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Growth, Equity and Demographic Dividend in India

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Abstract: India is second largest country in terms of human population and one of the fastest growing economies in the world. It has a dynamic demography and demographic parameters are varied widely among states. The economic growth of India is also not equitable; few states are having moderate level of socio-economic development, while most of the states are lagging behind for decades. State and district level secondary data on selected demographic parameters has been collected and compiled to map the distribution across state/districts. By and large, there is a direct relationship between economic growth and human development among districts. The anticipated 'dividend' due to the large youth population is hard to realize as huge number of non-working population is exist in economically active age group. The dependency ratio is one of the prime factor of demographic dividend, is very high among north Indian states, particularly in Bihar and Uttar Pradesh. Though several states are showing a positive demographic progression, such as lower decadal population growth rate, infant mortality and fertility rate, etc. but a large number of non-working populations is dependent on lesser number of economically active people across the states. So the young and rapidly growing population of India could be treated as a potential demographic dividend if the huge idle manpower is employed efficiently.

Keywords: Demographic Dividend, Dependency Ratio, Economic Growth, Poverty Index, HDI

INTRODUCTION

In economic context, a dividend is the proportional distribution of earned profit or surplus (of a corporation) to all the stakeholders (shareholders) as reward. But in human ecology a demographic dividend is the economic growth potential which is outcome of decline in birth & death rates, and subsequent change in the age structure of the population. The change in demographic age structure is towards more economically active (younger generation) age group than the older age group population. And the

share of economically active age group is more than older age group in the population structure. The accelerated economic growth is the 'dividend' as the share of working age population is larger than the non-working mass. India is having a dynamic demography, where human population is second largest (1.36 billion as per Census of India projection 2021) in the world and has increased at the rate of 12.57% in last decade (2011-21), which is expected to be world most populous country by next few years. Though some of the demographic parameters such as fertility rate, infant mortality rate, decadal growth rate has decreased over the years, and due to this, is there any dividend arising of it to reward our society? Does the dividend add some incentive to the human development, quality of life or enhancing level of living? More importantly the demographic dividend (if any) is equitable? Or the 'dividend' is only for some segment of people, leaving most of population lagging behind or out of reach? The present review is an attempt to quantify the growth of human population across the state and union territories (UTs) of India, its impact on economy, well-being and human development. The relationship of economic growth with human development has also been studied to find the anticipated 'dividend'.

DEMOGRAPHIC PROGRESSION IN INDIA

India contributes about 2.4 percent of the world surface area and supporting to sustain a huge 17.7 percent of world population. Starting from the northern Himalayan range to coastal south and dense forest cover of north-east to *Thar* desert extension of Rajasthan in the west, the country is having diverse distribution of natural and biological resources. There exist significant inter-state (among states) and intra-state (within a state) disparities mainly due to regional diversity and unequal distribution of resources across the regions (Nandy, 2019). As per the Census of India's projection the human population of India is about 1.36 billion (in 2021) next to China. The density of human population in India (about 415 persons per square km as estimated in 2021) is much higher than that of China and as per the estimate of the United Nation (UN), the population of India will continue to grow for at least next 3 decades, whereas the population of China will start decline by the end of this decade.

Uttar Pradesh is the highest populous state in the country with a population more than 230 million, followed by Maharashtra and Bihar. The decadal growth rate, particularly Bihar and Uttar Pradesh is quite high and the states are in the bottom line among all state/UTs in the country on several socio-economic indicators like total fertility rate (TFR), infant mortality rate (IMR), dependency ratio, poverty ratio, per capita income, etc. Other populous states lagging behind the demographic parameters are Madhya Pradesh, Jharkhand and Chhattisgarh. While Kerala, Tamil Nadu and Goa present an impressive picture on the above indicators and also showing better human development index (HDI).

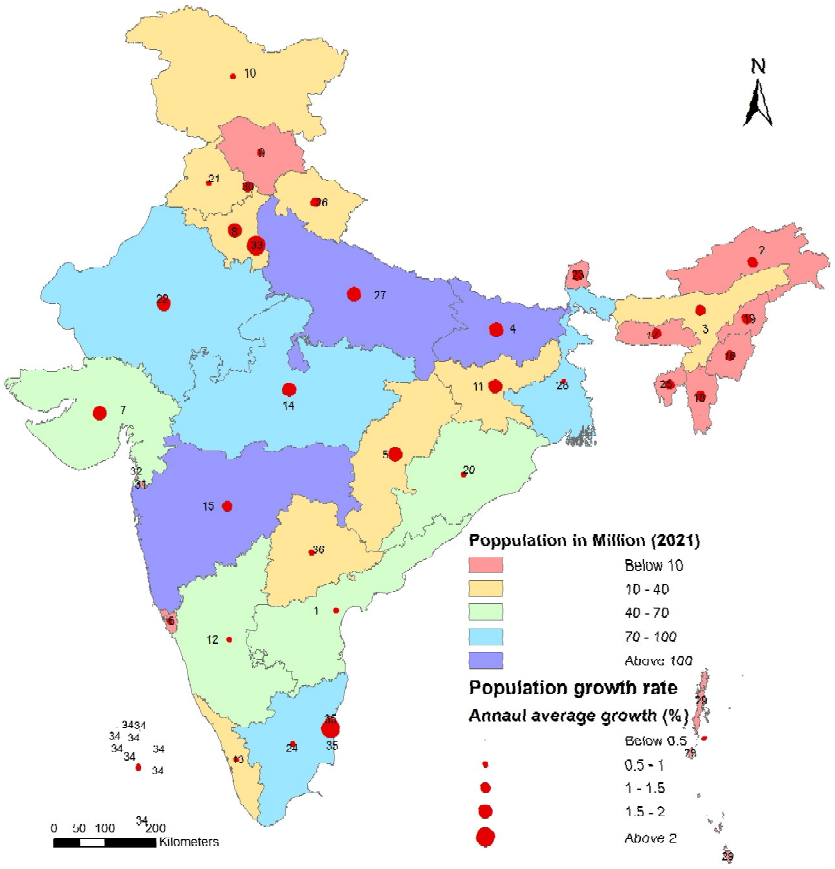

Figure 1: Population distribution and annual average growth rate of population in states/UTs

[As per the projected population of Census of India, Ministry of Health and Family Welfare, New Delhi; Numbers (1 to 36) contained by state boundary indicate the state ID, which is also used in Table 1]

The annual average growth rate of population is quite high for the state like Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Haryana, Rajasthan, Uttar Pradesh and Gujarat (Figure 1). However, the growth rate of some UTs like Dadra & Nagar Haveli, Daman & Diu, Pondicherry and north-eastern states are also high, but their contribution to the total population of the country is marginalized. Whereas the annual growth rate of human population is of Kerala, Tamil Nadu, Goa, Andhra Pradesh, Telangana and West Bengal is less than 0.75, which is a positive indicator of demographic progression (Figure 1).

There are few parameters in Indian demography which are showing a positive sign, such as, decadal growth rate, fertility rate, child mortality rate is decreasing, whereas

urbanization, life expectancy, literacy rate, etc. are increasing over the decades. The fertility rate (number of children per women) is an important parameter of demographic progression of a country and the total fertility rate (TFR) of India is gradually decreasing and recorded 2 (in 2020-21) against 2.2 (in 2015-16) as per fifth round of National Family Health Survey (NFHS). The most of states has shown a positive sign by recording lower fertility rate in recent surveys but the rate is a cause of concern for the states like Bihar, Uttar Pradesh, Jharkhand, Madhya Pradesh, and Rajasthan where the fertility rate (particularly among rural population) is higher than the national average. These states together comprise about 40% of India's total population and higher TFR will increase their population share further in the near future. Similarly, IMR is another parameter of demographic progression and states like Uttar Pradesh, Bihar, Chhattisgarh & Madhya Pradesh is having a higher IMR (above 40 per thousand live births), showing a poor level of child health care and nutrition in the country.

The human development index (HDI) is one of the composite indices used globally to measure the social and economical status of human settlement across the world. It is a tool developed by the United Nations to measure a country's rank/level of socio-economic development and foundation of well-being in respect to the world. India is placed as medium human development category (HDI score 0.645 in 2018) across the world. The Indian state-wise HDI varied widely, ranges from high (above 0.75) to low (below 0.6) based on UN method. Bihar has recorded lowest HDI rank among all states in India, whereas southern state Kerala has shown a higher degree of human development as compared to other states in the region (Table 1). The social development in Kerala with equity and justice (education, health and social services, infrastructure) has resulted in the positive outcome of a demographic transition and population stabilization (Nandy, 2021).

Table 1: Selected socio-economic indicators of Indian states/UTs

State ID	*State/UTs*	*Population (2021) in Million@*	*% annual avg. growth rate (2011-21)@*	*Total fertility rate (2020-21)*	*Infant mortality rate (2020-21)*	*Per capita NSDP (2019-20) in Rs.**	*Poverty index (%) in 2020*	*Index of financial inclusion (2018)*	*HDI score (2018)*
1	ANDHRA PRADESH	52.79	0.69	1.7	30.3	168480	12.31	0.263	0.643
2	ARUNACHAL PRADESH	1.53	1.08	1.8	12.9	169742	24.27	0.073	0.658
3	ASSAM	35.04	1.23	1.9	31.9	86801	32.67	0.082	0.605
4	BIHAR	123.08	1.82	3.0	46.8	45071	51.91	0.037	0.566
5	CHATTISGARH	29.49	1.55	1.8	44.3	105089	29.91	0.169	0.600
6	GOA	1.56	0.69	1.3	5.6	435959	3.76	0.786	0.764

contd. table 1

State ID	*State/UTs*	*Population (2021) in Million@*	*% annual avg. growth rate (2011-21)@*	*Total fertility rate (2020-21)*	*Infant mortality rate (2020-21)*	*Per capita NSDP (2019-20) in Rs.**	*Poverty index (%) in 2020*	*Index of financial inclusion (2018)*	*HDI score (2018)*
7	GUJARAT	69.79	1.55	1.9	31.2	213936	18.60	0.263	0.667
8	HARYANA	29.48	1.63	1.9	33.3	247628	12.28	0.348	0.704
9	HIMACHAL PRADESH	7.39	0.77	1.7	25.6	190407	7.62	0.304	0.720
10	JAMMU AND KASHMIR#	13.71	0.93	1.4	16.3	102789	12.58	0.202	0.684
11	JHARKHAND	38.47	1.66	2.3	37.9	77739	42.16	0.083	0.589
12	KARNATAKA	66.85	0.94	1.7	25.4	223175	13.16	0.337	0.682
13	KERALA	35.49	0.62	1.8	4.4	221904	0.79	0.391	0.784
14	MADHYA PRADESH	84.52	1.64	2.0	41.3	103288	36.65	0.152	0.594
15	MAHARASHTRA	124.44	1.07	1.7	23.2	202130	14.85	0.323	0.695
16	MANIPUR	3.17	1.08	2.2	25.0	84746	17.89	0.038	0.695
17	MEGHALAYA	3.29	1.08	2.9	32.3	87170	32.67	0.063	0.650
18	MIZORAM	1.22	1.08	1.9	21.3	187327	9.80	0.147	0.697
19	NAGALAND	2.19	1.08	1.7	23.4	120518	25.23	0.035	0.676
20	ODISHA	45.70	0.89	1.8	36.3	110434	29.35	0.153	0.597
21	PUNJAB	30.34	0.94	1.6	28.0	155491	5.59	0.416	0.721
22	RAJASTHAN	79.28	1.57	2.0	30.3	115492	29.46	0.221	0.621
23	SIKKIM	0.68	1.09	1.1	11.2	403376	3.82	0.222	0.716
24	TAMIL NADU	76.40	0.59	1.8	18.6	213396	4.89	0.464	0.708
25	TRIPURA	4.07	1.08	1.7	37.6	125675	16.65	0.158	0.655
26	UTTARAKHAND	11.40	1.30	1.9	39.1	202895	17.72	0.265	0.677
27	UTTAR PRADESH	230.91	1.56	2.4	50.4	65704	37.79	0.127	0.583
28	WEST BENGAL	98.13	0.75	1.6	22.0	113163	21.43	0.173	0.637
29	A&N ISLANDS	0.40	0.51	1.3	20.6	218649	4.30	-	0.742
30	CHANDIGARH	1.21	1.45	1.4	-	330015	21.81	-	0.774
31	DADRA & NAGAR HAVELI	0.61	7.69	1.8	31.8	-	27.36	-	0.661
32	DAMAN & DIU	0.47	9.32	1.8	31.8	-	6.82	-	0.706
33	DELHI	20.57	2.25	1.6	24.5	376221	4.79	0.576	0.744
34	LAKSHADWEEP	0.07	0.55	1.4	-	-	1.82	-	0.749
35	PUDUCHERRY	1.57	2.60	1.5	2.9	221493	1.72	-	0.739
36	TELANGANA	37.73	0.72	1.8	26.4	233325	13.74	0.395	0.664

@ Projected figures from Population Projections for India & States 2011-2036, Census of India, New Delhi; * At current price (2011-12 series); #Including Jammu, Kashmir & Ladakh; - Data not available

Sources: Economic Survey 2021-22, Govt. of India; National Multidimensional Poverty Index (MPI) Report 2021, NITI Aayog, New Delhi; Report of fifth round of the National Family Health Survey (NFHS-5); Dhar & Barua, 2020

METHODOLOGY OF DATA ANALYSIS

The present study is based on (or derived from) secondary sources collected from Census of Inda, United Nation (UN) population estimate, *NITI Aayog*, National Sample Survey Office (NSSO), Central Statistical Organisation (CSO), Reserve Bank of India (RBI), etc. The available data in various parameter like, GDP, net state domestic product (NSDP), annual growth rate, poverty ratio, financial inclusion and human development index (HDI), etc. have been compiled state-wise and presented for statistical inferences. Often these gross economic measures cannot assess the availability of resources with the inhabitants, so the relative economic measure like per capita NSDP, per capita income has also been used as relative development indices. District IDs and state IDs have been used to integrate these attributes with the spatial data (district boundaries as on 2011 census) using GIS software. While presenting state-wise data, district boundaries have been dissolved and State IDs has been shown on the map.

Due to the demographic progression the age structure of population is changing gradually and the structure based on age, is divided mainly into three major groups, viz. young/minor population – of age group of 0-14 years ($P_{0\text{-}14}$); economically active – of age group of 15-59 years ($P_{15\text{-}59}$); and population of old/elderly age group of 60 years & above (P_{60+}). The total dependency ratio (TDR) gives the average number of young (minor) and elderly (old-aged) persons which are generally considered as non-working population, dependent on economically active population. Operationally the economically active population in India is defined as the number of persons aged 15-59 years and is used as a robust measure of the demographic dividend in the states (Rajan and Mishra, 2019). Thus the TDR is calculated by summing of young/minor & old/elderly group, which is divided by economically active age group population. *i.e.* $TDR = (P_{0\text{-}14} + P_{60+})/ P_{15\text{-}59}$.

But the TDR cannot measure the tangible number of people dependent on economically active population, as there exists a sizeable number of non-working population among the age group of 15-59 years ($P_{15\text{-}59}$) who are also dependent of economically active (working) population. Hence, the economic dependency ratio (EDR) is more efficient way to quantify the dependency ratio, which includes inactive population (non-worker as per Census definition) with young/minor ($P_{0\text{-}14}$) & old/elderly (P_{60+}) group and divided by economically active (number of worker as per Census) population while calculating dependency ratio (Geethu and Nair, 2021).

$$\textit{i.e. } EDR = (P_{0\text{-}14} + P_{60+} + P_{\text{non-workers } 15\text{-}59})/ P_{\text{workers } 15\text{-}59}$$

After nationalization of banks in 1969, there has been a significant financial and geographical expansion of commercial banks (including regional, rural and co-operative

credit institutions) has taken place in India. The State-wise financial inclusion has been studied and derived an index of financial inclusion (IFI) for various states (Dhar & Barua, 2020; Kuri & Laha, 2011). The index was derived base on the reach of financial institution on three dimensions, viz. penetration, availability and usage. The state-wise IFI has been constructed using principal component analysis (PCA) of normalized values of these index/dimensions. The proliferation on banking facilities has been uneven across the Indian states. The north-east region falls among the slow progress region as all of the states in the region belongs to low IFI group. Looking the state-wise data Goa and Delhi occupies the top slot among all states in India (Table 1). There is considerable progress in financial inclusion of Tamil Nadu, Kerala, Haryana during the period 2008-2018 and advanced their respective ranking, while Nagaland, Bihar and Manipur are in the bottom line of financial inclusion among all states.

ECONOMIC GROWTH VS DEVELOPMENT

Economic growth generally expressed as gross economic measure of the country (like GDP) which cannot reveal the status of its inhabitants in terms of relative measure (like per capita). Whereas, development, particularly human development indicates all aspects of health/medical infrastructure, food & nutrition, education & employment, housing, savings and other public amenities which enable the ease of living for its citizens. The main constraints to quantify such development are non-availability of authentic data, ambiguous qualitative data, data not in same time scale/frame, non-identical parameters among states/districts and sometime data is not current (old data), etc. However, some departments are collecting their area-specific secondary data, but that present a partial picture of segmented data (location specific or theme specific), not a collective picture of inclusive development.

There is huge economic dispersion among states in India, as poverty ratio is less than 1% in Kerala, against more than 50% in Bihar (*NITI Aayog*, 2021). The poverty ratio of other populous demographically lagging behind states like Jharkhand, Uttar Pradesh, Madhya Pradesh are also miserable. The huge BPL population of these states is dragging the country back and forming barrier to achieve the advantages of positive indicators of demography by majority of states.

The human development index (HDI) oftenly masks inequality in the distribution of human development across the population of a country. The loss in human development due to regional inequality is expressed by the difference between the HDI and inequality adjusted HDI (IHDI), as inequality increases, loss to human development also increases. Several studies indicate a significant correlation between GDP and HDI across the countries. The cross country relationship between per capita

GDP and HDI score has been studied by Mukherjee and Chakraborty (2011) has revealed that the per capita income increases, the HDI score increased up to a level beyond which a plateau. In India, there also exist a positive relationship between GDP and HDI (Figure 2). However, there is some dispersion of districts from the general trend of the country. The human development in the country is influenced by economic growth, specially the per capita income (GDP per capita), is one of most important indicator of welfare in the country.

Since the 2000s, India has made a remarkable progress in reducing absolute poverty. As per World Bank report, between 2011 and 2015, more than 90 million people were lifted out of extreme poverty in India. After growing at very high rates for years, India's economy had already begun to slow down before the onset of Covid19 pandemic. Other than agriculture sector, the informal sector, where the vast majority of India's labour force is employed, has been particularly affected due to long nationwide lockdown during 2020-21. Further, the growth of informal sector is not necessarily indicates the improvement of well-being or economic prosperity, rather it is an indicator of 'earning for living', *i.e.* , how the people are forced to shift towards the sector for their livelihood option. Datt and Ravallion (2002) has also views that the economic growth has not done more for India's poor, as the growth, by and large has not been taking place in the states, where it would have most impact on poverty.

There is a very common myth that 'India is becoming rich'. It is true in that sense – the number of rich person and their wealth is increasing rapidly in the country. Also India is the fifth-largest economy by nominal GDP and one of fastest growing economy

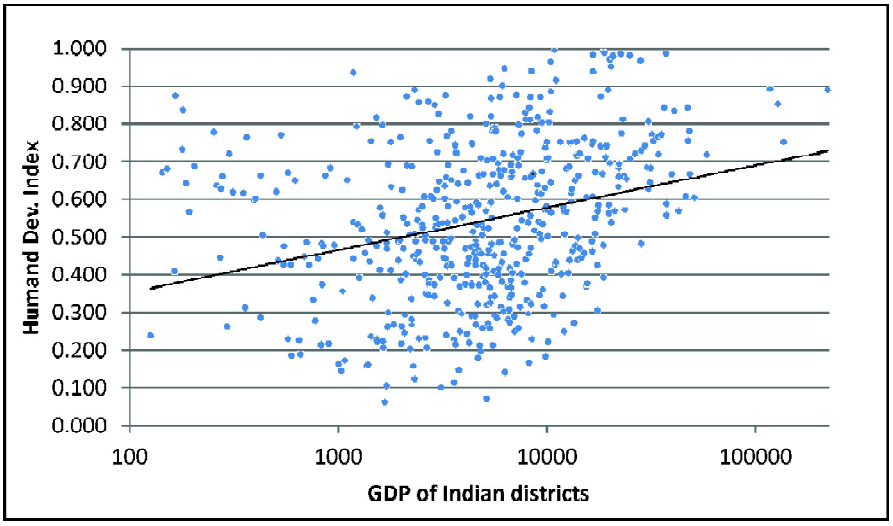

Figure 2: Distribution of GDP and level of human development of Indian districts

in the world (IMF, 2022). However, this rank is not on basis of per capita income which is 142nd by GDP (nominal) in the world, due to its huge population. Most often the sign of prosperity gets more attention than the suffering of underprivileged people. And the rate of change in wealth and resource availability between rich and poor is gradually increasing and creating a huge gap (social divide) among the citizens in the country. As per the OXFAM Report (2022), richest 1% own more than 50% and richest 10% own more than 77% of the country's wealth. And the bottom 60% own merely 4.7% of country's wealth. So there is an urgent need to priorities the development to reduce the gap of uneven growth.

Another reason of un-equitable development is that, states with relatively low levels of rural development and human capital development ere not well suited to reduce poverty in response to economic growth. In other word the fruit of economic growth in such states goes to a part of the society and not equitable to all segments. The sectoral and geographic composition of growth is also important, as there is a need to redress existing inequalities in human resources development. The pace of development in the country is not only diverse geographically but also varied among rural & urban, male & female (gender biased), caste and sects of the society.

RESULTS & DISCUSSIONS

Generally income distributions are relatively stable over time, as the economy grows the income also rises for all segments of society (including the poor) and as a result, a segment of extreme poor comes out of below poverty line (BPL). So economic growth reduces poverty but has a little impact on income inequality. Particularly , the country like India, where extremely uneven income distribution is exist, few states having fairly decent income level, leaving behind most of states below average income for decades. As per the World Bank estimate about one-third of total population of India is poor and vulnerable to economic stress that could push them back into extreme poverty due to post Covid 19 scenario.

One of the major contributing factors of achieving demographic dividend is lower dependency ratio. In general, the dependency ratio is lower in the southern states as compared to the northern states (Figure 3). A low dependency is a positive sign, as it indicates lower pressure on the economically active population. Bihar and Uttar Pradesh are the worst affected states in the country as the dependency ratio of these states is very high (TDR>0.75). The other lagging states in terms of economically active population are Meghalaya, Jharkhand and Uttarakhand. One of the hard reality of Indian demography is that, there exist large number of non-working population among the economically active age group ($P_{15\text{-}59}$), which has increased the economic dependency in the country. The increasing EDR is the major concern towards achieving the

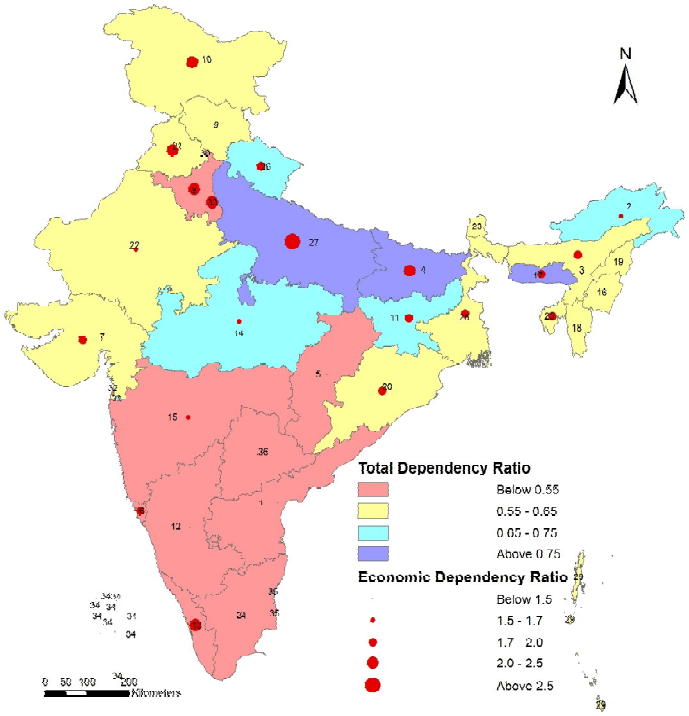

Figure 3: Dependency ratio of Indian state/UTs

demographic dividend as the large workforce is dependent on small segment of working population. Even the EDR of some of the developed state like Delhi, Punjab, Haryana, Jammu & Kashmir and Kerala is also high (>2), indicates large number of non-working population is dependent of lesser number of economically active (working) population.

There is clear distinction of poverty ratio in the country, as most of eastern part (except Sikkim and Mizoram in the north-east) the ratio is very high, whereas in southern and western India, the poverty is comparatively low (Figure 4). Though these eastern states are resource rich, particularly Jharkhand, Chhattisgarh, Odisha and parts of Assam & West Bengal are the storehouse of minerals like, coal, steel, aluminum, mica, uranium and petroleum but legacy of unprivileged region is associated with these states for decades. The HDI of almost entire Bihar, Jharkhand, Uttar Pradesh, Madhya Pradesh, Odisha, Chhattisgarh, Rajasthan is less than the country average. Together, these states come under *BIMARU*[1] category of state and most of the backward districts in India fall in these states.

1. *BIMARU* refers to four grossly under-developed states of un-divided Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. It was coined by prominent demographer and economic analyst Prof. Ashish Bose, in the mid-1980s, *BIMARU* has a resemblance to a Hindi word "*Bimar*" which means sick.

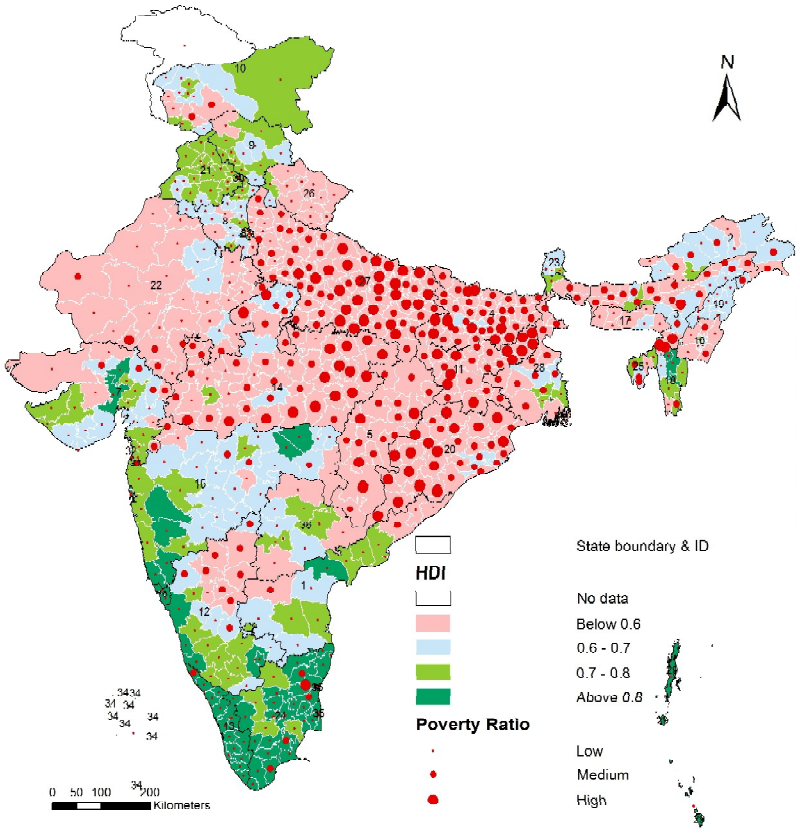

Figure 4: Scattering of poverty ratio and human development index (HDI) across Indian districts

CONCLUSION

The demographic dividend is the qualitative contribution of human population to accelerate economic growth, is oftenly misunderstood in developing countries. The common misperception is that, the large number of youth population is an indicator demographic dividend and feel optimistic about the prospects for such a dividend. However, demographic dividend in developing country remains a possibility by lowering TFR & IMR and given priority to employ economically active age group population for nation building.

A demographic dividend requires compound investments in health, education and skill development with an aim to make people economically active and ensure to achieve their optimal potential. The demography impart dividend when the share of working people increases among the total population and the positive indication is

that, more people have the potential to be productive and contribute to growth of the economy.

The poverty is not only an economic phenomena but also social psychological deprivation which is reflected as poor quality of life, malnutrition, low human development, etc. Whereas, HDI is a composite index of life expectancy at the birth, literacy, education level, health care/medical infrastructure and GDP per capita income, etc. Generally poverty has in inverse relationship with HDI, as higher human development is anticipated from the region with lower poverty ratio. The economic growth reduces poverty but it has a little impact on income equality. In the context of huge income disparity, it is essential for India to stay focused on reducing inequality, through implementation of growth-oriented reforms to get the economy back on track. In response to the Covid-19 shock, the government and the RBI has taken several monetary and fiscal policy measures to support vulnerable section of the society by expanding service delivery, increasing spending on health and social protection.

As the information presented in this paper is based on (derived from) secondary sources collected from various agencies/departments and the availability of data in the same/uniform reference period is one of the major constraints. Further, comparison of state of different size (in terms of area or population) on the same scale may lead to inaccurate estimation, as a state like Goa having only two districts cannot be compared to a large state like Uttar Pradesh of varied socio-economic regions within the state. Availability/accessibility of time-series data on various parameters is also a limiting factor and hence the temporal dimension of demographic parameters has not been considered.

As a young country, India has a potential opportunity of demographic dividend, if harnessed properly. For example, the number of people entered the labour force in India is more than one crore (10 million). Are we prepare to provide them good health, education, technical/vocational training for employment? As per NFHS, more than one third of children are stunted and more than half of women in the age group 14-49 year are anemic in India. Further, increasing productivity from untapped huge manpower cannot be achieved as merely 3% of workforce having formal vocational training. Employment scenario in India has not been encouraging, particularly after Covid 19 pandemic the unemployment in general has been at an all time high in the country. Realization of demographic dividend means a shift of workforce from primary sector to secondary and tertiary sectors of economy. But workforce in agriculture sector is over burdened and showing an increasing trend over last three periodic labour surveys. So the demographic dividend cannot be realized by large number of working age group population, unless the huge untapped manpower is utilized effectively.

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Reference

Census of India, (2020). Population projection for Indian states 2011-2036. National Commission for Population, Ministry of Health and Family Welfare, New Delhi, pp. 270.

Datt, G. and Ravallion, M. (2002). Is India's economic growth leaving the poor behind? *Journal of Economic Perspectives,* 16(3): 89-108.

Dhar, P. and Barua, N.A. (2020). Financial inclusion in India – a state-wise analysis. *International Journal of Management,* 11(10): 816-827.

Geethu, J.A. and Nair, S.B. (2021). Elderly dependency in India: finding from census data. *Int. Jr. of Adv. Res.* 9(08): 279-292. (DOI: http://dx.doi.org/10.21474/IJAR01/13262)

IMF, (2022). World economic outlook database, April 2022. International Monetary Fund, Washington D.C.

Kuri, P.K. and Laha, A. (2011). Financial inclusion and human development in India: an inter-state analysis. *Indian Journal of Human Development,* 5(1): 61-73.

Mukherjee, S. and Chakraborty, D. (2011). Is there any interdependence between economic growth and human development? Evidence from Indian states. *Indian Journal of Human Development,* 5(2): 467-494.

Nandy, S.N. (2019). Development disparities in India: an inter-state and intra-state comparison. Journal of Land and Rural Studies 7(2): 99-120. (DOI: *https://doi.org/10.1177/2321024919844407*)

Nandy, S.N. (2021). A quantitative analysis of social and economic development among Indian states. *International Research Journal of Social Sciences,* 10(2): 16-26.

NFHS, (2022). National Family Health Survey (HFHS-5) 2019-21. International Institute for Population Sciences (IIPS), Mumbai, pp. 714.

NITI Aayog, (2021). India - National multidimensional poverty index. Niti Aayog, Government of India, New Delhi.

OXFAM, (2022). India: extreme inequality in numbers. OXFAM International, Nairobi, Kenya (*https://www.oxfam.org/en/india-extreme-inequality-numbers*)

Rajan, S.I. and Mishra, U.S. (2019). Resource allocation in lieu of state's demographic achievements in India: an evidence based approach. Centre of Development Studies, Thiruvananthapuram, Kerala. Pp 43.