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**Growth** and  
**Human Development** in  
**North-East India**

edited by **P. NAYAK**

# Growth and Human Development in North-East India

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**P. NAYAK**

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UNIVERSITY PRESS

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YMCA Library Building, Jai Singh Road, New Delhi 110001

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide in

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Argentina Austria Brazil Chile Czech Republic France Greece  
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Published in India  
by Oxford University Press, New Delhi

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First published 2010

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ISBN-13: 978-0-19-806363-6  
ISBN-10: 0-19-806363-6

Typeset in ITC Legacy Serif Std 10/12.6  
by Sai Graphic Design, New Delhi 110 055  
Printed in India at Parangat Offset, New Delhi 110 020  
Published by Oxford University Press  
YMCA Library Building, Jai Singh Road, New Delhi 110 001

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## Acknowledgements

This book would not have been possible without the encouragement and support of many individuals and institutions. I, along with the contributors of the volume, owe a debt of gratitude to the Ministry of Tribal Affairs, Government of India; Indian Council of Social Science Research, New Delhi and Shillong; and the North-Eastern Hill University (NEHU), Shillong, for providing all sorts of help and logistical support to carry out this work. I would like to express my sincere appreciation and thanks to the authors of each chapter and to colleagues, administrative staff, and students of the Department of Economics, NEHU, for their keen interest and sustained support. I am deeply grateful to the anonymous referee(s) who made valuable comments and suggestions for improving the book. I am thankful to Professor Sudhanshu K. Mishra for taking special interest in the book, for going through the preface and suggesting necessary changes. Professor Arindam Banik, International Management Institute, New Delhi, deserves special thanks for his encouragement and cooperation. Thanks are also due to the Academic Publishing team at Oxford University Press, New Delhi, for their all-round cooperation and help, and for their excellent work. I am most deeply indebted to my wife Sanghamitra, son Swadesh, and daughter Swati for their encouragement, help, and sacrifice. Last but not the least, all those who were directly or indirectly involved in carrying out the work deserve special thanks.

## Preface

It took centuries to realize that people are the real wealth of a nation. They produce goods and services for their own welfare. The development and growth of a nation depends upon the proper utilization of natural and cultural endowments available to it. To utilize these endowments, human participation is required. Human participation, on a sustained and autonomous basis, cannot be expected without enhancement in the capability of the population. Thus, self-sustained growth cannot be ensured without human development. Further, since the basic objective of development of a nation is to improve the well-being of the people, every nation strives hard, not only to increase her wealth and productive resources, but also to ensure a better standard of living for its citizens by providing them with adequate food, clothing, housing, medical facilities, education, etc. In fact, governments of various nations, at different levels, take the initiative to create an enabling environment for their people to enjoy healthy, long, and creative lives. However, technical considerations of the means to achieve human development and the use of statistical aggregates to measure national income and its growth have, at times, obscured the fact that the primary objective of development is to benefit the people. Of course, people want higher incomes as one of their options, but income is not the aggregate of human life and, hence, not an end in itself.

The human development approach of looking at development differs from conventional approaches to economic growth, human capital formation, human resource development, human welfare, and basic human needs. Gross National Product (GNP) growth is treated as being necessary but not sufficient for human development. Human

progress may be lacking in some societies despite rapid GNP growth unless some additional steps are undertaken to improve the same. Human welfare approaches look at human beings more as beneficiaries of development processes than as participants in it. They emphasize only the distributive policies rather than production structures. Recent development experience has once again underlined the need for paying close attention to the link between economic growth and human development for a variety of reasons. Many fast-growing developing countries are discovering that their high GNP growth rates have failed to reduce the socio-economic deprivation of substantial sections of their population. Even industrial nations are realizing that high income is no protection against the rapid spread of such problems as drugs, alcoholism, AIDS, homelessness, violence, and the breakdown of family relations. At the same time, some low-income countries have demonstrated that it is possible to achieve high levels of human development if they skillfully use available means to expand basic human capabilities.

Human development also encompasses elements that constitute the critical issues of gender and development. There are four major elements in the concept of human development—productivity, equity, sustainability, and empowerment. People must be enabled to increase their productivity and to participate fully in the process of income generation and remunerative employment to achieve higher economic growth, which is a subset of human development models. Productivity is not the only means to achieve welfare in a society. People must have access to equal opportunities. All barriers to economic and political opportunities must be eliminated so that people can participate in and benefit from these opportunities. These benefits also need to be distributed over generations. Access to opportunities must be ensured, not only for the present generation but for future generations as well. All forms of capital such as physical, human, and environmental should be replenished. Besides, empowerment is a necessity. People must participate fully in the decision-making process that can shape their lives. Human development is impossible without gender equality. As long as women are excluded from the development process, development will remain weak and lopsided (UNDP 1995).

Development should increase peoples' choices. While enhancing the choices of one individual or a section of a society, it should not restrict the choices of another. It calls for equity in human relationships. It should not mortgage the choices of future generations while

improving the lives of the present generation (UNDP 1991). In other words, the development process must be sustainable.

Literature in this regard is vast and varied. It reveals that a large number of studies have been undertaken in India and abroad on various aspects of human development. While some literature dealt with concepts of human development, some have dealt with methods of measurement, construction of Human Development Index (HDI) for various states and sub-states, and for different sections of society. There have been numerous efforts over time to remedy the defects of traditional measures of development, and to create composite indicators that could serve either as complements or alternatives to this. There are studies relating to debates on the selection of variables to be included in HDI and weights to be assigned to different variables under consideration. While some studies dealt with disparities in human development between rural and urban areas and between males and females, some others concentrated on trends of human development. There are some studies that concentrated on finding the two-way relation between human development and economic growth of nations. Available evidence reveals interesting insights relating to the impact of economic growth on human development, and vice versa, with different time lags. Some scholars have also tried to examine the link between poverty and human development. The factors responsible for low levels of human development are also identified in some studies. While some authors prescribed increased allocation of resources on social sectors for improving human development, some others put emphasis on the aspects of implementation of programmes relating to social sector development. There are some authors who believe that high growth could lead to high human development, while some others opine for achieving high growth through the achievement of high human development. There are also some studies that argue in favour of a balanced path of development that combines the strategies of growth and human development with appropriate weights.

Since 1990, United Nations Development Programme (UNDP) has been publishing *Human Development Reports (HDRs)* at the global level for various nations and every year a report is published to this effect with emphasis on a different theme. The Planning Commission of India has also undertaken a similar exercise and has published the *National Human Development Report (NHDR)* for the years 1981, 1991, and 2001. The reports for the years 1981 and 1991 include data on HDI for all the states and union territories of India. But in the 2001

report, the index has been constructed only for fifteen major states due to non-availability of required data for smaller states, including the states in the North-East.

If we take a look at the *NHDR 2002*, we get some idea on the status of human development in the North-East, though data is somewhat dated. The report reveals that the region comprising the eight states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim (the last to be included in the region), and Tripura constitutes a land surface of 262,230 square kilometers with a population of 38.9 million belonging to different ethnic and cultural groups. Topographically, the region is a mixture of hills and plains. While Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, and Sikkim are almost entirely hilly, about four-fifths of Assam is plains. Manipur and Tripura have both plains and hilly tracts. The hills account for about 70 per cent of the area and accommodate about 30 per cent of the population of the region while the plains, constituting the remaining 30 per cent area, hold about 70 per cent of its population. A wide variation in altitude coupled with abundance of rainfall has given rise to a wide variation in climatic conditions within the region, which in turn has endowed the region with rich biodiversity. The richness of biodiversity of the region is almost matched by its ethnic diversity. The region is a meeting place of large number of races, creeds, cultures, and languages. The impingement of the diversity of physical and cultural environment is naturally found in the organization of economic life of the people of the region.

Keeping all this in view, it was thought to bring out a volume on growth and human development for the region by inviting papers from academicians from within and outside the region. The present book is an outcome towards achieving that end. While every effort has been made to bring analysis and discussion on the issues of human development, touching upon various states in the region, the study is constrained due to non-inclusion of the newly included state, Sikkim. It must be borne in mind that although Sikkim has been included in the north-eastern region for administrative and developmental considerations, it is geographically non-contiguous to the rest of the states in the region. Its cultural background is much different from the other states. This sociological, cultural, and geographical difference gives a different character to Sikkim.

The book has been broadly divided into three sections on three different themes:

1. Concept and measurement issues;
2. The national scenario; and
3. The issues at the level of the north-eastern region.

The first section deals with the concept and measurement, and has three chapters. The first chapter titled 'Human Development: Concept and Measurement' contributed by the editor discusses in detail not only the evolution of the concept of human development but also its measurement. The author provides an account of change in the methods of measurement of human development proposed by UNDP, the Government of India, and individual academics.

The second chapter 'Concept of Human Development: A Critique' contributed by P.K. Chaubey, critically examines the literature on the concept of human development and its measurement. He points out that the motivation for UNDP, under the advice of Mahbub-ul-Haq, to bring out a report on human outcomes of economic, social, development, and welfare activities in the public, private, and other spheres in different countries emanated from the fact that wide failures were noticed in terms of reduction in poverty and infant mortality, enhancement in longevity, education, improvement in health, and the like. Contributions from economists like Amartya Sen, on capability approach as against the commodity approach, provided the right kind of theoretical support to define 'human development' in terms of enlarging people's choice through enhancement of capabilities. However, everything is not hunky dory with the idea of human development as it is too individualistic in approach, and shorn of communitarian ethos. Again, when it comes to measuring human development, it is not in terms of capabilities but in terms of attainment and performance, which is possible only when capability space interacts with commodity space. The author, in this connection, tries to delineate the history of evolution of the idea of human development and its contribution in shifting the focus of the development debate, and the weakness it inheres.

The third chapter 'Construction of an Index: A New Method' has been contributed by Sudhanshu K. Mishra. In this paper the author argues that composite indices are often constructed by a linear combination or weighted sum of indicator variables. While constructing indices, weights are either subjectively determined on the basis of expert opinion, or mathematically determined by the Principal

Components Analysis (PCA). By its very logic, such composite indices are elitist—assigning large weights to highly correlated variables and negligible weights to poorly correlated variables. The author proposes to construct a composite index by maximizing the sum of absolute correlation between the composite index and the indicator variables. In the first part of this chapter, the author shows that such a composite index is inclusive—duly weighting the poorly correlated variables. Thus, composite index does not undermine the importance of an indicator variable merely because it is not well correlated with others. In the later part of the paper, the author, by adopting the proposed method, has constructed HDI with equality in income distribution for 125 countries. The study reveals that while the traditional PCA assigns poor weight to the measure of income inequality, the proposed method ameliorates its position by assigning reasonable weight to it.

The second section of the book which deals with growth, human development, and other related issues at the all India level, has seven chapters. In this section, Saundarjya Borbora in the chapter titled 'Economic Growth and Human Development: Chain Relationship' discusses the relationship between economic growth and human development, and opines that they reinforce each other. He argues that development of social sectors, such as education, health, and good governance, is a major precondition for achieving economic growth with the help of effective government policy and appropriate public expenditure. This in turn would help the states to move above the threshold level in human development. He also admits that it is necessary to identify the weak links between growth and human development, and that appropriate policies are required to be formulated and implemented to strengthen the links; and that such policies must be dynamic in nature with changes in the development process. He suggests that in the early stages, priorities might be given to education and health, and at a later stage higher education, technology, and better health facilities might assume a greater role. He concludes by reiterating that the view of *grow first and worry about human development later* is not supported by evidence and, hence, focus on human development must be targeted at the beginning of the growth process.

Santanu Ray, in his chapter 'Transformation of Economic Growth to Human Development: A Long-Run Study of Indian States' states that the role of income growth in determining the level of human

well-being has become a topical issue in recent literature. Indian performance in this regard has been far from satisfactory. Using disaggregated data for the country over a long period of time, Ray examines the relationship between growth and human development. He also addresses the question whether the economic growth achieved by Indian states in the last three decades has any significant influence in determining the level of human development. Using the latest formulation of UNDP, he not only computes HDI for each of the major states of India, but also makes an analysis of HDI over time and across states. His study reveals that per capita income levels of Indian states play a positive role in determining the non-income component of human development in the long-run. He expresses his concern over huge regional variation in income levels and disparity in human development indicators across states.

The chapter titled 'Effect of Structural and Conditional Rigidities: A Case Study of a Poverty Reduction Programme' has been contributed jointly by Arindam Banik and Pradip K. Bhaumik. In their paper, the authors are very critical about the previous studies conducted on poverty reduction programmes, most of which concentrated on evaluation of the effectiveness of government interventions in meeting the stated programme objectives and targets, gaps between desired and actual targeting of beneficiaries, and adherence to programme guidelines. In their paper the authors have made an attempt to analyse the effect of structural and conditional rigidities, on moving a beneficiary of poverty reduction programme from passive to active state, with the help of micro-level field data comprising a fairly large sample of poor beneficiary artisans collected under SITRA programme. Using ordered logistic analysis, they have provided an analytical characterization of the beneficiaries in a situation of structural and conditional rigidity, where all beneficiaries do not move from a passive state to an active state and are able to take advantage of the government intervention despite their having access to the benefit. The authors view that identification of ageing artisans as beneficiaries of the programme might not bear much fruit as they are unlikely to become economically active due to their conditional rigidities. Therefore, they opine that a thorough understanding of the conditional and structural rigidities and their impact on economic behaviour of beneficiary artisans is required, which perhaps would go a long way in helping to design and implement poverty reduction programmes.

The chapter titled 'Public Distribution System: An Instrument for Improving Human Development' has been contributed by R. Gopinath. The author states that the PDS is a major component of public delivery system in India that started functioning during the 1930s and, subsequently, was replaced by the Targeted Public Distribution System (TPDS) in the 1990s. The programmes were mainly designed to play an important role in improving human development, particularly among the rural masses and the poor people. The paper revolves around the discussion on the loopholes in operational mechanism of both PDS and TPDS, and strongly argues for addressing the problems associated with their implementation.

Taking a careful look at the HDI estimates for the various districts in Orissa, P.K. Tripathy and Bhabagrahi Mishra, in the chapter 'Status of Human Development in Orissa', make a few intriguing observations. They point out that the districts of Kalahandi and Deogarh, two of the least developed districts by conventional yardsticks, turn out to be ranked as high HDI districts in the *HDR* of Orissa. Keeping this paradoxical result in mind, they raise some important questions on the suitability of the concept of HDI while assessing the economic status of a region. They observe that the implication of high literacy in developed economies is not the same as that in backward economies. In backward economies, mere literacy without employment opportunities neither turns out meaningful educational attainment nor estimated higher life expectancy, and that lower infant mortality reflects sound health conditions of the majority of the population in general, and agricultural labourers, marginal and small farmers, and poor artisans, in particular. In the light of the above observations, they argue that there is a need for inclusion of alternative variables for health, education, and standard of living in the index that can lead to a more realistic ranking of a region based on such indices. For example, a composite index of property ownership (land and other resources), per capita income obtained on the basis of income accrual method, and the average man days employed for the working population shall capture the standard of living index more accurately than mere per capita income. Similarly, education index could be a composite index of literacy as well as its linkage with employment opportunities and the health index as a composite index of anthropometric measurements and pattern of mortality.

The chapter 'Good Governance: The Force behind Human Development', contributed jointly by Ashutosh Dash and Paohulen

Kipgen, reveals that human development cannot just automatically happen without economic development. The authors argue that growth oriented economic progress alone cannot bring progressive human development without good governance which demands greater transparency. That is why social activists are increasingly paying attention to governance, both at the macro and micro level. The authors conclude by laying stress on the importance of governance in the process of human development.

The last chapter in the section, titled 'Politics of Human Development', has been contributed by Apurba K. Baruah. The author brings out the politics involved in the issues concerning human development. Citing the example of poverty, he explains that in Contemporary Development Theory, poverty has been basically reduced to an issue of measurement, and the important issue of the mechanism of its generation is often overlooked. He also pleads that the economic efficiency is in its top gear only when the state takes control. Whether the state controls or leaves the market in private hands is a matter of politics to which the nature of human development is inalienably connected.

The third section deals with the issues of human development in the context of North-East India and has fifteen chapters. M.P. Bezbaruah, in his chapter 'Socio-political Transition, Growth Trends, and Development Attainment in the North-East in the Post-Independence Period', reviews the development experience of the region in the context of its political-administrative transformation in the post-Independence period. He points out that development experience in the region has been mixed and uneven. While there are periods of high growth for individual states, the region as a whole has been increasingly lagging behind the country in terms of per capita income. He believes that the rapid post-liberalization growth of the country is a far cry for the region. While the recent service sector led growth of the country is propelled by expansion of frontier areas like information technology, public administration and other services are the faster growing services in the region. He argues for enhancement of the rate of economic growth in the region based on its inherent strength and endowed resource base. Though funds required for building up the necessary infrastructure to activate the inherent growth potential of the region are no longer a constraint, disruptions caused by insurgency and the *bundh* culture make deployment of such investments difficult and add to the cost of any business venture, reducing the competi-

tiveness and economic viability. However, he is optimistic about the future of the region in the globalized era.

The editor of the book, in the chapter titled 'Human Development in North-East India' highlights that India, in spite of pursuing the policy of liberalization and globalization since the early eighties and witnessing higher growth rates, has not been able to achieve much on account of human development and welfare in comparison to many countries at the global level. Human Development Index in the country was as low as 0.56 in 2001. While some states in the region have performed better than the national level, some others have lagged behind. Rural-urban disparity, gender disparity, and uneven human development across the states in the region are quite significant. The disturbing trend of increasing gender disparity in Nagaland and the escalating rural-urban gap, particularly in the states of Assam and Meghalaya, is a matter of concern. The author, while highlighting some of these issues, stresses on the urgent need for taking appropriate action in this regard.

Nirankar Srivastav analyses the poverty status in the region using three conventional measures of poverty in the chapter titled 'Severity of Poverty and Status of Public Services in North-Eastern States'. His study reveals that poverty, in most of the states in the region, has declined. It has declined more in the hill states and in urban areas. The access to public services is observed to be very poor in the poverty-stricken states. The author states that there is a positive and strong relationship between poverty levels and access to public services in the region and recommends a target-oriented and region-specific poverty reduction programme.

Bhagirathi Panda, in the chapter 'Economic Growth, Exclusion, and Human Development', studies the mismatch between economic growth and human development in the region using empirical data. He observes and apprehends that the region, which is witnessing continuous low economic growth accompanied by relatively high human development, is susceptible to social tension. This has to be overcome by promoting a policy of high economic growth by taking some concrete measures. He prescribes accelerating industrialization and putting emphasis on greater value addition. The author also identifies some of the obstacles to industrialization, such as poor physical infrastructure, lack of culture of genuine entrepreneurship, security deficit, and poor governance. He suggests that in order to overcome these hurdles the governments in the region should play a proactive

role along with developmental Non-Governmental Organizations (NGOs) and promote Self Help Groups (SHGs), their movement, and effective participation in development programmes. He also emphasizes the role of civil society, academia, and peer groups towards reorientation in the value-systems for inculcating a culture of entrepreneurship.

Biswambara Panda, in the chapter 'Non-Governmental Organizations and Participatory Development' analyses the approaches of the grassroot NGOs and their role in contributing towards participatory development in addressing issues relating to human development, with special reference to the North-East. The author argues that participatory development can ensure integrated development, where all sections of society would be involved and benefited. This would not only bring about economic growth but would also dissipate social inequality. The micro approaches along with people-centred development objectives can bring considerable dividend by resolving conflicts, avoiding programme uncertainties, and evolving synergy among the key actors of society. He further argues that though participatory development may not ensure development for all the people but it certainly creates confidence among them, and most importantly provides them opportunities to share their ideas and knowledge. He believes that a development plan, armed with indigenous practices and native wisdom, can accelerate the developmental process at the grassroots level. Though NGOs are not the only force within the civil society to work towards inclusive growth, they are certainly a force to reckon with in the development domain. They can inch towards this objective through (various) people-centred approaches and strategies despite so much of apprehensions on their accountability and sustainability.

The chapter 'Inter-District Disparities in Meghalaya: A Human Development Approach' contributed jointly by Purusottam Nayak and Santanu Ray highlights widespread variations in the magnitude of human development across all the seven districts and three hills regions representing three different ethnic tribal groups in the state, between rural and urban areas, and between male and female groups of population. The authors also show that there exists a significant level of disparity, both in income consumption and in non-income attainments, among these districts. The inequality in economic attainment (income, as well as consumption expenditure) happens to be very high. However, both measures of variation and inequality indices suggest that few non-

income indicators, namely intensity of formal education and infant mortality rates, have disparities over economic indicators, which, according to the authors, are indeed a cause of considerable concern. In addition, they observe that economic inequality is much higher than inequality in overall HDI. Keeping in view a huge shortfall in HDI, accompanied by the existing level of variation and disabilities, the authors feel the need for a redesign of public policies that directly affect the welfare of the people. The study also reveals that the improvement of human development in Meghalaya, on account of better performance in respect of some socio-economic indicators, has been neutralized because of its laggardness in respect of some other indicators over time.

The next chapter titled 'Does Micro Finance Bring Human Development?' contributed by A.P. Pati, explains the success stories of micro-finance through SHGs in different parts of the country and abroad. The author suggests ways for economic empowerment of women through micro finance in the region. However, he concludes by stating that micro finance endeavour in Meghalaya is still at the nascent stage to make any visible impact at the macro level, so as to measure its contribution in attaining higher human development.

P.S. Suresh and Biswambhara Mishra, in their chapter 'Public Expenditure and Human Development in North-East India: A Case Study of Meghalaya', point out that Meghalaya, in the last few decades, has been witnessing a paradoxical and explosive economic growth because of the mismatch between growth rates of state domestic product and public expenditure. Disproportionate growth of the social sector over the years has not only eaten up most of the public investment in the state, but also given rise to a weaker linkage among different sectors. The study explores the nature, extent, and the degree of interdependence between the level of public expenditure and human development with the aim of understanding the cause and effect relationship and the extent to which the public expenditure on social services gets transformed to the end result of a better level of human development. The study reveals that at the regional level there is a positive functional relationship between public expenditure on social sectors and human development. The authors conclude that per capita spending on education and health has a relatively stronger impact on human development than per capita income growth.

Kishor Singh Rajput in the chapter 'Antenatal Care, Institutional Delivery, and Human Development in Meghalaya' highlights some

of the facts and figures on mothers' health with special reference to institutional deliveries of the child. Further, using logistic regression, he examines the role of certain background variables of women like her education and the spouse, work status, place of residence, etc., along with the role of antenatal care on institutional delivery.

E. Bijoykumar Singh in 'Human Development in Manipur' states that in spite of having a low per capita income, the HDI of Manipur for 1981 and 1991 has been higher than most of the major Indian states. In his chapter, he makes an attempt to examine the change in HDI for the state in the post (economic) reform period with available indicators of development like Infant Mortality Rate (IMR), sex ratio, life expectancy at birth, and literacy rate. He also examines the quality of development through an analysis of data on structural change, occupational distribution of work force, employment, and productivity of workers. He argues that though performance of Manipur in terms of IMR, sex ratio, literacy rate, and life expectancy at birth has been positive, low per capita income and continued dominance of low productivity activities in the occupational structure has weakened the link between employment creation and poverty reduction.

A.K. Agarwal in the chapter 'Human Development in Mizoram: An Overview' not only analyses the status of human development in Mizoram, its strengths and weaknesses, but also suggests a strategy for improvement. Through empirical analysis he claims that Mizoram has shown excellent performance not only in the field of education and health but also on Gross State Domestic Product (GSDP) in which the tertiary sector has been playing a dominant role. He also states that one might not notice the relative inadequacy of the state in terms of HDI, Human Poverty Index (HPI), and gender disparity as compared to other states in the region and the country as a whole, but in-depth analysis points towards the need for better services and for evolving an appropriate delivery mechanism with close interaction of various components of human development in the state.

The chapter 'Facets and Factors of Human Development in Tripura', contributed jointly by Sudhanshu K. Mishra and Purusottam Nayak, synoptically presents an account of different facets and factors relating to human development in Tripura which suffered a brutal blow during partition of the country in the form of maimed infrastructure, severed connectivity, and a debilitating burden of immigrants, with all the needs and no resources. They have also systematically presented the geographical and historical forces that have shaped the resource

base, infrastructure, connectivity, socio-economic milieu, and, consequently, the economy of the state, determining the level of human development. Their study reveals that in spite of a great population burden on her fragile economy, the state has secured an appreciable score in matters of education and health. The authors opine that human development of the state needs to be harnessed to promote economic growth in terms of increased productivity and higher per capita income.

The next chapter, 'Human Development in Assam: An Analysis', is jointly contributed by Hiranmoy Roy and Kingshuk Adhikari. The authors report that the state is lagging far behind other major Indian states in terms of various socio-economic indicators, including the measures of HDI, HPI, and poverty. Their findings also reveal an inverse relationship between human development and poverty on the one hand, and widespread variation of human development across districts, on the other.

Debasis Neogi, in 'Development and Deprivations in Arunachal Pradesh', highlights the extent of development and deprivations in the state of Arunachal Pradesh. While presenting his findings, he states that while some parts of the state are well ahead in terms of socio-economic development, the other parts are lagging behind. He opines that uneven development, across districts and among tribal groups, has given rise to inter-tribe disputes. The large chunk of Net State Domestic Product (NSDP) in the state is observed to be contributed by the tertiary sector, of which public administration constitutes the major component. This type of development trend, as observed by the author, seems to be untenable in the long run. The author also analyses the role of basic education in bringing empowerment to the society and explains how such capacity building can lead to redressal of deprivation of human beings. Besides, he investigates the aspect of gender discrimination and prescribes mass education in order to remove such discrimination from the society.

The last chapter of the book, 'Human Development and its Correlates in Nagaland', has been contributed by Sudhanshu K. Mishra and Purusottam Nayak. The authors have presented a large amount of data relating to human development in Nagaland, and made an attempt to observe regularities in the same that may be meaningful for devising development policies. Their findings indicate that PCI, HDI, and gender-related development index are poorly correlated with health indicators, but appreciably correlate with educational

attainment. The authors conclude that the reliability of data reported by a socio-economic system is dependent on the level of development of the system. Underdeveloped socio-economic systems report highly unreliable data. This is not only regarding the figures of income but also the measures of attainment in matters of health and education. Official data on these variables is thrown up by a system that is administratively motivated and unsupervised with regard to their economic and developmental meaning. Use of such data, whether it pertains to income or any other measure of development, is not dependable for policy decisions meaningful to fostering development.

An overall analysis of various issues discussed in the present volume reveal the following:

1. There is a need to rethink, not only the choice of variables but also the method of construction of HDI. The proposed alternative method, by maximizing the sum of absolute correlation between the composite index and the indicator variables, might be of some use while overcoming the problems associated with construction of composite indices by PCA.
2. In the recent past, the entire region has been experiencing good human development but poor economic growth. There exist widespread variations in the levels of human development across states, regions (rural-urban), among ethnic and other social groups, and between genders. This mismatch probably has given rise to increased disputes among various social groups and tribal populations leading to social tensions reflected in the form of extortions and other secessionist activities. To overcome this, a determined effort is required to harness human development towards achievement of higher economic growth through increased productivity. There is also a need for specific intervention strategies on the basis of sector/group/class/gender/region/state.
3. Human development is positively associated with the quality of governance. Governance, from the human development perspective, demands greater transparency, accountability, participation, and stringent rules and laws. Judged on these parameters, the quality of governance in the region is not satisfactory and, hence, requires improvement. Besides, local democratic institutions like Autonomous District Councils need to be strengthened and their functioning be made more effective.

4. Revolution of SHGs has not made much headway in the region. SHG as a movement and institution ensures, at the micro level, both economic growth and human development. Further, both these objectives are realized through the method of participation, especially of the poor and the marginalized. There is a need to make this movement more widespread in the region.
5. Besides increased inequality, the quality of public services on the basis of access, use, reliability, and satisfaction are worst in the poverty stricken states in the region. To overcome this, the extremely poor households need up-front intervention through measures such as TPDS.
6. Reproductive health care happens to be an important component of human development. The goal to attain satisfactory human development will remain unfulfilled if the reproductive health needs of married women and children are not properly attended. The situation of reproductive health care in some states of the region is worse than many other in the country. Therefore, immediate efforts are to be made to improve this situation.
7. Higher level of human development is a product of the accumulated benefits that accrue to the society from public investments on social service. Per capita spending on education and health has a relatively stronger impact on human development than growth in per capita income. Hence, public expenditure on social services needs to be continued till the time economic growth itself takes care of it substantially.
8. The country, in general, and the north-eastern region in particular, suffer from the politics of human development. The approach of development theory and practice to poverty has been mechanical. It never goes into the question of the mechanism of generation of poverty. Hence, it is suggested that institutions engaged in development practice should analyse the mechanism of generation of poverty, and based on such analysis should come up with programmes to overcome it.

PURUSOTTAM NAYAK

# I

## Concept and Measurement Issues

## Human Development in North-East India

PURUSOTTAM NAYAK

### INTRODUCTION

The development and growth of a nation greatly depends upon proper utilization of its human resources. To better utilize them, there is a need to improve the human resources, which is both a means for faster development and also an end by itself. Since the basic objective of development for a nation is to improve the welfare of its people, every nation strives hard not only to increase her wealth and productive resources, but also to ensure a better standard of living for her citizens by providing them with adequate food, clothing, housing, medical facilities, education, etc. However, technical considerations, of the means to achieve human development and the use of statistical aggregates to measure national income and its growth, have at times obscured the fact that the primary objective of development is to benefit the people. National income figures, though useful for many purposes, neither reveal its composition nor its real beneficiaries. Of course, people want higher incomes as one of their options, but it is neither the sum total of human life nor the end in itself. Thus, expansion of output and wealth is only a means and the end of development is the welfare of human beings. To measure the welfare of the people, United Nations Development Programme (UNDP) in its first *Human Development Report (HDR)* introduced the concept of human development and its measurement (UNDP 1990). It was introduced as a composite measure of economic progress and human welfare, and intended to be a better substitute to Per Capita Income (measure) that could neither capture nor exhibit exact levels of development of

human beings nor that of nations. The measure is popularly known as the human development index (HDI).

Recent development experience has underlined the need for paying close attention to the link between economic growth and human development because many fast-growing and developing countries, having high GNP growth rates, have failed to reduce the socio-economic deprivation of substantial sections of their population. At the same time some low-income countries have achieved high levels of human development by skillfully using the available means to expand basic human capabilities. Countries like Vietnam, Georgia, Indonesia, and Jamaica having relatively very low per capita GDP (PPP US\$ 3071, 3365, 3843, and 4291) could achieve medium levels of human development (0.733, 0.754, 0.728, and 0.736), whereas, Botswana and South Africa, in spite of having very high per Capita GDP (PPP US\$ 12,387 and 11,110), achieved a relatively lower level of human development of 0.654 and 0.674 (UNDP 2007-08). Therefore, there is a need for shifting the emphasis from per capita GDP to HDI.

In the last two decades, HDI has been used very widely by governments of various nations for planning. Various scholars and organizations have also undertaken a number of research studies, using this index, to focus on the magnitude of human development of various sections of society in different countries. This has helped a lot in formulating plans for improving the life of neglected sections of societies in different countries. Keeping all these points in view, the present study is undertaken on the status and progress of human development in a backward region like North-Eastern India, comprising of eight states, which is predominantly a region of tribal people.

### MEASUREMENT OF HUMAN DEVELOPMENT

Though HDI was proposed by UNDP in 1990, many criticisms were raised against its construction and robustness in subsequent periods. As a result, some improvements were brought about in its construction in the subsequent reports of UNDP. It is now, in its present form, a composite index of three basic components of human development, viz., longevity, knowledge, and standard of living. Longevity is measured by life expectancy. Knowledge is measured by a combination of adult literacy having one-third weight, and mean years of schooling with two-third weight. Standard of living is measured by purchasing power, based on real GDP per capita adjusted for the local cost of living (purchasing power parity or PPP). The HDI sets a minimum and

a maximum for each dimension and then shows where each country stands in relation to these scales. It is expressed in terms of a numerical value between 0 and 1. The scores for the three dimensions are then averaged in an overall index. The latest formula used for the first two individual indicators {Life Expectancy Index (LEI) and Education Index (EI)} is as follows:

$$\text{LEI or EI} = \frac{X_i - \text{Min}(X_i)}{\text{Max}(X_i) - \text{Min}(X_i)}$$

The income indicator (GDP Index) is calculated using the following formula:

$$\text{GDPI} = \frac{\log(X_i) - \log\{\text{Min}(X_i)\}}{\log\{\text{Max}(X_i)\} - \log\{\text{Min}(X_i)\}}$$

Finally, the HDI is calculated by taking the average of these three indices (LEI, EI, and GDPI). For the construction of the dimension indices, maximum and minimum values have been fixed as shown in Box 12.1.

Box 12.1: Scaling Norms of HDI Used by

Indicators	UNDP		Indicator	Planning Commission of India	
	Max(Xi)	Min(Xi)		Max(Xi)	Min(Xi)
Life Expectancy at Birth (Years)	85	25	Life Expectancy at Age 1 (Years)	80	50
Adult Literacy Rate (%)	100	0	Infant Mortality Rate (per thousand)	—	20
—	—	—	Literacy Rate (7 + Years)	100	0
Combined Gross Enrolment Ratio (%)	100	0	Adjusted Intensity of Formal Education	7	0
Per Capita GDP (PPP US \$)	40,000	100	Per Capita monthly Consumption Expenditure in Rupees (at 1983 prices)	325	65
Source: UNDP (2003)			Source: GoI (2002)		

In this regard some changes in the formula of HDI were brought out by the Government of India (GoI 2002) in the *National Human Development Report (NHDR)*. 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 proposed. 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 successive classes at

school level) was assigned 65 per cent weight. In case of the indicator on economic attainment, namely, inequality adjusted per capita consumption expenditure, an adjustment for inflation over the period was made to make it amenable to inter-temporal and inter-spatial comparisons. The maximum and minimum values for each dimension as used in *NHDR* are shown in Box 12.1.

### AN OVERVIEW OF LITERATURE

There are two types of literature available on human development, one on the methodological aspects, and the other on empirical evidence. As far as the methodological aspect is concerned, numerous efforts have been made to remedy the defects of the traditional measure of economic development and to suggest composite indicators that could serve as either complements, or alternatives to this, for example, Sheldon and Land (1972), UNRISD (1970), Adelman and Morris (1973), UN (1975), OECD (1976), UNESCO (1977), Morris (1979), Hicks (1997), Noorbakhsh (1998), Sagar and Najam (1998), Neumayer (2001), Ogwang and Abdella (2003), Arcelus *et al.* (2005), and Leigh and Wolfers (2006). Since the publication of the first *HDR*, the trend has been towards improvement of the method of measurement of human development, and so far there have been three successive attempts in this regard in 1991, 1994, and 1999 by UNDP.

Few important works on human development which could not be reviewed for want of access to individual papers, are Desai (1991), Jain (1991), Tilak (1991), Anand and Sen (1993, 1995, 1997, and 2000), Pal and Kant (1993), Haq (1995), Bardhan and Klasen (1999), Nagar and Basu (2000), Chakravarty (2003), Chaubey (2002), Bose (2004), and many others. Other important empirical works, in the literature on human development, in the context of India that are readily available are reviewed in the following paragraphs:

Dalal (1991), in his edited volume, pointed out that Indian development goals have been set on the criteria laid down in the *Human Development Report*. There has, however, been significant failure in the implementation of well-constructed policies, as a result of lack of political will and administrative inefficiency. The Government of India in 2002 compiled the HDI, GDI, and HPI for the entire country. However, the data for north-eastern states was prepared by taking the data of Assam (one of the big states in the region) as a representative one. Shiva Kumar (1991) ranked 17 Indian major states by constructing the HDI using UNDP methodology. He compared the rankings

of these states with the rankings of countries appearing in the UNDP report. The absence of disaggregated data on health and life expectancy, for the union territories and the North-East, prevented him from the computation of the HDI for these regions.

The subsequent study of Shiva Kumar (1996) revealed that states like Haryana and Punjab, despite being relatively high-income states, were facing the problem of serious gender inequality in basic capabilities. There were 13 countries in the world that had a lower value of GDI than that of states like Bihar and Uttar Pradesh, which pointed to the seriousness of the problem of human development at the global level.

Vyasalu and Vani (1997) conducted a study of human development in Karnataka using HDI. While making the concluding remarks, they suggested that sustained political support to an across-the-board improvement in each district was essential if the HDI was to show improvement. Zaidi and Salam (1998), in their study, correlated various indices denoting life expectancy, educational attainment, and real GDP per capita to other parameters of the economies of 15 major states of India for finding out the causes of varying values of these indicators in different states. The study revealed that public expenditure had a closer association with educational attainment than it had with life expectancy as the latter is influenced by multiplicity of factors, like heredity, race, climatic, and environmental factors, apart from public expenditures on health, nutrition, and sanitation, etc. Viswanathan (1999) in her study, for the state of Madhya Pradesh, highlighted the fact that higher incomes do not always yield higher human development, and that higher human development does not always mean equal benefit to men and women. The study of NCAER (1999), conducted and data collected in 1994, revealed that although relative differentials existed, absolute deprivation was high in most parts of rural India. Among the social groups, the poor spent a disproportionately large amount on health and education. The National Institute of Rural Development (NIRD 1999) conducted a study for the major states of India for the years 1961, 1971, 1981, and 1987-88. The study revealed that HDI scores had gone up in all the states over time. Poverty-stricken states like Bihar and UP were at the lower rung, and Gujarat had made considerable progress on HDI. The ranking of states on HDI has changed significantly during the last three decades. Gender discrimination was conspicuous in 14 states, except Kerala and Karnataka. Rao (2000) made an attempt to bring out the insights

provided by the *HDR* for the state of Karnataka. His study revealed that the state was lagging behind even in achieving what is regarded as minimum essential norms of human development.

Mahanty (2000) conducted a study with an alternative set of indicators for Andhra Pradesh for the years 1982–83, 1987–88 and 1992–93 using five different methods of index. He found that while the pattern of human development was relatively stagnant, some districts were lagging behind. For the first time, UNDP (2003) devoted an entire chapter on human development to the North East that busted some popular myths, particularly on literacy rates and the status of women. The report identified several factors that had contributed to the depressing and dismal situation in the region. Vijaybhaskar *et al.* (2004), in their study while highlighting the key findings of the *HDR* of the state of Tamil Nadu, mentioned that though the state had registered considerable progress in literacy and reduction of poverty, it had failed miserably in arresting inter-district and intra-regional differences across gender and caste in human development achievements. Nayak and Thomas (2007) conducted an in-depth study on human development by constructing HDI for all the seven districts of the state of Meghalaya. They analysed the status and trend of human development and deprivation in Meghalaya, vis-à-vis, other leading states in the country, using both primary and secondary data. The study revealed a low level of human development in the state, accompanied with considerable degree of unevenness between rural and urban areas, across different districts, and also between genders. Purohit (2008) in his study analysed the factors that led to disparities of development in terms of various indicators, such as per capita income (PCI), access to basic facilities, and human development, using district-level data for three Indian states, namely, Orissa, Karnataka, and Maharashtra, representing, respectively, a poor, middle-income, and high-income state, and attempted to reflect upon the phenomenon of convergence and divergence and two-way causation between human development and income. The findings of the study indicate a tendency to neglect the development of poorer districts in richer states. Skewed development priorities have favoured better off districts in poorer states. The two-way regression analysis carried out by him indicates the need for a more suitable development strategy, incorporating appropriate state intervention, that might lead to enhanced income through improved skills. The results support the contention that the ongoing process of convergence at the district level might minimize inequality over a

longer period of time, provided state intervention is made to counteract the divergence in the social and economic infrastructure.

A number of studies which have been undertaken to examine the link between human development and economic growth, that were reviewed in the works of Nayak and Thomas (2007), are presented briefly. Anand and Ravallion (1993) viewed development indicators or social outcomes as aggregates of individual capabilities and found that GNP and life expectancy are significantly and positively related. Aturupane *et al.* (1994), in their empirical work, observed that economic growth is negatively related to infant mortality rate. Similarly, taking three income-decomposed health aggregates, that is, life expectancy, infant mortality, and perinatal mortality, Bidani and Ravallion (1995) found that overall per capita health spending has a positive effect on life expectancy at birth and infant mortality rate of the poor people. Geeta Rani (1995) found that economic progress in India is one of the important factors that determine the level of human development. Zaidi and Salam (1998) reported a high positive correlation between Net State Domestic Product (NSDP) per capita and enrolment in higher education. The empirical findings of Chakraborty (1997) based on a non-parametric approach revealed that dependency of life expectancy on income is tethered to time and space; income explains life expectancy only below a certain range, and that range is moving up over time. Some studies confirmed the positive relationship between human development and economic growth using time-series data for developing nations (UNDP 1996 and Ranis *et al.* 2000). Ranis and Stewart (2000) in their study outlined two chains—from economic growth to human development, and from human development to economic growth. Boozer *et al.* (2003), while exploring the dual relationship between economic growth and human development, urged that economic growth is just a means of human development, while human development reinforces economic growth. Strong complementarities between investments in human development and attained sustained economic growth emerged in the study of Muysken *et al.* (2003). In the endogenous growth model, Schaper (2003) found that investment in education is able to enhance economic growth and income equality depending upon the way of financing it. Dholakia (2003), in his study, examined the trends in regional disparity in India's economic and human development over the past two decades. Findings suggested a two-way causality between the two. The structure of the relationship varied over time

when human development indicators were the cause and the PCI was the effect, but in the reverse causality case, the structure of the equations was found to be stable over time. Estimation revealed that HDI positively influenced PCI with a lag of about eight years, whereas PCI affected the HDI within two years. World Bank (2004), by using mortality statistics of India, documented that both household living standards and national income levels have a positive effect on the reduction of infant mortality rate (under age 1). Drawing attention to a series of advanced studies in human capital theory, basic needs, as well as welfare approach, Ranis and Stewart (2005) viewed that in most cases, economic growth and human development run parallel.

The review of literature on human development reveals that very few studies have been undertaken to focus on the status and trend of human development of the north-eastern region using HDI. Therefore, the present chapter in this regard is a humble attempt with the main objective of testing the following hypotheses:

1. Human development and its growth in the North-East is too low as compared to many countries of the world, and
2. There exists a yawning gap between females and males, the rural-urban gap, and state-wise variation is significant over time in the region.

### THE NORTH-EAST

North-East India, having a population of 39.04 million is basically a region consisting of eight states, namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. Among these eight states, four states have tribal population as a majority; specifically, Mizoram (94.5 per cent), Nagaland (89.1 per cent), Meghalaya (85.9 per cent), and Arunachal Pradesh (64.2 per cent) (North-Eastern Council 2002). The region had a literacy rate of 65.8 per cent as against the all India average of 65.2 per cent. However, literacy rate varied from state to state in the region, from the lowest figure of 54.7 per cent (Arunachal Pradesh) to the highest figure of 88.5 per cent (Mizoram). Per capita NSDP in the states varied from lowest figure of Rs 1,675 in Assam to the highest figure of Rs 3,571 in Arunachal Pradesh, and an average of Rs 2,223 for the region in the year 1997-98 at 1980-81 prices. Per Capita Monthly Consumption Expenditure (PCMCE) was as low as Rs 147.52 in the year 2000 at 1983 prices. Assam had the lowest PCMCE of Rs 99.81 as against

highest PCMCE of Rs 228.04 for Nagaland. 34.7 per cent of people in the region were below the poverty line in 2000 as against a national average of 26.1 per cent. The highest percentage of people below the poverty line was estimated for Sikkim (36.6 per cent) and the lowest percentage for Mizoram (19.5 per cent).

### Human Development in North-East India

According to the 18th *HDR* (UNDP 2007-08), India has a long way to go. When Norway has a HDI value of 0.968 and 27 other countries in the world are having HDI values above 0.9, the corresponding figure in India is 0.619 (UNDP 2007-08). Though, India is a fast growing developing nation, she is placed at the 128th rank at the global level. Even small neighbouring countries in Asia, like Mauritius (0.804), Sri Lanka (0.743), Maldives (0.741), and Indonesia (0.728), have surpassed India. The country has been witnessing very poor growth in human development. The HDI value in the country during 1975, which stood at 0.411, increased to only 0.476 in 1985, and further to 0.619 in 2005. Thus, the country has witnessed an annual growth of merely 1.7 per cent on an average over a period of three decades.

The findings of the Planning Commission on the magnitude and growth of human development has been quite different from that of the UNDP probably because of differences in their methodology of estimation. HDI value, which was estimated to be 0.302 in 1981, improved to 0.381 in 1991, and subsequently to 0.472 in 2001 (GoI 2002). When UNDP estimates showed a relatively high human development (0.619) with low annual growth (1.7 per cent), estimates of Planning Commission showed a low human development (0.472) with a high annual growth (2.3 per cent) over time.

Rural-urban disparity, which was quite low in 1981 (0.179) and 1991 (0.171), instead of improving, deteriorated and stood at 0.204 in 2000 as shown in Table 12.1 (GoI 2002). Gender disparity continued to be high. When male literacy rate was 75.6 per cent, female literacy was 54.0 per cent in 2001. Besides, there has been widespread disparity across the states in the country. The HDI varied between the highest value of 0.638, in the case of Kerala, to the lowest value of 0.365 for Bihar.

As far as the North-East is concerned, the situation has been no different. During 1981, HDI value varied from the lowest figure of 0.242 for Arunachal Pradesh to the highest figure of 0.461 for Manipur. Similarly, in 1991, the lowest and highest figures were 0.328

Table 12.1: Human Development in North-East India in 2000 and 2001

State/Country	In 2000 <sup>†</sup>				In 2001 <sup>††</sup>
	Rural	Urban	Combined	Disparity	
Arunachal Pradesh	0.379	0.622	0.411	0.243	0.49
Assam	0.330	0.613	0.362	0.283	0.50
Manipur	0.404	0.640	0.455	0.236	0.59
Meghalaya	0.390	0.671	0.436	0.281	0.52
Mizoram	0.473	0.687	0.552	0.214	0.67
Nagaland	0.477	0.738	0.515	0.261	0.57
Sikkim	0.396	0.571	0.411	0.175	0.60
Tripura	0.397	0.656	0.434	0.259	0.59
INDIA	0.380	0.584	0.435	0.204	0.56

Sources: †The figures are estimated by the author.

†† Government of Tripura.

(Arunachal Pradesh) and 0.548 (Mizoram). The region, though, witnessed further improvement but was not free from glaring unevenness in the last decade of the twentieth century. According to our estimate, Assam witnessed the lowest HDI value of 0.362 and Mizoram the highest value of 0.552 in 2000. Similar findings were observed in the *Tripura state HDR*. The report revealed that the lowest performing state was Arunachal Pradesh, with HDI value of 0.49, as against the highest performing state Mizoram, with a corresponding HDI value of 0.67.

There has been a yawning gap between urban and rural areas. Human development in rural areas of the region has been consistently lower than that in the urban areas. The rural-urban disparity index varied from the lowest figure of 0.113 for Manipur to the highest figure of 0.234 for Tripura in 1981. The situation did not improve much in 1991, and also in 2000. In 2000, the highest disparity was observed in Assam (0.283) and lowest in Sikkim (0.175). The position of Meghalaya in this regard is worth mentioning. Her rank in rural-urban disparity deteriorated over time. Though Meghalaya occupied 3rd rank among all the states in the region in 1981, it deteriorated to last (8th) rank in 1991 and, subsequently, to second last in 2000.

Contrary to popular perceptions, the status of women in the region is far from being on an equal footing with that of men. Particularly, gender disparity has been consistently very high in Tripura and Assam—(GoI 2002) and *Tripura HDR 2007*. Assam is the only state in the region which has been consistently lagging behind the rest of India. Gender disparity was lower in four states, namely, Manipur,

Meghalaya, Nagaland, and Sikkim, in the year 1981 as compared to the all India average. In 1991, Arunachal Pradesh and Mizoram were added to the list of better performing states. In 2001, Arunachal Pradesh, Assam, and Meghalaya were lagging behind other states which were doing well. Gender disparity has been varying widely from one state to another in the region. Surprisingly, when gender disparity has been decreasing over time in all the states in the region, it has deteriorated in Nagaland.

## CONCLUSION

The Indian economy, in spite of being a fast-growing developing economy and pursuing the policy of liberalization and globalization since the early 1980s, has not been able to achieve much on account of human development and welfare. HDI in 2001 was as low as 0.56 for the country. While some states in the region have performed better than India, some others have lagged behind. Rural-urban disparity, gender disparity, and uneven human development across the states in the region are quite significant. The disturbing trend of increasing gender disparity in Nagaland and escalating rural-urban gap, particularly in the States of Assam and Meghalaya, is a matter of concern. Therefore, there is an urgent need for taking appropriate action in this regard.

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