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

edited by **P. NAYAK**



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**P. NAYAK**

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## 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

## Public Expenditure and Human Development in North-East India

### A Case Study of Meghalaya

P.S. SURESH AND BISWAMBHARA MISHRA

#### INTRODUCTION

Meghalaya, being an underdeveloped state in the north-eastern part of India, has been witnessing a massive increase in public expenditure during the period from 1972 to 2002. The additional spending undertaken by the state has been partly financed through taxation, a major part through grants-in-aid from the central government, and the remaining through increased public borrowing. For example, the fiscal deficit as a percentage of State Domestic Product (SDP), which stood at about 1 per cent in 1981-82, rose up to 7.48 per cent in 2002-03. Similarly, public debt increased from 1.35 per cent to 6.37 per cent during the same period. Besides, a major chunk of the total public expenditure was earmarked for payment of wages and salaries. This has resulted not only in significant increase in the state government's budget deficit, fiscal deficit, and public debt but also in mounting up the quantum of public expenditure on servicing the public debt. All these facts corroborate the nature of the extra governmental spending that the state government has carried out over the years.

#### THE PROBLEM

Meghalaya is not only a backward state but also predominantly an agricultural economy, providing means of livelihood to more than 80 per cent of her population. Although, significant developments took place in some spheres in the state since her attainment of state-

hood, the access to opportunities for a reasonably minimum standard of living remained one of the lowest in the country. The developmental efforts of the state resulted in a paradoxical growth. When the exponential growth of the state income increased to a level of 12.61 per cent, public expenditure increased to a magnitude of 14.68 per cent implying the fact that increased public expenditure could not provide enough stimuli to the state income to grow steadily to the desired level. This, we believe, might have been due to improper implementation of the public expenditure programmes to address the right set of objectives that fiscal policy accords. Thus, the phenomenal growth of public expenditure without a corresponding, proportionate, growth in her SDP brought about an explosive growth of public expenditure. A closer scrutiny of Meghalaya's fiscal figures exhibited a rising trend of public expenditure on the service sector, followed by the primary and manufacturing sectors. The resultant pattern of public expenditure was only a testimony to a lopsided allocation of scarce resources. The neglect of the manufacturing sector over the years resulted in overall backwardness of the state manifested through social tension and unrest. Further, an unabated growth of revenue expenditure in relation to capital expenditure, exhibited the fact that the state could not build up in all these years the capital base required for maximizing long-term growth and development.

According to the *National Human Development Report* (GoI 2002) people must be at the centre of human development. Development has to be woven around people, not people around development. It has to be development of the people, by the people, and for the people. Human development has, thus, two sides:

- (1) the formation of human capabilities, such as improved health, knowledge, and skills; and
- (2) the use of their acquired capabilities for productive purposes, leisure or for being active in cultural, social, and political affairs.

The scales of human development must finely balance the two sides, otherwise considerable human frustration may be the resultant outcome. Striking a balance between these two requires a smooth and steady growth of per capita income. In this perspective, income is clearly one of the options that people would like to have, albeit an important one. But it is not the sum total of lives. Development must, therefore, be more than just the expansion of income and wealth.

This is substantiated by the findings of several studies, Streeten (1979), Isenman (1980), Grossman (1988), Anand and Kanbur (1991), Griffin (1992), Anand and Ravallion (1993), Drèze and Sen (1995), Haq (1995), Mundle (1998), Noorbakhsh (1998), Sen (1998), and Chakraborty (2001), which claim that per capita income cannot be a sole determinant of achieving human development; public spending on social sectors also has a significant role to play.

In a socialistic and welfare-characterized state, where the state intervenes in almost all the areas of economic activities, shaping and re-shaping of policy environment, not only for civil society but also for the private economic agents, remains a logical offshoot of quality and sustainability of the development programmes, subject to resource constraint. In order to achieve the best of the economic and social progress in terms of a better human development index, the use of public resources/investment must emphasize both efficiency and equity. Such involvement of the government is considered to be of paramount importance. What we are trying to hint at is the fact that the scale of human development remains as a logical offshoot of the allocation policies of the government. The question of allocation of financial resources not only takes into consideration the societal needs and aspirations, but also societal priorities. If one assumes for the moment that these factors remain static, then it can be argued safely that public expenditure programmes that translate societal value judgments into economic realities are instrumental in achieving a higher degree of human development. To what extent economic policies on public expenditure affect the magnitude of human development remains an open question. Keeping consistent with our argument, we thought it imperative to present a brief account of the growth of public expenditure in the state of Meghalaya.

#### GROWTH OF PUBLIC EXPENDITURE IN MEGHALAYA

It may be mentioned here that it is the size and composition of public expenditure that the community finally looks up to. Underneath the policy controversies regarding the quantum of public expenditure, the ultimate questions about the trends and patterns of these expenditures await dispassionate analysis. Therefore, this section is an attempt in this direction.

In recent years, there has been an enormous growth of public expenditure in the state. In order to understand the intricacies of the problem of public expenditure, it would be proper to analyse first the

direction in which public expenditure, both in revenue and capital accounts, has moved during 1989-90 to 2001-02.

Table 18.1: Growth of Public Expenditure in Meghalaya  
(Both Revenue and Capital Account)

Year	Total Expenditure (Rs in crores)	NSDP (Rs in crores)	Per Capita Expenditure (Rs)	Total Expenditure as a Percentage of NSDP
1989-90	350.69	659.78	2092.42	53.15
1990-91	405.65	767.35	2311.40	52.86
1991-92	492.29	884.22	2773.46	55.68
1992-93	588.60	978.54	3130.85	60.15
1993-94	609.08	1133.38	4666.74	53.74
1994-95	677.97	1258.04	3855.15	53.89
1995-96	796.42	1380.31	3812.45	57.70
1996-97	813.58	1485.28	3761.35	54.78
1997-98	850.72	1690.42	3791.09	50.33
1998-99	1022.93	2079.25	4397.81	49.20
1999-2000	1195.40	2467.13	4974.62	48.45
2000-01	1401.89	2806.20	5303.82	49.95
2001-02	1685.15	2967.36	5764.31	51.57

Sources: (1) Budget in Brief, Government of Meghalaya, 1974-75, 1977-78, 1978-79; (2) Budget at a Glance, Government of Meghalaya: 1984-85, 1986-87, 1987-88, 1989-90, 1992-93, 1993-94, 1994-95, 1996-97, 1998-99, 2001-02; (3) Statistical Handbook, Meghalaya, 1976; (4) Estimates of State Domestic Product of Meghalaya, 1980-81 to 1995-96, Government of Meghalaya, Directorate of Economics and Statistics, Shillong; (5) State Economy, Government of Meghalaya, Directorate of Economics and Statistics.

A close look at Table 18.1 exhibits that the total public expenditure of the state increased several folds over the years. It grew from Rs 351 crore in 1989-90 to Rs 1,685 crore in 2001-02, recording an average annual growth of 29.27 per cent. The Net State Domestic Product (NSDP) increased from Rs 660 to Rs 3,267 crore during the same period, showing an average annual increase of 26.90 per cent. Similarly, per capita public expenditure, which grew from Rs 2,092 to 5,764, recorded an average growth of 13.49 per cent. It is observed that growth of total public expenditure is higher compared to individual growth rates of NSDP and per capita expenditure. Thus, increased expenditure of the state over and above her income is in line with Wagner's law of expanding state activity.

Further, it is observed that public expenditure as a percentage of the NSDP declined marginally over the years. This increase in public

expenditure may be attributed to the intensive development efforts made by the government through comprehensive economic planning. Through comprehensive planning, the State not only tried to develop various sub-sectors of the economy, but also explored the new bases and sources of additional resources.

The trend in revenue expenditure according to sectors namely, general services, social services, and economic services can be examined in order to ascertain the direction of change that has taken place in the quantum of public expenditure on these sectors. Table 18.2 shows the sector-wise revenue expenditure on different services.

Table 18.2: Sector-wise Revenue Expenditure in Meghalaya  
(Rupees in Crore)

Year	Services		
	General	Social	Economic
1989-90	78.58	94.86	85.33
1990-91	87.58	112.65	110.59
1991-92	102.86	137.55	127.64
1992-93	123.89	145.65	140.75
1993-94	149.04	177.91	155.9
1994-95	158.25	162.50	136.20
1995-96	188.42	209.01	182.96
1996-97	205.62	324.40	186.94
1997-98	197.82	253.64	195.22
1998-99	280.34	299.95	235.15
1999-2000	337.44	356.04	234.32
2000-01	435.00	448.64	309.22
2001-02	510.48	498.18	346.17

Sources: (1) Budget in Brief, Government of Meghalaya, 1978-79; (2) Budget at a Glance, Government of Meghalaya: 1984-85; 1986-87; 1989-90; 1994-95; 1998-99; 2000-01; 2001-02.

It is evident that the revenue expenditure of the state on general services increased from Rs 78.58 crore in 1989-90 to Rs 510.48 crore in 2001-02. The growth rate of the general services on the revenue account is shown by the least squares estimate of the following equation as:

$$Ge = 4.1384e^{0.156t} \text{ \& } R^2 = 0.9901 \quad (18.1)$$

where,  $Ge$  refers to general services expenditures on revenue account expressed in Rs crs. The results suggest that the annual compound rate of growth of the expenditure on general services during the period

of study is approximately 15.6 per cent. On the social services front, it is found that the expenditures grew from Rs 94.86 crore in 1989-90 to Rs 498.18 crore in 2001-02. The growth rate of the social services on the revenue account is shown by the least squares estimate of the following equation as:

$$Se = 4.1247e^{0.1681t} \text{ \& } R^2 = 0.9910 \quad (18.2)$$

where *Se* refers to social services expenditures on revenue account expressed in Rs crore. It is observed that the annual compound rate of growth of the expenditure on social services on the revenue account during the period is approximately 16.81 per cent. From the above Table 18.2, we can also see that expenditures on economic services on the revenue account increased from Rs 7.02 crore in 1972-73 to Rs 346.17 crore in 2001-02. The growth rate of the general services on the revenue account is shown by the least squares estimate of the following equation as:

$$ECe = 6.8998e^{0.1332t} \text{ \& } R^2 = 0.9811 \quad (18.3)$$

where *ECe* refers to economic services expenditures on revenue account expressed in Rs crore. The result shows that the annual compound rate of growth of the expenditure on economic services of the revenue account during this period is approximately 13.32 per cent. It is evident from the above analysis that the revenue expenditures on social services account for the maximum rate of growth, followed by the revenue expenditures on general services, and economic services. This only reveals that over the years, more attention has been accorded to the expansion of the social sector comprising of health, education, social security, etc., by the Government of Meghalaya. In spite of the huge investment carried out by the state government on this particular sector, the human development indicators show a contrasting picture.

In order to substantiate the above statement, it is thought imperative to give insight into the trends and pattern of developmental expenditure and the per-capita expenditure on human and physical capital. Table 18.3 gives the comparative picture on this count.

Table 18.3 indicates that the expenditure on human capital increased consistently, in a significant way, throughout the period of the study. The year 1992-93, showed a remarkable increase in per capita human capital expenditure which keeps on mounting till date. This indicates that the state has consciously followed a policy of heavy investment on

Table 18.3: Developmental and Per Capita Expenditure on Human and Physical Capital

Year	Developmental Expenditures (Rupees in Crores)			Per Capita Expenditures (Rupees)	
	Human Capital	Physical Capital	Total	Human Capital	Physical Capital
1989-90	94.86	85.33	180.19	589.21	530.00
1990-91	112.65	110.59	223.24	686.87	674.35
1991-92	137.55	127.64	265.19	775.00	719.18
1992-93	149.15	138.80	287.95	833.23	775.42
1993-94	181.46	154.47	335.93	997.00	848.74
1994-95	165.01	135.45	300.46	887.15	728.22
1995-96	212.28	181.74	394.02	1117.25	956.21
1996-97	227.26	186.09	413.35	1171.44	959.24
1997-98	253.64	195.22	448.86	1281.02	985.96
1998-99	299.95	235.15	535.10	1484.90	1164.11
1999-2000	356.04	234.32	590.36	1728.35	1137.45
2000-01	448.65*	309.22*	757.87*	1903.44	1311.94
2001-02	498.18**	346.17**	844.35**	2075.74	1442.37

Note: \* Revised Estimate; \*\* Budget Estimate

Source: (1) *Budget in Brief*, Government of Meghalaya, 1978-79; (2) *Budget at a Glance*, Government of Meghalaya: 1984-85; 1986-87; 1989-90; 1994-95; 1998-99; 2000-01; 2001-02.

human capital than on physical capital. The incompatible fact about the huge investment on human capital has resulted in widespread poverty, which is evident from the number of people living below the poverty line. Further, a lopsided approach that has been followed by the state government in terms of investment decisions, of giving lesser importance to the development of physical capital, has not only slowed down the indicators of human development but also resulted in a slow pace of economic growth of the state. Since the above analysis does not clearly spell out the intricate relationship between public expenditure and human development, an attempt is made in the following section to examine the factors that will account for the slow pace of human development in the state.

#### DETERMINANTS OF HUMAN DEVELOPMENT IN NORTH-EAST INDIA

The factors responsible for expanding public sector activities in the state economy can be explained through two distinct approaches suggested in economic literature. The first approach relates to the

increasing pressure on the demand for public services, due to increasing level of money income and population growth, and its subsequent impact on the density of population and urbanization. The growth of population intensified the need for provision of educational, health, and other basic minimum needs/services. In a welfare-characterized state, provision of these basic services absorbs a major portion of the total public resources. Further, the process of transformation that the state undertakes to lift its economy from a static subsistence agriculture to a stage of self-sustained economy leads to a situation where the state is compelled to make provision for larger investments in infrastructure and other developmental activities, in order to reduce pressure on the subsistence sector and provide employment opportunities in other sectors of the economy. As a result, many non-exclusive public expenditure programmes of the state, which are supposed to be guided by externality conditions, are subsequently brought within the domain of the public sector.

The second approach is the supply side approach. In Meghalaya, where the private sector is not well developed and the process of industrialization is virtually non-existent, the public sector has a dual and greater role to play. On the one hand, it had to be directly involved in the process of production and, on the other, for evolving such programmes that would help to stimulate the private sector participation in developmental activities. The massive investments in the social and economic overheads were made in order to increase the productive capacity of the economy, either by increasing the skills, or organizational capacity, or capital stock in the economy. Thus, factors operating, both from the demand and supply side, made a decisive influence on expanding the size of public sector in the state. A declining trend in public expenditure as a percentage of net state domestic products in the state during and after the mid-nineties may be explained by the gradual withdrawal of the government sector from various economic activities on the ground of either efficiency or competitiveness.

In order to present a cross-section analysis on the relationship between human development and its determinants in the context of the north-eastern region, we consulted data pertaining to human development index (HDI), per capita expenditure on health and education, per capita income from the *National Human Development Report (NHDR)*, and the budget papers of the respective state governments for the same year. Since we started with the premise that public eco-

nomics policies, as reflected through public investment on health and education, affect human development, we thought it imperative to take per capita expenditure on health and education as two independent variables along with per capita income as the third variable to regress with HDI, using the model as specified below:

$$HDI_i = a_0 + a_1PCEH_i + a_2PCEE_i + a_3PCI_i + \varepsilon_i \quad (18.4)$$

where  $HDI_i$ ,  $a_1$ ,  $PCEH_i$ ,  $PCEE_i$ ,  $PCI_i$ , respectively represent values of HDI, estimates of the parameters of exogenous variables, per capita expenditures on health and education, and per capita income. The estimated parameters of the equation (18.4) are as follows:

Box 18.1						
	$a_0$	$a_1$	$a_2$	$a_3$	$R^2$	DW
Estimated Parameters	8784.242	0.39596	0.454641	0.250797	0.8342	2.08437
t-values	2.10537	1.9596	2.8432	0.90168		

The above equation seems to be a viable equation so far as prediction is concerned. The result shows that all the three explanatory variables revealed positive relationship with HDI. The t-estimates of public expenditure, on health and education, were found to be statistically significant, whereas it was not so in the case of per capita income. Further, it exhibited that expenditure on education in the region had a greater impact on human development than that of health expenditure.

As the total variance was distributed over all the three explanatory variables mentioned above, in the second stage of our analysis, we decided to replace two explanatory variables, viz., per capita expenditure on health and education by a single explanatory variable by combining them. The model that we specified runs as follows:

$$HDI_i = b_0 + b_1PCEHE_i + b_2PCI_i + \varepsilon_i \quad (18.5)$$

where  $HDI_i$ ,  $b_1$ ,  $PCEHE_i$ ,  $PCI_i$ , respectively represent values of HDI, estimates of the parameters of exogenous variables, per capita combined expenditures on health and education, and per capita income. The estimated parameters of the equation (18.5) are as follows:

Box 18.2					
	$b_0$	$b_1$	$b_2$	$R^2$	DW
Estimated Parameters	9812.438	0.658596	0.0356	0.89732	2.1990
t-values	8.455461	4.07759	3.6723		

The result of the above estimation exhibited a high coefficient of determination and both the estimates of the parameters were statistically significant. The D-W statistics also showed no sign of auto-correlation. Thus, the results showed that public expenditure on social services had a stronger impact on human development than economic growth, per se.

### CONCLUSION

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 reveals that at the regional level, there is a positive functional relationship between public expenditure on social sectors and human development. Further, it reveals that per capita spending on education and health has a relatively stronger impact on human development than per capita income growth. Thus, the findings of the present study support our premise that higher public expenditure on social sector is a prerequisite to better human development.

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