

## DEPENDENCY RATIO AND NORTH EAST INDIA: IN THE WAVE OF DEMOGRAPHIC TRANSFORMATION

*Bhaswati Das*

*Research Scholar, Department of Geography, Gauhati University, Assam, India*

---

**Received: 22 Feb 2018**

**Accepted: 28 Feb 2018**

**Published: 10 Mar 2018**

---

### ABSTRACT

*The dependency ratio is a prolific representative of demographic situation of a region. North East India is a region with numerous perplexing demographic struggles, experiencing continuously transforming socio-economic scenario. From the analysis of dependency ratio of the North Eastern states, it is revealed that the dependency ratio for each of these states is decreasing. Sikkim has experienced a highest decrease in the ratio from the value of 67.9 of 2001 to 51.3 of 2011. Though the ratio of child dependency has registered a sharp decline in Nagaland during 2001-2011 decade, in Meghalaya and Manipur, this has shown an increase in a 2001-2011 decade than the previous decade of 1991-2001. On the other hand, in case of elderly population, Assam, Tripura, and Manipur have recorded growth during 2001-2011 decade than the previous decade. Thus in this complex altering panorama of demography, it becomes very necessary to review the existing policies and legal, social set up to ensure the welfare of these groups of dependents. Particularly, it is utmost necessary to guarantee the basic rights of the elderly population through execution of different welfare programmes.*

**KEYWORDS:** *North East India, Dependency Ratio, Child Dependency, Elderly Dependents, Poverty*

### INTRODUCTION

India, as the second most populous nation in the world, bears significant human resource potentiality along with tremendous social, economic and political compulsions. As a social welfare nation, India is bound to serve its dependents. "Dependency is the propensity of a group or a section of the population to depend on the other section of the same population for meeting its needs and requirements." (Mishra, 2011). Due to high birth rate, it was vital for India to support a very large portion of child dependents during the period, 1961 to 1981. But in a later period, acceptance of family planning methods leads to lowering of fertility rate, which in turn motivates the decreasing growth rate of child dependents. On the contrary to this, a totally different scenario was emerging for the elderly dependents of the country. "The proportion of the grey population increased from 5.6 % in 1961 to 6.5% in 1981 and 7.4% in 2001." (Mishra, 2011) According to the report of United Nations Population Division, the percentage share of the elderly population to total population of the nation will increase from 8 % in 2010 to 19 % in 2050. (UN, 2011)

The demographic issue of aging is the product of the interaction between demographic variables, declining fertility, and increasing longevity. (Mishra, 2011) This shift resembles need for increasing socio-economic support to this growing elderly population, especially to the older women experiencing widowhood. (Subaiya & Bansod, 2011)

The decreasing nature of child dependency ratio in India has brought hope to the Indian economic arena, as it signifies declining burden from children below 15 years. North East India is located between 20° North latitude and 92°30' North latitude and 89°46' minute East longitude and 97°30' East longitude. It is a region trapped in the enigma of peripheralization, developmental assurances, and developmental polarization. In addition, such unprecedented transformation has raised the challenge of improving the existing social welfare schemes for the policymakers as well as compels the researchers to think about a practical and amicable solution between sustainable care to dependents and reduction in economic expenditure on care industry. It is pertinent in this context to see the altering trend of dependency ratio in the region.

## DEPENDENCY RATIO DEFINITION

Dependency ratio can be defined as the measure to assess the extent of economic dependency in a population (K. srinivasan-1998). The population of a country can be divided into three major age groups, i.e. 0-14, 15-59 and 60 & above. The people belonging to the age group of 0-14 and 60 & above are considered as the economically inactive group of people. A major portion of these groups is totally depending on the economically active age group of 15-59 for their needs and livelihood. People belonging to 15-59 age group are expected to work and contribute to the national income. Hence this group of people is collectively known as the “working age group”.

The data used in the study are taken from the socio-cultural tables of C-series of Census of India. Different secondary sources of information like published working papers, journal articles are collected for consideration.

## METHODOLOGY

To examine the dependency scenario dependency ratios of different years have been estimated through the following formula:

$$\text{Dependency ratio} = \frac{\text{Population under age 15} + \text{Population aged 60 and above}}{\text{Population between ages 15 -64}} \times 100$$

It is necessary to see the growth rate of child dependency and old age dependency separately to realise the temporal trend of these demographic forces at work. The growth rates for child dependent and elderly dependent are calculated for two decades separately.

## RESULTS

### Dependency Ratio

The total dependency ratio of India has been recording a decreasing trend since 1991. (Figure: 1) In 1991, the dependency ratio of India was 79.39 %. It has decreased up to 75.17% in 2001 and 65.23 % in 2011. In 2011, Meghalaya has recorded highest dependency ratio (80.8%) in North East India. In 1991 the dependency ratio was very high in the state, about 89.3%. Such a large dependency ratio certainly has a negative impact on the economy of the state. After Meghalaya, Arunachal Pradesh records the second highest dependency ratio of 67.49% in 2011. In this state, the reason behind the high dependency ratio is the large percentage of dependents to the total all age population of the state, about 40.5%. Only in Sikkim, Tripura, and Manipur, the dependency ratios are better than the other parts of North Eastern India. In each of the three states elderly population constitute a major portion of the dependents. In Assam, the dependency

ratio registered a sharp decline from 84.22 % to 76.38% during the 1991-2001 decade. It again decreased to 65.36% in the decade 2001-2011.

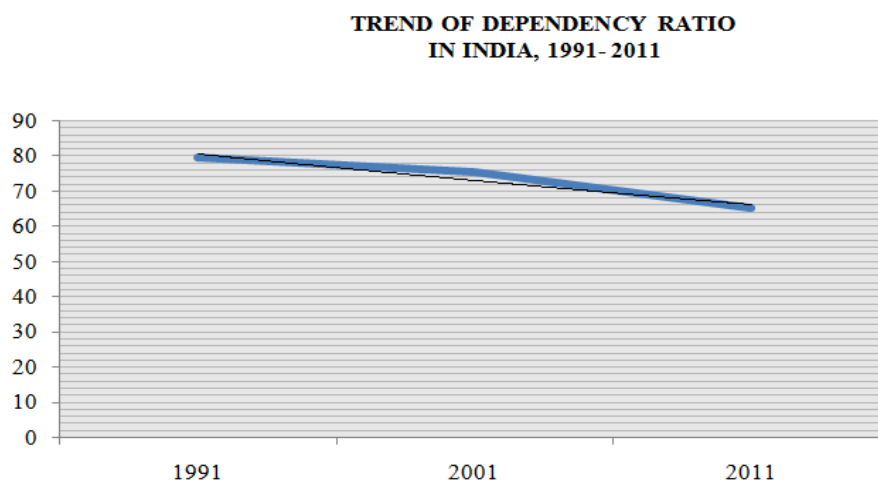


Figure 1

Table 1: Dependency Ratio, 1991-2011

Country/State	Total Dependents 1991	Total Dependents 2001	Total Dependents 2011
India	79.39	75.17	65.23
Sikkim	79.64	67.90	51.32
Nagaland	75.86	70.18	65.40
Assam	84.22	76.38	65.36
Tripura	83.14	69.34	55.29
Mizoram	77.92	69.09	63.19
Manipur	71.62	65.04	59.43
Arunachal Pradesh	80.56	81.56	67.49
Meghalaya	89.23	88.46	80.08

Source: Computed from Census data 1991, 2001, 2011

### CHILD DEPENDENCY

Children are unproductive in nature and decidedly depend on their parents and other family members for their basic needs. That is why the decrease in child dependency ratio means fewer burdens on the adult population. In Sikkim, the number of child dependents records a considerable decrease in the decade of 2001-2011. The state records negative growth rate of 1.22% in child dependency. Nagaland recorded a high growth of 6.15% in child dependency during 1991-2001 decade. Thereafter it registered a sharp decline in this growth rate during 2001-2011 decade (table: 4). Assam, Arunachal Pradesh, and Mizoram registered a slight drop in child dependents growth during 2001-2011 in comparison to the previous decade of 1991-2001. But in Meghalaya and Manipur, the growth rates of child dependents increase in the 2001-2011 decade than the previous decade of 1991-2001.

**Table 2: Growth Rate of Child Dependent**

Country/State	Growth Rate(1991-2001)	Growth Rate( 2001-11)
India	1.64	0.24
Sikkim	1.85	-1.22
Nagaland	6.15	-0.68
Assam	1.06	0.28
Tripura	0.19	-0.54
Mizoram	1.82	1.35
Manipur	0.92	2.19
Arunachal Pradesh	2.80	1.14
Meghalaya	-3.37	13.72

**Source:** Computed from Census data 1991, 2001, 2011

## OLD AGE DEPENDENCY

From the table 5, it is clear that the growth rate of elderly dependents has registered decline in Sikkim, Nagaland, Mizoram, Arunachal Pradesh and Meghalaya in 2001-2011 decade than the decade of 1991-2001. But in comparison to registered a decline in the growth rate of child dependents, the drop registered in the growth rate of elderly dependents is much smaller. In national level, the growth rate of the elderly population shows slight increase. Assam, Tripura, and Manipur recorded increase in the elderly dependents growth within a small range during 2001-2011 decade than the previous decade.

**Table 3: Growth Rate of Elderly Population**

Country/State	Growth Rate (1991-2001)	Growth Rate (2001-2011)
India	3.51	3.55
Sikkim	5.69	4.03
Nagaland	4.16	1.37
Assam	3.06	3.32
Tripura	2.03	2.45
Mizoram	4.77	3.99
Manipur	3.09	3.74
Arunachal Pradesh	3.29	2.74
Meghalaya	3.43	3.13

**Source:** Computed from Census data 1991, 2001, 2011

## DISCUSSIONS

“While the shift from a young to an older age structure reflects a successful and desirable outcome of health improvement the pace of aging and the size of the older population with varying needs and resources pose many challenges for policy” (Lekha Subaiya & Dhananjay W. Bansod, 2011). Due to poverty, in India, many children are deprived of their basic rights of getting an education, healthy life, and nutritious food. According to the ICSSR –NERC reports the main reasons that can aggravate the problems related to elderly growth in the region are:

- In the direct influence of urbanization and other economic transformations, the family structure of the North Eastern society has been changing. People are accepting nuclear family system leaving their parents abandoned and unaccompanied.
- Poverty and economic hardship are some reasons behind the negligence that elderly population in these states has been facing. Many families are unable to provide the elderly the basic health care and medical facilities they need

in that age.

Decreasing rate of dependency ratio creates a positive optimism in the socio-economic environment of the country. To utilize this weaker section of society and turn them into a real asset for the future, a collaborative effort is needed from the side of Government and society to strengthen the legal and social set up of this group of people. Strong Poverty alleviation programmes along with a strong network of NGO's are very necessary for the sustenance of basic rights of these dependents.

## REFERENCES

1. *Census of India, Socio-cultural tables, C-Series, Office of the Registrar General & Census Commissioner of India, 1991.*
2. *Census of India, Socio-cultural tables, C-Series, Office of the Registrar General & Census Commissioner of India, 2001.*
3. *Census of India, Socio-cultural tables, C-Series, Office of the Registrar General & Census Commissioner of India, 2011.*
4. *Central Statistics Office. "Situation Analysis of The Elderly in India". Ministry of Statistics and Programme Implementation, Government of India. June 2011*
5. *Chakraborti, R. D. "The Greying of India: Population ageing in the context of Asia". Sage Publications, New Delhi, 2004.*
6. *Dhillon, Preeti. Laishram Ladusingh. "Working life gain from gain in old age life expectancy in India," Demographic Research, Volume 28, Article 26, 733-762. April, 2013*
7. *Mishra, Swasti. "The Elderly Dependents in India: A critical review." eTraverse- The Indian Journal of Spatial Science. The Geographical Institute, Kolkata, 2011.*
8. *Lianzela and Vanlalchhawna eds. "Ageing in North East India: Magnitude of the Problem of Elderly Persons in Mizoram". Vol-1. Akansha Publishing House: New Delhi, 2006.*
9. *Prasad, S. "Deprivation and Vulnerability among Elderly in India". Indira Gandhi Institute of Development Research. Mumbai, July, 2011. [Online] Available <http://www.igidr.ac.in/pdf/publication/WP-2011-013.pdf>*
10. *Rajan, Irudaya S. "Population Ageing and Health in India". The Centre for Enquiry into Health and Allied Themes. Mumbai, CEHAT. July, 2006.*
11. *Prashant Agarwal, Challenges for Poverty Alleviation in Liberalized Indian Economy: An Overview, International Journal of Economics, Commerce and Research (IJEER), Volume 7, Issue 1, January-February 2017, pp. 1-8*
12. *Rajan, S.I., Mishra, U.S., and Sharma, P.S. "India's Elderly: Burden or Challenge?" New Delhi: Sage Publication. 1999.*

13. Sanderson, W. C. and Scherbov, S. "Rethinking Age and Aging". *Population Bulletin*, Vol.63, No.4, Population Reference Bureau: Washington, 2008.
14. Srinivasan, Krishnamurthy. "Basic Demographic Techniques and Applications". New Delhi: Sage Publication, 1998.
15. Subaiya Lekha & Dhananjay W. Banood. "Demographics of Population Ageing in India: Trends and Differentials", BKPAI Working Paper No: 1. United Nations Population Fund (UNFPA), New Delhi. 2011.
16. Scommegna, Paola. (2012, March) "India's Ageing Population." *Population Reference Bureau[Online]* Available <http://www.prb.org/Publications/Reports/2012/india-older-population.aspx>
17. Thomas, C. Joshua and Diengdoh, Fiesta T. eds. "Ageing in Meghalaya." Vol-6. ICSSR-NERC, Shillong & Akansha Publishing House: New Delhi, 2008.