ABSTRACT

A STUDY OF HUMAN DEVELOPMENT APPROACH TO THE DEVELOPMENT OF NORTH EASTERN REGION OF INDIA

Human development by emphasizing on capability approach differs crucially from the traditional approaches to development based on such variables as primary goods, resources, real income, utility, and so on. These variables are all concerned with the instruments of achieving well-being and can be seen as the means to well-being, whereas, in human development approach the achieved functioning constitute a person’s well-being and the capability to achieved functioning will constitute the person’s freedom – the real opportunities to have well-being. So capability constitutes the ends in itself and signifies its’ importance in both individual and social evaluation. Moreover, it is highly unlikely that a country will manage to follow a course of lopsided development for a long time where economic growth is not matched by advanced in human development and vice-versa. It is very imperative that a determined effort to expand human capabilities through improved education, health and nutrition will serve to transform the prospects for economic growth particularly in backward states, regions or countries. It is the human development approach that really throws light on the exact level of development of human beings and helps in policy formulation to achieve the development goals in a particular region. Keeping all these points in view the present study is undertaken to analyze the development perspective of north-east India in human development face.
The present study has been carried out with a few specific objectives which are listed below:

1) To analyse the status of human development in north eastern region.
2) To investigate whether there are inter-state disparities in economic growth and human development related indicators in north eastern states.
3) To identify the important determinants of human development and to estimate their relative effects on the value of human development in this region.
4) To investigate the association between economic growth and human development in this region.
5) To analyse the pattern of social sector expenditure in the north eastern region.
6) To suggest a policy prescription for sustainable human development.

Based on these objectives, the following hypotheses have been framed for testing in course of the present study:

1) The status of human development is very low in the north eastern region.
2) There are wide disparities in achievement of different dimensions of human development across different states in north eastern region.
3) Both income and non-income factors are largely responsible for slow pace of human development in north eastern region.
4) Low level of human development is responsible for slower pace of economic growth in the region.
5) The development policies of north eastern states have not given focus on human development.

The study is based on Secondary data. Pooling of Time-Series and Cross-Section data across districts and states of North Eastern Region has been used. For the purpose of collecting data Planning Commission Report, Government of India; Central Statistical
Office; All India Educational Survey, NCERT; Statistics of School Education 2010-11; State Report Cards, NUEPA; Census of India; Department of Family Welfare, Ministry of Health and Family Welfare; State Finances: A Study of the Budgets 2011-12; Economic Survey of Assam 2011-12; Meghalaya Human Development Report 2008 have been used as the main sources of secondary data.

Following HDR, UNDP (2011) methodology, the present study computed HDI and IHDI for the period 1981, 1991, 2001 and 2011 to analyse the status and relative progress of human development across North eastern States over national average. For this purpose, the following indicators have been used:

- Infant Mortality Rate as a measure of Health Attainment
- Literacy rate of age 7 years above and Adjusted Intensity of formal Education as a measure of Educational Attainment
- Per Capita Net State Domestic Product (PCNSDP) as a measure of Economic attainment

In order to have a snapshot of inter-state disparities in the attainment economic growth and level of human development across North Eastern States, standard deviation and β convergence has been worked out. χ² test has enabled us to explain whether or not two attributes, i.e., low level of human development is responsible for low per capita income are associated. In order to examine whether economic and non-economic performances are transformed into human development for North-Eastern region, Non-Income Human Development Index (NIHDI) has been regressed on certain socio-economic-demographic variables using Logistic and Multiple Regression Techniques. To analyze association between economic growth and human development, Johansen co-integration test as well as VECM has been applied. The same techniques have also been applied to test causality between HDI and social sector expenditure for the region.
Major Findings of the Study:

1. As per HDR 2004 of UNDP, the state-wise scores of HDI (as estimated by authors) reveal that all the north-eastern states fall under low human development category in 1981. Arunachal Pradesh witnessed the lowest HDI value of 0.208 and Nagaland with the highest value of 0.473 topped in HDI ranking followed by Manipur and Mizoram.

2. The states- Nagaland, Manipur, Mizoram and Meghalaya that perform better on health, education and economic outcomes (dimension score more than region average) are also the states with higher HDI and topped in HDI ranking across north eastern states in 1981.

3. Except health index, for education and economic attainment index the region average score are lying below the national average which keeps the HDI score lowers for region (0.332) than national average (0.344).

4. Arunachal Pradesh attains the last position in HDI ranking with least achievement in both health (0.241) and education (0.245) indices along with poor attainment in income index (0.152) which is marginally higher than the lowest value of 0.148 (Tripura).

5. The region falls in the medium human development category in 1991 which is definitely an improvement over 1981. The region has scored HDI value 0.500 which is marginally lower than Non-NE India average (i.e., 0.507).

6. Nagaland, Mizoram, Manipur (the three top ranked states during 1981) and Sikkim crosses the benchmark of medium level of human development and has scored HDI value more than both region average and national average in 1991.

7. The best performer state i.e., Nagaland registers a huge shortfall of about 37 per cent while the poorest state(Meghalaya), in terms of human development, has a
shortfall of about 57 per cent which seems disturbing in both regional as well as national perspective.

8. The region witnessed further improvement in the level of human development but was not free from glaring unevenness in the last decade of the twentieth century. Assam witnessed the lowest HDI value of 0.521 and Mizoram the highest value of 0.698. Same thing happened in 2011 also. Sikkim has obtained the highest HDI value of 0.810, which happens to be the only state in entire NE region that crosses the benchmark of high level of human development and Assam attains the least value of 0.606.

9. North-Eastern States have been putting improving performance on human development attainment over the decades as the HDI value of the region increased several folds over the period 1981 to 2011. However, yet its level of achievement in terms of human development is consistently low than that of nation average having yawning gap across the states.

10. Uneven human development across the states in NE region is quite significant. Till 1991 the gap between maximum and minimum value of HDI and so also standard deviation value has been wider for the States having higher HDI value than NE region. However, unlike previous two decades, larger standard deviation value for States having lower HDI than that of NE region figure implies higher inequality for those states.

11. Following 2010 UNDP Global Human Development Report, IHDI for regional as well as national levels have been in increasing trend over the decades 1981 to 2011. However, throughout the period neither the region nor the nation can be categorised in high human development group. In 2011, nation in average and North East region along with its seven states (Arunachal Pradesh, Manipur,
Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) excluding Assam cross the benchmark of medium level of human development having Sikkim the highest value (0.652) and Manipur the lowest value (0.501). Unfortunately, Assam remains at low human development category having IHDI value of 0.411 even in 2011. Moreover, it is to be noted that during the four decades attainment in the level of human development as measured by IHDI has been consistently low for North east region than that of national figure.

12. Loss due to inequality-adjustment gradually diminishes with passes of time for North Eastern states. Assam, Arunachal Pradesh and Meghalaya improve their ranking after adjustment for inequality while Tripura and Manipur lose their ranks.

13. Regarding inequality measurement, regional disparity is found to be the highest for health dimension than other sub indices. The income index shows the least degree of variation for earlier three decades in the region. Moreover, constant standard deviation values of IHDI for North Eastern states over the decades implies that regional disparities on human development attainment across North-Eastern states is much dispersed, or scattered.

14. For the analysis of inter-state growth differentials across north eastern region, it is found that there is a wide disparity in growth performance in the three time periods (viz. 1980-81 to 1989-90, 1990-91 to 1999-2000 and 2000-01 to 2008-09), though the disparity has come down in the subsequent periods.

15. The results of β convergence in terms of PCNSDP growth shows that disparities in terms economic growth among north eastern states have narrowed down in recent time time.
16. Based on the achievement level in terms of per capita NSDP and HDI scores, states are classified as Sikkim-virtuous, Mizoram, Nagaland and Tripura - HD-lopsided, Arunachal Pradesh, Assam, Manipur and Meghalaya – vicious.

17. Results of Pearson’s coefficient of correlation and OLS logistic regression exhibits that the economic and non-economic performances, viz., per capita district income, ratio of female literacy to male literacy, Urbanisation rate positively determine the value of human development in north eastern region. The coefficient of women empowerment dummy truly signifies that higher human development has been associated with women empowerment than non empowerment. Moreover, low level of human development is found to be negatively associated with human development. However, negative coefficient of LLHD justifies if capability deprivation exist in the region then income fails to determine the level of human development in the region.

18. Results of multiple regression shows that economic growth rate has been found insignificant to determine human development value. Economic performances, viz, per capita NSDP and agricultural growth rate, have been found crucial for the expansion of human capability and play positive role in determining the level of human development in the region. The ECPR positively influence human development. Negative association between proportion of social sector expenditure to total expenditure and human development signifies that the region witnesses lower proportion of expenditure on social sector in case of higher attainment in human development and vice-versa.

19. Pearson non-parametric Chi-Square test provide evidence of strong association between low human development and low per capita income which justifies that
non-economic capability deprivation and economic deprivation reinforce each other to be trapped into vicious circle.

20. Result of cointegration test verified that there exist long-run relationship between the two. VECM equation states that $\Delta$GRRT depends on lagged value of $\Delta$NIHDI. The positive and significant value of one period lag of $\Delta$NIHDI indicates that past attainment in human development has been very much conducive to accelerate the rate of economic growth in North east region. Moreover, the negative sign and significance of Error Correction term (ECT) indicates that there exist short run relationship between economic growth and human development. Thus, it provides the evidence of causality from human development to economic growth in the region.

21. Analyses of the pattern of social sector expenditure in the region reveals that though social sector expenditure for all the north eastern states have increased several folds over the year, yet the region witnesses annual average growth of social sector expenditure below nation average. Data reveals that wide disparities exist across north eastern states in attaining public spending on social sector front.

22. To verify the efficacy of social sector expenditure in determining the value of human development, current HDI has been regressed on lagged values of per capita social sector expenditure under VECM. Error Correction Term shows that the null hypothesis of no long-run causality from per capita SSE to HDI is rejected. Results show that the changes in successive previous periods in HDI positively affect on changes in HDI itself. Moreover, previous public spending on social sector has significant positive impact to determine human development in north east region.
**Broad Inferences:**

Development experience in North Eastern region has been mixed and uneven. North Eastern States have improved their performance on human development attainment over the decades. However, yet its level of achievement in terms of human development is consistently low than that of national average. It is found that though Sikkim attains highest position in IHDI ranking across North Eastern states, the disturbing fact is that it has been placed itself under medium human development category following UNDP methodology. Based on the achievement level in terms of per capita NSDP and HDI scores, states are classified as: Sikkim-virtuous, Mizoram, Nagaland and Tripura - HD-lop sided, Arunachal Pradesh, Assam, Manipur and Meghalaya – vicious.

Thus, the study reveals the fact that as human development is found to be a product of accumulated benefits that accrue to the region from investment on social sector in the form of education and health, so investment on social sectors has to be encouraged in this tribal populated region. The study supports the premise that socio-economic accessibility is one of the obvious requirements for sustained human development. Therefore, policies and programmes are to be formulated in such a way that economic growth should strengthen the expansion of human capability which will greatly determine the level of human development in the region.

The region witnesses the yawning gap across the states in terms of human development. There has been high degree of disparity across the states as reflected in the levels of attainment in human development in the region. While some states in the region have performed better in securing HD score, some others have lagged behind. The states, namely, Sikkim, Nagaland, and Mizoram are performing much better than the rest of the states in the region. In contrast to this, Assam and Arunachal Pradesh are the least achiever in human development attainment. Regarding inequality measurement,
regional disparity is found to be the highest for health dimension than other sub indices. The income index shows the least degree of variation for earlier three decades in the region. Measures of variations suggest that non-income indicators namely, health and education have disparities over economic indicators, which is indeed a cause of considerable concern. Moreover, regional disparities on human development attainment across North Eastern states have been much dispersed or scattered. Thus, with a huge shortfall in HDI, the existing level of variation and disabilities imply clearly that there is a need to redesign the public policies that directly affect the wellbeing of the people. There is an urgent need to set priorities for target oriented and region specific government policies. It may be stated that whatever be the policies adopted for improving living condition of people in the region, emphasis should be given to achieve development from below which ensures people’s participation and capability expansion there in.

Though the economic and non-economic performances are found to be positive correlates of human development in North Eastern region, yet the study justified that non-economic and economic capability deprivation reinforce each other to be trapped into vicious circle of low human development. Moreover, as human development in the region has been found to be very much conducive to accelerate the rate of economic growth, therefore, an unprecedented effort will be needed to halve the regional variation in both socio-economic prosperity and levels of human development for sustained development.

The study inferred that there is a positive functional relationship between public expenditure on social sectors and human development. The study supports our premise that higher public expenditure on social sector is a prerequisite to better human development in North Eastern region.
**Conclusion:**

The present study finds that uneven human development in the region is quite significant and there has been high degree of disparity across states as reflected in the level of attainment in human development and its indicators. With a huge shortfall in human development attainment, the existing level of variation and disabilities imply that there is a need to redesign the public policies that directly affect the welfare of the people. It may be stated that whatever be the policies adopted for improving living conditions of the people in the region, emphasis should be given to enhance human capabilities because it is the ultimate end in development process and it is conducive to accelerate the rate of economic growth further. It is therefore, imperative that any attempt at improving the quality of life of the people in North Eastern region calls for investment not only in the various sectors of the economy, but also equally important is that investment should be made in the various social sectors too, because it is ultimately human development that are responsible for sustained development in any backward region like north east India.

**Policy Implications:**

1. The study reveals the fact that as human development is found to be a product of accumulated benefits that accrue to the region from investment on social sector in the form of education and health, so investment on social sectors has to be encouraged in this tribal populated region. The study supports the premise that socio-economic accessibility is one of the obvious requirements for sustained human development. Therefore, policies and programmes are to be formulated in such a way that economic growth should strengthen the expansion of human capability which will greatly determine the level of human development in the region.
2. Regarding inequality measurement, regional disparity is found to be the highest for health dimension than other sub indices in the region. Moreover, Assam and Arunachal Pradesh have been found the least achiever in human development attainment. Assam scores the least in all the dimensions of human development. So, there is an urgent need to set priorities for target oriented and region-specific government policies.

3. The North Eastern region is endowed with natural resources. So, government should come forward to develop socio-economic infrastructure facilities so as to ensure productive investment in the region. This will help not only in utilizing natural and human capital, but also built linkage with employment opportunities which in turn promote human capability through expansion of economic performances.

4. As the study finds that decadal growth rate of population has been negatively associated with human development in the region, so effort should be made to transform our excess population into productive agent by providing good health, proper education and employment opportunities so as to ensure sustained human development.

5. Women empowerment should be ensured by promoting education, good health, economic opportunities and political participation to female so as to enhance human capability and thereby by human development in the region.

6. Last but not least, increased expenditure on social sector in the region should be strengthened so as to ensure trickle-down effect from economic growth to human development.