



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2019; 5(2): 322-326
www.allresearchjournal.com
Received: 03-12-2018
Accepted: 02-01-2019

Rituparna Poddar
Assistant Professor, Bir
Bikram Memorial College,
Agartala, Tripura, India

Abhijit Sarkar
Associate Professor, Iswar
Chandra Vidyasagar College,
Belonia, Tripura, India

North East India: A service sector led economy

Rituparna Poddar and Abhijit Sarkar

DOI: <https://doi.org/10.22271/allresearch.2019.v5.i2c.11164>

Abstract

The contribution made by the primary, secondary and tertiary sectors towards the national or state income shows the extent of economic development of an economy. As the pace of economic development quickens, the importance of primary sector towards its contribution to national or state income declines while secondary and tertiary or service sectors attain more prominence in terms of their contribution in income. This indicates economic development following Fisher-Clark theory. With a view to explore the structural transformation, this paper focusses on the sectoral composition of income in the north-eastern region of India, comprised of 8 states namely Assam, Arunachal Pradesh Nagaland, Mizoram, Meghalaya, Manipur, Sikkim and Tripura. Various statistical tools and charts are used for the analysis. It is found that the tertiary or service sector is the leading force in the north-eastern region in terms of trend growth rate.

Keywords: Growth rate, north-eastern states, national or state income, structural transformation.

Introduction

Sectoral composition of national or state income portrays a clear picture of the distribution of income by industry of origin. The contribution made by the primary, secondary and tertiary sectors towards the national or state income shows the extent of economic development of an economy. In India, the primary sector plays the dominant role led by the agricultural sub-sector. It is evident that as the pace of economic development quickens, the importance of primary sector towards its contribution to national or state income declines while secondary and tertiary or service sectors attain more prominence in terms of their contribution in income. This type of change in the sectoral distribution of income is evident in India during the planning period. However, this paper focusses on the sectoral composition of income in the north-eastern region of India, comprised of 8 states namely Assam, Arunachal Pradesh Nagaland, Mizoram, Meghalaya, Manipur, Sikkim and Tripura. The negligence from the Centre for long period of time along with geographical disadvantages, political turmoil and militant activities had left the region backward compared to other parts of India. Positioned between 89°46'E to 97°30'E longitudes and 21°57'N to 29°30'N latitudes, the northeast region of India extends from the foothills of Himalayas to the plains of Brahmaputra/Meghna. It is bounded by Bangladesh in the south-west, Bhutan and China in the north, Myanmar in the east, Nepal to the west of Sikkim. The region shares international border of 98% of the region's boundary while the remaining 28 km wide Siliguri corridor (2% of the border), known as the chicken neck, is the only connection to the rest of India. The region can pride of its diversified cultures, customs, traditions and languages. The diverse agro-climatic conditions due to its varying altitude, rich forest resources and wide variety of flora and fauna has recognized the region as a bio-diversity hot-spot. However, infrastructural backwardness, low productivity compared to other regions of the country, lack of market access due to isolation from rest of the country, negligible private investment kept the region less developed. Problem of insurgency in many parts of the region cropped up at different times due to ethnic identity crisis, unemployment problem, remoteness, etc. The contribution of the three sectors in the state income as well as in development of the region in this backdrop needs to be analysed.

Correspondence Author:
Abhijit Sarkar
Associate Professor, Iswar
Chandra Vidyasagar College,
Belonia, Tripura, India

Objectives of the study

The objective of the study is to explore the growth performance of north-eastern states in terms of growth performance of NSDP, NSDP per-capita and income from all the three sectors.

Methodology

The study is entirely based on secondary data. To address the objectives mentioned above, data on NSDP, NSDP per-capita and the sub-sectors by industry of origin are obtained from data bank of EPW Research Foundation for the period 1980-81 to 2017-18.

To arrive at the objectives, data have been obtained for the seven states of north-east, except Mizoram, for the period 1980-81 to 2017-18. For Mizoram, data is available since 1999-2000 to 2017-18. For the period under study, data is available at five different base periods. Thus, data have been spliced into 2004-05 base year. For the purpose of splicing the data GDP deflator is used which is obtained by using the following formula:

$$\text{Deflator} = \frac{q_n p_n}{q_n p_0}$$

Where q_n is the quantity of n^{th} time period

p_n is the price in n^{th} time period

p_0 is the price in base year

The objective is attained by fitting an exponential growth equation $Y = ab^t$ to the data. Solving the equation, value of b is obtained and finally growth rates are calculated using the formula $(b-1)*100$.

Annual growth rates are obtained using the formula

$$g_t = \frac{Y_t - Y_{t-1}}{Y_{t-1}} \times 100$$

Average of annual growth rates (AAGR) are obtained by taking an average of thirty seven annual growth rates.

Simple other statistical tools and diagrams are used in the study.

Review of literature

The backwardness of the north-eastern region of the country is the consequence of negligence of the Centre, infrastructural backwardness, low productivity compared to other regions of the country, lack of market access due to isolation from rest of the country, negligible private investment, problem of insurgency in many parts of the region, unemployment problem, remoteness, etc. However, the region was at the forefront of development with respect to expanding global trade and investment around 150 years ago. The extensive river system, nearness to sea, network of inland waterways and land transportation through road and railways made livelihood opportunities easy for the people and also helped to accelerate the pace of growth and development of not only the region but also the country as a whole. Impressive literacy rate in the region had also acted as a catalyst in promoting development. But, partition of the country, creating East Pakistan from Bengal and isolating the region from rest of the country, was found to be detrimental to the region due to restriction in the way of easy movement of people and goods with the rest of the country and other neighboring countries.

Since the mid-1990s, the region started getting its due recognition in the milieu of the Look East Policy. The Ministry of Development of North Eastern Region (DONER) has been formed to develop the region in order to bring at par with the rest of India in terms of economic development.

Literature and statistical data suggests that in 2004-05 per-capita GSDP of north-eastern region was far behind per-capita average of all Indian states by 31 percent, whereas at the time of independence per-capita income of undivided Assam was more than per-capita national average by 4 percent (Vision 2020 Document). This region failed to gain the benefits of several developmental initiatives due to the constraints as mentioned earlier. However, the region is a store house of resources and has tremendous development potential (Vision 2020 Document). It is aspired that the structural transformation would be in favor of economic development in the region. Bezbaruah (2010) [2], makes a review of the development process of north-east India since independence, provides a brief note on economic and political arrangements of the region at the time of Independence and also throws light on process of political-administrative reorganization of the region in the post – independence period. While discussing the trend and composition of NDP per-capita, its concluded that NDP per-capita of the region was below India's per-capita of the region during the study period 1980-81 to 2003-04 and the gap has widened in the post 1991 periods. Chakraborty (2012) [4] in order to understand whether people of the region have experienced any improvement in their life, figures out the economic fundamentals of the region and tries to see whether the macro-economic trends sustain with the agenda spelt in vision document. He observes declining growth rate during 1991-92 to 1999-2000 as compared to the earlier decade.

The concept of structural transformation is an integral part of growth dynamics. As the economy grows, it goes through a structural transformation both in terms of change in sectoral composition of income and employment pattern. In this backdrop, the objective is to investigate the structural transformation in states of north eastern region in terms of change in sectoral composition of income.

Findings and Discussions

In India, during 1960-61, the share of primary sector in GDP was as high as 51 percent, which declined gradually to 38.7 percent in 1980-81 and further to 16.8 percent in 2010-11.

Table 1: Sectoral distribution of India's GDP at factor cost (at 2004-05 and 2011-12 prices), (in percentage)

Sector	1960-61	1980-81	1990-91	2000-01	2010-11	2014-15
Primary	50.9	38.7	33.1	25.3	16.8	17.5
Secondary	18.3	23.3	24.2	24.4	25.6	31.8
Tertiary	30.8	38.0	50.4	50.4	57.7	50.7

Source: Economic Survey, various issues

Note: Data from 1960-61 to 2010-11 is at 2004-05 base prices; 2014-15 is at 2011-12 base prices

The secondary sector, on the other hand, flourished with contribution in GDP rising to 24.2 percent in 1990-91 from 18.3 in 1960-61. However, the share remained stagnated during 1980-81 to 2010-11 which is not in line with the Fisher-Clark theory. The percentage share was 31.8 in 2014-15.

The tertiary or service sector has also shown an upward trend in share in GDP. The share rose from 30.8 percent in 1960-61 to 57.7 in 2010-11, though it declined to 50.7 percent in 2014-15. Thus, structural changes over time towards the tertiary sector is a clear indicator of development.

The Net State Domestic Product (NSDP) of the states of north-eastern region of India is the area of exploration in this study. The deflated values are used to attain the objectives.

Table 2: Descriptive Statistics of NSDP of NER States

States	Mean	Standard Deviation	Kurtosis	Skewness	Range
Arunachal Pradesh	276519.58	182531.15	- 0.56	0.75	628309.70
Assam	4565265.32	2053260.87	0.49	1.11	7910890.00
Manipur	410634.16	214466.87	- 0.57	0.71	732860.80
Meghalaya	535741.54	350268.11	- 0.74	0.77	1119226.00
Mizoram	413211.80	225998.88	- 0.15	1.00	713994.80
Nagaland	494813.55	349068.10	- 0.69	0.78	1127130.00
Sikkim	189294.78	196468.86	0.25	1.29	649286.30
Tripura	779151.98	641642.10	0.26	1.12	2282006.00

Source: Compiled by the researcher

The mean of NSDP for the period 1980-81 to 2017-18 is highest for Assam followed by Tripura, Meghalaya and Nagaland. The extent of dispersion from the mean, the standard deviation, is also highest for Assam followed by Tripura, Meghalaya and Nagaland. Standard deviation is least for Sikkim indicating more concentration of NSDP values around the mean value.

Negative values of kurtosis for Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland indicate a platykurtic distribution with lack of outliers, as the concentration of data point around the mode is on the lower side. Assam, Sikkim and Tripura have a leptokurtic distribution.

The value of skewness is positive for all the states indicating that values of NSDP, in most of the years, is less than

average NSDP in the respective states. Range, the difference between the maximum and minimum values of the observations is the highest in Assam followed by Nagaland, Meghalaya, Manipur, Mizoram, Arunachal Pradesh and Tripura. States with high average value of NSDP also have high standard deviations that specifies fluctuations in the growth dynamics of the states. On the contrary, the states with lower standard deviation and range experience a stable growth rates.

Trend Growth of NSDP and NSDP per-capita NER States since 1980-81 to 2017-18

Table No. 3 shows trend growth rates of NSDP and NSDP per capita of north eastern states for the period 1980-81 to 2017-18.

Table 3: Trend Growth Rates of NSDP and NSDP Per Capita for the NE States during 1980-81 to 2017-18(in percentage)

States	Growth Rates of NSDP	Growth Rates of NSDP per-capita
Arunachal Pradesh	6.64	4.02
Assam	3.75	2.01
Manipur	4.86	2.51
Meghalaya	6.18	3.46
Mizoram	9.44	7.16
Nagaland	7.01	3.99
Sikkim	9.73	7.57
Tripura	7.87	4.50

Source: Researcher's estimation

Note: Data for Mizoram starts from 1999-2000.

Sikkim is observed to have the highest trend growth of 9.73% followed by Mizoram, Tripura, and Nagaland with satisfactory growth rate. Arunachal Pradesh and Meghalaya have experienced a moderate trend growth. Manipur and Assam have settled with very low growth rates. Assam, has the minimum trend growth of only 3.75 percent.

Growth rates of per capita NSDP, during the same period, placed Sikkim and Mizoram at the first and second places respectively. Nagaland and Arunachal Pradesh ranked fourth and fifth respectively in terms of growth rates of per capita income. The other states have medium growth of per-

capita income. Further, it may be noted that growth rates of NSDP are higher than growth rates of NSDP per capita for all the states.

Trend growth rates of the sectors

Data since 2011-12 at the prices of 2011-12 are provided in terms of Net State Value Added (NSVA). Income from different sectors and sub-sectors add up to NSVA. Thus, the trend growth for the period 2011-12 to 2017-18 is calculated and presented separately following the same method.

Table 4: Trend growth Rates of the three sectors (in percentage)

States	Primary Sector		Secondary Sector		Tertiary Sector	
	NSDP	NSVA	NSDP	NSVA	NSDP	NSVA
	1980-81 to 2013-14	2011-12 to 2017-18	1980-81 to 2013-14	2011-12 to 2017-18	1980-81 to 2013-14	2011-12 to 2017-18
Arunachal Pradesh	5.02	- 0.50	7.94	12.20	8.03	7.55
Assam	1.62	6.32	4.49	12.86	4.59	4.97
Manipur	2.12	2.40	10.32	9.40	4.63	5.58
Meghalaya	4.63	1.34	8.60	-14.03	6.58	7.12
Mizoram	7.89	20.35	7.98	13.69	8.05	8.53
Nagaland	6.78	2.82	5.62	4.42	7.88	5.07
Sikkim	3.62	6.25	13.35	7.35	10.69	5.08
Tripura	4.56	13.86	13.87	8.52	8.35	2.85

Source: Compiled by the researcher

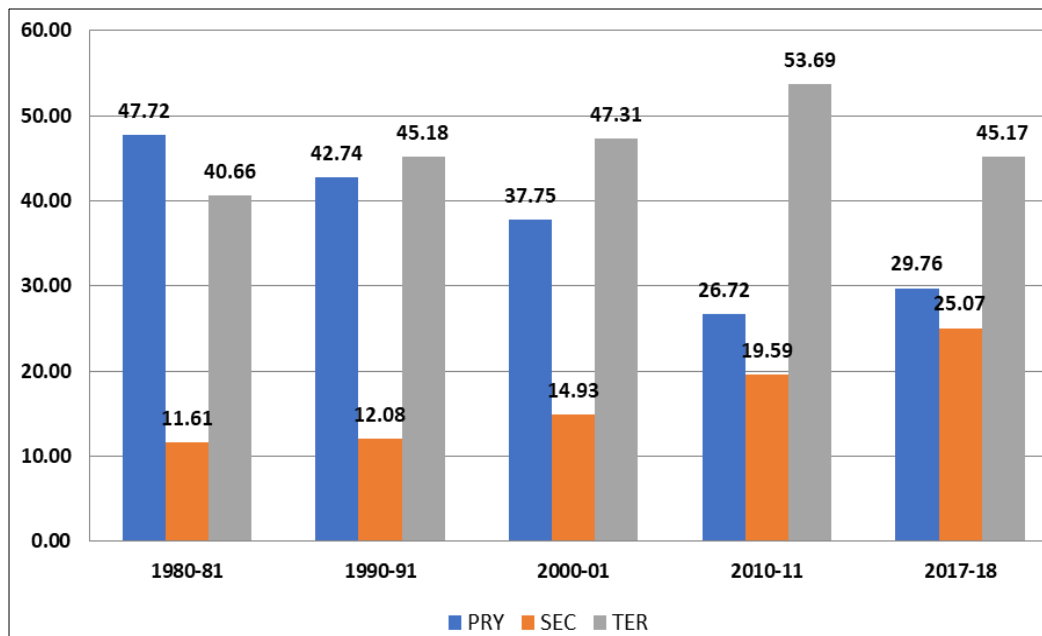
The table shows the trend growth rates of the three sectors, which are self-explanatory.

Structural transformation in the north-eastern states during this period

The process of structural transformation for a long time series data is an integral part of the development dynamics of a country. The study of structural transformation examines the changes in the sectoral composition of an economy and analyses the changes in the composition of aggregate output of the economy. This section inspects the

issue of structural transformation in terms of output share of the three sectors to the aggregate output of the states of the north-eastern region.

This section presents the pattern of structural transformation in the north-eastern region during 1980-81 to 2017-18 in five different years. The entire pattern of structural transformation in terms of sectoral composition of income is presented in the following chart.



Source: Compiled by the researcher

Chart 1: Structural Transformation in north-eastern region

The chart shows the changing pattern in sectoral composition of NSDP in four years, viz 1980-81, 1990-91, 2000-01, 2010-11 and 2017-18. In 1980-81, the primary sector of the region contributed the lion’s share (47.72%) of the region’s income which dropped to 29.76% in 2017-18. During this period, there has been a gradual decline in the share of primary sector of 17.96 percentage points to the income of the region. The share of primary sector increased to 29.76% of regional income in 2017-18.

The secondary sector contributed 11.61 percent to the region’s income in 1980-81 that increased to 12.08 percent in 1990-91. In 2010-11, the sectoral share of secondary sector rose to 19.59 percent. The contribution of this sector increased to 25.07 percent in 2017-18, indicating an increase of about 14 percent during the period under study.

The contribution of tertiary or service sector showed an incessant escalation in its share during 1980-81 to 2010-11

from 40.66 percent in 1980-81 to 53.69 percent in 2010-11. The share of tertiary sector to the income of the region surprisingly declined to 45.1 percent.

The study finds a different pattern of structural transformation in the region during the entire study period. Indian experience suggests a declining contribution of the primary sector along with increasing share of secondary and tertiary sector. North-east experiences a little different pattern where share of the primary sector increases and that of the tertiary sector decreases.

Conclusion

On the basis of the pattern of structural transformation in north east India, the tertiary or service sector, comprising of the sub-sectors like Transport Storage and Communication, Trade, Hotels and Restaurants, Banking and Insurance, Real Estate, Ownership of Dwellings and Business Services,

Public Administration and other Services, has been the largest contributor to the income of the region in the decades of 1990s, 2000s and 2010s though the trend is found to decline during the later years. The domination of the tertiary sector is apparent both from its contribution to the region's and state's income and the growth performance of the sector.

References

1. Baruah S. Durable Disorder: Understanding the Politics of Northeast India, Oxford University Press, New Delhi; c2005.
2. Bezbaruah MP. Socio-Political transition, growth trends, and development attainment in the north-east in the post-independence period in Growth and Human Development in North-east India, Edited by P. Nayak, Oxford University Press, New Delhi; c2010.
3. Bhaumik S. Troubled Periphery: The Crisis of India's Northeast, Sage Publications, Los Angeles; c2009.
4. Chakraborty G. North East Vision 2020: A Reality Check, IDSK Occasional; c2012. p. 33 Available At: <http://www.idsk.edu.in/common/file/oc-33.pdf>
5. Debnath A, Roy N. Structural Change and Inter sectoral Linkages: The Case Study of Northeast India, Economic and Political Weekly. 2012;40-7(6):72-76.
6. Debnath A, Roy N. Testing Spillover Effects of Economic Growth: The Case of India's North Eastern Region, The IUP Journal of Applied Economics. 2012;40(3):84-91.
7. Mdoner, NEC. Northeastern Region – Vision 2020; c2008. Available At: <http://mdoner.gov.in/content/vision-document>