



Contours of Future Demographic Change in India



Dr. C. Chandramouli, IAS (Rtd)

Devoid of jargon and statistics, the bare facts are as follows - women in India are having lesser children, the population in the working age is growing and the proportion of the elderly is creeping up steadily. On account of falling fertility, and rising working age population, the dependency ratio is falling and this is fuelling growth. Higher growth, in turn is further reducing fertility and dependency ratios - a virtuous cycle indeed! The manner in which the opportunities and threats that arise in such a scenario are handled by India, in a post-Covid world, will have a significant bearing on the contours of its future demographic and economic growth.

Population Growth: The world's population is projected to reach 8 billion in 2022. The latest projections by the United Nations suggest that the global population could grow to around 8.5 billion in 2030, 9.7 billion in 2050 and 10.4 billion in 2100*¹. As far as India is concerned, the total population in 2011 was 1.21 billion. It is expected to increase to 1.46 billion by 2030*². Thus, 17% of the world's population in 2030 will be in India.

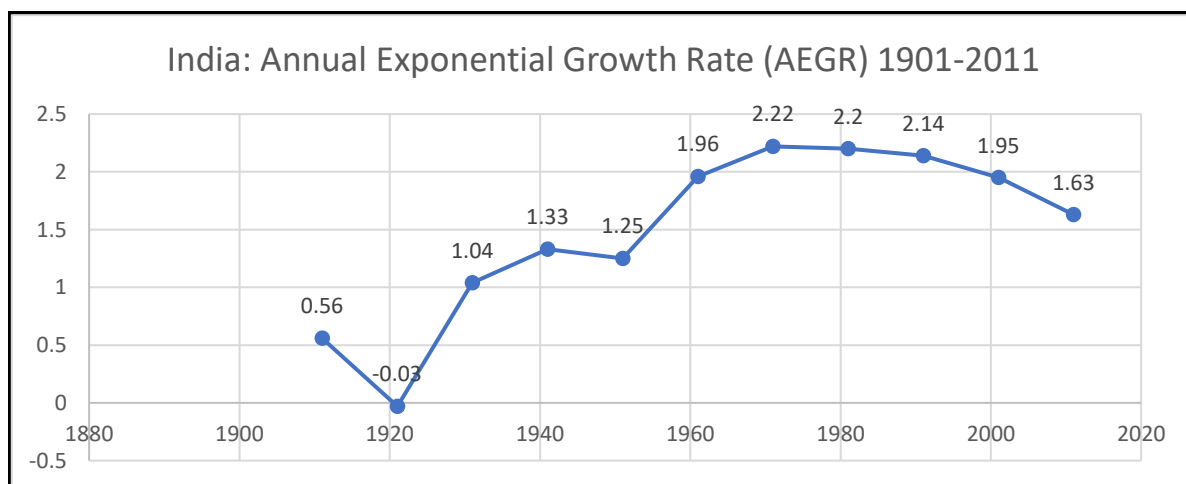
Growth Rate: In 2020, the global population growth rate fell under 1 per cent per year for the first time since 1950. The world's population is projected to reach a peak of around 10.4 billion people during the 2080s and to remain at that level until 2100*³. The trend in India was that the population grew phenomenally till the 1970s, stagnated in the 1980s and has slackened since then. It continues to grow but the pace of growth has slackened since the 1980s- from 2.2% in 1971 to 1.6% in 2011*⁴.

Table:1: India-Population and AEGR (1901-2011)

Year	Population (in Cr)	AEGR
1901	23.83	
1911	25.20	0.56
1921	25.13	-0.03
1931	27.89	1.04
1941	31.86	1.33
1951	36.10	1.25
1961	43.92	1.96
1971	54.81	2.22
1981	68.33	2.20
1991	84.64	2.14
2001	102.87	1.95
2011	121.08	1.63

Source: Census of India 2011; Table A-2

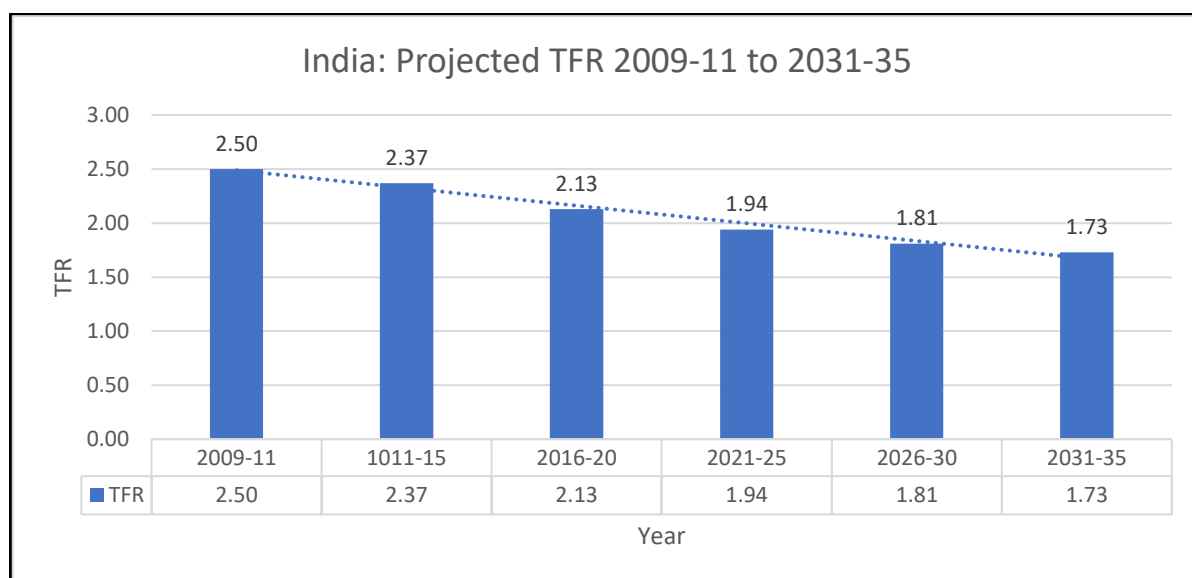
Chart:1: India-Annual Exponential Growth Rate (1901-2011)



Source: Census of India 2011; Table A-2

Fertility Decline: The primary reason for the slackening of growth is the continuous decline in fertility levels. The trendlines indicate that fertility in India, stalled through the late 1970s to the mid-1980s, but has been on a steady decline since then. The Total Fertility Rate (TFR) has come down from more than 5 children per woman in 1971, to 2.3 in 2016 and 2.0 in 2020. Sixteen (16) States of India had reached TFR below 2.1 (below replacement level) in 2020*⁵. In comparison, in 2021, the average fertility of the world's population stood at 2.3 births per woman over a lifetime, having fallen from about 5 births per woman in 1950. Global fertility is projected to decline further to 2.1 births per woman by 2050. Two-thirds of the global population lives in a country or area where fertility is below 2.1 births per woman, roughly the level required for zero growth in the long run for a population with low mortality*⁶. In India, the Total Fertility Rate (TFR) is projected to decline from 2.5 in 2009-11 to 1.73 in 2031-35. It is but natural that when fertility begins to fall, the annual rate of growth starts to drop. Consequently, the crude birth rate in India is expected to decline from 20.1 during 2011-15 to 13.1 during 2031-35*⁷.

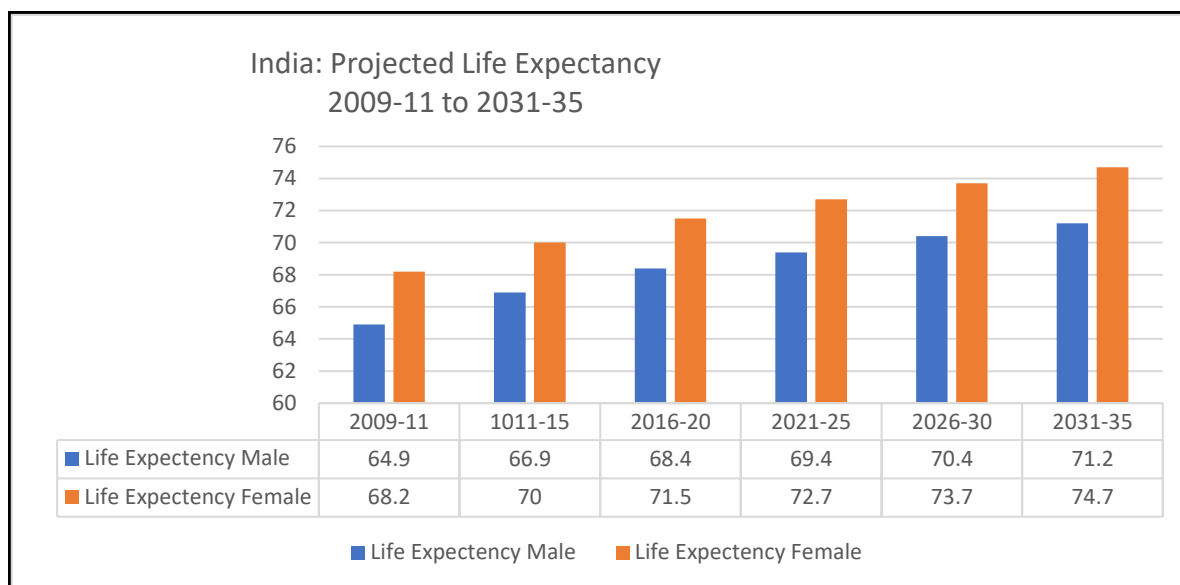
Chart 2: India - Projected Total Fertility Rate (2009-11 to 2031-35)



Source: Population Projections for India and States: 2011-2036

Mortality and Life Expectancy at Birth: Population growth is caused in part by declining levels of mortality. The crude death rate in India is expected to increase marginally due to changing age structure of the population with the rising median age as a result of continuing decline in fertility and increase in the expectation of life at birth. It will increase from 7.2 during 2011-15 to 7.3 during 2031-35. As a consequence, the life expectancy at birth will increase*⁸. Globally, life expectancy reached 72.8 years in 2019, an increase of almost 9 years since 1990. Further reductions in mortality are projected to result in an average longevity of around 77.2 years globally in 2050. Life expectancy at birth for women in 2019 exceeded that for men by 5.4 years globally, with female and male life expectancies standing at 73.8 and 68.4, respectively*⁹. The female life expectancy in India which was 68.2 in 2009-11 is expected to rise to 74.7 in 2031-35. In contrast, male life expectancy which was 4.9 in 2009-11 is only expected to rise to 71.2 in 2031-35*¹⁰. A significant point to be noted is that two-thirds of the projected increase in global population through 2050 will be driven by the momentum of past growth that is embedded in the youthful age structure of the current population. Such growth would occur even if childbearing in today's high-fertility countries were to fall immediately to around two births per woman.

Chart 3: India- Projected Life Expectancy 2009-11 to 2031-35



Source: Population Projections for India and States: 2011-2036

Population by age composition: This is an important determinant of demographic growth. India's population by age composition is as follows:

- 3 The proportion of population aged under 15 years in India, was projected to decline from 30.9 to 20.1% in 2036^{*11}. However, the data from the Sample Registration System (SRS 2020), reveals that there was a decline in the share of population in the age group 0-14 years, from 41.2% in 1981 to 24.8% in 2020¹².
- 4 The population in the school-going age of 5-14 years is expected to decline by 7.12 points from 25.4 crores in 2011 to 20.9 crores in 2036. As far as the youth population (15-24 years) is concerned, it is projected to increase from 23.3 crores in 2011 to 25.1 crores in 2021 and then decrease to 22.9 crores in 2036. In proportion to the total population, it is expected to fall from 19.3% in 2011 to 15.1% in 2036^{*13}.
- 5 At the same time, the proportion of the middle age-group (15-59 years), which is the working age-group is expected to rise from 60.7% in 2011 to 64.9% in 2036. The SRS, notes that the proportion of this population has increased from 53.4 to 56.3% during 1971 to 1981 and from 57.7 to 67.1% in the period 1991 to 2020¹⁴. It is significant that the projection for 2036 has been surpassed in 2020 itself*. It is encouraging that the additions to the Indian labour force over the period 2011-30 will be in the age group 30-49, which experts believe are the most productive because of work experience. When we see that the share of this group in China, Korea, and the United States will be declining, India can be at a distinct advantage if the right skills and opportunities are provided to this cohort.
- 6 The share of the global population aged 65 years or above is projected to rise from 10 per cent in 2022 to 16 per cent in 2050. By 2050, the number of persons aged 65 years or over worldwide is projected to be more than twice the number of children under age 5 and about the same as the number of children under age 12. Whereas population growth at older ages is driven by lower mortality and increased survival, an upward shift in the population age distribution is caused by a sustained drop in the fertility level. Because of the female advantage in life expectancy, women outnumber men at older ages in almost all populations. Globally, women comprised 55.7 per cent of persons aged 65 or older in 2022, and their share is projected to decline slightly to 54.5 per cent by 2050^{*15}. In India, the elderly constitutes the population over the age of 60 years. The percentage of elderly population (60+) has gone up from 5.3 to 5.7% in the period 1971-1981 and

further from 6.0 to 8.1% in the period 1991-2020. This proportion, is projected to rise to 14.9% of the total population in 2036. This population is set to more than double to 23 crores in 2036*¹⁶.

Dependency Ratio and Demographic Dividend: A sustained drop in fertility leads to an increased concentration of the population at working ages, creating an opportunity for accelerated economic growth per capita. This shift in the age distribution provides a time-bound opportunity for accelerated economic growth known as the “demographic dividend”. In other words, “demographic dividend” is the potential growth in a country’s economy, resulting from a change in the age structure of its population.

In India, the population of children (0-14 years) and old-age (60+years) are considered as ‘dependent’. The population in the age-group of 15-59 years is considered the ‘working age-group’. Child Dependency Ratio is the ratio of the population in the age-group of 0-14 years to the population in the age-group of 15-59 years. Similarly, ‘Old-age Dependency Ratio, is the ratio of the population in the age-group of 60+ years to the population in the age-group of 15-59 years. Total Dependency Ratio is a summation of the two. A dependency ratio of less than 67 per cent is considered advantageous, and is termed, the period of demographic dividend or window of opportunity.

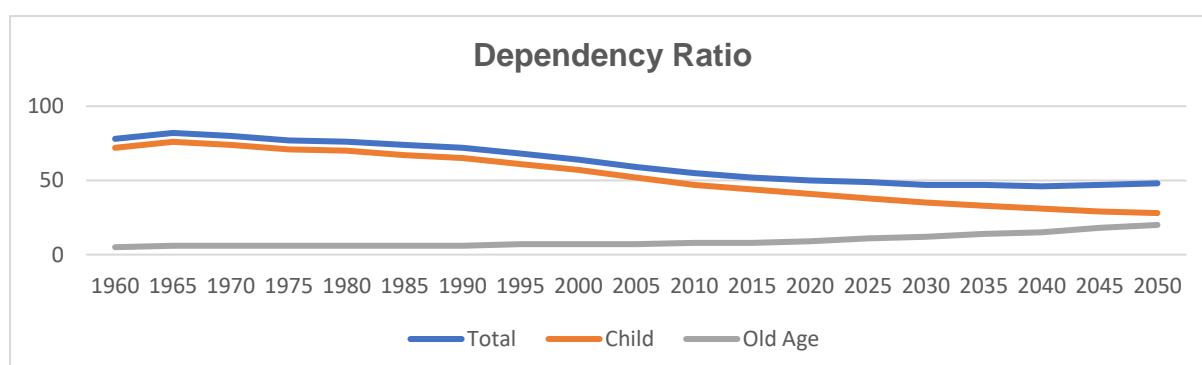
The World Population Estimates (UNDESA) estimates that the child dependency ratio will decline from 41 in 2020 to 28 in 2050; the old-age dependency ratio will increase from 9 in 2020 to 20 in 2050 and the total dependency ratio will marginally decline from 50 in 2020 to 48 in 2050. An analysis by the UNFPA, has noted that the dependency ratio in India will decline from 75% in 2001 to 55% in 2021 and will remain around that level for about 20 years*¹⁷.

Table 2: India – Projected Total, Child and Old-Age Dependency Ratio (2020 to 2050)

Year	Total	Child	Old Age
2020	50	41	9
2025	49	38	11
2030	47	35	12
2035	47	33	14
2040	46	31	15
2045	47	29	18
2050	48	28	20

Source:World Population Prospects: The 2010 Revision (UNDESA)

Chart 4: India – Projected Total, Child and Old-Age Dependency Ratio (2020 to 2050)



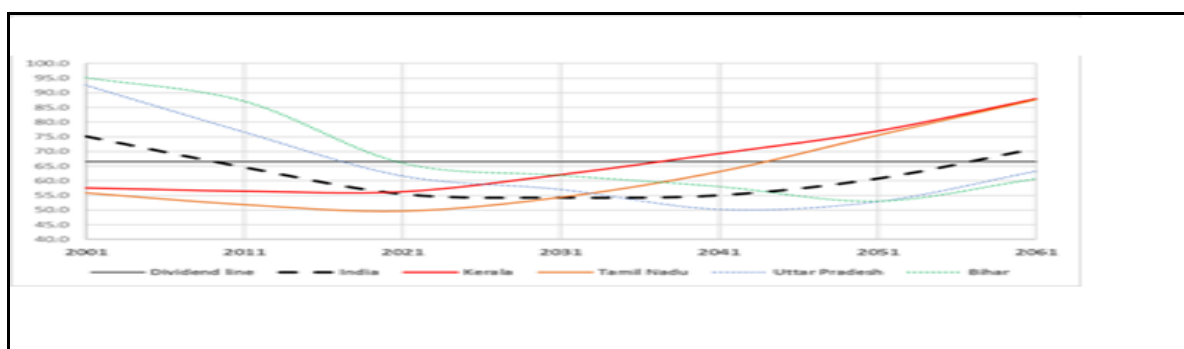
Source:World Population Prospects: The 2010 Revision (UNDESA)

The demographic dividend will vary across States depending on when they attained demographic transition. According to the analysis made by the UNFPA, States like Kerala and Tamilnadu, which

are ahead in the demographic transition, have begun to gain dividend early, but will lose it before 2040. Delhi, Andhra Pradesh, Gujarat and Karnataka, will lose the advantage by mid-2040s. Himachal Pradesh, West Bengal, Punjab, and Maharashtra will join them soon after. For Odisha, Haryana, Assam, Chhattisgarh and Uttarakhand, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Bihar the window of opportunity will remain open throughout the decade 2041-2051^{*18}.

The ADB talks of two demographic dividends – the first from 1980-2035 and a second up to 2070. The first dividend is in part the consequence of the growing working age population and can be realized only if employment opportunities expand to keep pace. The second dividend arises largely because prime working age adults have to save to support longer retirements. This requires an environment conducive to accumulating assets^{*19}.

Chart 5: India and States - Projected Trends in Dependency Ratio 2001-2061



Source: Harnessing India's Demographic Dividend (UNFPA-2018)

To maximize the potential benefits of a favourable age distribution, India needs to invest in the further development of its human capital. The contours of India's future demographic, social, economic and political development will largely depend upon investments in health, education and skilling of the young. As the Report on State of Inequality in India observes, "...the positive changes in the labour market, like the expansion of the working-age population, have created a massive potential for exploiting the demographic dividend to increase the country's economic productivity. However, this potential rests on critical interventions like creating new jobs, integrating the informal sector with the formal sector, and empowering the female labour force to increase their participation rate"^{*20}.

II. Investment in Social Capital

Enhancing the value of the girl child: The Sex Ratio at Birth for the country was 907 in 2018-20^{*21}. It is evident that preference for a male child and gender-biased sex selection is a major problem that needs to be tackled. As per the Global Gender Gap Index (2022), India's position is 135th out of 156 countries. In three indices, 'Economic Participation and Opportunity, Educational Attainment, Health and Survival', India ranks among the lowest in the world. Only in 'Political Empowerment' it has performed well^{*22}. Availability of information and resources is a priority area that policy makers need to focus upon. The unmet need for family planning in India at 9.4% (NFHS 5; 2019-21) is high and needs to be bridged. Further, 24.2% of ever married women in the age group of 18-48 years, have suffered spousal violence (NFHS 5; 2019-21)^{*23}. Eliminating discrimination against women in every walk of life, strengthening human rights based sexual and reproductive health programmes and elimination of all forms of sexual coercion and violence against women and girls is a crying necessity.

Age at marriage: Age at marriage is an important factor affecting fertility. The mean age at effective marriage for females in 2020 was 22.7 years. The figures reveal that 1.9% of females got married before reaching 18 years of age^{*24}. Fertility reaches a peak in the age group 25-29 years and declines thereafter. Postponing the age of marriage can have a significant impact on the number of children being born.

Universal schooling for girls: Female education, has a direct correlation to fertility. It is telling that the Total Fertility Rate (TFR) for 'illiterate' women is 3.1, whereas for 'literate' women it is only 1.9. In

general, there is a gradual decline of TFR with increase in the level of education. While for the group 'without any formal education it is 2.4, for Graduates it is only 1.6^{*25}. Clearly, universal education for girls at least up to the secondary level will yield bountiful returns.

Ensuring child survival: India reported an Infant Mortality Rate (IMR) of 28 (31-rural; 19-urban) in 2020^{*26}. The country has made impressive strides in bringing down IMR. Between 2008-10 and 2018-20, IMR, declined by 40.2% in India^{*27}. Of this, neo-natal (less than 29 days) mortality rate was 20 and early neo-natal mortality rate 15 in 2020^{*28}. The share of deaths to children below age five to total deaths was 10.0% (11.4%-rural; 6.5%-urban). The under-five mortality rate is estimated at 32 (36-rural; 21-urban) ^{*29}. NFHS 5 estimates the U5MR as 31.5 (Rural-45.7; Urban-41.9) Ensuring child survival is clearly an area that requires focussed attention. A telling statistic in this regard is that 54.6% births in 2020, took place in Government hospitals (54.0% - rural; 56.3% - urban) and 28.0% in private hospital. Thus, around 82% of the deliveries were in institutions. However, 9.7% deliveries were by qualified professionals and 7.8% by untrained personnel in 2020^{*30}. Bihar, Jharkhand, Uttar Pradesh, Uttarakhand and Odisha have a high proportion of deliveries performed by untrained personnel. The four, important interventions required are:

- a) Improvement in the quality-of-service delivery in institutions
- b) Elimination of non-institutional deliveries
- c) Maximizing immunization coverage
- d) Improved nutrition for the mother and child
- e) Improved service delivery in rural areas

Investment in Health and Nutrition: All these require considerable investment in the health and nutrition sector. The public spending on health has remained around 1% of GDP. It is important to formulate policies to promote health and allocate more finances for health infrastructure. As the Report on the State of Inequality in India points out, "there has been considerable improvement in solidifying the primary health care system with the prime focus on rural integration with the peripheral health infrastructure. The concerted investment into this sector has also led to an increase in child and maternal healthcare (higher life expectancy rate and lower infant mortality rate)" ^{*31}. However, the challenges of nutritional deprivation especially among children, triggering hunger insecurity remain. This affects their physical and cognitive development. Ensuring the availability of essential commodities through an effective public distribution system is an area that could yield positive outcomes as could nutrition programmes like the one for expectant and lactating mothers, infants and school children. Targeted efforts to ensure water availability and improv sanitation have proved very successful by reducing the incidence and spread of diseases caused by contaminated water and polluted surroundings.

Care of the Elderly: Strengthening social, health and security systems for the population in the age-group of 60 years and above by measures like pensions, specialized geriatric care, housing, emotional and psychological support, access for the elderly disabled, new employment/occupational skills for the elderly are some of the areas that require urgent attention of Government and non-Governmental organizations.

III. Education and skill

A demographic dividend will require high-quality school education, relevant higher education, and skill development to bear fruit. UNICEF, in 2019, reported that at least 47% of Indian youth will not possess the education and skills necessary for employment by 2030^{*32}. The Centre for Science and Environment found in 2021 that an astounding 375 million children may suffer long-lasting health and educational impacts due to the pandemic, affecting economic productivity. Over 250 million children were already forced out of school during the pandemic, with state-run mid-day meals taking a hit, and sharp digital divides glaringly visible^{*33}. The ASER 2021 reveals that the proportion of primary school children who could not recognise letters of the alphabet has doubled since 2018^{*34}. There is a need to increase private and public human capital spending, particularly in nutrition and learning during early childhood. The focus needs to be on transitioning from secondary education to universal skilling and entrepreneurship. The Report on the State of Inequality in India states, "Making schools

infrastructurally sound, directly impacts high enrolment rates and low dropout rates. This influences the inequality discourse as accessible and affordable education leads upward mobility (even coming out of the poverty cycle). Education corrects inequality as a long-term measure by making structural changes in society” *35. The India Early Childhood Education Impact Study recommends the following valuable suggestions*36:

- a) Include pre-primary education as a part of the Right to Education Act 2009
- b) Ensure that children begin primary school only when they are developmentally ready
- c) Design a play-based flexible curriculum for 3–8-year-olds along an early learning continuum
- d) Institute a regulatory system for early childhood education
- e) Reach out to parents, communities and other stakeholders to generate demand for developmentally appropriate early childhood education

Vocational Training: According to a UN Population Fund report, in 2019-20, only 15% of India’s workforce received any vocational training. PLFS 2017-2018 showed that more than 40% of those aged 15-29 who received formal technical training are not part of the labour force at all, while only 3% of the total workforce is formally skilled*37. The overwhelmingly informal character of employment, skewed access to education, training and employment and low participation of female and schedule tribes in skill development programs are the primary challenges in this regard. As a report from the Reserve Bank of India (RBI) states, “India needs to pay special attention to skilling and reskilling its workforce, keeping in view the changing nature of today’s job profile. There are serious gaps between what the skill development institutions currently do and what the industry requires. Improving education and health infrastructure, in terms of both quality and access and timely action in a co-ordinated manner by the Government, private sector and researchers is necessary to harness the window of opportunity provided by a favourable demography” *38.

IV. Reducing Unemployment and Increasing Productivity

India will add 183 million people to the working age group by 2050. This constitutes almost 22% of the global workforce. However, the unemployment rate, is 7.6% in 2022, according to the Centre for Monitoring Indian Economy*39. The pandemic has aggravated the unemployment situation. The ‘State of Working India Report’ (2021) points out that the working-age population grew by 115.5 million between 2017 and 2021, but the labour force grew only by 7.7 million. The workforce actually shrank by 11.3 million*40. The agriculture sector that employs over half the labour force, has very low productivity. Shifting labour from agriculture to higher-productivity jobs in industry or services is essential. In this regard, the Micro, small, and medium enterprises (MSMEs) that employs 81 million people is an area that would require top focus. The problem with MSMEs however, is that they stagnate and do not create sustainable jobs. Many remain unregistered, un-incorporated, and unorganized and have little incentive to invest in upgrading skills or in capital equipment. The following interventions are absolutely necessary to create employment and enhance productivity:

- a) Investments in quality infrastructure—roads, utilities, real estate, and logistics to substantially reduce transaction costs
- b) Simplification of the regulatory environment: India ranks 116 out of 185 countries in Ease of Doing Business rankings*41. The ecosystem needs lesser regulation and inspection
- c) Improvement in accessing credit: Banks and other financial institutions are wary of lending to Industry because they lack adequate credit histories or collateral. Angel investors, venture capital funds, and impact investors are still at a nascent stage. Improving access to credit therefore is a pressing need.
- d) Robust labour legislation and supportive macro-economic policies related to infrastructure development, ease of doing business, entrepreneurial activities and creation of productive employment opportunities.

Increasing female work participation: The female labour force participation in 2017 was 28.5% as compared to 82% for men. India has recorded one of the lowest female workforce participation rates in the world – 25%, according to the Periodic Labour Force Survey (PLFS) 2020-21*42. The ‘State of

Inequality Report' (2022) observes that for educated young women, the unemployment rate rose to 42%. Moreover, women work largely in the informal economy - labour-intensive, low-paying, and highly precarious. The labour market has to expand exponentially to fully realize the dividend. This would require substantial changes in the policy and legal environment. The pandemic has demonstrated that working from home is a viable option. This is an ideal solution to get more women into the workforce. An associated issue is that of flexible working hours. Labour laws will have to be tweaked to enable both. Gender focussed skill improvement and entrepreneurship are two areas that would reap good dividends as would diversifying the income stream for home-based employment. The financial crisis across the world has caused constraints in social infrastructure. This has affected outcomes for families especially women during the pandemic. Geopolitical conflict and climate change have also impacted women disproportionately. In addition, the deepening cost-of living crisis is also impacting women more severely than men, as women earn and accumulate wealth at lower levels. Unemployment rates have increased and are consistently higher for women. As the Global Gender Gap Report 2022 points out "the disproportionately negative labour market impact of the pandemic is partially due to the fact that the amount of care work disproportionately fell on women as childcare facilities and schools were closed during the pandemic. With rising childcare costs, there is a high risk that an asymmetric demand to provide unpaid care work will continue to be imposed on women" ^{*43}. Gender gaps in pay, unequal career progression trajectories, gaps in financial literacy, and life events cumulatively affect female wealth accumulation adversely. The Report on the State of Inequality in India has the following suggestions, which require serious consideration^{*44}:

- a) Raising the minimum income and introducing universal basic income to reduce the income gap and ensure equal distribution of earnings in the labour market
- b) Introduce demand-based programmes in urban areas that offer guaranteed employment
- c) Increase government expenditure in the social sector to enable vulnerable populations to become resilient to sudden shocks and stop their descent into poverty
- d) Ensure equitable access to education and create more jobs

V. Rapid Urbanization

As per Census 2011, nearly one third of India's population (377 million constituting 31%) lives in urban areas. For the first time, between 2001 and 2011, the population increase was more in urban than rural areas. The level of urbanisation is higher in six demographically advanced states, located mostly in western and southern regions, accounting for about 45% of the total urban population in India. One of the features of urbanisation in India is concentration of population in large urban agglomerations. As per the 2011 Census, 161 million people (43%) live in 53 'Million Plus' cities and 17% of this, live in slum areas^{*45}. In future, migration will pick up pace as large proportion of the workforce will migrate to find livelihood. Planning for housing, infrastructure, sanitation, health, and social services would be essential to prevent the growth of unorganized slums. Strengthening support systems for migrating populations and family members left behind are additional areas that would require policy intervention.

VI. Lessons learnt from the Pandemic

Millions lost jobs during the nationwide lockdown in 2020. Even after the pandemic weakened, around 15% remained out of work. Women were disproportionately affected by the pandemic. While men transitioned to self-employment, women remained unemployed for longer periods. The burden of domestic work increased without any corresponding relief in hours spent in employment, especially because schools and day-care centres shut down. Younger workers also experienced higher job losses and a weaker recovery. There was a large increase in informal employment. Salaried workers moved into self-employment and daily wage work. This shock increased the number of individuals who were below the national minimum wage threshold substantially and resulted in an increase in the poverty rate. Migrants bore the harshest impact of the shock. The lack of class, caste, ethnic and linguistic identity, along with lack of stable residence and political voice rendered casual wage migrants the most precarious and hard to reach groups. The State of Working India 2021 Report has made the following suggestions that have merit and can be the basis for future strategy^{*46}:

- a) A vast increase in social infrastructure investment by the public and private sector
- b) Rights-based entitlements for the vulnerable and portable benefits
- c) Empowered worker welfare boards, to tackle the persistent problems of low earnings, low productivity and precarity.

VII. Conclusion

A substantial part of India's economic growth since the 1980s can be attributed to demographic change. It is estimated that the continuing demographic transition will yield a growth dividend of about 2% per annum over the next two decades. In addition to the southern and western states, "the bulk of the demographic transition will be concentrated in lagging states, thus raising the prospect of substantial income convergence among rich and poor states" ^{*47}. However, this would depend on policy intervention to improve the infrastructure and policies in these States, which presently score low on the human development indices, have low labour force participation rates and high poverty.

Forward-looking policies and development strategies must include future population dynamics and build on intersecting contours of age, location and gender. A differential planning approach that ensures time-bound investments to empower, educate and equip young people before they enter the workforce is critical. It is equally imperative that a welcoming investment climate with labour policies designed to expand and sustain safe and secure employment be nurtured and developed. State capability to formulate such future-proof strategy is vital to meet these multiple challenges. There is a thin line indeed dividing demographic dividend and liability!

¹UN DESA/POP/2021/TR/NO. 3 Department of Economic and Social Affairs Population Division World Population Prospects 2022;

² Population Projections for India and States: 2011 – 2036; Report of the Technical Group on Population Projections, July 2020

³ UN DESA/POP/2021/TR/NO. 3 Department of Economic and Social Affairs Population Division World Population Prospects 2022

⁴ Census of India 2011; Table A-2

⁵ SRS Statistical Report 2020. Bihar has reported the highest TFR (3.0) while Delhi, Tamil Nadu and West Bengal have reported the lowest TFR (1.4). The SRS Report further points out that during the last five years (2015-2020), alone, there has been a decline of 0.3 point in TFR at the National level (0.3 points in rural and 0.2 point in urban).

⁶ UN DESA/POP/2021/TR/NO. 3 Department of Economic and Social Affairs Population Division World Population Prospects 2022

⁷Population Projections for India and States: 2011 – 2036; Report of the Technical Group on Population Projections, July 2020. The SRS Report further points out that during the last five years (2015-2020), alone, there has been a decline of 0.3 point in TFR at the National level (0.3 points in rural and 0.2 point in urban)

⁸ Ibid

⁹ UN DESA/POP/2021/TR/NO. 3 Department of Economic and Social Affairs Population Division World Population Prospects 2022

¹⁰ Population Projections for India and States: 2011 – 2036; Report of the Technical Group on Population Projections, July 2020

¹¹ Ibid

¹² SRS Statistical Report 2020

¹³ Population Projections for India and States: 2011 – 2036; Report of the Technical Group on Population Projections, July 2020

¹⁴ SRS Statistical Report 2020

¹⁵ UN DESA/POP/2021/TR/NO. 3 Department of Economic and Social Affairs Population Division World Population Prospects 2022

¹⁶ Population Projections for India and States: 2011 – 2036; Report of the Technical Group on Population Projections, July 2020

¹⁷World Population Prospects: The 2010 Revision (UNDESA)

¹⁸ Harnessing India's Demographic Dividend - A Differential Approach for Sustainable Development; UNFPA policy brief 2018

¹⁹ ADB Economics Working Paper Series; Demographic Dividends for India: Evidence and Implications Based on National Transfer Accounts Laishram Ladusingh and M. R. Narayana No. 292; December 2011

²⁰ Report on State of Inequality in India; IFC Institute for Competitiveness, 2022

²¹ Kerala (974) and Uttarakhand (844) are at opposite ends of the spectrum. There is a clear differential between rural and urban areas - in the rural areas, the highest and the lowest sex ratio at birth are in the States of Kerala

(973) and Uttarakhand (853) respectively. The sex ratio at birth in urban areas varies from 975 in Kerala to 821 in Uttarakhand Sample Registration System (SRS Report) 2020

²²Global Gender Gap Index Report 2022; World Economic Forum. India ranked 135 out of 146 countries. It ranks countries on the basis of 4 sub-indices- Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment. India ranks 143 in the first; 107th in the second; 146th in the third and 48th in the fourth sub-index.

²³ NFHS 5

²⁴ SRS Statistical Report 2020. Percentage of females marrying at age 21 years and above is 72.6 at the National level and varies from 45.1 in West Bengal to 90.7 in Jammu & Kashmir. About 32.2% of the rural females, at the National level, marry between 18 and 20 years of age compared to about 18.6% in urban areas. An interesting data point from the SRS is that at the national level, there is a shift in trend of fertility with an increase in fertility in the later ages 30-44, while a decrease in fertility in the lower age-groups 15-29. Except for Andhra Pradesh and West Bengal where fertility reached its peak in the age group 20-24 and Jammu & Kashmir where fertility reached its peak in the age group 30-34, the highest fertility in all the other bigger States/UTs has been attained in the age group 25-29. Fertility, however, declines from age 30 in all the bigger States/UTs, except Jammu & Kashmir where it declines from age 35. Age specific Fertility rates (ASFR) indicate that the ASFR in the younger age group 15-19 varies from 2.6 in Delhi to 22.3 in West Bengal. In the age group 30-34, the variation in the level of ASFR is from 41.9 in West Bengal to 147.0 in Bihar.

²⁵ At the National level, 10.8% of the female population is reported 'Illiterate' as against 89.2% in the 'literate' category. About 19.4% have education up to Class X, 13.0% women have education level of Class XII, and only 9.9% have reported education level of Graduate and above.

²⁶ Infant Mortality Rate is defined as the infant deaths (less than one year) per thousand live births. Among the bigger States/UTs, it varies from 6 in Kerala to 43 in Madhya Pradesh. At the national level, mortality for female infants is at par with male infants; however, there are inter-state variations in this.

²⁷ Among the bigger States/UTs, the decline varies from 63.2% in Delhi to 26.5% in Chhattisgarh. In the rural areas, decline in IMR varies from 76.0% in Delhi to 25.4% in Chhattisgarh. In urban areas, the highest decline in IMR during the period has been 61.8% in Delhi.

²⁸ Among the bigger States/UTs, neo-natal mortality was 20 (12-urban; 23-rural) and early neo-natal mortality 15 (17-rural; 9 -urban). The percentage of neo-natal deaths to total infant deaths was 71.9% at the National level (62.4% (urban); 74.1% (rural)). The percentage of early neo-natal deaths to the total infant deaths in 2020, was 53.3% (54.7-rural; 46.8-urban).

²⁹ Among the bigger States/UTs, the share of deaths to children below age five to total deaths varies from 1.6 in Kerala to 18.1 in Madhya Pradesh. In rural areas, it varies from 1.0 in Kerala to 20.3 in Madhya Pradesh, and in urban areas, it is 2.2 in Kerala to 12.5 in Uttar Pradesh. Child mortality rate is estimated at 8.0 (9.0-rural; 5.3-urban). Among the bigger States/UTs, this varies from 1.8 in Kerala to 13.3 in Madhya Pradesh.

Among the bigger States/UTs, under 5 mortality rates ranges from 8 in Kerala to 51 in Madhya Pradesh. On an average, the Under-five mortality rates of female are higher than that of male except in Delhi, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Tamil Nadu and West Bengal.

³⁰ SRS Statistical Report 2020

³¹ Report on State of Inequality in India; IFC Institute for Competitiveness, 2022

³² UNICEF 2019

³³ CMIE

³⁴ ASER Report 2021

³⁵ Report on State of Inequality in India; IFC Institute for Competitiveness, 2022

³⁶ India Early Childhood Education Impact Study by ASER 2017

³⁷ Periodic Labour Force Survey 2021

³⁸ Demographic Changes and their Macroeconomic Ramifications in India; RBI Bulletin July 2019

³⁹ CMIE

⁴⁰ State of Working India 2021; Azim Premji University, Centre for Sustainable Employment

⁴¹ World Bank Ease of Doing Business

⁴² Periodic Labour Force Survey 2021

⁴³ Global Gender Gap Report July 2022

⁴⁴ Report on State of Inequality in India; IFC Institute for Competitiveness, 2022

⁴⁵ Census of India 2011

⁴⁶ State of Working India 2021; Azim Premji University, Centre for Sustainable Employment

⁴⁷ IMF Working Paper: The Demographic Dividend: Evidence from the Indian States - Shekhar Aiyar and Ashoka Mody; WP/11/38