

CHAPTER - 4
HUMAN DEVELOPMENT SCENARIO IN ASSAM
(A PERSPECTIVE ANALYSIS)

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CHAPTER - 4
HUMAN DEVELOPMENT SCENARIO IN ASSAM
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4.1 Introduction

In India, despite of the significant achievement in terms of economic development, basically since the economic liberalization policy adopted in 2001 by the then Narasimha Rao government, the benefit of economic development could not benefited equally to all sections of the society; and the proportion of the people living below the poverty line did not decline much. The country experienced wide spread poverty, low level of educational attainment, vast income gap, unequal opportunities between men and women, suppression of economic, social, cultural and political rights representing “Unhealthy Growth”. Even the case is more relevant in case of the state of Assam, in general, and the tribal inhabited district of Kokrajhar in particular.

Many research studies undertaken by the academicians and scholars revealed that the state of Assam is lagging behind in terms of Human Development aspect. As per the National Human Development Report (NHDR 2001), HDI value of the state was 0.336; and placed in 17th rank in the country. However, the HDI value of the state increased to 0.444; and state rank improved to 16th as per National Human Development Report (NHDR, 2011). The state of Assam, in terms of human development achievements always remained below desired level. Human Development Index (HDI) of Assam (0.557) as estimated by Assam HDR, 2014 represents just about half of the desired goal. However, the state has experienced a steady and continuous improvement in overall human development over the last 20 years. The report reveals that the achievements in educational dimension being about two-thirds of the desired goal; and both health and income dimensions represents just half mark of the desired goal (HDR Assam, 2014). The report also indicates wide variations in terms of both overall and dimensional achievements. Driving factor of

human development achievements also found to be greatly differing across the districts in the state of Assam. Present status of human development in the state necessitates utmost attention of the policy makers and the government for the correction of present unhealthy condition in the area of human development and deprivations in the state.

In this chapter, an attempt has been made to analyze the present scenario of human development aspect in the state of Assam, by considering secondary data from various sources. An attempt has also been made to analyze inter- district disparities in the state in terms of HDI, GDI and GII.

4.2 A Short Profile of Assam

In this section, a short profile of the state of Assam in terms of geographic, demographic, economic, education has been made.

4.2.1 Geographic and Demographic Overview

Assam represents one of the 8 states of North East Region; and among the 35 states and union territories of India. As per 2011 census data the total geographical area of Assam is 78,438 (km²); and total population being 3.12 crore, highest among the North East states. Primarily, the state of Assam is a rural state with the area coverage of more than 98 percent of its geographical are. 86 percent of the total population of the state lives in the rural area. As per census data 2011, total geographical area of the state accounts about 2.4 percent of the country; and total population being 2.6 percent of India. Assam is situated in the north eastern part of India bordering two neighboring countries- Bhutan and Bangladesh. At present, there are 33 districts and 145 revenue circles in the state. Table 4.1 illustrates key demographic statistics of the state of Assam.

As per Census 2011, population of Assam has increased from 2.67 crore in 2001 to 3.12 crore in 2011. Out of total population of the state, male and female populations accounted for 15,939,443 and 15,266,133 respectively in 2011; and the male and female population being 13,777,037 and 12,878,491 respectively in 2001. The state of Assam has a population pressure on its land, and it has higher density of

population (397) than the all-India average of (382).

Literacy rate of the state of Assam has been much lower in comparison to all-India average. As per 2011 census data, it was 73.18 percent against the all-India average of 74.04. Assam had a male and female literacy rate of 78.81 percent and 67.27 percent respectively indicating a vast gap between males and females. On the other hand, India's average literacy rate for males and females stood at 82.14 and 65.46 respectively. Census data 2011 shows that the life expectancy at birth for the state of Assam was only 65 years whereas for all India it was 69.

Table 4.1 Geographic and Demographic Overview of Assam

Sl. No.	Indicators	Year	Unit	Assam	India
1	Geographical Area	2011	Lakh Sq. Km	0.78	32.87
2	Population	2011	In crore	3.12	121.02
3	Decadal Growth Rate	2011	Percentage	16.93	17.64
4	Density of Population	2011	Population/sq. km	397	382
5	Urban to Total Population	2011	Percentage	14.00	31.16
6	Sex Ratio	2011	Female/1000 males	954	940
7	Literacy Rate	2011	Percentage	73.18	74.04
8	Birth Rate	2011	Per Thousand mid-years Pop.	22.4	18.2
9	Death Rate	2011	Per Thousand mid-year pop.	7.2	7.3
10	Life expectancy at birth	2011	Average year	65	69
11	Infant Mortality Rate	2011	Per Thousand of Child	55	44

Source: Compiled from Census 2011, India

4.2.2 Economic Overview of Assam

Assam is the largest economy of the North East India witnessing economic growth rate close to 8 percent over the last few years. Agriculture and allied activities contributes more than 30 percent of the Net State Domestic Product (NSDP). Table 4.2 gives the key economic indicators of the state's economy. Assam is one of the economically backward states in India and has recorded low NSDP and per capita NSDP growth rates in the last decade that was below the corresponding growth rates

for the country in average. The per capita income of Assam, 2011, which determines the standard of living of the people, was Rs.37, 250.00; and it was Rs.60, 972.00 for the country in average. There has been a wide spread and chronicle poverty in the state of Assam since independence. As per 2010 data, estimated by the Planning commission of India, the people living below the poverty line was 36 percent and 33 percent respectively for the state of Assam and India in average. There is a huge rural–urban divide; the incidence of poverty is much higher in rural areas, about one out of five people lives below the poverty line, and the incidence is one out of thirty in urban areas.

As per 2011 census data, fertility rate of Assam is close to all-India average at 2.6. Census data 2011 shows that Assam has a better sex-ratio of 954 females per 1,000 males, which is higher than all-India average 940 females per 1,000 males. It is worthwhile to note that child sex-ratio 957 in the state of Assam is higher than the overall sex-ratio of 914 for all-India average.

Table 4.2: Economic Overview of Assam

Indicators/ Unit	2009-2010	2010-2011 (P)	2011-2012 (Q)
GSDP in Rs. Crore (At Constant Prices)	69793.89	75297.77	80171.91
GSDP in Rs. Crore (At Current Prices)	95974.57	112466.26	126543.65
Economic Growth Rate as per GSDP (at Current Prices)	14.39	12.16	10.95
Economic Growth Rate as per GSDP in Percent (At Constant Prices)	7.98	7.24	8.42
Per Capita Income in Rs. (At Current Prices)	27464	30589	33633
Per Capita Income in Rs. (At Constant Prices)	20193	21406	22958
Poverty Ratio (in percent)	----	-----	31.98

Source: Compiled from Census, 2011 India

From the above analyzed geographic and economic overview, it is worth mentioning that the state of Assam is lagging behind of many states of the country in terms of human development indicators. The state is being confronted with wide spread chronicle poverty, lower standard of living, high mortality rate, lower life

expectancy at birth, ill health condition, low rate of literacy and enrollment at different levels of education etc. which has contributed to low levels of human development in the state.

4.3 Position of Assam among NER States

There are scores of economic and social indicators which have been used to measure different aspects of socio-economic progress of the people in the society. HDI is a composite index, and as defined by UNDP, it measures the average achievement in three basic dimensions of human development. These dimensions are— a long and healthy life, knowledge and decent standard of living. It has been observed that the state of Assam is lagging behind the other states of North Eastern Region (NER) in terms of human development aspect. Table 4.3 indicates that the state is least performer in case of all three basic dimensions; health dimension, education dimension and income dimension. The HDI scores of each of the states for 2004-05 have clearly divided the eight North Eastern States into two distinct groups (four States in each group). The states which scores more than 0.5 are Mizoram, Nagaland, Manipur and Sikkim; and the states which scores less than 0.5 are Arunachal Pradesh, Assam, Meghalaya and Tripura (NER HDR, 2011).

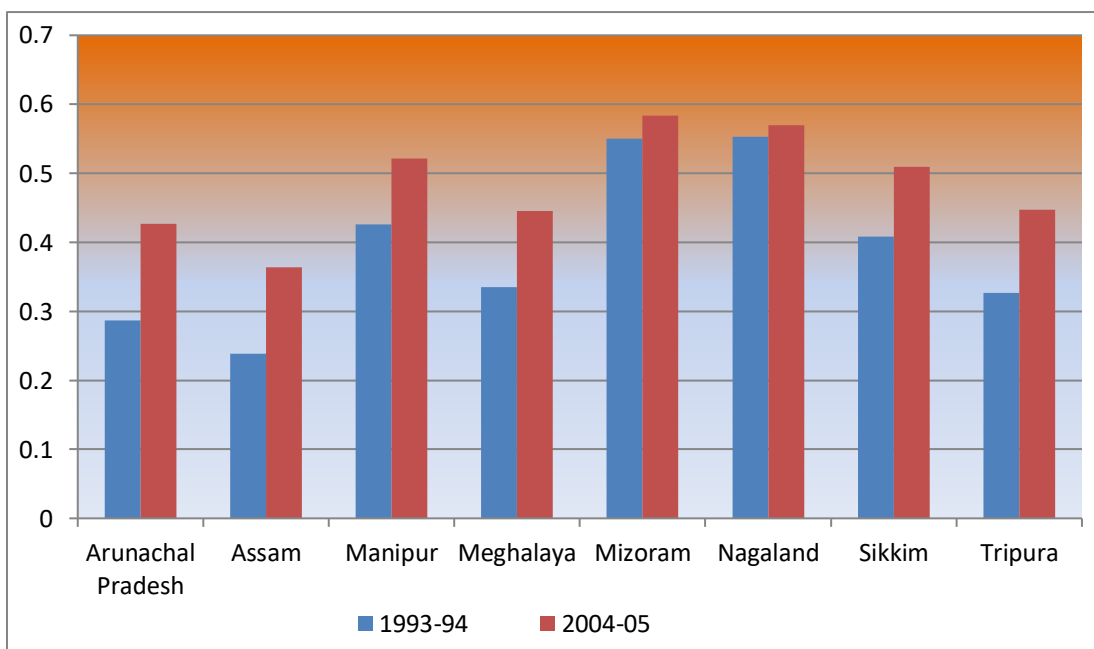
Table 4.3 and Fig. 4.1 indicate that the state of Assam retained lowest rank in HDI, both in 1993-1994 and 2004-2005. Data reveals that other states of NER performing better in the various aspect of human development. Assam had the lowest HDI value of 0.364; Mizoram and Nagaland with 0.584 and 0.570 HDI values respectively. The gap between the HDI score of Assam (0.364) and highest HDI attained by Nagaland (0.584) is too large; a gap of (0.220). Concerted effort of Government policy with differentiated approach is required to reduce this gap among the states of NER. As per HDR of NER 2011, chronologically, Mizoram, Nagaland, Manipur, Sikkim, Meghalaya, Tripura, Arunachal Pradesh and Assam stood at the position first, second, third, fourth, fifth, sixth, seventh and eight position respectively.

Table 4.3 HDI Scores and Rank of Assam among NER States

States	1993-94		2004-05		% Changed from 1993-94 to 2004-05
	Value	Rank	Value	Rank	
Arunachal Pradesh	0.287	7	0.427	7	48.78
Assam	0.239	8	0.364	8	52.30
Manipur	0.426	3	0.521	3	22.30
Meghalaya	0.335	5	0.455	5	35.82
Mizoram	0.550	2	0.584	1	6.18
Nagaland	0.553	1	0.570	2	3.07
Sikkim	0.408	4	0.509	4	24.75
Tripura	0.327	6	0.447	6	36.69

Source: Compiled from NER Human Development Report, 2011

Fig 4.1 HDI for NER States in 1993-94 and 2004-05

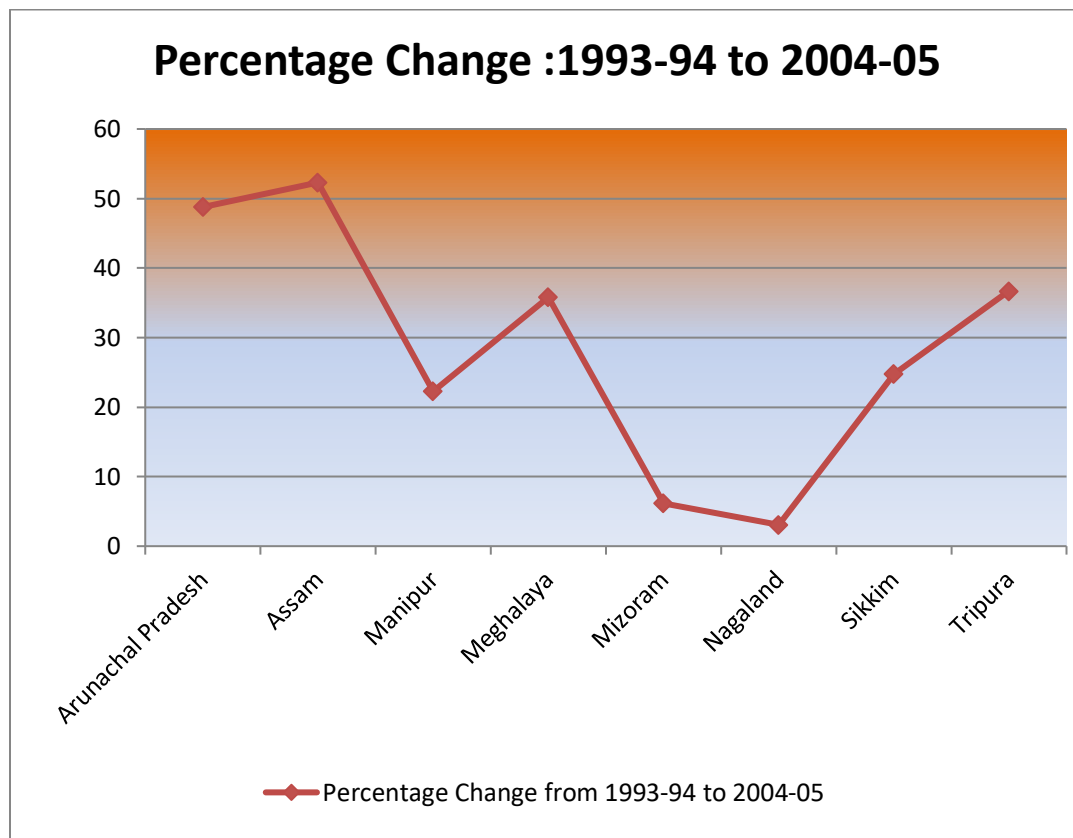


Source: Compiled from NER Human Development Report, 2011

Fig. 4.2 represents the percentage changes in HDI for NER states from 1993-1994 to 2004-2005. The data indicate that the Assam experienced highest percentage changes with 52.30 percent followed by Arunachal Pradesh with 48.78 percent. From

Fig. 4.2 it is also seen that the percentage changes of better off states are well below than the poorer performer Assam and Arunachal Pradesh indicating the fact that poor performing states can have better improvement, if proper policy is adopted.

Fig. 4.2 Percentage Change in HDI from 1993-94 to 2004-05



Source: Compiled and estimated from NER Human Development Report, 2011

It has been observed that during the period 2004-2005, except Assam and Arunachal Pradesh, the North Eastern States were perceived to be doing fairly well in human development as compared to states in other regions of the country (HDRNER-2011). In the context of NER, to raise human capability, widening the scope of economic opportunity within the region remains the major challenge to developmental policy-making. Basically, three aspects are important while achieving encouraging human development and making the economic growth inclusive one.

These three factors are represented by (a) broad based gainful employment, (b) quality and universal education, and (c) quality and sound healthcare facilities. In the context of NER, policy initiative is required for maintaining peace and stability which complement and support good governance in the region. Development effort necessitates restoration of peace and confidence among the people by reducing the level of violence in the region, and by promoting an environment in which development can take place.

4.4 Scenario of Human Development in Assam

In recent times, there has been a growing perception that has turned into a global objective as well as shared vision of real development which was initially conceptualized and articulated by the UNDP's first Human Development Report, 1990. The report stressed on the people of a country as its real wealth and creating an enabling environment for them in which human choices are expanded ; and in which environment people can enjoy a long, creative and healthy life in the society. Human Development Index is used as a way measuring actual progress of the society in three basic dimensions – health, education and income dimensions. The table 4.4 shows the HDI values and rankings of the districts in three basic dimensions of human development in the districts as published by Assam HDR, 2003 and 2014. The position of tribal inhabited district of Kokrajhar among the 23 districts stood at 14th place with HDI value of 0.354. Jorhat retained 1st position with HDI value of 0.650 followed by Kamrup and Golaghat with HDI values 0.574 and 0.540 respectively. The report revealed that the district of Dhubri experienced lowest HDI value of 0.214; followed by Darrang and Bongaigaon with HDI value 0.259 and 0.263 respectively. The report also indicates that the upper Assam districts are in a better position in comparison to lower Assam districts; only the Barpeta district could maintain 9th position with HDI value 0.369. It is serious concern that the state of Assam could not attain the level of even medium human development till 2003. The district Jorhat retains 1st rank in terms of both dimensions of health (0.720) and education (0.664). The district Kamrup occupied 1st rank in terms of income index (0.573). The district

Table 4.4 HDI Ranking of the Districts in Assam: 2003 and 2014

District	HDI 2003		HDI 2014		% improvement from 2003 to 2014
	Value	Rank	Value	Rank	
Baksa	NA	NA	0.437	26	NA
Barpeta	0.396	9	0.624	6	57.6
Bongaigaon	0.263	21	0.564	14	114.5
Cachar	0.402	8	0.463	24	15.17
Chirang	NA	NA	0.614	7	NA
Darrang	0.259	22	0.519	19	100.39
Dhemaji	0.277	20	0.507	21	83.03
Dhubri	0.214	23	0.482	23	125.23
Dibrugarh	0.483	6	0.560	15	15.94
Dima Hasao	0.363	11	0.638	3	75.76
Goalpara	0.308	18	0.591	10	91.88
Golaghat	0.540	3	0.543	16	0.60
Hailakandi	0.363	11	0.437	27	20.38
Jorhat	0.650	1	0.655	2	0.76
Kamrup	0.574	2	0.630	4	9.75
Kamrup (M)	NA	NA	0.703	1	NA
Karbi Anglong	0.494	4	0.612	8	23.89
Karimganj	0.301	19	0.456	25	51.50
Kokrajhar	0.354	15	0.519	20	46.61
Lakhimpur	0.337	17	0.583	11	72.99
Morigaon	0.494	4	0.576	13	16.60
Nagaon	0.356	14	0.592	9	66.30
Nalbari	0.343	16	0.576	12	67.93
N.C. Hills	0.363	11	NA	NA	NA
Sibsagar	0.469	7	0.629	5	34.11
Sonitpur	0.357	13	0.526	17	47.33
Tinsukia	0.377	10	0.505	22	33.95
Udalguri	NA	NA	0.523	18	NA
Assam	0.407		0.557		50.97
SD	0.11		0.07		
CV	27.5		12.5		

Source: Compiled and estimated from Assam HDR, 2003 and 2014

Note: NA indicate not available

Dhubri, retained lowest position in terms of both health and education index with (0.454) and (0.086) respectively. In terms of income index Dhemaji represented as

least performer with (0.026). The tribal inhabited district of Kokrajhar retained 21st, 8th and 15th position in terms of health, education and income index. It is worthwhile to be noted that the performance of the districts in Assam in terms of various dimensions of human development was very poor and insignificant. District wise variation in terms of human development indicators is also too high. The Assam HDR 2003 estimates the value of HDI for the state as a whole at 0.407 which indicates that given the desired normative goal, the present level of progress in overall human development in the state is even below the halfway mark (Assam HDR, 2003).

The National Human Development Report of India indicated that the performance of the state of Assam in terms of human development aspect was very poor in comparison to other states of the country (NHDR 2001). The report considered 15 states for its study; and out of 15 states, Assam ranked 14th with HDI value of 0.386; which is much below the national average of 0.472. Even the state rank went down from 10th in 1991 to 14th in 2001; and the position of Assam was just after Bihar from the bottom. As published by NHDR 2011, HDI value of the state increased to (0.444) in 2007-2008 which is lower than the all-India average of (0.467); and the state ranking even went down to 16th in 2007-2008.

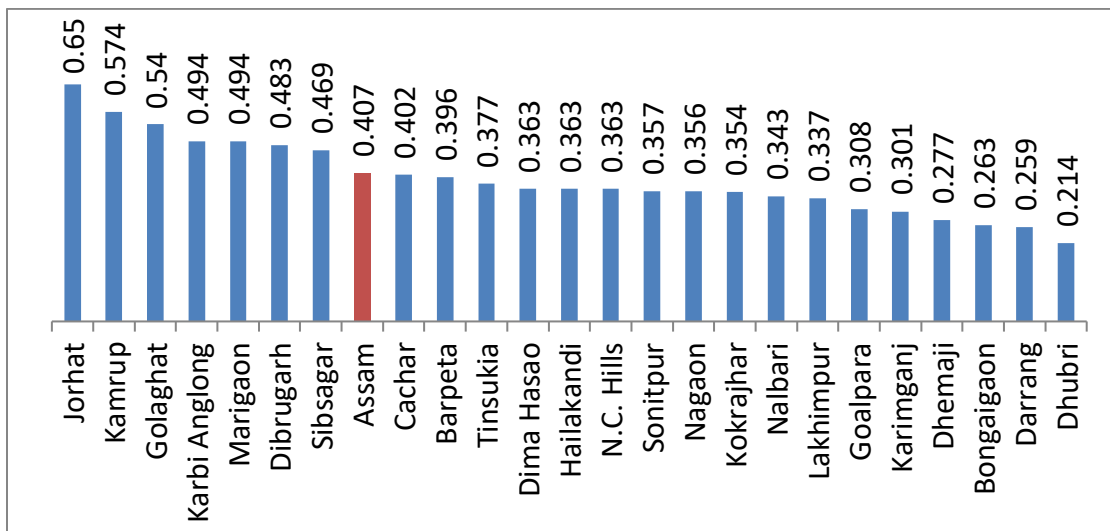
High rate of growth of population and diversity which exist in the state is very difficult to manage. Large scale unemployment, low public expenditure on social sectors along with inadequate facilities of health and nutrition in rural areas, low level of literacy and skills, lack of basic amenities like housing facilities, safe drinking water facilities are main reasons for low level of human development aspect in the country. Inequality in social, economic and gender aspect has also been contributing to low HDI in the country. Chronic poverty, low life expectancy of the people in rural areas has contributed to low HDI in the state of Assam. Lack of peace and stability is another aspect of uncongenial environment for economic growth in the state.

Fig. 4.3 shows human development index in the districts of the state as revealed by AHDR, 2003. Fig.4.3 reveals that the state average HDI is given by (0.407). Out of 23 districts, 9 districts attained higher than average; and fifteen (15) districts attained lower than state average HDI of (0.407). HDI (0.650) attained by

Jorhat is much higher than the lowest HDI (0.214) attained by the district Dhubri; showing a gap of (0.436). HDI largely vary across the districts in the state; the coefficient of variation being 27.5 percent as depicted by table 4.4. It is noteworthy that the tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 16th position.

Table 4.5 shows the achievement of the districts in the three basic dimensions of human development as revealed by the AHDR, 2014. The average HDI of the state of Assam is estimated at 0.407 as published by Assam HDR 2014. This indicates that the level of overall progress in human development in Assam was just a little beyond the halfway mark.

Fig.4.3 HDI in the Districts of Assam, 2003



Source: Compiled from Assam HDR, 2003

It has been observed that the tribal inhabited district Kokrajhar could not achieve encouraging position in terms of human development aspect. The district had HDI value of 0.354 which is comparatively far below the HDI value of better off districts Kamrup Metro and Jorhat which managed to maintain first and second position in the state with 0.574 and 0.65 respectively. The HDI value of the Kokrajhar District was even far below the average HDI value for the state 0.407. It is a serious concern that the lowest HDI value (0.214) which attained jointly by the

District Baksa and Hailakandi is even bellow half way of desired goal. District wise variations are too large; the gap between the highest HDI attained by the district Kamrup Metro (0.703) and lowest HDI attained jointly by the districts Baksa and Hailakandi (0.437) in the state is represented by (0.436).

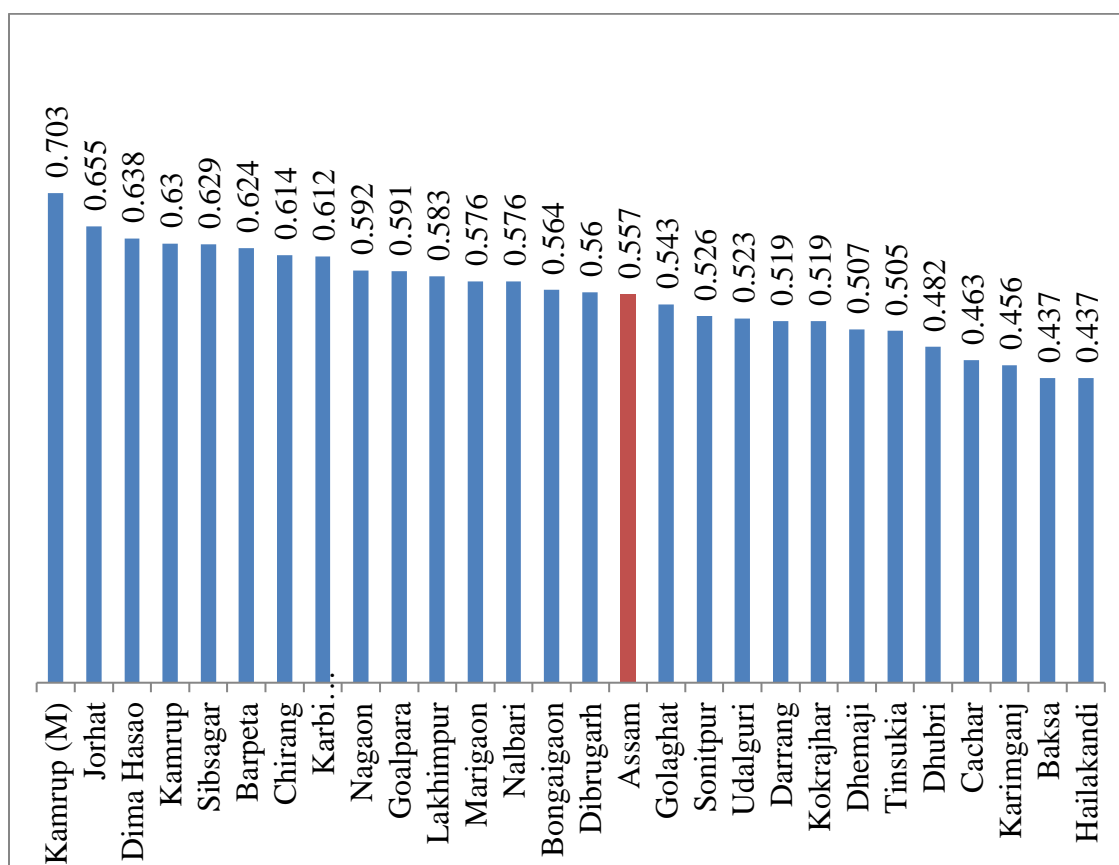
Table 4.5 Dimensional Index and HDI in the Districts of Assam, 2014

District	Dimensional Index						HDI	
	Health		Education		Living Standard		Value	Rank
	Value	Rank	Value	Rank	Value	Rank		
Baksa	0.340	26	0.606	23	0.404	21	0.437	26
Barpeta	0.768	2	0.684	9	0.462	16	0.624	6
Bongaigaon	0.530	16	0.667	13	0.507	8	0.564	14
Cachar	0.319	27	0.647	16	0.479	13	0.463	24
Chirang	0.746	4	0.677	12	0.457	17	0.614	7
Darrang	0.620	8	0.566	27	0.399	23	0.519	19
Dhemaji	0.481	21	0.688	7	0.393	24	0.507	21
Dhubri	0.510	19	0.579	26	0.380	26	0.482	23
Dibrugarh	0.518	18	0.700	5	0.483	9	0.560	15
Dima Hasao	0.748	3	0.662	14	0.525	6	0.638	3
Goalpara	0.718	7	0.612	22	0.470	14	0.591	10
Golaghat	0.543	13	0.684	8	0.431	19	0.543	16
Hailakandi	0.366	24	0.605	24	0.376	27	0.437	27
Jorhat	0.587	11	0.744	3	0.643	2	0.655	2
Kamrup	0.798	1	0.648	15	0.483	11	0.630	4
Kamrup (M)	0.554	12	0.783	1	0.800	1	0.703	1
Karbi Anglong	0.743	5	0.645	17	0.480	12	0.612	8
Karimganj	0.360	25	0.627	19	0.420	20	0.456	25
Kokrajhar	0.539	14	0.645	18	0.402	22	0.519	20
Lakhimpur	0.612	9	0.693	6	0.468	15	0.583	11
Morigaon	0.730	6	0.678	11	0.386	25	0.576	13
Nagaon	0.588	10	0.684	10	0.516	7	0.592	9
Nalbari	0.496	20	0.721	4	0.535	4	0.576	12
Sibsagar	0.521	17	0.758	2	0.630	3	0.629	5
Sonitpur	0.444	22	0.615	21	0.532	5	0.526	17
Tinsukia	0.425	23	0.625	20	0.483	10	0.505	22
Udalguri	0.538	15	0.602	25	0.441	18	0.523	18
Assam	0.523		0.661		0.501		0.557	

Source: Compiled from Assam HDR, 2014

Fig. 4.4 shows the district wise HDI in the state as revealed by Assam HDR, 2014. Out of 27 districts, 15 districts attained higher than state average; and twelve (12) districts attained lower than average state HDI (0.557). HDI largely vary across the districts in the state; the co-efficient of variation being 12.5 percent as depicted in the table 4.4. However, the gap between the highest and lowest observed value decreased from (0.437) in 2003 to (0.266) in 2014 indicating more equal trend among the districts from Assam, HDR 2003 and 2014; and the CV decreased from 27.5 in 2003 to 12.5 percent in 2014 report.

Fig. 4.4 HDI in the Districts of Assam, 2014



Source: Compiled from Assam HDR, 2014

It is also worth mentioning that the district rank in terms of HDI has changed considerably; position of the some districts have improved and for some districts gawn

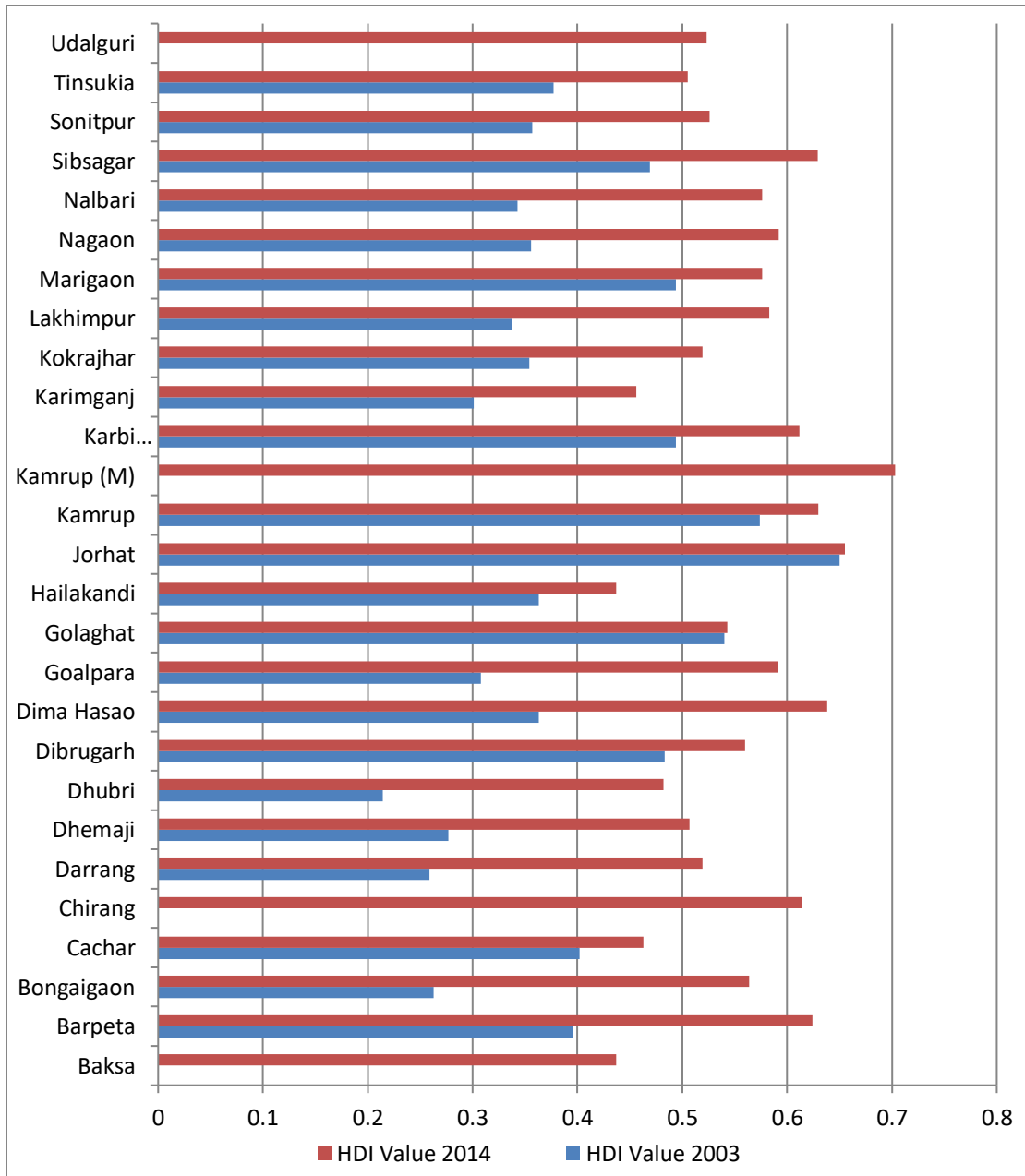
down from Assam, HDR 2003 and 2014. The tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 20th position in the state. Large scale unemployment and diversity which exist in the district of Kokrajhar is very difficult to manage. Low public expenditure on social sectors along with inadequate facilities of health and nutrition in rural areas, low level of literacy and skills, lack of basic amenities like housing facilities, safe drinking water facilities are main reasons for low level of human development in the district. Chronic poverty, low life expectancy of people in rural areas has contributed to low HDI. Lack of peace and stability is another aspect of uncongenial environment for economic growth in the tribal inhabited district of Kokrajhar.

Table 4.5 and Fig. 4.5 indicate the ranking of the districts in the basic dimensions of human development as revealed by Assam HDR, 2003 and 2014. The report revealed that among the six districts whose ranking gone down considerably from 2003 to 2014 are Cachar (from 8th to 24th), Hailakandi (from 11th to 27th), Golaghat (from 3rd to 16th), Tinsukia (from 12th to 22nd), Morigaon (from 4th to 13th) and Dibrugarh (from 6th to 15th); and the improvement rate of these districts in terms of human development indicators was considerably lower than other districts. As published by the report, improvement rate of the three districts - Sibsagar (from 15th to 5th), Dima Hasao (from 11th to 3rd) and Goalpara (from 17th to 10th) improved remarkably from Assam, HDR 2003 and 2014.

In terms of percentage improvement, the data indicates that the HDI percentage of tribal inhabited district of Kokrajhar increased only marginally (by 46.61). Table 4.5 reveals that the highest percentage improvement attained by the district Dhubri (125.23 percent); and lowest percentage was attained by the district Golaghat (60 percent). HDI value of three districts for which HDI percentage improved remarkably, by more than 100 percent are Dhubri (125.23), Bongaigaon (114.5), Darrang (100.39); and the data shows that the HDI percentage of six districts had improved by less than 25 percent are Kamrup (9.75), Sibsagar (13.96), Cachar (15.17), Dibrugarh (15.94), Morigaon (16.6) and Karbi Anglong (23.89). Average

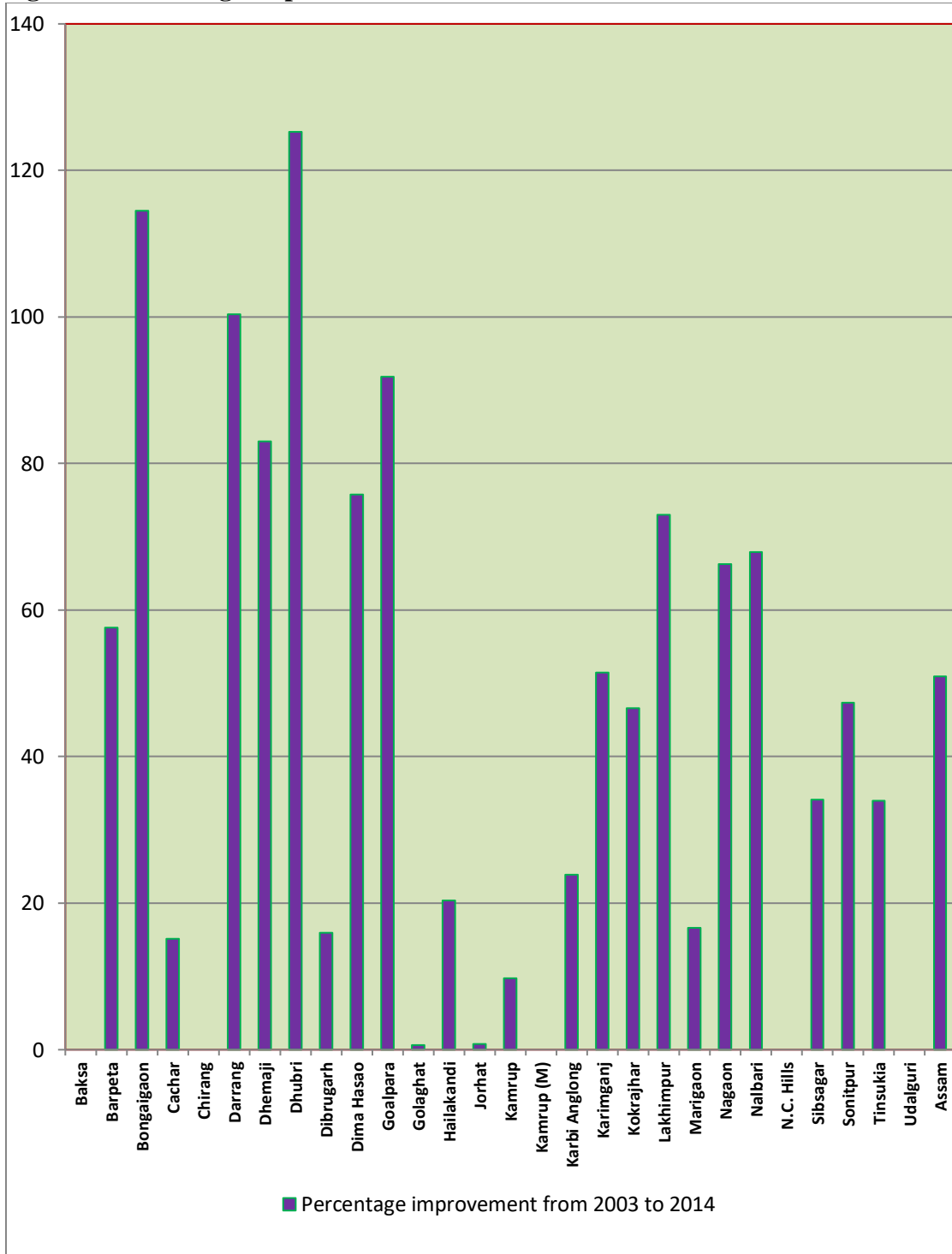
percentage of the state of Assam had increased by (50.97 percent). HDI percentage improvement of the districts from 2003 to 2014 also shows a convergence trend between the higher and lower performing districts in the state. HDI percentage improvement is shown by the Table 4.4 and Fig. 4.6.

Fig 4.5 HDI in the Districts of Assam: 2003 and 2014



Source: Compiled from Assam HDR, 2003 and 2014

Fig. 4.6 Percentage Improvement of HDI from 2003-2014



Source: Compiled from Assam, HDR, 2003 and 2014

4.5 Human Development: An analysis based on Historical Division of Assam

In this section an attempt is made for the analysis of region wise attainment of human development aspects in the state of Assam. Here, historical division of Assam is being considered for analysis; and historically Assam is divided into four (4) divisions – Hills and Barak Valley; Lower Assam; North Assam and Upper Assam division as depicted in the Table 4.6. Region wise, Hills and Barak Valley comprises seven (7) districts, Lower Assam region comprises of ten (10) districts, North Assam constitutes five (5) districts and Upper Assam region is represented by seven districts. Table 4.6 also gives the region wise and district wise area in sq. km. Among the regions, highest area is represented by Hills and Barak valley region (22244 sq. km.); and lowest area by North Assam (14325 sq. km.). At district level, Karbi Anglong represents with largest area coverage with 10434 sq. km.; and Kamrup (M) smallest area coverage with 955 sq. km. Area coverage of the tribal inhabited district of Kokrajhar in Lower Assam region is given by 3296 sq. km., largest district in the division. In percentage term, region wise area of Hills and Barak Valley, Lower Assam, North Assam and Upper Assam is given by (28.35 percent), (25.70 percent), (18.26 percent) and (27.67 percent) respectively.

As per 2011 census, size of the population was highest in the Lower Assam region (11252365); and lowest in the Hills and Barak Valley region (4795014). At district level, Nagaon represent with largest population with 2823768 persons; and Chirang district with smallest population with 482162 persons. The district Kokrajhar has the population of 887142 persons. In percentage term Hills and Barak valley, Lower Assam, North Assam and Upper Assam region represented by (15 percent), (36 percent), (24 percent) and (25 percent) of the total population of the state respectively. Region wise and district wise size of area and population in the state of Assam as per 2011 census is depicted in the Table 4.6.

Table 4.7 represents the standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the districts of Hills Area and Barak Valley region of Assam.

Table 4.6 Division wise Area and Population in the Districts of Assam

Divisions / Districts		Area (sq. km.)	Population 2011
Hills and Barak Valley Districts	Cachar	3786	1736617
	Dima Hasao	4888	214102
	Hailakandi	1327	659296
	Karbi Anglong	10434	956313
	Karimganj	1809	1228686
Sub Total for the Districts in Hills and Barak Valley		22244	4795014
Lower Assam	Baksa	2457	950075
	Barpeta	2282	1693622
	Bongaigaon	1093	738804
	Chirang	1923	482162
	Dhubri	2176	1949258
	Goalpara	1824	1008183
	Nalbari	1052	771639
	Kamrup (M)	955	1253938
	Kamrup (R)	3105	1517542
	Kokrajhar	3296	887142
Sub Total for the Districts in Lower Assam		20163	11252365
North Assam	Darrang	1585	928500
	Morigaon	1551	957423
	Nagaon	3973	2823768
	Sonitpur	5204	1924110
	Udalguri	2012	831668
Sub Total for the Districts in North Assam		14325	7465469
Upper Assam	Dhemaji	3237	686133
	Dibrugarh	3381	1326335
	Golaghat	3502	1066888
	Jorhat	2851	1092256
	Lakhimpur	2277	1042137
	Sibsagar	2668	1151050
	Tinsukia	3790	1327929
Sub Total for the Districts in Upper Assam		21706	7692728
Assam		78438	31205576

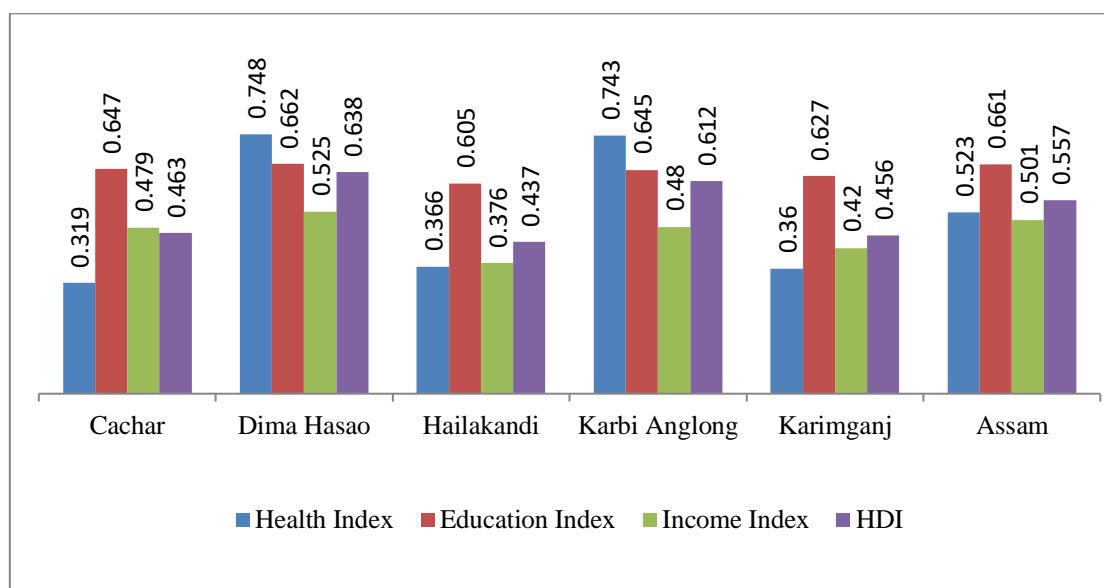
Source: Compiled from Statistical Hand Book of Assam 2011

Table 4.7 HDI of the Districts of Hills Area and Barak Valley of Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Hills and Barak Valley	Cachar	0.319	0.647	0.479	0.463
	Dima Hasao	0.748	0.662	0.525	0.638
	Hailakandi	0.366	0.605	0.376	0.437
	Karbi Anglong	0.743	0.645	0.480	0.612
	Karimganj	0.360	0.627	0.420	0.456
Average of the Hills and Barak Valley Districts		0.439	0.636	0.452	0.495
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.22	0.02	0.06	0.10
Co-efficient of Variation (in percent)		43.04	3.43	12.77	18.36

Source: Compiled and calculated from Assam, HDR 2014

Fig. 4.7 HDI and Dimensional Index in the Districts of Hills and Barak Valley Region



Source: Compiled and estimated from Assam, HDR 2014

Estimated co-efficient of variation as shown in the Table 4.7 reveals that the HDI and dimensional index of health, education and income largely vary across the districts in the Hills and Barak Valley region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.159), (0.149) and (0.035) respectively. HDI data also reveals large gap across the

districts of the region; the gap between the highest and lowest HDI being (0.201). Highest variation is found in the case of health; CV being 43.04 percent. HDI and Dimensional Index in the Districts of Hills and Barak Valley Region are diagrammatically represented by the Fig. 4.7.

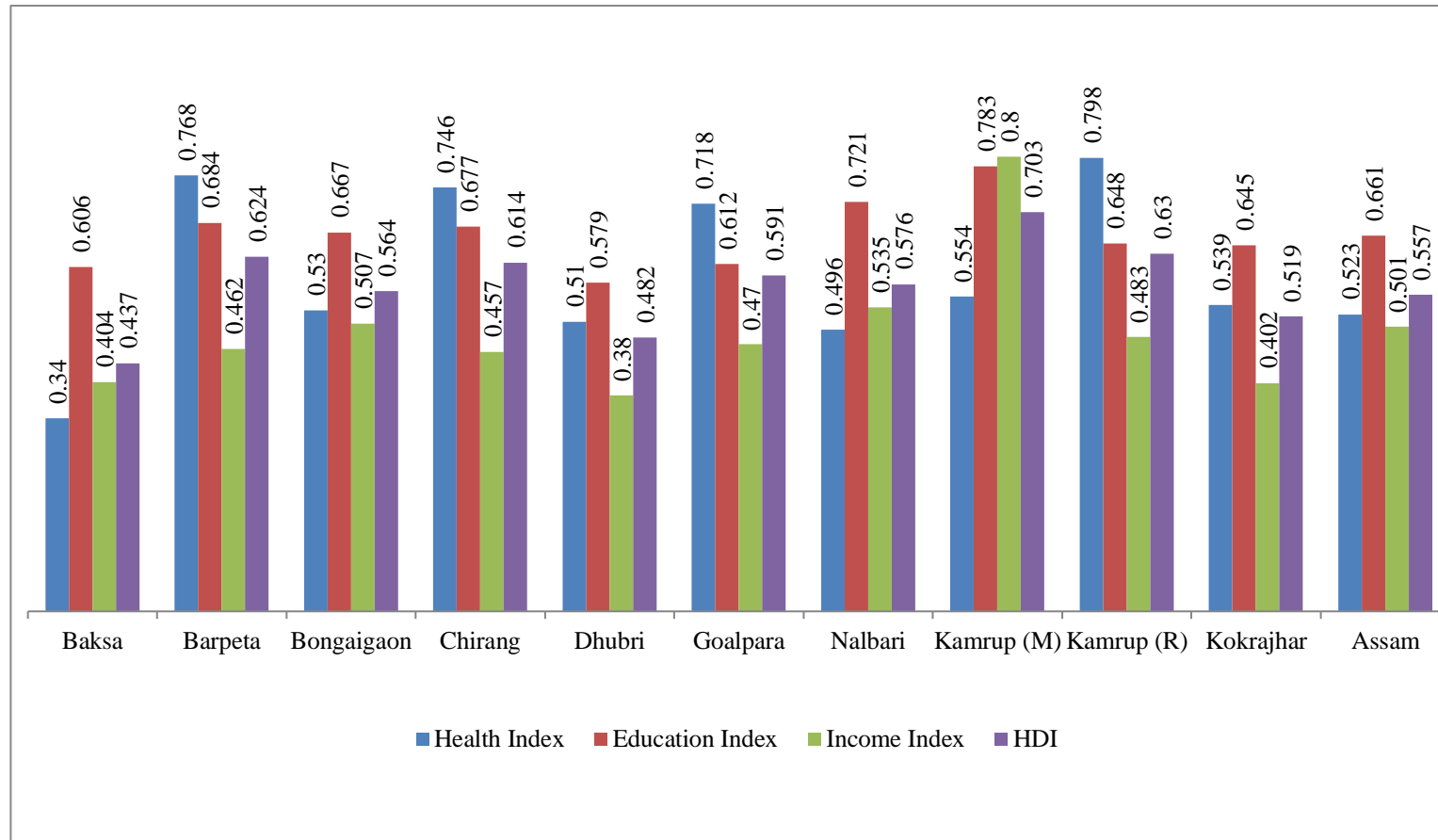
Table 4.8 HDI of the Districts of Lower Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Lower Assam	Baksa	0.340	0.606	0.404	0.437
	Barpeta	0.768	0.684	0.462	0.624
	Bongaigaon	0.530	0.667	0.507	0.564
	Chirang	0.746	0.677	0.457	0.614
	Dhubri	0.510	0.579	0.380	0.482
	Goalpara	0.718	0.612	0.470	0.591
	Nalbari	0.496	0.721	0.535	0.576
	Kamrup (M)	0.554	0.783	0.800	0.703
	Kamrup (R)	0.798	0.648	0.483	0.630
	Kokrajhar	0.539	0.645	0.402	0.519
Average of all Districts of Lower Assam		0.610	0.657	0.487	0.574
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.15	0.06	0.12	0.08
Co-efficient of Variation (in percent)		24.84	8.99	24.34	13.56

Source: Compiled and estimated from Assam, HDR 2014

Table 4.8 shows SD and CV of HDI and dimensional index of health, education and income in the districts of Lower Assam region. Estimated co-efficient of variation as shown in the Table 4.8 reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Lower Assam region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.458), (0.323) and (0.204) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.266). Highest variation is

Fig-4.8 HDI and Dimensional Index in the Districts of Lower Assam Region



Source: Compiled and estimated from Assam, HDR 2014

found in the case of health index and followed by education index; CV being 24.84 and 24.34 percent respectively. HDI and dimensional index in the Districts of Lower Assam Region are diagrammatically represented by the Fig. 4.8.

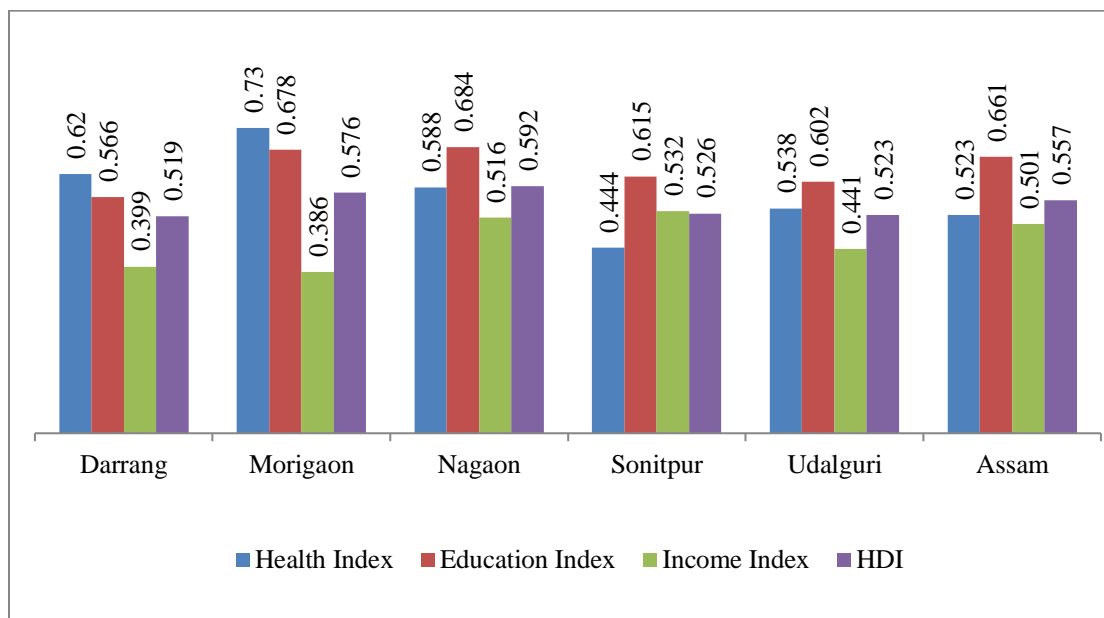
Table 4.9 HDI of the Districts of North Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
North Assam	Darrang	0.620	0.566	0.399	0.519
	Morigaon	0.730	0.678	0.386	0.576
	Nagaon	0.588	0.684	0.516	0.592
	Sonitpur	0.444	0.615	0.532	0.526
	Udalguri	0.538	0.602	0.441	0.523
Average of the Districts of North Assam		0.566	0.642	0.481	0.556
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.11	0.05	0.07	0.03
Co-efficient of Variation (in percent)		18.02	8.06	14.64	6.24

Source: Compiled and estimated from Assam HDR 2014

Table 4.9 shows the SD and CV of HDI and dimensional index of health, education and income in the districts of North Assam region. The estimated co-efficient of variation reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Lower Assam region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.286), (0.146) and (0.118) respectively. HDI data also reveals gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.73). Highest variation is found in the case of health dimension followed by income dimension; CV being 18.02 and 14.06 percent respectively. It is noteworthy that the CV of HDI in the North Assam (6.24 percent) is much lower than the Hills and Barak Valley (18.36 percent), Lower Assam (13.56 percent) and Upper Assam (10.12 percent) indicating more equal attainment of HDI by the districts in North Assam division. Fig. 4.9 shows HDI and Dimensional Index in the Districts of North Assam.

Fig. 4.9 HDI and Dimensional Index in the Districts of North Assam Region



Source: Compiled and estimated from Assam, HDR 2014

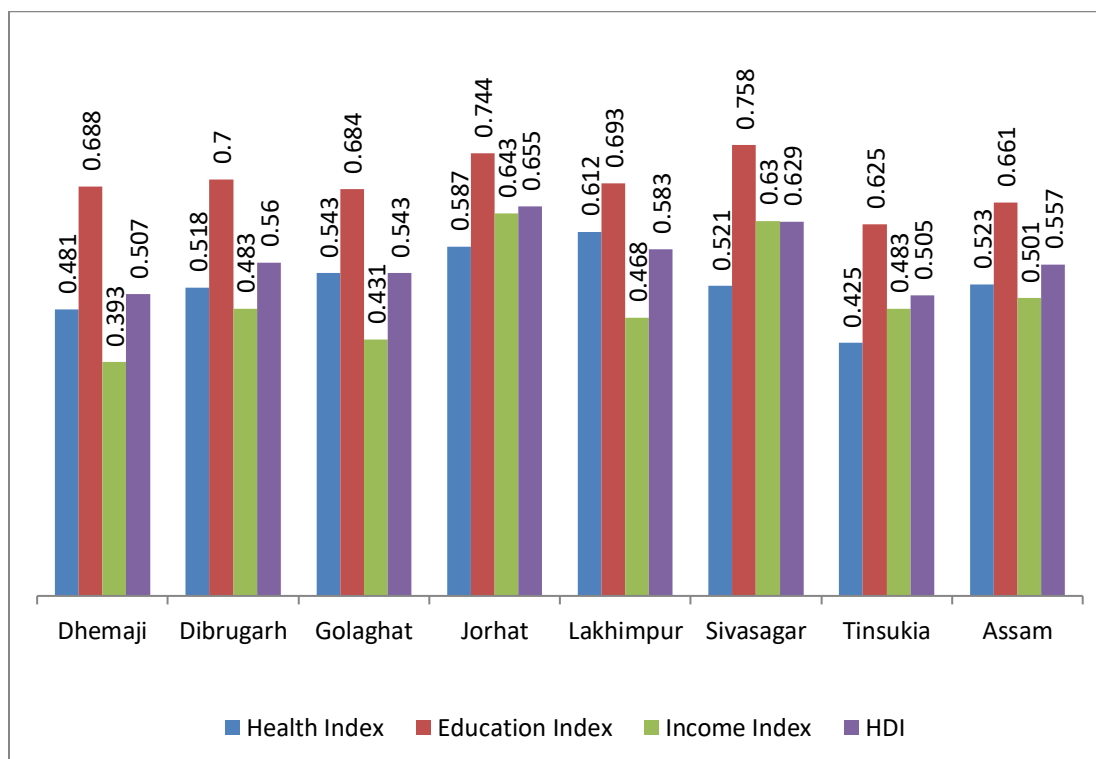
Table 4.10 HDI of the Districts of Upper Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Upper Assam	Dhemaji	0.481	0.688	0.393	0.507
	Dibrugarh	0.518	0.700	0.483	0.560
	Golaghat	0.543	0.684	0.431	0.543
	Jorhat	0.587	0.744	0.643	0.655
	Lakhimpur	0.612	0.693	0.468	0.583
	Sivasagar	0.521	0.758	0.630	0.629
	Tinsukia	0.425	0.625	0.483	0.505
Average of the Districts of Upper Assam		0.525	0.698	0.510	0.570
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.06	0.04	0.10	0.06
Co-efficient of Variation (in percent)		11.94	6.23	18.98	10.12

Source: Compiled and estimated from Assam, HDR 2014

SD and CV of HDI and dimensional index of health, education and income in the districts of Upper Assam region is shown in the Table 4.10. Table reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Upper Assam region of the state; the gap between the highest and lowest dimensional index of income, health and education are represented by (0.250), (0.187) and (0.133) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.150). Highest variation is observed income index; CV being 18.98 percent. Fig. 4.10 shows HDI and Dimensional Index in the Districts of Upper Assam Region.

Fig. 4.10 HDI and Dimensional Index in the Districts of Upper Assam Region



Source: Compiled and estimated from Assam, HDR 2014

From the above analysis it can be observed that in terms of dimensional index of human development, the performance of the Upper Assam region represent as best doing region and the Hills and Barak Valley region represent as worst performer among the regions of the state. Table 4.10 reveals that the dimensional index of health

is highly spread across the region; dimensional index of income and education also being spread considerably among the regions.

Table 4.11 represents SD, CV, HDI and dimensional Index in the regions of Assam. Estimated CV reveals that the HDI and dimensional index of health, education and income vary across the districts in the divisions of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.171), (0.058) and (0.062) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.079). Estimated CV at the division level reveals comparatively lower gap of dimensional index of health, education and income and HDI than while representing it at the level of respective divisions in the state of Assam. Highest variation is observed in the case of health dimension; CV being 13.61 percent.

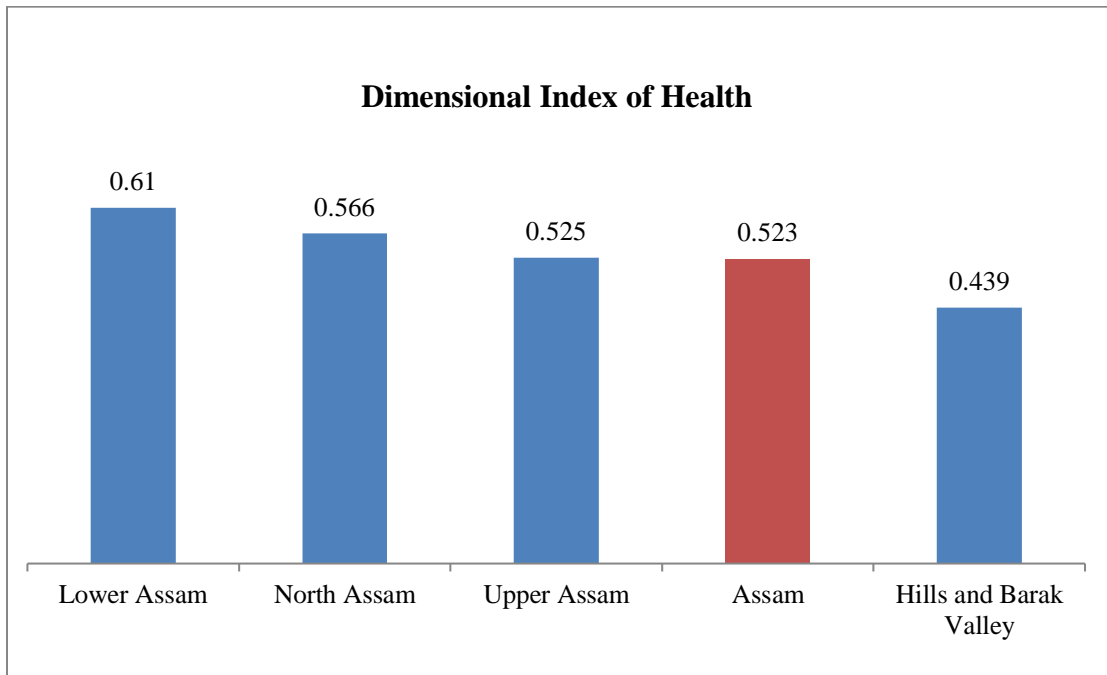
Table 4.11 HDI and Dimensional Index in the Divisions of Assam, 2014

Division	Dimensional Index			HDI
	Health	Education	Income	
Hills and Barak Valley	0.439	0.636	0.452	0.495
Lower Assam	0.610	0.657	0.487	0.574
North Assam	0.566	0.642	0.481	0.556
Upper Assam	0.525	0.698	0.510	0.570
Assam	0.523	0.661	0.501	0.557
Standard Deviation	0.07	0.03	0.02	0.04
Co-efficient of Variation (in percent)	13.61	4.24	4.95	6.68

Source: Compiled and estimated from Assam, HDR 2014

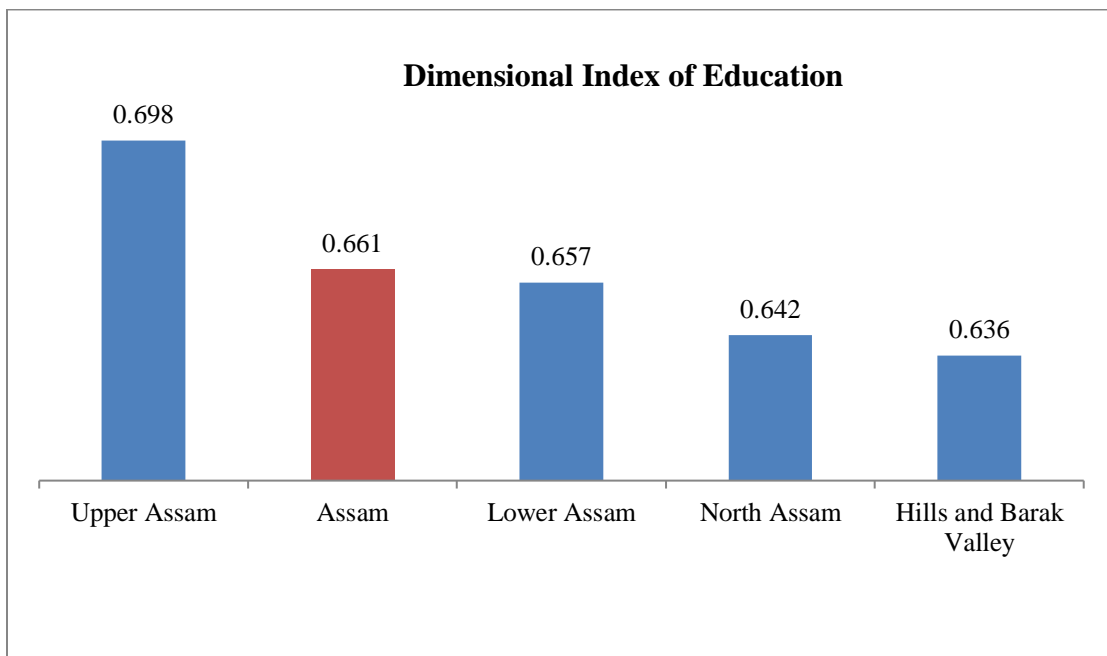
HDI and Dimensional Index of health in the divisions of the state are shown diagrammatically in the Fig. 4.11. The Fig. reveals that the average health index of Assam is given by (0.523). Health index of Lower Assam (0.610), North Assam (0.566) and Upper Assam region (0.525) are above state average; and health index of Hills and Barak Valley region (0.439) is lower than state average of Assam. The dimensional gap of health index between the highest and lowest value is given by (0.171).

Fig. 4.11 Dimensional Index of Health in the Divisions of Assam, 2014



Source: Compiled from Assam, HDR, 2014

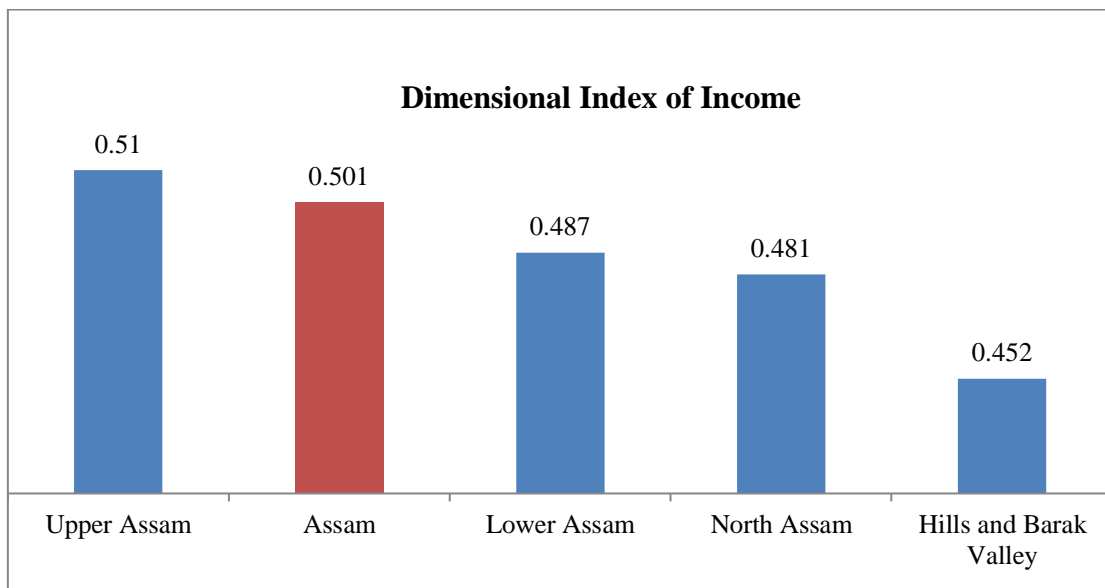
Fig. 4.12 Dimensional Index of Education in the Divisions of Assam, 2014



Source: Compiled from Assam, HDR, 2014

HDI and Dimensional Index of education in the region of the state are shown diagrammatically in the Fig. 4.12. The Fig. reveals that the average education index of Assam is given by (0.661). It is noteworthy that only single region Upper Assam (0.698) has higher than state average value; and education index of Lower Assam (0.657), North Assam (0.642) and Hills and Barak Valley region (0.636) are lower than state average of Assam. The dimensional gap of education index between the highest and lowest value is given by (0.062).

Fig. 4.13 Dimensional Index of Income in the Divisions of Assam, 2014

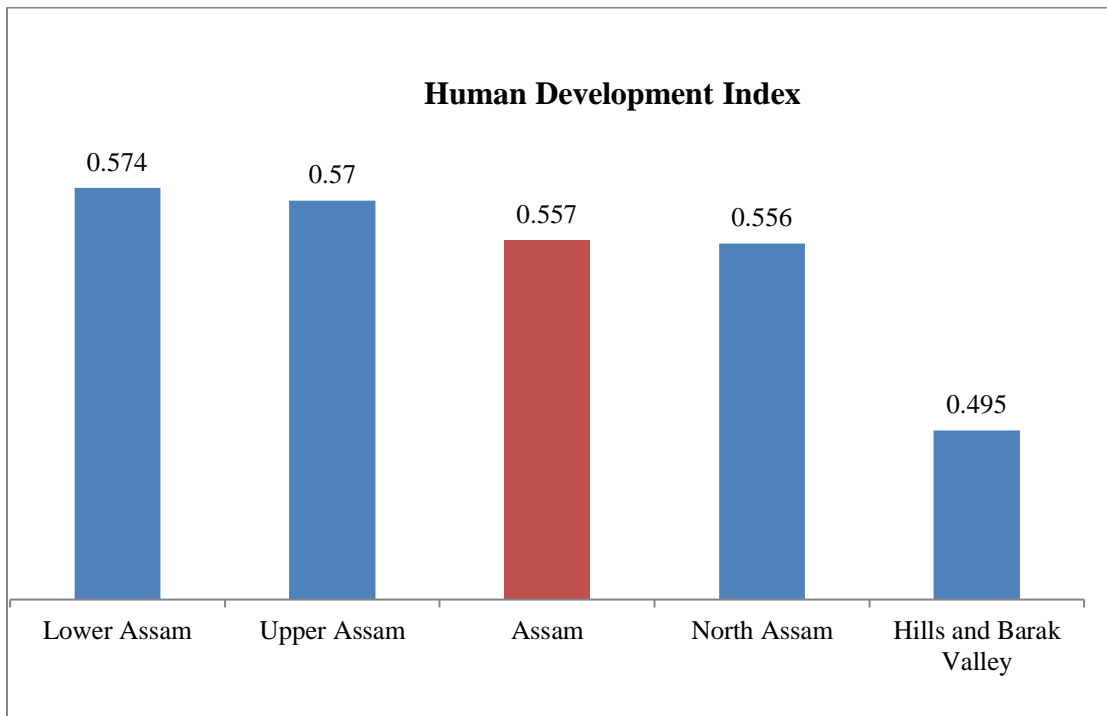


Source: Compiled from Assam, HDR, 2014

HDI and Dimensional Index of income in the region of the state are shown diagrammatically in the Fig. 4.13. The Fig. reveals that the average income index of Assam is given by (0.501). Income index of Upper Assam (0.510), is above state average; and income index of Lower Assam (0.487), North Assam (0.481) and Hills and Barak Valley region (0.452) are below the state average of Assam. The dimensional gap of income index between the highest and lowest value is given by (0.058). It has been observed that the gap between the highest and lowest dimensional index of health is much higher than the education and income index, while compared at the level of divisions in the state.

HDI in the region of Assam is shown diagrammatically in the Fig. 4.14. The Fig. reveals that the average HDI of Assam is given by (0.557) which is just half way mark of desired goal. HDI of Lower Assam (0.574) and Upper Assam (0.570) are above state average; and HDI of North Assam (0.556) and Hills and Barak Valley region (0.495) are below the state average of Assam. Lower Assam represent top with

Fig. 4.14 Human Development Index in the Divisions of Assam, 2014



Source: Own calculation based on secondary data

HDI value (0.574) and Hills and Barak Valley represent at bottom with HDI value (0.495). The gap of HDI between the highest and lowest value is given by (0.079). However, district wise category of HDI differs from regional wise HDI; some districts of Lower Assam and Upper Assam region have lower than state average – Baksa (0.437), Dhubri ((0.482) and Kokrajhar (0.519) in Lower Assam region; and Dhemaji(0.507), Golaghat (0.543) and Tinsukia (0.505) in Upper Assam though region wise they represent above state average. Likewise, districts in Hills and Barak Valley region – Dima Hasao (0.638) and Karbi Anglong (0.612); and Morigaon

(0.576) and Nagaon (0.592) have greater than state average of HDI though region wise they represent below state average.

4.6 Status of Human Development in Assam: Gender Related Development

Index (GDI)

Gender Related Development Index (GDI) is another indicator of human development capability. GDI considers the inequalities between men and women in the basic dimensions of human development in the society. The current focus on human development by UNDP has served the important objective of highlighting the existing condition of gender dimension, and also continuing inequalities between two sections of the society, men and women. Statistical data shows that the development is not a gender neutral and women lag behind men in most of the sphere of human development indicators indicating continuing inequity in all over the world. It has been observed that the inequity between men and women have been accentuated by the process of modernization though the gender discrimination basically lies on social structures.

GDI basically measures the achievement in three basic dimensions of HDI, but it adjusts their values according to the inequality exists between men and women; the higher gender inequality, the larger the retrogression in the country's HDI indicating negative impact on development. The extent of gender disparity is reflected by the aspect of differences between HDI and GDI ranking. GDI is a useful tool for policy makers while formulating future strategies for development.

Planning Commission of India and other researchers made several attempt to create rankings of HDI and GDI. The study undertaken by A.K. Shivakumar (1996), one of the earliest such studies brought out existing gender inequity among the Indian states by considering relevant data for 1991. The study established the existence of gender inequity and differences between over all human development indicators and gender development indicators in the country. The study also concluded that overall progress and prosperity of the state not necessarily give equal position between male and female.

Table 4.12 GDI for Districts in Assam: 2003 and 2014

District	GDI 2003		GDI 2014		% improvement from 2003 to 2014
	Value	Rank	Value	Rank	
Baksa	NA	NA	0.820	18	NA
Barpeta	0.448	10	0.828	16	84.82
Bongaigaon	0.376	16	0.827	17	119.95
Cachar	0.409	14	0.796	20	94.62
Chirang	NA	NA	0.945	2	NA
Darrang	0.317	18	0.765	22	141.33
Dhemaji	0.410	13	0.863	12	110.49
Dhubri	0.206	21	0.704	25	241.75
Dibrugarh	0.642	4	0.914	5	42.36
Dima Hasao	NA	NA	0.850	13	NA
Goalpara	0.413	12	0.829	15	100.73
Golaghat	0.608	7	0.912	7	50.00
Hailakandi	0.609	6	0.845	14	38.75
Jorhat	0.701	3	0.913	6	30.25
Kamrup	0.642	4	0.868	11	35.20
Kamrup (M)	NA	NA	0.977	1	NA
Karbi Ang.	0.260	20	0.754	23	190
Karimganj	0.012	23	0.683	26	5591.7
Kokrajhar	0.418	11	0.869	10	107.89
Lakhimpur	0.491	8	0.818	19	66.60
Morigaon	0.759	2	0.752	24	-0.92
Nagaon	0.068	22	0.868	11	1176.5
Nalbari	0.357	17	0.883	9	147.34
N.C. Hills	0.877	1	NA	NA	NA
Sibsagar	0.468	9	0.920	4	96.59
Sonitpur	0.397	15	0.930	3	134.26
Tinsukia	0.300	19	0.902	8	200.7
Udalguri	NA	NA	0.795	21	NA
Assam	0.537		0.875		62.94
SD	0.207		0.071		
CV	46.73		8.39		

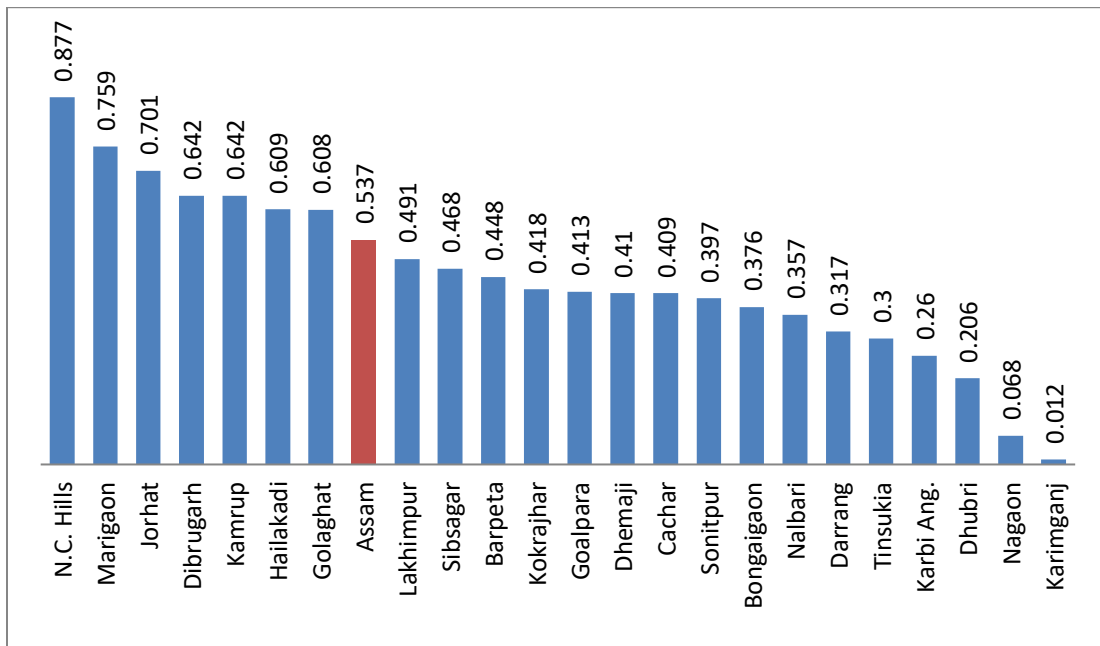
Source: Compiled and estimated from Assam, HDR, 2003 and 2014

Note: NA indicate not available

As per the National Human Development Report, (NHDR 2001) initiated and published by the Planning Commission of India, by considering 16 major states estimated the Gender Equality Index (GEI); and Assam was placed at the 10th position.

Table 4.12 shows comparative data of GDI compiled from 2003 and 2014 Assam Human Development Report. It is noteworthy that the tribal inhabited district of Kokrajhar could achieve much lower GDI than the state average; the district placed 10th position with GDI (0.418). Even GDI value of the district (0.418) was lower than the state average (0.537). North Cachar Hills, Morigaon and Jorhat could maintain 1st, 2nd and 3rd rank respectively. This indicates that the above mentioned districts could maintain better distribution of economic, social, political rights equally between males

Fig. 4.15 GDI in the Districts of Assam, 2003



Source: Compiled and estimated from Assam, HDR, 2003

and females than other districts in the state. On the other hand, Karimganj, Nagaon and Dhubri remained as worst performer while distributing the opportunities between males and females with GDI value of (0.012), (0.068) and (0.206) respectively.

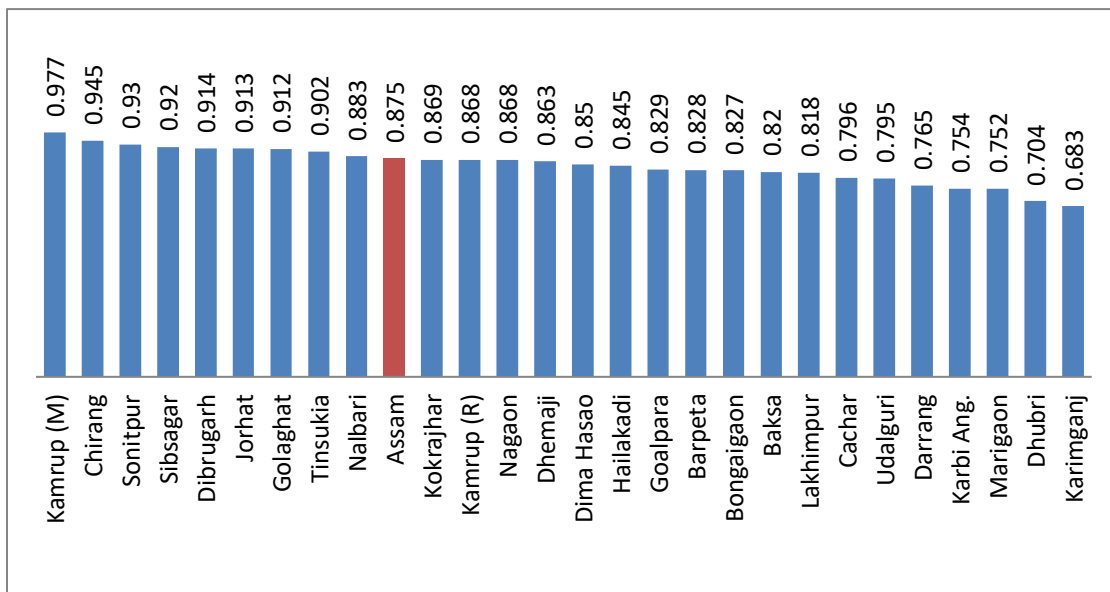
The Assam HDR, 2003 as revealed by the Fig. 4.15, estimated the average GDI of the state at (0.537). So far GDI attainment is concerned, out of 23 districts, 7 districts attained higher than average GDI; and sixteen (16) districts attained lower than state average GDI. Highest GDI (0.877) attained by N.C. Hills is much higher than the lowest GDI (0.012) attained by the district Karimganj; showing a gap of (0.865) which form a serious concern for the state. GDI largely vary across the districts in the state of Assam; estimated CV being 46.73 percent.

Assam Human Development Report, 2014 revealed that there is little improvement in overall GDI aspects in the state of Assam. The position of the district Kokrajhar is again remained unhealthy in terms of opportunity between male and female. Kokrajhar ranked at 10th with GDI value (0.869) which is lower than the state average of (0.875). Kamrup (M), Chirang and Sonitpur districts performed better than other districts with GDI value of (0.977), (0.945) and (0.930) respectively. Contrary to this, the districts Karimganj, Dhubri, Morigaon and Karbi Anglong represented worst performer with GDI value of (0.683), (0.704), (0.752) and (0.754) respectively. It is noteworthy that the district Morigaon which ranked 2nd as per Assam HDR, 2003, performed so badly that it could maintain 24th rank in 2014. However, it is noteworthy to mention that the district level variations decreased considerably; as per 2003 Assam HDR lowest and highest GDI value was represented by (0.012) and (0.877) for the district Karimganj and N.C. Hills respectively indicating large gap of (0.865) between the lowest and highest GDI value. Data relating to Assam HDR, 2014 indicates that the district wise variation has been reduced considerably; (0.683) for Karimganj and (0.977) for Kamrup (M) representing a gap of (0.294). The State average has improved from (0.537) to (0.875) from 2003 to 2014. The lower Assam districts, except Barpeta, again represents worst performer in the state.

Fig. 4.16 shows the district wise GDI in the state of Assam as published by Assam HDR, 2014. The Fig. reveals that the gender development of the districts improved considerably from Assam, HDR 2003 and 2014; and out of 27 districts, 9 districts attained higher than state average GDI (0.875); and Eighteen (18) districts attained lower than average state GDI. GDI (0.977) attained by Kamrup (M) is much

higher than the lowest GDI (0.683) attained by the district Karimganj; showing a gap of (0.294). GDI largely vary across the districts in the state; estimated CV being 8.39 percent. However, the gap decreased from (0.865) – (0.294) indicating more equal trend among the districts from Assam, HDR 2003 and 2014; CV being decreased from 46.73 percent to 8.39 percent. It is also worth mentioning that the district rank in terms of HDI has changed considerably; positions of the some districts have improved and for some districts it has gone down as per Assam, HDR 2003 and 2014. It is noteworthy that the tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 20th position in the state. Graphical representation of the percentage improvement in GDI from 2003 to 2014 is shown by Fig. 4.17.

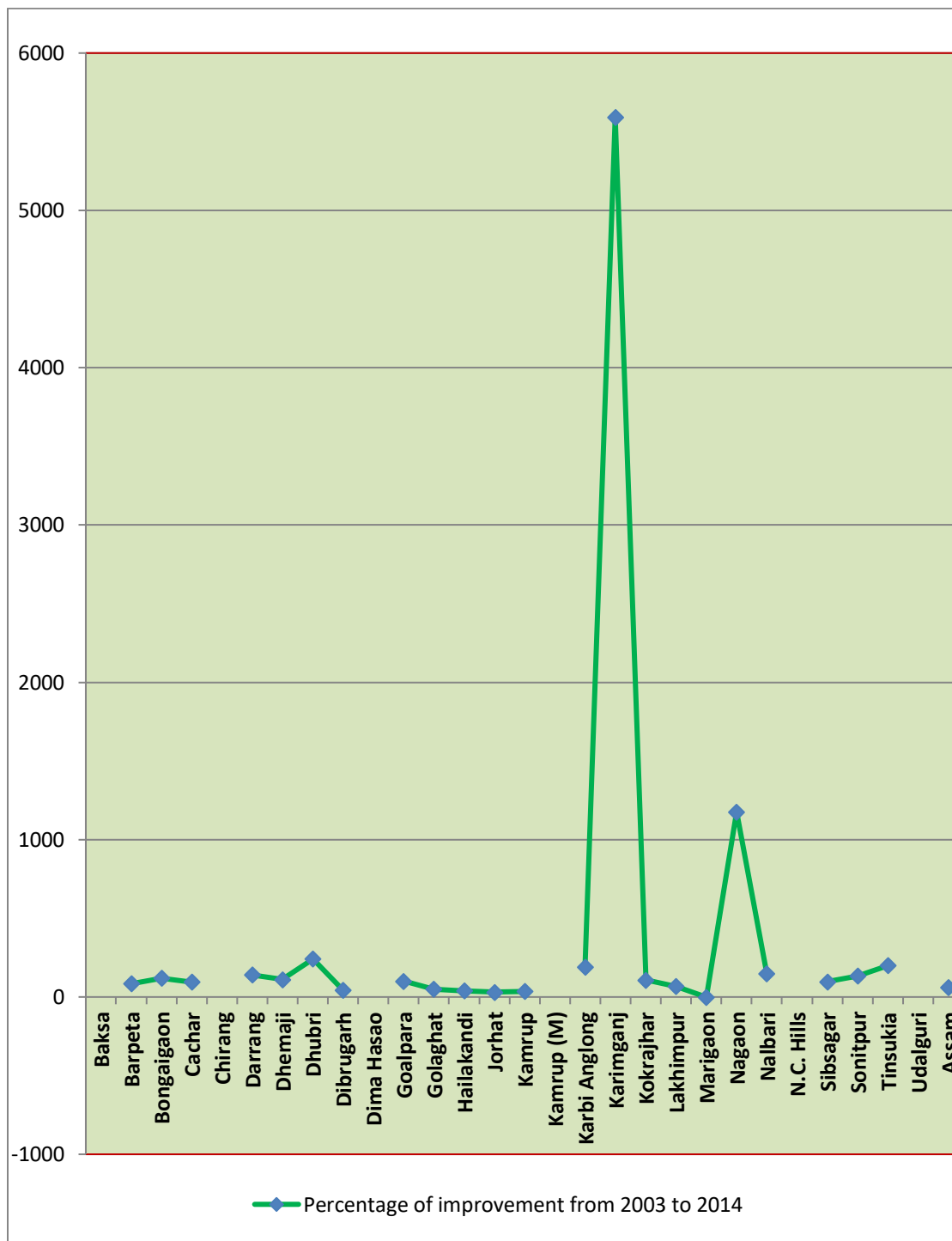
Fig. 4.16 GDI in the Districts of Assam, 2014



Source: Compiled from Assam, HDR, 2014

In terms of percentage improvement from 2003 to 2014, the data indicates that the GDI percentage of tribal inhabited district of Kokrajhar increased by (107.89 percent). The improvement of GDI percentage of two districts Karimganj (5591.7 percent) and Nagaon (1176.5 percent) are seems to be exceptional. Basic reasoning of

Fig. 4.17 Improvement in GDI from 2003 to 2014, Assam (%)



Source: Compiled and estimated from Assam HDR 2003 and 2014

this exceptional percentage improvement of GDI for the district of Karimganj and Nagaon is that the districts had a very insignificant GDI value of 0.012 and 0.068 respectively as per AHDR, 2003; and as per AHDR, 2014, it has increased to (0.683) and (0.868) respectively for Karimganj and Nagaon. GDI value (0.683) for Karimganj again represents lowest in the state. Inequality of income dimension is too large as per Assam, HDR 2003 for both the districts; annual per capita income of Rs. 3935(male) and Rs. 812 (female) for Karimganj and Rs. 4617 (male) and Rs. 916 (female) for Nagaon district. Other indicators of GDI also had shown large gap between male and female in the district of Karimganj and Nagaon.

GDI value of other districts whose percentage improved remarkably, by more than 200 percent are Dhubri (241.75) and Tinsukia (200.7). This shows the fact that the percentage improvement of the districts with low level of GDI has improved more than the districts that have already done well. It is noteworthy that the Morigaon district experienced negative percentage improvement by (-0.92); and the average percentage of the Assam has increased by (62.94 percent).

Viewing the above scenario, it can be observed that the GDI in the state of Assam always remained low; however, the average GDI increased from (0.537) in 2003 to (0.875) in 2014. The data also reveals large variation across the districts. Viewing the above scenario, it has been observed that the two critical indicators of gender related development; 'female life expectancy at birth and child sex ratio' indicates adverse condition towards the women in Assam. It is noteworthy that during 2001-2011, total sex ratio of the state improved considerably; and under these circumstances too, female life expectancy in the state continued to be the lowest. Moreover, the child sex ratio (0-6 years) during 2001-2011 had deteriorated indicating widening of gender disparities in the state of Assam. This aspect necessitates a proper attention and initiative by the state Government of Assam.

4.7 Gender Inequity for Districts in Assam, 2014

The extent of gender inequity in the society is revealed by the differences between the two rankings of HDI and GDI. Typically, the question and issues relating

Table 4.13 HDI, GDI and GII in the Districts of Assam, 2014

District	HDI		GDI		GII	
	Value	Rank	Value	Rank	Value	Rank
Baksa	0.437	26	0.820	18	0.394	15
Barpeta	0.624	6	0.828	16	0.412	19
Bongaigaon	0.564	14	0.827	17	0.437	24
Cachar	0.463	24	0.796	20	0.303	3
Chirang	0.614	7	0.945	2	0.390	13
Darrang	0.519	19	0.765	22	0.498	26
Dhemaji	0.507	21	0.863	12	0.399	17
Dhubri	0.482	23	0.704	25	0.566	27
Dibrugarh	0.560	15	0.914	5	0.271	1
Dima Hasao	0.638	3	0.850	13	0.354	10
Goalpara	0.591	10	0.829	15	0.438	25
Golaghat	0.543	16	0.912	7	0.348	8
Hailakandi	0.437	27	0.845	14	0.402	18
Jorhat	0.655	2	0.913	6	0.340	7
Kamrup (R)	0.630	4	0.868	11	0.379	11
Kamrup (M)	0.703	1	0.977	1	0.337	6
Karbi Ang.	0.612	8	0.754	23	0.428	23
Karimganj	0.456	25	0.683	26	0.420	20
Kokrajhar	0.519	20	0.869	10	0.424	21
Lakhimpur	0.583	11	0.818	19	0.348	9
Morigaon	0.576	13	0.752	24	0.427	22
Nagaon	0.592	9	0.868	11	0.383	12
Nalbari	0.576	12	0.883	9	0.392	14
Sibsagar	0.629	5	0.920	4	0.311	4
Sonitpur	0.526	17	0.930	3	0.318	5
Tinsukia	0.505	22	0.902	8	0.290	2
Udalguri	0.523	18	0.795	21	0.397	16
Assam	0.557		0.875		0.375	
Standard Deviation	0.069		0.072		0.06	
Co-efficient of Variation	12.5%		8.6%		16.5%	
Correlation between HDI and GDI = 0.474 Correlation between HDI and GII = - 0.219 Correlation between GDI and GII = - 0.671						
Rank Correlation between HDI and GDI = 0.458 Rank Correlation between HDI and GII = 0.219						

Source: Compiled and estimated from Assam, HDR, 2014

to gender equality is addressed by Gender Development Index (GDI) and the Gender Inequality Index (GII). GDI captures the gap in achievement levels of men and women in terms of basic dimensions of human development. On the other hand, GII provides a measure of inequalities in opportunities between men and women that have a bearing on their ultimate well-being in the society. Here, in this section, an attempt has been made to analyze important aspects of gender inequity in Assam.

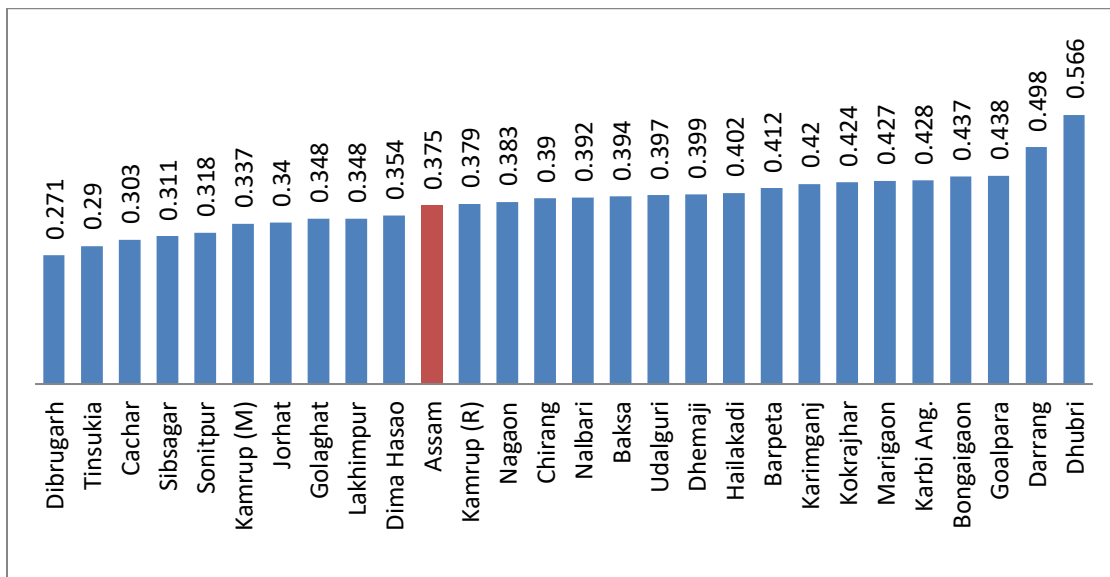
In a precise way, positive differences between the HDI and GDI ranking reveals the prevalence of gender inequity; and higher the HDI rank in comparison to GDI rank, greater is the extent of gender inequity. A negative difference between HDI and GDI ranks indicates better position in the society. As revealed in the Assam HDR 2014, eleven districts in the state of Assam have higher HDI values in comparison to GDI values, indicating inequitable distribution of opportunities between men and women. Table 4.13 shows the HDI, GDI and GII in the state of Assam as published by Assam HDR 2014. The Dhubri district has the highest gender disparity with GII (0.566); being HDI value (0.482) and GDI value (0.704) respectively. The district is followed by Darrang with GII (0.498) and Goalpara with GII (0.348). Out of 27 districts considered for study, Dhubri, Darrang and Goalpara ranked 27th, 26th and 25th respectively. Dibrugarh, Tinsukia and Cachar ranked 1st, 2nd and 3rd position in terms of equal distribution of opportunities between male and female with GII of (0.271), (0.290) and (0.303) respectively.

Fig. 4.18 represents GII in the state of Assam, 2014. The Fig. reveals that out of 27 districts, 10 districts attained lower than state average GII (0.375); and 17 districts have GII higher than average GII. Lowest GII giving the lowest inequality between male and female attained by the district Dibrugarh (0.271) is much lower than the highest GII attained by the district Dhubri (0.566) giving highest inequality between males and females; showing a gap of (0.295). It is noteworthy that the performance of the tribal inhabited district of Kokrajhar is poorer than other districts in the state; and the district just maintained 21st rank in the state.

Fig. 4.19 shows the human development index, gender development index and gender inequality index in the districts of Assam, as per Assam, HDR, 2014. The Fig.

reveals that the GDI of all the 27 districts are higher than HDI. From the Fig (4.19), it can be observed that for the districts Barpeta, Dima Hasao, Jorhat, Kamrup (R), Karbi Anglong, Morigaon HDI is closer to GDI. Table 4.13 also indicates that the nine districts have GDI values above the average GDI values (0.875) in the state; and five districts have comparatively high HDI ranks, above (0.600).

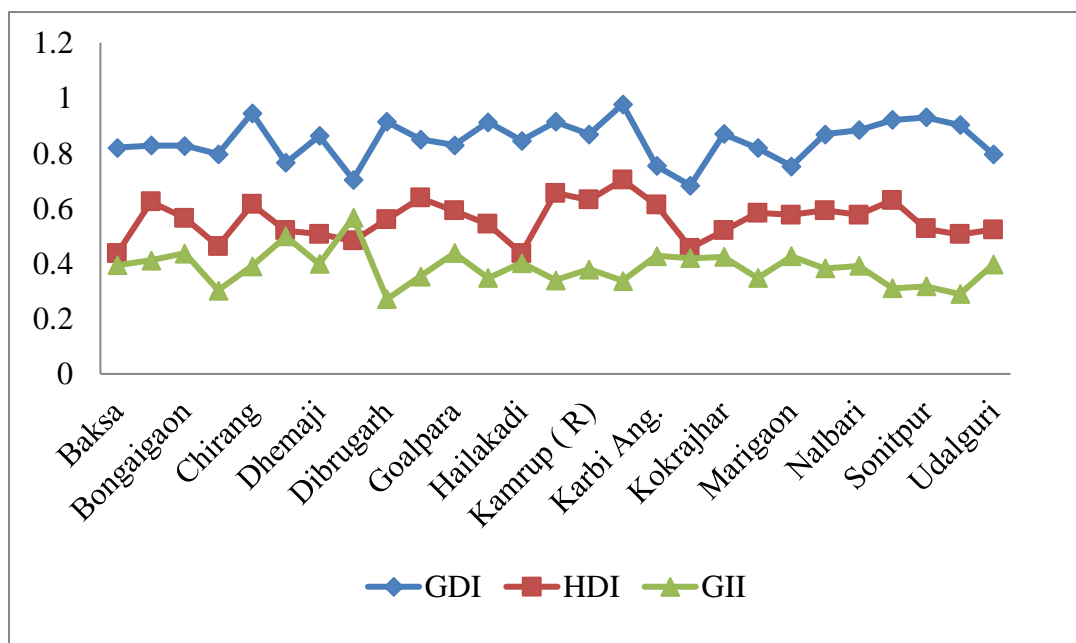
Fig. 4.18 GII in the Districts of Assam, 2014



Source: Compiled from Assam, HDR, 2014

The report indicates that there is no clear correlation between HDI and GDI; correlation between GDI and HDI is not apparent. As indicated by the Table 4.13, correlation between GDI and GII is given by (-0.671) indicating high inequality across the districts. Rank correlation between the HDI and GDI is found to be significant (0.458); and the rank correlation between HDI and GII is found to be moderate (0.219). The study has observed wide disparity in terms of GDI across the districts in the state of Assam; and existing characteristics of a district in relation to its population, geographical characteristics, and its existing infrastructural conditions which have a link with human development indicators are responsible factors for wide disparity in GDI. The reasons for this large variation become clearer if we consider district level developmental profiles along with area specifications which seem to be crucial in the state of Assam.

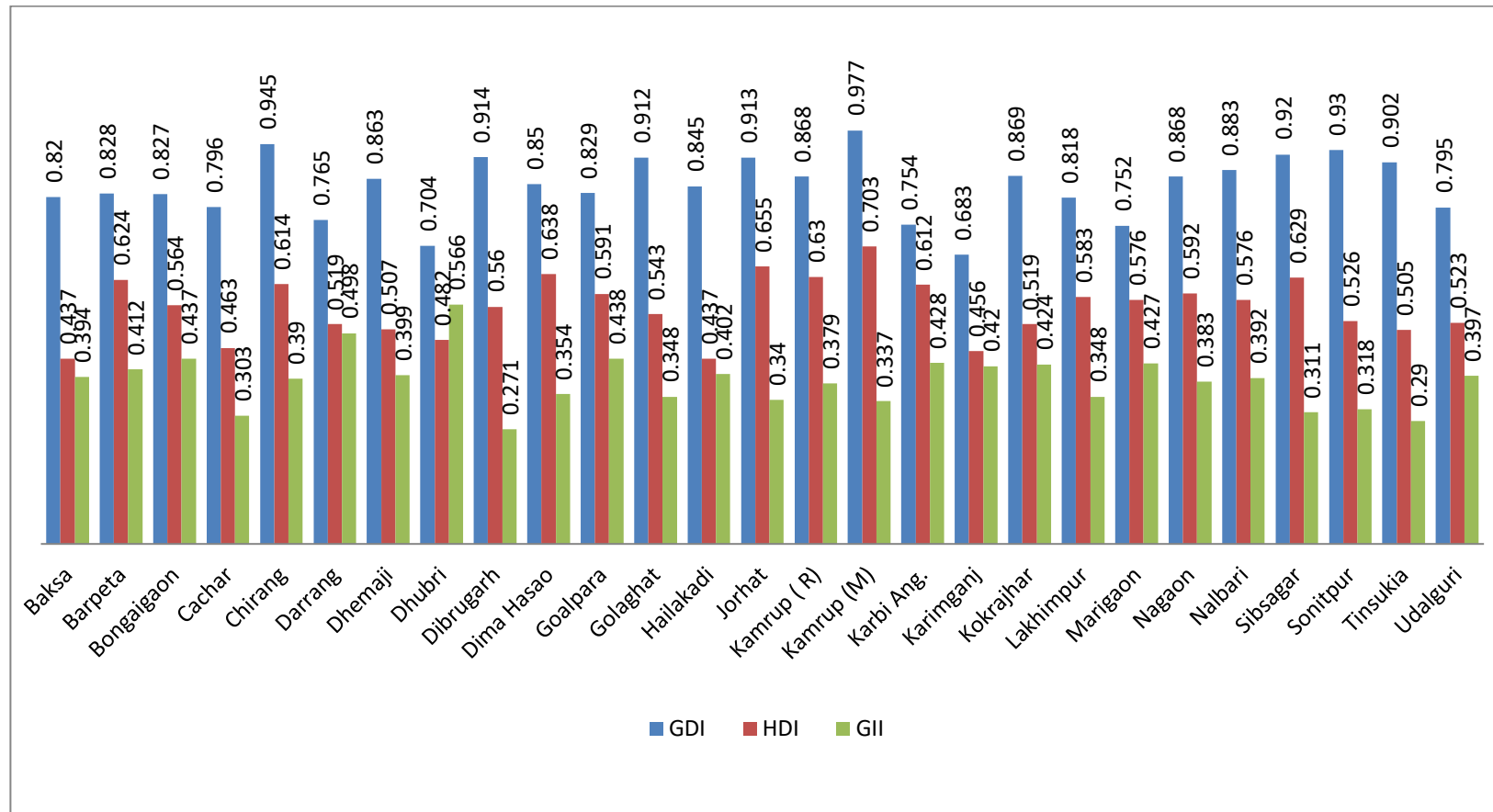
Fig. 4.19 HDI, GDI and GII in the Districts of Assam, 2014



Source: Compiled from Assam HDR, 2014

Table 4.13 reveals that all the indices – HDI, GDI and GII vary largely across the districts in the state as revealed by the Assam HDR, 2014. For all the districts GDI is greater than the HDI. Among the three different indices, HDI, GDI and GII, highest variation is observed in the case of GII. Gender inequity highly spread among the districts in the state; estimated CV being (16.5 percent). GII largely vary across the districts; highest GII (0.566) and lowest GII (0.271) represent a gap of (0.295). HDI also vary largely across the districts in the state indicating more unequal performance of the districts in terms of human development indicators; estimated CV being (12.5 percent). The gap between the highest and lowest HDI is represented by (0.266). Lowest variation has been observed in the case of GDI, estimated CV being (8.6 percent). The gap between the highest and lowest GII is being represented by (0.295). Thus, data clearly reveals that the GII, HDI and GDI largely vary across the districts in the state of Assam. Human Development Index, Gender Development Index and Gender Inequity Index in the Districts, as per Assam, HDR, 2014 is represented by the Fig. 4.20

Fig. 4.20 Human Development Index, Gender Development Index and Gender Inequity Index in the Districts of Assam, 2014



Source: Compiled and estimated from Assam, HDR, 2014

4.8 Conclusion

From the analysis in the various sections of the present chapter, it is seen that the state of Assam is lagging behind other states of the country in terms of human development aspect. Many research studies undertaken by the academicians and scholars revealed this fact. As per the NHDR 2001, HDI value of the state was 0.336; and placed in 17th rank in the country. However, HDI value of the state increased to 0.444 as per (NHDR, 2011); and the state rank improved to 16th. The state of Assam, in terms of human development achievements always remained below the desired level. Human Development Index (HDI) of Assam (0.557) indicates that the level of overall human development in the state is just about half of the desired goal. However, it has been observed that the overall level of human development in the state has shown a steady and continuous improvement over the last 30 years; achievements in all three key dimensions of human development, that is, health, education and income are about halfway with education being at about two-third followed by health and income which are just at the half mark of the desired level. HDI in the state too largely vary across the districts. The performance of the Upper Assam districts, including Kamrup (M) represents better than other districts in the state. Historical division wise analysis of human development aspect in the state also revealed that Upper Assam districts performed better than the districts of other three divisions-Hills and Barak Valley, Lower Assam, and North Assam regions.

GDI and GII analysis indicates that gender disparity in terms of socio-economic-political prevails in the state of Assam. Female are lagging behind the male counterpart in terms of enrollment, literacy, infant mortality rate, annual income, wages and other aspects of human development indicators. Women's in the state needs to be strengthened in the sphere of social, economic and political decision making process to develop both male and female section of the society in the state. As HDI, GDI and GII largely vary across the districts in the state; a differentiated approach is required for the improvement of human development aspect in the state of Assam, including the tribal inhabited district of Kokrajhar.