Telangana	1.01	Sikkim	0.99	Maharashtra	1.03
Sikkim	1.01	Manipur	0.99	Telangana	1.02
Tripura	1.00	Jammu & Kashmir	0.99	Himachal	1.01
Jammu & Kashmir	1.00	Himachal	0.99	Sikkim	1.00
Chhattisgarh	0.97	Haryana	0.98*	Tripura	1.00
Manipur	0.96	Goa	0.97	Manipur	0.99
Uttarakhand	0.96	Telangana	0.96	West Bengal	0.99
Himachal	0.96	Karnataka	0.95	Kerala	0.99
Andhra Pradesh	0.96	West Bengal	0.95	Bihar	0.99
Meghalaya	0.96	Tripura	0.95	Karnataka	0.98
Karnataka	0.95	Bihar	0.94	Andhra Pradesh	0.98
Haryana	0.95	Uttarakhand	0.93	Tamil Nadu	0.98
Kerala	0.95	Chhattisgarh	0.91	Chhattisgarh	0.98
Nagaland	0.94	Maharashtra	0.91	Odisha	0.98
Uttar Pradesh	0.94	Jharkhand	0.91	Jharkhand	0.97
Tamil Nadu	0.94	Uttar Pradesh	0.91	Haryana	0.96
Odisha	0.93	Kerala	0.90	Uttar Pradesh	0.96
Madhya Pradesh	0.92	Tamil Nadu	0.90	Madhya Pradesh	0.96
Bihar	0.92	Rajasthan	0.88	Rajasthan	0.95
Punjab	0.91	Andhra Pradesh	0.88	Punjab	0.95
Rajasthan	0.91	Odisha	0.86	Arunachal Pradesh	0.94
Gujarat	0.91	Gujarat	0.85	Uttarakhand	0.90
Jharkhand	0.90	Madhya Pradesh	0.82	Gujarat	0.90

* Based on 25-49 unweighted cases.

Note: Here, inequality is defined as the ratio of indicators for relevant groups and values are ranked.

Source: Author's Calculation based on NFHS-4, State Reports (2017)

Table 14: Inequality among Female in School Attendance Rate (6–17) Years

State	SC/gen	State	ST/gen	State	OBC/gen
Arunachal Pradesh	1.10	Nagaland	1.12	Nagaland	1.12
Sikkim	1.04	Arunachal Pradesh	1.11	Arunachal Pradesh	1.06
Maharashtra	1.03	Assam	1.06	Maharashtra	1.04
Manipur	1.00	Sikkim	1.01	West Bengal	1.03
Assam	1.00	Manipur	1.01	Himachal	1.02
Tripura	0.99	Meghalaya	0.98	Tripura	1.01
West Bengal	0.99	Tripura	0.97	Sikkim	1.01
Telangana	0.98	Himachal	0.97	Bihar	1.01
Goa	0.98*	Uttarakhand	0.96	Telangana	1.00
Kerala	0.97	West Bengal	0.96	Goa	1.00

State	SC/gen	State	ST/gen	State	OBC/gen
Chhattisgarh	0.96	Goa	0.95	Kerala	0.99
Nagaland	0.96	Karnataka	0.94	Assam	0.99
Jammu & Kashmir	0.95	Bihar	0.93	Jammu & Kashmir	0.99
Tamil Nadu	0.95	Telangana	0.91	Karnataka	0.98
Uttarakhand	0.95	Tamil Nadu	0.90	Tamil Nadu	0.98
Haryana	0.94	Maharashtra	0.90	Manipur	0.97
Karnataka	0.94	Jammu & Kashmir	0.89	Jharkhand	0.97
Himachal	0.94	Uttar Pradesh	0.89	Chhattisgarh	0.95
Odisha	0.93	Jharkhand	0.88	Uttar Pradesh	0.95
Andhra Pradesh	0.93	Andhra Pradesh	0.86	Odisha	0.94
Uttar Pradesh	0.92	Chhattisgarh	0.85	Punjab	0.94
Bihar	0.92	Kerala	0.85	Madhya Pradesh	0.93
Meghalaya	0.91	Gujarat	0.84	Haryana	0.93
Madhya Pradesh	0.90	Odisha	0.84	Andhra Pradesh	0.93
Punjab	0.89	Rajasthan	0.83	Rajasthan	0.91
Rajasthan	0.89	Madhya Pradesh	0.79	Uttarakhand	0.87
Jharkhand	0.88	Haryana	0.76*	Gujarat	0.86
Gujarat	0.87	Mizoram	-	Meghalaya	-
Mizoram	-	Punjab	-	Mizoram	-

* Based on 25-49 unweighted cases.

Note: Here, Inequality is defined as the ratio of indicators for relevant groups and values are ranked.

Source: Author's Calculation based on NFHS-4, State Reports (2017).

If we assume that productivity of worker/population increases with the increase in level of education, then cross state data of GER shows that productivity of worker/population is lowest in Bihar in comparison to other states of India. It is observed that states with low income have low and uneven educational participation and attainments. This is essentially because of the income of people (which is also linked with the occupation structure) and the level of existing literacy play contrasting roles for different states.

The data used in this paper also tries to identify how different states are succeeding in their learning (under the given element of inequality). In this work we have also focused on inequalities in access, attainment and outcomes (like attendance rates, dropout rates, enrolment rates and literacy rates) across caste categories. By using secondary data provided by national sample survey (NFHS), we have examined whether social inequality are entrenched in education inequality. The inequality for groups like SCs, STs, OBCs population and interpreted as relative to general category. NFHS data shows that educational attainment at the household level has increased substantially between the years 2005-06 and 2015-16. Among females, the median number of years of schooling increased from 1.9 years in NHFS-3 (2005-06) to 4.4 years in NHFS-4 (2015-16). The median number of years of schooling completed by males increased from 4.9 years in NHFS-3 to 6.9 years in NHFS-4. Over the same period, the

percentage of females and males with no schooling decreased from 42 percent of females and 22 percent of males to 31 percent of females and 15 percent of males. Table 13 and Table 14 show inequality between general and SC, General and ST and General and OBC in case of attendance rate among 6-17 years of age group of students. We find inequality between SC and General and ST and general categories of students. Bihar is among the list of high inequality states of India, especially in case of male SC and male General categories of students. Significantly, in case of female students we find low inequality between OBC and General category in comparison to male students in Bihar. In case of female we find equality between OBC and General category of students in Bihar. Table 15 shows situation of inequality at overall (male and female) level. Here, we find that situation of Gujarat is worst in India in case of inequality between SC and General Students (measured in terms of attendance rates). Table 16 shows inequality between SC and General Categories of students and Table 17 shows the inequality between OBC and General Categories of students. Both tables show that inequality between General and SC and General and OBC increase as the level of education increases in Bihar. Bihar has the highest inequality between SC and General Students at Upper Primary and Secondary & Higher Secondary level.

Table 15: Inequality in School Attendance Rate (6–17) Years

State	SC/gen	State	ST/gen	State	OBC/gen
Arunachal Pradesh	1.08	Arunachal Pradesh	1.11	Meghalaya	1.11
Maharashtra	1.03	Nagaland	1.10	Nagaland	1.08
Sikkim	1.02	Assam	1.08	Maharashtra	1.03
Goa	1.02	Sikkim	1.00	Assam	1.03
Assam	1.01	Manipur	1.00	Goa	1.02
West Bengal	1.00	Meghalaya	0.99	Himachal	1.01
Telangana	1.00	Himachal	0.98	Telangana	1.01
Tripura	0.99	Goa	0.96	West Bengal	1.01
Manipur	0.98	Tripura	0.96	Jammu & Kashmir	1.01
Jammu & Kashmir	0.98	West Bengal	0.96	Tripura	1.00
Chhattisgarh	0.97	Karnataka	0.95	Sikkim	1.00
Kerala	0.96	Uttarakhand	0.95	Arunachal Pradesh	1.00
Uttarakhand	0.96	Jammu & Kashmir	0.94	Bihar	1.00
Nagaland	0.95	Telangana	0.94	Kerala	0.99
Himachal	0.95	Bihar	0.93	Manipur	0.98
Karnataka	0.95	Maharashtra	0.90	Karnataka	0.98
Haryana	0.95	Tamil Nadu	0.90	Tamil Nadu	0.98
Tamil Nadu	0.94	Uttar Pradesh	0.90	Jharkhand	0.97
Andhra Pradesh	0.94	Jharkhand	0.89	Chhattisgarh	0.96
Uttar Pradesh	0.93	Haryana	0.88	Odisha	0.96
Meghalaya	0.93	Chhattisgarh	0.88	Uttar Pradesh	0.96
Odisha	0.93	Kerala	0.87	Andhra Pradesh	0.95
Bihar	0.92	Andhra Pradesh	0.87	Haryana	0.95
Madhya Pradesh	0.91	Rajasthan	0.86	Madhya Pradesh	0.94
Punjab	0.90	Odisha	0.85	Punjab	0.94
Rajasthan	0.90	Gujarat	0.84	Rajasthan	0.93

State	SC/gen	State	ST/gen	State	OBC/gen
Jharkhand	0.89	Madhya Pradesh	0.81	Uttarakhand	0.89
Gujarat	0.89	Mizoram	-	Gujarat	0.88
Mizoram	-	Punjab	-	Mizoram	-

Note: Here, Inequality is defined as the ratio of indicators for relevant groups and values are ranked.

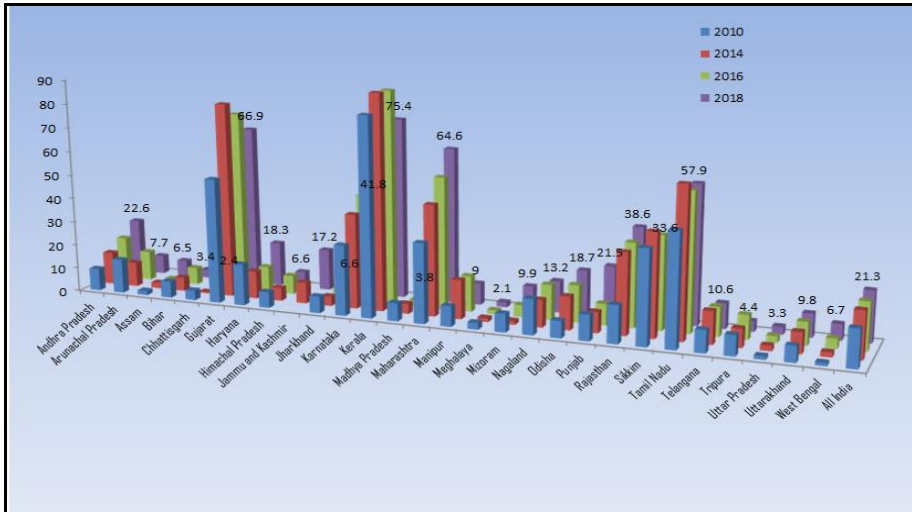
Source: Author's Calculation based on NFHS-4, State Reports (2017).

Table 16: Inequality in Level of Education A

Sl. No.	SC/General			
	Illiterate	Primary	upper primary	secondary & higher Secondary
1	Dadra & N. Haveli	Daman & Diu	Daman & Diu	Puducherry
2	Kerala	Sikkim	Delhi	Arunachal Pradesh
3	Puducherry	Chandigarh	Nagaland	Goa
4	Tamil Nadu	Haryana	Kerala	Daman & Diu
5	Chhattisgarh	Chhattisgarh	Jammu & Kashmir	Dadra & N. Haveli
6	Manipur	Puducherry	Uttarakhand	Jammu & Kashmir
7	Jharkhand	Himachal Pradesh	Telangana	Assam
8	Bihar	Delhi	Maharashtra	Chandigarh
9	Chandigarh	Madhya Pradesh	Tamil Nadu	Uttarakhand
10	Sikkim	Tamil Nadu	Jharkhand	Delhi
11	Odisha	Gujarat	Rajasthan	Meghalaya
12	Gujarat	Odisha	Himachal Pradesh	Nagaland
13	Madhya Pradesh	Jharkhand	Meghalaya	Sikkim
14	Andhra Pradesh	Punjab	Assam	Tamil Nadu
15	Punjab	Tripura	Punjab	Maharashtra
16	Delhi	Bihar	Madhya Pradesh	Tripura
17	Rajasthan	West Bengal	Karnataka	Kerala
18	Uttar Pradesh	Maharashtra	Puducherry	Telangana
19	Haryana	Uttar Pradesh	Manipur	Himachal Pradesh
20	Meghalaya	Nagaland	Goa	Gujarat
21	Telangana	Karnataka	West Bengal	Karnataka
22	Karnataka	Kerala	Haryana	Manipur
23	Maharashtra	Jammu & Kashmir	Odisha	West Bengal
24	Tripura	Rajasthan	Uttar Pradesh	Andhra Pradesh
25	Uttarakhand	Assam	Gujarat	Haryana
26	West Bengal	Telangana	Chandigarh	Punjab
27	Himachal Pradesh	Andhra Pradesh	Tripura	Uttar Pradesh
28	Goa	Uttarakhand	Chhattisgarh	Rajasthan
29	Jammu & Kashmir	Meghalaya	Dadra & N. Haveli	Madhya Pradesh
30	Assam	Manipur	Andhra Pradesh	Chhattisgarh
31	Nagaland	Goa	Sikkim	Jharkhand
32	Arunachal Pradesh	Arunachal Pradesh	Arunachal Pradesh	Odisha
33	Daman & Diu	Dadra & N. Haveli	Bihar	Bihar

Source: Authors' calculation based on NSS (2014).

Figure 2. Computer Available For Children in Schools* (in Rural Areas)



Source: ASER 2018. Note: *As part of the ASER survey, one government school with primary sections was visited in each sampled village. Preference was given to a government upper primary school (Std. I-VII/VIII) if one exists in the village.

Table 17: Inequality in Level of Education B

Sl. No.	Illiterate	OBC/General Primary	Upper primary	Secondary & Higher Secondary
1	Mizoram	Sikkim	Daman & Diu	Puducherry
2	Dadra & N. Haveli	Chandigarh	Nagaland	Arunachal Pradesh
3	Puducherry	Chhattisgarh	Mizoram	Nagaland
4	Chhattisgarh	Puducherry	Delhi	Dadra & N. Haveli
5	Gujarat	Meghalaya	Punjab	Goa
6	Jharkhand	Gujarat	Telangana	Meghalaya
7	Tamil Nadu	Odisha	Karnataka	Sikkim
8	Kerala	Daman & Diu	Chandigarh	Daman & Diu
9	Delhi	Mizoram	Jharkhand	Uttarakhand
10	Meghalaya	Madhya Pradesh	Himachal Pradesh	Delhi
11	Bihar	Uttarakhand	Kerala	A & N Islands
12	Madhya Pradesh	Kerala	Tamil Nadu	Assam
13	Sikkim	Jammu & Kashmir	Maharashtra	Manipur
14	Andhra Pradesh	Tamil Nadu	Odisha	Maharashtra
15	Uttar Pradesh	Bihar	Madhya Pradesh	Tamil Nadu
16	Rajasthan	Delhi	Meghalaya	Karnataka
17	Manipur	Himachal Pradesh	Chhattisgarh	Tripura
18	Telangana	Haryana	Tripura	Haryana
19	Odisha	A & N Islands	West Bengal	Chandigarh
20	Haryana	West Bengal	Rajasthan	Jammu & Kashmir
21	Tripura	Punjab	Assam	Punjab
22	Uttarakhand	Maharashtra	Gujarat	Himachal Pradesh

Sl. No.	Illiterate	OBC/General		Secondary & Higher Secondary
		Primary	Upper primary	
23	Punjab	Uttar Pradesh	Puducherry	Kerala
24	Himachal Pradesh	Rajasthan	Jammu & Kashmir	Telangana
25	Karnataka	Jharkhand	Goa	West Bengal
26	West Bengal	Karnataka	Haryana	Uttar Pradesh
27	Maharashtra	Goa	Uttar Pradesh	Odisha
28	Jammu & Kashmir	Andhra Pradesh	Arunachal Pradesh	Jharkhand
29	Assam	Tripura	Sikkim	Rajasthan
30	Chandigarh	Telangana	Manipur	Andhra Pradesh
31	Goa	Assam	Bihar	Chhattisgarh
32	A & N Islands	Manipur	Andhra Pradesh	Madhya Pradesh
33	Daman & Diu	Arunachal Pradesh	A & N Islands	Bihar
	Nagaland	Nagaland	Uttarakhand	Gujarat
	Arunachal Pradesh	Dadra & N. Haveli	Dadra & N. Haveli	

Source: Authors' calculation based on NSS (2014).

Table 18: Percentage of Students Taking Private Coaching in State/UT

Students taking private coaching for levels other than school education for each State/UT rural + urban					
Sl. No.	State	Percentage	Sl. No.	State	Percentage
1	Tripura	81.2	19	Gujarat	19.4
2	West Bengal	78.4	20	Madhya Pradesh	18.9
3	Daman & Diu	50.8	21	Tamil Nadu	17.4
4	Chandigarh	50	22	Uttarakhand	16.2
5	Bihar	49.5	23	Uttar Pradesh	15.2
6	Odisha	47.9	24	Haryana	15
7	Manipur	35.5	25	Sikkim	13.7
8	Jharkhand	35	26	Karnataka	12.7
9	Delhi	34	27	Andhra Pradesh	10.3
10	Jammu & Kashmir	29.2	28	Rajasthan	10
11	Kerala	26.1	29	Lakshadweep	8.7
12	Maharashtra	25	30	Chhattisgarh	8.1
13	A & N Islands	24	31	Arunachal Pradesh	7.8
14	Goa	23.1	32	Himachal Pradesh	7.6
15	Puducherry	22.4	33	Meghalaya	6.1
16	Punjab	21.3	34	Telangana	5
17	Dadra & Nagar Haveli	20.6	35	Nagaland	3.8
18	Assam	19.6	36	Mizoram	1.9

Source: Authors' calculation based on NSS (2014).

Privation in education is another important feature of education system in India. Thus, it is important to analyse the extent of privation of education across states of India. We have also analysed the pattern of expenditure (as an indicator of extent of private sectors' role in education) by students on coaching. Table 18 shows who bears the burden of education in different states of India. We find that more than 30 percent of

students have to take private coaching even in poor states like Bihar, Odisha and Jharkhand etc. Bihar is among the top five states in terms of percentage of students who take coaching in India. Unfortunately, private coaching can only be accessed by households who are not poor. Thus, the increasing role of private coaching can further lead to a rise in inequality between poor and rich in Bihar (that is already on higher side). Also, in absence of quality education in government schools, students from poor states have to bear higher expenditure on education in terms of expenditure on coaching to compete with students of other states.

Section III: Gender Inequality

Inequality in India can also be seen in terms of gender. India is home of 121 crore population and among them around 48 percent are female/women. Female constitute half of the world's population. However, gender equality is also one of the important agenda of sustainable development, unfortunately gender inequality can be seen in every sphere of the society. Female population continue to be underrepresented at the level of politics and governance in India and states. One can find that females are not able to enjoy similar opportunities and benefits that male population enjoy in India. Women are paid unequally in India compared to men when it comes to hourly wages for labour. As per a recent report by the International Labour Organization (ILO, 2019) on average, women are paid 34 per cent less than men. The gap in wages, known as the gender wage gap, is the highest among 73 countries studied in the report. Studies also show that sometimes women cannot take decisions for themselves. Around 40 percent of women aged 20 to 24 were married before their 18th birthday. Their participation in social, economical and political sphere is highly dependent on factors highly associated with male related situations (e.g. literacy of father). That is why the concept of empowerment has evolved and policies have been designed to empower female population so that they can get equal opportunities to excel in their life.

The lack of women's empowerment is basically a critical form of inequality. At overall level sex ratio is 933. But the level of sex ratio is not similar across states of India and some states are lagging behind. The child sex ratio for 0 to 6 years of age group (918) is lower than overall sex ratio in India. The level of child sex ratio is also not similar across states of India and some states are lagging behind. We also find differences across states in case of age of marriage. We also find difference between male and female in terms of literacy rate. Thanks to government interventions and other factors, literacy rate for female has improved in last couple of years, but around 35 per cent of female population is still illiterate and only 20 per cent of male population are illiterate. We also find differences in terms of literacy rates. Literacy among female is around 91 per cent in Kerala, while it is only 61 per cent in Bihar. Across states, females do work for which they do not get any remuneration (unpaid work). Females have to face inequality starting from birth that continues during their whole lives. In some states, females are deprived of access to proper nutrition, and health care facility and this lead to high mortality rate among female members (either in terms of high Infant

Mortality Rate among girl child or high Mother Mortality Rate). The case of Bihar is given in Table 19.

Table 19: Infant Mortality rate by Sex and Residence

Bihar	Total	Male	Female
2015	42	36	50
2014	42	39	46
2013	43	42	45
Rural			
		Male	Female
2015	42	36	49
2014	43	39	46
2013	44	43	46
Urban			
		Male	Female
2015	44	37	52
2014	37	37	38
2013	34	33	36

Source: Authors' compilation using various years reports of Vital Statistics of SRS Bulletin

Females in most of the states have to face sexual violence and domestic violence. The physical, mental and sexual violence affects women (female) of different ages, and it can be seen in terms of numbers of dowry death cases, domestic violence cases, lower participation of females in labor market, lower participation of female members in social events and low literacy levels. The situation is serious in Bihar. Recent reports of NSS (national sample Survey) and PLFS (2019) on employment-unemployment show continuous decline in female work force participation since 2004-05. It is also seen that age of marriage affects the girls' education. Low education translates into lack of access to technical knowledge and skills and lack of opportunities in the labour market. Thus, a deeper analysis of is required to understand the situation of case of women across states of India.

Women Empowerment Index

To identify that which state is better in terms of women empowerment, the "Women Empowerment Index" (WEI) has been calculated. This index has been calculated using data of NFHS. This index is based on the assumption that women empowerment is inclusive of female' mental, social, household and physical situations. Thus, we have tried to cover variables related to female mental, social, household and physical situations to measure WEI. Women Empowerment index has been calculated using following twelve variables/indicators:

- Women with 10 or more years of schooling (%)
- Women age 20-24 years married before age 18 years (%)
- Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)
- Women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m²) (%)

- Currently married women who usually participate in household decisions (%)
- Women who worked in the last 12 months who were paid in cash (%)
- Ever-married women who have ever experienced spousal violence (%)
- Ever-married women who have experienced violence during any pregnancy (%)
- Women owning a house and/or land (alone or jointly with others) (%)
- Women having a bank or savings account that they themselves use (%)
- Women having a mobile phone that they themselves use (%)
- Women age 15-24 years who use hygienic methods of protection during their menstrual period (%)

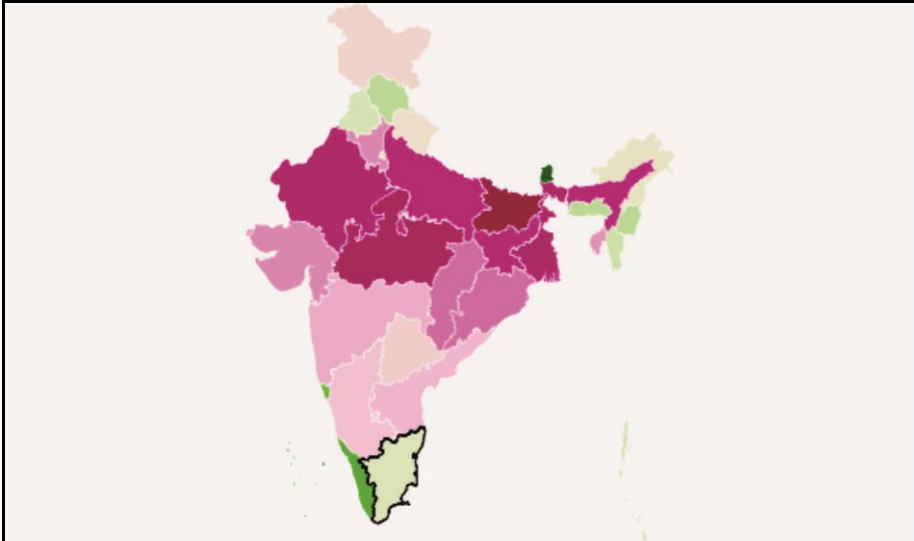
To calculate the value of WEI, we have compiled data of all twelve variables for all states collected data from NFHS fact sheets. Variables have been transformed to a uniform (0,1) scale to make them comparable using HDI method of normalization of variable. Reciprocals have been taken in the case of negative indicators such as violence to make all indicators unidirectional. Then, the values of all twelve variables have been averaged to arrive at the state's score for WEI. Table 20 and Figure 3 show rank-wise distribution of states of India as per calculated value of WEI. The Table 20 also shows that there is huge inequality across states in terms of value of WEI. Women those are living in Bihar are 550 percent less empowered than women who are living in Sikkim. We find high inequality in case of participation of married women in household decisions, women's access to house and/or land (alone or jointly with others), women's access to mobile phone that they themselves use and women's (of age 15-24 years) access to hygienic methods of protection during their menstrual period.

Table 20: Value of Sate's WEI and their Respected Ranks

State	WEI Value	Rank	State	WEI Value	Rank
Sikkim	0.67	1	Daman and Diu	0.36	19
Lakshadweep	0.61	2	Telangana	0.36	20
Kerala	0.58	3	Karnataka	0.33	21
Chandigarh	0.57	4	Andhra Pradesh	0.31	22
Goa	0.55	5	Maharashtra	0.30	23
Meghalaya	0.48	6	Tripura	0.28	24
Himachal Pradesh	0.48	7	Dadra and Nagar Haveli	0.28	25
Manipur	0.48	8	Gujarat	0.27	26
Puducherry	0.47	9	Haryana	0.27	27
Mizoram	0.47	10	Chhattisgarh	0.25	28
Andaman and Nicobar Islands	0.46	11	Odisha	0.25	29
Punjab	0.45	12	Assam	0.22	30
Tamil Nadu	0.43	13	Jharkhand	0.22	31
Delhi	0.42	14	Uttar Pradesh	0.22	32
Nagaland	0.39	15	Rajasthan	0.21	33
Arunachal Pradesh	0.39	16	West Bengal	0.20	34
Uttarakhand	0.38	17	Madhya Pradesh	0.18	35
Jammu and Kashmir	0.37	18	Bihar	0.10	36

Source: Author's Calculation based on data collected from NFHS 4 Fact Sheets.

Figure 3. *State as Per Women Empowerment Index in India*



Source: Author's Compilation using NFHS 4 Data. Note: Colour indicates rank, green is on better side and violet is on bad side. Darker of violet is worse and darker of green is best.

Section IV: Health Inequality

Rising health inequality is another important dimension of inequality in the world and India. World Bank country wise data on expenditure on health of year 2017 shows high inequality across countries in terms of per capita current health expenditure on PPP basis (current international \$). The value of per capita current health expenditure (on PPP basis and current international \$) is 10246 in USA and it is lowest with 37 in D.R. Congo. Neither the situation of India is very good in terms of health expenditure, with a value of only 253 \$ (on PPP basis) per capita. We see increase in expenditure on health between 2000 and 2016 at world level. Unfortunately, we find high variability in case of percentage of GDP expenditure on health at the overall world level. We also find a huge inequality across countries in terms of percentage of GDP expenditure on health. This varies from 17 per cent in USA to about 1 per cent in Venezuela. The situation of India is also not satisfactory, as this ratio is only 3.53 per cent. The situation is better in terms of percentage of GDP expenditure on health in Nepal (5.55 per cent) and Sri Lanka (3.81) in comparison to India. As per the W.H.O. governments in countries (at overall level) provide an average of 51% of a country's health spending, while more than 35% of health spending per country comes from out-of-pocket expenditure. Unfortunately, this ratio is very high in case of India (around 62 percent in year 2017). The poor health conditions also can be

seen in terms of availability of health personnel in India. The Employment and Unemployment Survey of 2017–18 reveals some important points related to availability of total health personals in India and states: total personnel in all human health activities working in institutions with some inpatient facility is around 26.3 lakh, of which 72% works are working in urban areas. Only 44% or 11.6 lakh workers are working in public sectors. This shows high inequality between rural and urban areas in India. The employment figures also show inequality in terms of availability of health personnel per 10,000 people. It is 19.6 for all India. But, it varies from 49 for Kerala to 26 for Punjab and 6.8 for Bihar and 8.9 for Uttar Pradesh.

NITI Aayog has released a report on the health index in June 2019 highlighting the extreme disparity across states. This report shows that while the health situation in Kerala is comparable to Brazil or Argentina, the situation in Odisha is similar to that in Sierra Leone. The top five states are Kerala, Andhra Pradesh (undivided), Maharashtra, Gujarat, and Punjab, and the bottom five states are Uttarakhand, Madhya Pradesh, Odisha, Bihar, and Uttar Pradesh in that order. Regional inequality often hides the social inequality in healthcare, especially in policy formulation and planning, if there is any. The worst sufferers—both in access to and outcome in healthcare—are those belonging to the Scheduled Caste (SC) and Scheduled Tribe (ST) social categories.

Here, we have analysed health inequality across states of India in terms of health expenditure as a percentage of total state expenditure, per capita health expenditure, health expenditure as a percentage of GSDP (Gross State Domestic Product). We find that Bihar is the worst performer in the case of per capita health expenditure, and second worst performer in case of health expenditure as a percentage of total state expenditure (Table 21). We have also tried to see how lowest per capita expenditure on health is affecting the availability of government hospitals and number of beds in government hospitals in Bihar. Table 22 shows that in terms of per crore numbers of hospitals, Delhi is worst performer in India. But in terms of numbers of beds available in government hospitals, Bihar is the worst performer across states of India. Table 23 shows availability of doctors per crore in rural areas of states of India. We find that Bihar is among top five lowest in terms of number of specialists at CHCs in India. The overall dimensions shows that even there is growth in SDP (State Domestic Product), still expenditure on health per population is very low in Bihar. Thus people who are in Bihar are getting low health security than other states of India.

Table 21: Ranks of State as per Expenditure on Health: Per Capita, as share of Total State Expenditure and as share of GSDP for all State & Union Territories, 2015-16

Rank	State/UT	Health Expenditure as % of Total State Expenditure	Per Capita Health Expenditure (Rs) e	State/UT	Health Expenditure as % of GSDP e	Rank	State/UT	Health Expenditure as % of Total State Expenditure	Per Capita Health Expenditure (Rs) e	State/UT	Health Expenditure as % of GSDP e
1	Delhi	11.4%	6,010	Andaman & Nicobar	5.2%	19	West Bengal	5.3%	1540	Jharkhand	1.2%
2	Puducherry	8.8%	6030	Mizoram	4.2%	20	Chhattisgarh	5.3%	1460	Odisha	1.1%
3	Mizoram	8.3%	5820	Arunchal Pradesh	3.2%	21	Maharashtra	5.0%	1360	Uttarakhand	1.0%
4	Assam	7.0%	5170	Nagaland	2.9%	22	Uttar Pradesh	5.0%	1330	Madhya Pradesh	1.0%
5	Meghalaya	6.7%	5120	Manipur	2.7%	23	Karnataka	5.0%	1320	Kerala	0.9%
6	Himachal Pradesh	6.6%	3650	Jammu & Kashmir	2.4%	24	Tamil Nadu	4.9%	1230	Punjab	0.8%
7	Tripura	6.6%	3540	Tripura	2.4%	25	Jharkhand	4.8%	1180	Andhra Pradesh	0.8%
8	Goa	6.0%	2670	Meghalaya	2.4%	26	Telangana	4.8%	1170	Telangana	0.8%
9	Uttarakhand	6.0%	2450	Assam	2.2%	27	Odisha	4.8%	1140	Delhi	0.7%
10	Jammu & Kashmir	5.9%	2430	Puducherry	2.1%	28	Andhra Pradesh	4.7%	1110	Tamil Nadu	0.7%
11	Punjab	5.8%	2390	Sikkim	1.8%	29	Madhya Pradesh	4.7%	1010	Gujarat	0.7%
12	Gujarat	5.8%	2240	Himachal Pradesh	1.6%	30	Bihar	3.9%	1010	Karnataka	0.6%
13	Kerala	5.8%	2230	Meghalaya	1.4%	31	Haryana	3.9%	970	Haryana	0.6%
14	Nagaland	5.7%	2180	Tripura	1.4%	32	Andaman & Nicobar	N.A.	860	Maharashtra	0.6%
15	Arunchal Pradesh	5.7%	2070	Daman & Diu	1.3%	33	Chhattisgarh	N.A.	770	West Bengal	N.A.
16	Sikkim	5.6%	2060	Bihar	1.3%	34	Dadra & Nagar Haveli	N.A.	730	Dadra & Nagar Haveli	N.A.
17	Rajasthan	5.6%	1990	Chhattisgarh	1.3%	35	Daman & Diu	N.A.	710	Daman & Diu	N.A.
18	Manipur	5.4%	1760	Chandigarh	1.3%	36	Lakshadweep	N.A.	490	Lakshadweep	N.A.

Note: (Rank 1 shows best and Rank 36 shows worst across 36 States/UT)

Source: Authors' Calculation based on data collected from National Health Profile 2019.

Table 22: Ranks of State as per Number of Government hospitals and Number of beds in Government Hospitals per lakh Population

Rank	Hospitals	Beds	Rank	Hospitals	Beds
1	Arunachal Pradesh*	Lakshadweep	19	Telangana*	West Bengal
2	Lakshadweep	Chandigarh	20	Uttar Pradesh*	Uttarakhand
3	Himachal Pradesh*	Puducherry	21	Daman & Diu	Rajasthan *
4	Mizoram*	A&N Island	22	Nagaland	Punjab*
5	A&N Island	Sikkim*	23	West Bengal	Telangana*
6	Sikkim*	Goa*	24	Tamil Nadu*	Jammu & Kashmir
7	Meghalaya*	Mizoram*	25	Jharkhand	Assam *
8	Karnataka*	Himachal Pradesh*	26	Jammu & Kashmir	Manipur
9	Uttarakhand	D&N Haveli*	27	Puducherry	Andhra Pradesh
10	Odisha*	Arunachal Pradesh*	28	Bihar	Maharashtra
11	Tripura*	Meghalaya*	29	Manipur	Haryana*
12	Rajasthan *	Delhi	30	Chandigarh	Odisha*
13	Assam *	Tripura*	31	Chhattisgarh	Madhya Pradesh
14	Kerala	Karnataka*	32	Gujarat	Uttar Pradesh*
15	D&N Haveli*	Kerala	33	Delhi	Chhattisgarh
16	Goa*	Tamil Nadu*	34	Madhya Pradesh	Gujarat
17	Haryana*	Daman & Diu	35	Maharashtra	Jharkhand
18	Punjab*	Nagaland	36	Andhra Pradesh	Bihar

Note: (Rank 1 shows best and Rank 36 shows worst across 36 States/UT).

Source: Authors' Calculation using data collected from National Health Profile 2019 and Census 2011. Notes: Government hospitals include Central Government, State Government and Local Government bodies * PHCs are also included in the number of hospitals.

Table 23: Rank wise Distribution of State as per Numbers of Doctors at PHC and Specialists at CHCs in Rural Areas as Per Crore Population

S. No.	No. of Doctors [^] at PHCs	Total Specialists at CHCs	S. No.	No. of Doctors [^] at PHCs	Total Specialists at CHCs
1	Maharashtra	Rajasthan	19	Chhattisgarh	Uttarakhand
2	Tamil Nadu	Karnataka	20	Jharkhand	Haryana
3	Rajasthan	Maharashtra	21	Uttarakhand	Goa
4	Karnataka	Andhra Pradesh	22	Manipur	Meghalaya
5	Andhra Pradesh	Jammu & Kashmir	23	Meghalaya	Nagaland
6	Bihar	Odisha	24	Arunachal Pradesh	Puducherry
7	Assam	Madhya Pradesh	25	Tripura	Arunachal Pradesh
8	Uttar Pradesh	Tamil Nadu	26	Nagaland	Himachal Pradesh
9	Gujarat	Uttar Pradesh	27	Mizoram	Manipur
10	Kerala	Assam#	28	Goa	Daman & Diu

S. No.	No. of Doctors [^] at PHCs	Total Specialists at CHCs	S. No.	No. of Doctors [^] at PHCs	Total Specialists at CHCs
11	Madhya Pradesh	West Bengal	29	Puducherry	Tripura
12	Telangana	Gujarat	30	A& N Islands	
13	West Bengal	Telangana	31	Sikkim	
14	Odisha	Punjab	32	Delhi	
15	Jammu & Kashmir	Jharkhand	33	D & N Haveli	
16	Himachal Pradesh	Bihar	34	Lakshadweep	
17	Haryana	Chhattisgarh	35	Daman & Diu	
18	Punjab	Kerala			

Note: [^]Allopathic Doctors. (Rank 1 shows best and Rank 35/29 shows worst across States/UT).

Source: Authors' Calculation based on data collected from National Health Profile 2019.

Conclusions

Overall, this paper tried to analyse the nature and extent of inequality across states of India and tries to indicate the position of Bihar in India. This study is based on secondary data collected from various sources including NSSO, NFHS and other government/non-government documents and reports. The study analysed inequality under four themes: livelihood, education, health and gender. Overall the analysis found that even some positive changes can be seen in terms of enrolment in primary education but productivity of education is lowest in Bihar. State government has invested money in attracting students to schools but because of low per capita expenditure on education the access to facilities like computer among students is lowest in Bihar. And inequality can also be seen in education attainments across caste categories in Bihar. In case of health expenditure people of Bihar has to bear very high per capita out of pocket expenditure. However, Bihar has achieved higher growth in last couple of years, but, still the level of female empowerment is very low in Bihar. Overall, we find that growth have not reduced inequality across states in India. And, still poor state like Bihar is facing serious challenge related to livelihood, education, women empowerment and health and, due to this out migration from this state is highest across states in India.

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