

HUMAN DEVELOPMENT ATTAINMENTS ACROSS ASSAM: A REASSESSMENT

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I

I.1 Introduction

The ultimate aim of the economies of the world is to enhance well being of their masses. For a quite long time per capita income was regarded as the yardstick to measure performance of the countries in the sphere of human well being. In fact, per capita income was used as the benchmark to classify the countries into developed and developing ones. However, economists came to realise later on that although it is the most important determinant of well-being of the people, income cannot be a perfect measure of welfare. The well being of the people also depends on some other vital factors such as access to knowledge, better nutrition and health services, more secured livelihoods, security against violence of different kinds, political and cultural freedoms, a sense of participation in the community activities and so on. A higher per capita income cannot always be expected to get translated into these qualitative ingredients. Income is only a means to the end, the end being human development. As Sen (1989) argues that countries with a higher GNP per capita can nevertheless have astonishingly low achievements in the quality of life, with the bulk of the population being subject to premature mortality, escapable morbidity, overwhelming illiteracy and so on. The empirical evidence of many countries shows that some countries have achieved a fairly satisfactory level of human welfare even at fairly modest income level (Haq, 2003).

Today the development economists have greatly acknowledged the fact that development is about more than the growth of material output or income and should serve the broader objective of human well being.

I.2 Rationale of the Study

Although there are a number of studies on human development at the national and international level an in-depth study on Assam along with inter-district disparities in this regard is quite rare. The present study is taken up to fill this gap to some extent. The Human Development Report of Assam, 2003 provides a detailed account of the status of different dimensions of human development across the districts of the state. However, the values of the HDI and accordingly ranks of various districts as provided by the Report are quite questionable owing to some probable anomalies in the income index. The present paper seeks to provide a more accurate profile of human development experience in Assam.

I.3 Objectives of the Study

The study has been taken up with the following objectives:

- a) To examine the temporal experience of human development in Assam vis-a-vis Northeast India and rest of India.
- b) To investigate the inter-district variations in human development in the state.
- c) To look into the extent of gender disparities with respect to human development across the districts of the state.

II

II. 1 Conceptualisation and Measurement of Human Development

Human development was conceptualized and initially articulated by United Nations Development Programme (UNDP) in its first Human Development Report in 1990. The UNDP defines human development as the process of enlarging people's choices. It recognizes the fact that in principle, these choices can be infinite and change over time. But at all levels of development the three most essential ones for people are to lead a long and healthy life, to acquire knowledge and to have access to resources

needed for a decent standard of living (UNDP, 1990). The UNDP stressed that the real wealth of a country is its people and purpose of development is to create an enabling environment for them to enjoy long, healthy and creative lives.

Fundamental to enlarging these choices is building human capabilities —the range of things that people can do or be in life. The most basic capabilities for human development are to lead long and healthy lives, to be knowledgeable, to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. Without these, many choices are simply not available, and many opportunities in life remain inaccessible (UNDP, 2000).

To measure the status of human development of different countries the UNDP introduced the concept of Human Development Index (HDI) in its first Human Development Report in 1990. The index has been enlarged and refined over the years and many related indices of human development like Gender related Development Index (GDI), Gender Empowerment Measure (GEM) and Human Poverty Index (HPI) have been developed in the subsequent reports.

Human Development Index (HDI): The HDI is a composite index of three basic dimensions of human development, viz., longevity, knowledge and standard of life. Longevity is measured by life expectancy at birth; knowledge (or educational attainment) by a combination of adult literacy (two third weight) and combined primary, secondary and tertiary enrolment ratios (one third); and standard of living is measured by real GDP per capita (adjusted for purchasing power parity).

Gender-related Development Index (GDI): The GDI was introduced in the Human Development Report of 1995. While HDI measures the average achievement, GDI adjusts the average achievement to reflect the inequalities between men and women in the three dimensions covered by HDI.

Gender Empowerment Measure (GEM): The GEM was also introduced by the Human Development Report of 1995. The GEM looks at the level of participation of women in the economic and political life of a country as compared to men. It captures gender inequality in three key areas, viz., the percentage of seats held by men and women in the parliament; women's and men's percentage shares of positions as

legislators, senior officials and managers and their shares of professional and technical positions; and their respective shares in the national income.

Human Poverty Index (HPI): The Human Development Report 1997 introduced the concept of HPI in an attempt to bring together in a composite index the different dimensions of deprivation of people to arrive at an aggregate judgement on the extent of poverty in a community. While HDI measures average achievement the HPI measures deprivation in the three basic dimensions of human development captured in the HDI. The determinants used to calculate HPI are deprivation in longevity measured by probability at birth of not surviving to age 40; deprivation in knowledge measured by the adult illiteracy rate; and deprivation of a decent standard of living measured by percentage of people without access to safe drinking water, health care facilities and the percentage of underweight children.

II.2 Methodological Issues

As mentioned earlier the HDI is a composite index of human development. It measures the average achievements of a country in three basic dimensions of human development, viz., a long and healthy life as measured by life expectancy at birth; knowledge as measured by the adult literacy rate (with two-third weight) and the combined primary, secondary and tertiary gross enrolment ratio (with one third weight); and a decent standard of living as measured by real GDP per capita (adjusted for purchasing power parity or PPP). Before the HDI itself is calculated, a separate index for each of the dimensions is constructed first by setting the maximum and minimum values (goalposts) for each dimension and scaling it down to make it range between 0 and 1. The HDI is then calculated as a simple average of the three dimension indices. The latest formula used for computation purpose in this regard is mentioned below.

$$LEI = \frac{Actual(LE) - Min(LE)}{Max(LE) - Min(LE)}$$

$$ALI = \frac{Actual(ALR) - Min(ALR)}{Max(ALR) - Min(ALR)}$$

$$GENI = \frac{Actual(GER) - Min(GER)}{Max(GER) - Min(GER)}$$

$$EI = \frac{2}{3}(ALI) \times \frac{1}{3}(GENI)$$

$$GDPI = \frac{\log\{actual(GDPpc)\} - \log\{Min(GDPpc)\}}{\log\{Max(GDPpc)\} - \log\{Min(GDPpc)\}}$$

$$HDI = \frac{1}{3}(LEI + EI + GDPI)$$

Here *LEI*, *EI*, *GDPI* and HDI represent life expectancy index, education index, GDP index and human development index respectively. On the other hand, *LE*, *ALI*, *GENI*, *GER*, *ALR*, and *GDPpc* stand for life expectancy, adult literacy index, gross enrolment index, combined gross enrolment ratio, adult literacy rate and GDP per capita (PPP US\$) respectively.

Table 1: Scaling Norms for calculating HDI

Dimensions	Reports	Indicators	Goalposts	
			Maximum values	Minimum values
Health	HDR, UNDP	Life Expectancy at birth (in years)	85	25
	NHDR,2001, Government of India	Life Expectancy at age 1 (Years)	80	50
		Infant Mortality Rate (per thousand)	-	20
	AHDR,2003, Government of Assam	Infant Mortality Rate	140	0
Education	HDR, UNDP	Adult Literacy Rate (%)	100	0
		Combined Gross Enrolment Ratio (%)	100	0
	NHDR,2001, Government of India	Literacy Rate (for 7+ years)	100	0
		Adjusted Intensity of Formal Education	7	0

	AHDR,2003, Government of Assam	Adult Literacy Rate (%)	100	0
		Combined Gross Enrolment Ratio (%)	100	0
Income	HDR, UNDP	GDP per capita (PPP US\$)	40,000	100
	NHDR,2001, Government of India	Per capita Monthly Consumption Expenditure in Rs. (at 1983 prices)	325	65
	AHDR,2003, Government of Assam	Net State Domestic Product (Rs.)	27,717	3323

In this regard some changes in the methodology were brought about by the Planning Commission, Government of India in its National Human Development Report, 2001 (Government of India, 2002). A composite health index consisting of life expectancy with a weight of 65 per cent and infant mortality rate with a weight of 35 per cent was used. Similarly, in case of composite index on educational attainment while literacy rate was given a weight of 35 per cent the indicator capturing intensity of formal education (based on current enrolment rates in the successive classes at school level) was assigned 65 per cent weight. As an indicator of economic attainment per capita monthly consumption expenditure was taken into account with its adjustment for inequality and inflation.

The methodology adopted for computation of HDI in the Assam Human Development Report (AHDR), 2003 (Government of Assam, 2003) is slightly different from that of the NHDR, 2001 which is obvious from Table 1. While taking net state domestic product (NSDP) as a measure of economic attainment the maximum and minimum values have been fixed at the level of highest and lowest NSDP of Chandigarh and Bihar respectively. The indicators and their goalposts for the other two dimensions are also set at levels different from that of UNDP and Government of India. However, a closer examination of the figures on per capita district domestic products of the districts in Assam gives clue to some anomalies of income index and consequently HDI figures of different districts as provided by AHDR, 2003. An attempt has been made in this paper to compute a more accurate measure of human development for the districts. For this an alternative income index (Income Index[@]) has been calculated taking per capita district domestic products, rather than NSDP, as a measure of economic attainment,

maximum and minimum values of which are fixed arbitrarily at Rs. 40,000 and Rs. 5,000 respectively. Since no such anomaly was being observed in case of education index and health index in AHDR, 2003 these two component indices of the report have been taken status-quo and combined with Income Index[@] to obtain a new measure of human development HDI[@].

III

III.1 Status of Human Development in Assam

Assam is one the states of India having their state level Human Development Report. The first ever Human Development Report of the state was published in 2003.

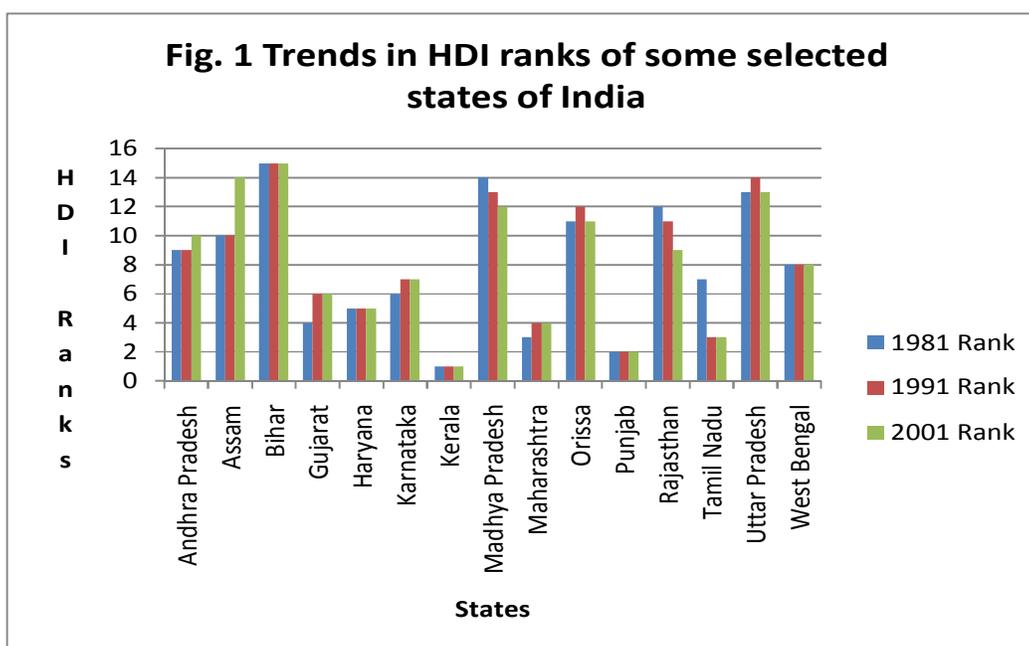
Table 2 depicts HDI in some selected states of India. As evident from the Table, although the HDI value of Assam has improved consistently in the last three decades like the other states, its rank has deteriorated significantly from 10 to 14. This signifies the fact that although Assam has improved a lot with respect to human development, it lagged far behind the other states in the process. Further, a comparison of 1991 and 2001 shows that the rank of all the states has either remained the same or improved except Andhra Pradesh and Assam; and of these two the deterioration for the later is quite spectacular as compared to the former. Another striking point to be noted is that the HDI for the state has remained fairly lower than the all India average. In the north-eastern region too Assam stands miserably with second rank from the bottom as shown in Table 3.

Table 2: Human Development Index in some selected States of India

States	1981		1991		2001	
	Value	Rank	Value	Rank	Value	Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10
Assam	0.272	10	0.348	10	0.386	14
Bihar	0.237	15	0.308	15	0.367	15
Gujarat	0.360	4	0.431	6	0.479	6
Haryana	0.360	5	0.443	5	0.509	5
Karnataka	0.346	6	0.412	7	0.478	7
Kerala	0.500	1	0.591	1	0.638	1
Madhya Pradesh	0.245	14	0.328	13	0.394	12

Maharashtra	0.363	3	0.452	4	0.523	4
Orissa	0.267	11	0.345	12	0.404	11
Punjab	0.411	2	0.475	2	0.537	2
Rajasthan	0.256	12	0.347	11	0.424	9
Tamil Nadu	0.343	7	0.466	3	0.531	3
Uttar Pradesh	0.255	13	0.314	14	0.388	13
West Bengal	0.305	8	0.404	8	0.472	8
India	0.302		0.381		0.472	

Source: National Human Development Report 2001, Government of India



Source: Table 2

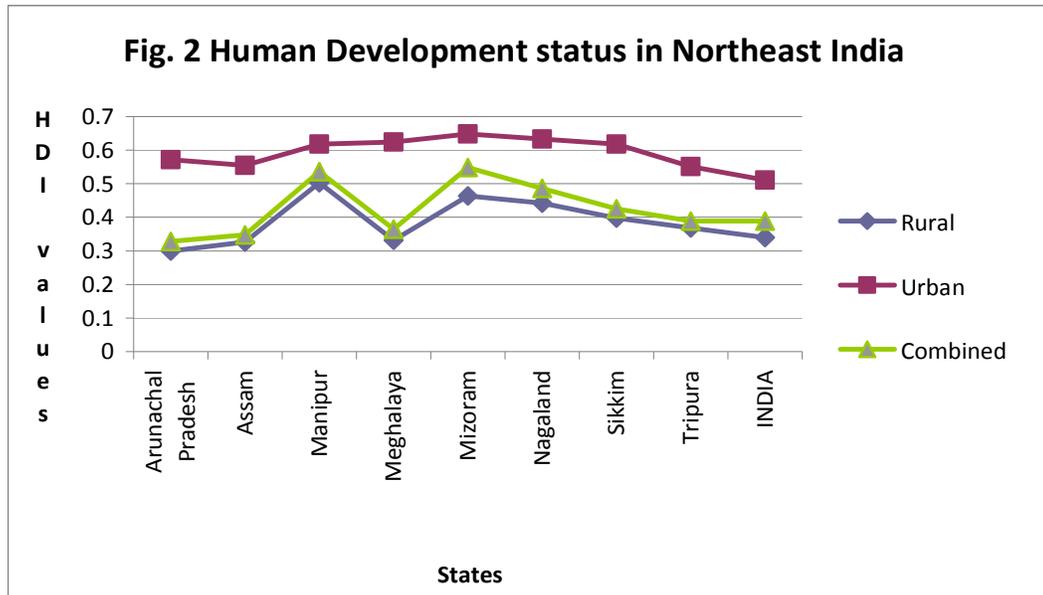
Table 3: Human Development in Northeast India, 1991

State	Rural	Urban	Combined*	Disparity
Arunachal Pradesh	0.300	0.572	0.328 (8)	0.272
Assam	0.326	0.555	0.348 (7)	0.229
Manipur	0.503	0.618	0.536 (2)	0.115
Meghalaya	0.332	0.624	0.365 (6)	0.292
Mizoram	0.464	0.648	0.548 (1)	0.184
Nagaland	0.442	0.633	0.486 (3)	0.191

Sikkim	0.398	0.618	0.425 (4)	0.220
Tripura	0.368	0.551	0.389 (5)	0.183
INDIA	0.340	0.511	0.381	0.171

Source: National Human Development Report 2001, Planning Commission, Govt. of India.

*Figures in the parentheses represent ranks of individual states in the Northeast Region in terms of HDI value



Source: Table 3

III.2 Human Development in Assam: District level Profile

The Human Development Report of Assam, 2003 (AHDR, 2003) gives a detailed account of the status of different dimensions of human development across the districts of the state.

A comparison of the economic status of the districts in terms of per capita district domestic products with their rank in income index provided by AHDR, 2003 reveals some inconsistencies. This makes HDI figures and their ranks as provided by the report highly unreliable. To remove such inconsistencies HDI[@] (refer to Table 5) has been calculated on the basis of an alternative Income Index[@] (refer to Table 4) and AHDR's other two indices of education index and health index.

The HDI[@] value for the state as a whole was found to be 0.452. Only seven districts have HDI value higher than the state average, all of them are from Upper Assam region except the districts of N. C. Hills and Kamrup. The GDI for Assam was estimated to be 0.537. It is to be noted that GDI captures inequities in income, education and health, and does not reflect all of the discrimination faced by women, and the societal attitudes and family pressures that they have to contend with. The index shows wide variations across districts, from a high of 0.877 in North Cachar Hills district to 0.012 in Karimganj. Only seven districts were found to be higher than the state average.

Table 4: District Level component indices of Human Development in Assam

District	Income Index		Income Index [@]		Education Index		Health Index	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Jorhat	0.564	2	0.581	6	0.722	1	0.664	1
Kamrup	0.573	1	0.719	1	0.701	3	0.45	7
Golaghat	0.409	5	0.452	7	0.65	6	0.564	3
Karbi								
Anglong	0.491	4	0.316	11	0.535	19	0.457	6
Morigaon	0.562	3	0.243	15	0.551	17	0.371	10
Dibrugarh	0.162	12	0.655	3	0.654	5	0.636	2
Sibsagar	0.242	8	0.708	2	0.702	2	0.464	5
Cachar	0.266	7	0.406	9	0.634	9	0.307	12
Barpeta	0.385	6	0.423	8	0.527	20	0.279	15
Tinsukia	0.082	18	0.608	4	0.571	13	0.479	4
Hailakandi	0.234	9	0.211	18	0.563	14	0.293	14
NC Hills	0.211	10	0.597	5	0.65	6	0.229	17
Sonitpur	0.071	21	0.245	14	0.552	16	0.45	7
Nagaon	0.179	11	0.231	17	0.583	12	0.307	12
Kokrajhar	0.145	14	0.383	10	0.474	22	0.443	9
Nalbari	0.076	20	0.236	16	0.641	8	0.314	11
Lakhimpur	0.154	13	0.246	13	0.657	4	0.2	20
Goalpara	0.146	14	0.204	19	0.536	18	0.243	16

Karimganj	0.078	19	0.276	12	0.62	11	0.207	18
Dhemaji	0.026	23	0.201	21	0.622	10	0.186	21
Bongaigaon	0.103	16	0.203	20	0.557	15	0.129	22
Darrang	0.057	22	0.193	22	0.514	21	0.207	18
Dhubri	0.102	17	0.148	23	0.454	23	0.086	23
Assam	0.286		0.418		0.595		0.343	

Source: Income Index[@] calculated by the author and the rest from AHDR, 2003

Table 5: District level Human Development in Assam

District	HDI		HDI [@]		GDI Index	
	Value	Rank	Value	Rank	Value	Rank
Jorhat	0.65	1	0.656	1	0.701	3
Kamrup	0.574	2	0.623	4	0.642	4
Golaghat	0.54	3	0.555	5	0.608	7
Karbi Anglong	0.494	4	0.436	9	0.26	20
Morigaon	0.494	4	0.388	14	0.759	2
Dibrugarh	0.483	6	0.648	2	0.642	4
Sibsagar	0.469	7	0.625	3	0.468	9
Cachar	0.402	8	0.449	8	0.409	14
Barpeta	0.396	9	0.410	12	0.448	10
Tinsukia	0.377	10	0.553	6	0.3	19
Hailakandi	0.363	11	0.356	18	0.609	6
NC Hills	0.363	11	0.492	7	0.877	1
Sonitpur	0.357	13	0.416	11	0.397	15
Nagaon	0.356	14	0.374	15	0.068	22
Kokrajhar	0.354	15	0.433	10	0.418	11
Nalbari	0.343	16	0.397	13	0.357	17
Lakhimpur	0.337	17	0.368	17	0.491	8
Goalpara	0.308	18	0.328	20	0.413	12

Karimganj	0.301	19	0.368	16	0.012	23
Dhemaji	0.277	20	0.336	19	0.41	13
Bongaigaon	0.263	21	0.296	22	0.376	16
Darrang	0.259	22	0.305	21	0.317	18
Dhubri	0.214	23	0.229	23	0.206	21
Assam	0.407		0.452		0.537	

Source: HDI[@] calculated by the author and the rest from AHDR, 2003

The difference between HDI rank and GDI rank of a particular district indicates the extent of its gender disparity. A higher negative difference between the two implies that the district concerned is comparatively better placed in terms of the HDI than the GDI and that women do not have the same level of development as men with respect to three basic dimensions of income, education and health. Lesser is the gender disparity in case of a higher positive difference between the ranks of HDI and GDI. Thus Morigaon and Hailakandi have the lowest gender disparity whereas Tinsukia has the highest one.

The extent of inequalities among the districts of the state with respect to achievements in different dimensions of human development has been measured by coefficient of variation (CoV) and Sen's Index as depicted in Table- 6.

Table- 6: Inter-district inequalities with respect to Human Development parameters

Measures of Inequality	HDI [@]	Income Index [@]	Education Index	Health Index	GDI
CoV	27.05	49.48	12	44.42	46.17
Sen's Index	0.15	0.27	0.07	0.25	0.26

Source: Calculated by the author

As evident from the above table CoV and Sen's Index values are the highest in case of Income Index[@] which indicates existence of widespread inequalities of income among the districts of Assam. The inter-district inequality is the lowest for education index followed by HDI[@], health index and GDI.

IV

Conclusion

Although the condition of human development in Assam has improved over the years, it has lagged far behind the rest of India including the Northeast India, which is often considered to be one of the most backward regions of the country. The study reveals large scale inter-district disparities with respect to the attainment of different dimensions of human development. It is of utmost importance to improve quality of life of people of the state which calls for special efforts from both the central and state government. Although there are certain policies undertaken by the government from time to time, their proper implementation is far more important. The policy focus needs to prioritise and target especially the backward regions of the state and groups of people who are the least advantaged. Above all the delivery mechanism has to be strengthened at any cost.

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