Regional Disparity in Development of North East India: An Inter And Intra State Level Analysis

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Abstract:

Economic growth is used as an indicator to gauge an economy's performance over time. Higher growth results in improved standard of living for its masses. States like Maharashtra, Uttar Pradesh, Tamil Nadu & Gujarat happen to be contributing good to the national GDP but the contribution from other states happen to be uneven. Even after more than four decades of the existence of the North Eastern States, these states continue to be in the backwaters of economic development and still need a great deal of concerted effort to bring them at par with the more developed States of the country. Assam has a relatively higher GSDP but its per capita NSDP is the lowest in comparison to other north eastern states. Mizoram ranks 1st in HDI among the eight North eastern states with HDI value of 0.584, Assam ranks 8th with HDI value of 0.364. Meghalaya is at 5th position with HDI value of 0.455. The present paper is an attempt to understand the performance of North East region in comparison to the mainland economy. The study also tries to examine the regional income disparity in Meghalaya, the state being rich in mineral resources.

Keywords: State domestic Product, Gini Coefficient, Regional disparity, North East Region

Introduction

At present, one of the greatest challenges Indian economy is facing in its development process is widening regional disparity in socio-economic development coupled with income inequality. Disparity at both inter-state and intra-state level is the highest in North Eastern Region of India mainly because it is one of the most economically backward regions of the country. The North Eastern Region of India situated in the border that connects the subcontinent to the rest of Asia, have the potential for tremendous influence upon the economy and political stability of the country. However, economic, social, and political disenfranchisement of this region from the rest of the country has led to serious consequences. Therefore a specialized analysis and examination of several socio-economic indicators as well as income level has been made to highlight the state of development within the region at both an aggregated and disaggregated level. This paper analyses the trends in variation and inequality in income levels both at the inter-state and intra-state level and more precisely of the districts of Meghalaya with the help of convergence analysis which indicates a tendency of the income levels in the districts to converge over time. Since literature on regional development and disparity in India often omits the case of the north-eastern states, possibly due to their economic backwardness, this paper is primarily expository in nature and is a modest attempt to fill this gap.

Objectives of the Study:

1. To understand the economic development and income disparity in the NER of Meghalaya.
2. To analyse the performance of NER with the mainland economy.

Literature Review:

North East Region of India inspite of being endowed with vast natural resources in terms of forests, biological diversity, hydro-electricity, the region has remained largely underdeveloped. The region lags behind the mainland economy when the growth numbers and its share in national income is compared. Some regions did show a better growth performance in the beginning of the current decade. Limited research is

available that can project the state of NERs and the probable factors responsible for the slow growth in state domestic product of some of these regions. The findings of the work done by Nayak (2013) on the Human development in North Eastern region of India reveals that achievement of the region is quite satisfactory in comparison to all India average achievements in some dimensions of human development but it has miserably failed in bringing commensurate economic growth and equitable distribution. There exists wide spread disparity of socioeconomic achievements across different states and within, from urban to rural areas and between male and female. Mohapatra (2002), believes that economic development and growth of North East India can be realised if their development strategy can be reworked focusing on areas where it has a greater comparative advantage and has to liberalize its economy to a great extent. Banerjee (2007) in his study has also observed that post reforms, states in the North Eastern regions have shown a mixed performance in their state domestic product. States like Mizoram & Tripura performed better but SDP growth of Assam remained stagnant. His study highlights that agriculture continues to remain a major contributor to SDP followed by service sector.

Research Analysis

The present study is empirical and consists of three phases. The first phase compares several selected socio-economic indicators and shows their trends with the help of graphical representations done using MS Excel. In the second phase, in order to show the variations in income as well as income inequality both at the inter-state and intra-state level of the North East Region of India, Coefficient of Variation and Gini Coefficient has been calculated and represented with the help of graphs using MS Excel, respectively. In addition to that, R Programming has been used for analysis of convergence across the districts of Meghalaya.

1. A trend analysis of selected socio-economic indicators like HDI (education and healthcare), work participation rate, physical and financial infrastructure, tourism, central fund release to the North East Region etc. has been undertaken to compare and examine which states are progressing more than the others. It is observed that in terms of most of the indicators, Assam's performance has been the best among all other states. Presumably so because Assam is the largest state in the region having majority of the plains area with a population of 3.44 crore as per Census of 2011 surpassing total population of the region put together. However, in terms of the literacy rate Mizoram is leading with 91.5% when compared to the rest of the North Eastern States also giving it the status of the third most literate state in the country.

2. Evaluation of Income Inequality across North Eastern States: It is observed that Sikkim with a per capita NSDP of ₹83,527 is performing the best in this regard followed by Nagaland and Mizoram. Mizoram's PCNSDP is higher than the national average mainly due to its small size of population. The PCNSDP in Assam and Meghalaya was less than the national average of ₹39,904 (2013-14). Sikkim's advancement is due to its flourishing tourism, proximity to mainland India, and organic farming.

- **Coefficient of Variation in Per Capita Income**

Coefficient of Variation (CV) in Per Capita Income of the NE states from the period 2011-12 to 2016-17 is computed by taking the ratio of the standard deviation to the mean, of the data. From the CV calculated from the per capita income data available from RBI, trends show that although inequality in income has been lower in the North East region throughout, it has been increasing at a faster rate than what has been observed across India. The values of coefficient of variation has been showing an increasing trend over the period meaning that the variability in income inequality has been increasing at a faster rate than before across the states of NER mainly due to the higher levels of economic growth achieved by the states. Higher the economic growth, wider the income inequality.

- **Gini Coefficient representing Income Inequality**

Data available from the RBI has been used to measure the Gini coefficient to show income inequality across the NE States. A higher Gini Coefficient value for a state indicates greater income inequality and vice versa. These indicators represents the principal measures of the standard of living of the respective

domains of the population and are taken as a crucial input for estimation of poverty by the Planning Commission (Meenakshi Rajeev and Pranav Nagendran, 2015)

Gini Coefficient values computed reveal that, Mizoram has the highest value of Gini Coefficient at 0.48 indicating higher income inequality in the rural areas mainly because it is the state with the largest share of wealthy households in the region and a high rural-urban gap. Arunachal Pradesh and Sikkim both show a value as high as 0.45 mainly due to its topographical conditions. Income Inequality in rest of the states is due to similar reasons.

However, Meghalaya shows the lowest income inequality with a Gini Index of 0.42 in the region mainly attributed to the less number of very rich households in the state thereby leading to lesser gap between the rich and the poor as well as non-implementation of Inner Line Permit unlike other hill states which facilitated in attracting private investment from citizens outside the state, in mineral based industries like cement, steel, coke, etc. in remote areas, generating employment.

3. Income Inequality across the districts of Meghalaya

Meghalaya consists of seven districts where, Jaintia Hills shows the highest per capita income over the period 1993-2000 due to its abundant availability of mineral resources like coal and limestone, closely followed by East Khasi Hills (Rs.10, 316 to Rs. 19,522) the most urbanized district having close proximity to the capital city of Assam. While West Khasi Hills District accounted for the lowest per capita income between Rs 5,605 and Rs 10,188 presumably due to its remoteness.

- The Convergence Model: Growth & Convergence across districts of Meghalaya

Neoclassical growth theory of convergence predicts that poorer economies grow faster than richer economies. The two types of convergence are Beta (β) Convergence and Sigma (σ) Convergence. The present study considers the β- Convergence model.
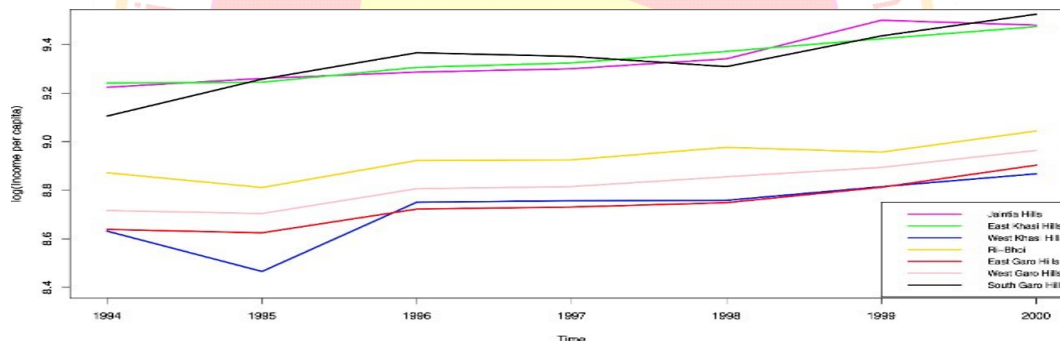
Beta –Convergence of the log of PCDDP across the districts of Meghalaya year wise through the period 1994 to 2000

Observation: Over the period 1994 to 2000 the districts of Meghalaya with initial low per capita income like East Garo Hills, West Garo Hills, and Ri-Bhoi are moving towards higher income levels (shown in the y-axis) almost throughout the period and shows a tendency of catching up with the districts with initial high per capita income such as Jaintia Hills, East Khasi Hills and South Garo Hills thereby indicating Beta Convergence. In other words, the graph reveals that initially poorer districts are growing faster and eventually catching up with the initially richer districts.

Estimation of Convergence of Per-capita income across Districts of Meghalaya using OLS Regression Analysis

The study estimates the β convergence coefficient using OLS Regression, computed in R Programming

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Table 1 Results of the β convergence coefficients of Regression Analysis computed using R Programming

Absolute Beta Convergence

	Coefficients	Standard Error	t-value	p-value
α (Intercept)	-0.06470649	0.18094946	-0.3575943	0.7352462
B	0.01213334	0.02028141	0.598249	0.57574
Model Summary				
	Estimate	F-value	df1df2	Pr (>f)
R-squared	0.06679889	0.3579019	1	50.57574

Table 1: For the purpose of the analysis, data for the 7 districts of the state of Meghalaya from the period 1993-94 to 1999-2000 has been taken

Findings:

The findings suggest that per-capita District Domestic Product (DDP) have a tendency to converge over time. This is in consonance with the neo-classical hypothesis. On regressing growth in per capita income over the period on initial per capita income the coefficients of estimates showed that the p-value is 0.57 and the Beta value is 0.0121 indicating a possibility of convergence. Since the p value is 0.57, we fail to reject the null hypothesis (that is the neoclassical hypothesis) and it is non-significant and reject any other alternative hypothesis at 57% significance level. This means that the poorer districts would eventually catch up with the richer districts and converge over time in terms of the Neo-classical theory of convergence.

In other words, districts with initially low per capita DDP tended to grow faster than those with higher per capita DDP thereby showing a tendency to converge over time.

R-Squared value which shows the goodness of fit of data, that is how well the model fits the data is, 0.066. Although this is a low value of R-Square but positive and increasing thus indicating a better fit model. Results thus depict that the districts of Meghalaya with low initial per capita income like West Khasi Hills, East Garo Hills, and West Garo Hills would eventually show a tendency to move towards absolute beta convergence over the period of time.

As most national level surveys in India do not cover the states of North East Region of India due to its geographical isolation the above results of the analysis are however, not very significant due to lack of updated data.

The research on current economic growth status of the economically backward states of the North East Region are highly essential for which the compilation of updated data is a vital necessity from the concerned authorities of the Government of India.

Conclusion:

Concrete steps need to be taken by the government to improve and sustain the growth of North Eastern States. The region needs to tap on the natural resources to bring in higher economic growth and a better standard of living for the people. States like Mizoram with highest literacy rate outperform other North East States in terms of SDP. However, reforms need to be initiated by the respective state governments to ensure that their SDP rises and catches up with the national average. Development of the districts of states like Meghalaya can play an important role in improving their performance and thus reducing the disparity in incomes. The contribution of service sector to state domestic product can be raised to help these regions increase and sustain their share in national income.

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