UNIT 3 DEMOGRAPHIC TRANSITION AND ITS IMPLICATIONS

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3.0 OBJECTIVES
After reading this unit, you will be able to:

- understand the impact of demography on economic growth and comprehend the concept of demographic dividend in detail;
- assess the role of health, education, and employment in harnessing the demographic window of opportunity;
- recognise the constraints that a nation faces in harnessing the benefits of the demographic dividend;
- know the demographic profile of India; and
- analyses how the population growth affects economic development.
3.1 INTRODUCTION

The relationship between population growth and economic development has been debated for several decades. The early Malthusian view was the pessimistic argument stating that population growth impedes economic growth resulting in reduction in per-capita income and resources which results in deterioration of quality of life. The optimistic argument emphasises that population growth promotes economic development as experienced by several East Asian countries. A young educated population increases productivity and contributes to invention and innovation of technologies.

An increase in the proportion of working age population (15-59) and fall in the proportion of dependent population of age groups (0-15) and 60+ gives birth to a window of opportunity termed as demographic dividend. The working age population helps in increasing savings, investment and improves the economic prosperity and standard of living of people. However, the benefits of demographic dividend are not automatic or guaranteed. It depends upon several factors like education, health, employment, infrastructure, right economic policies, and good governance. The potential demographic dividend if not actualised may turn into demographic disaster where young population becomes a liability or permanent burden on the economy.

3.2 THE THEORY OF DEMOGRAPHIC TRANSITION

The process by which fertility rates eventually decline to low and stable levels has been called demographic transition. Fertility rate is defined as the average number of children per women in the reproductive age group. Demographic transition postulates three stage sequences of birth and death rates which are associated with economic development. It explains phasing out process of population growth rates starting from virtually stagnant growth stage characterised by high birth and death rates through a rapid-growth stage with high birth and low death rates to stable, low growth stage in which both birth and death rates are low. This demographic transition has been witnessed in contemporary developed nations as they developed and one can identify the developing nations as they move through the different stages of this transition. The issue is what explains this transition or what are the factors that contribute to it.

First Stage of Demographic Transition

In this stage the death rates are high due to absence of effective medical aid, primitive sanitation, and poor diets. The birth rates are also high on account of absence of knowledge about family planning techniques, early age of marriage, illiteracy and deep-rooted social beliefs, and customs about the size of the family including, as an insurance against high child mortality rates. The actual rate of growth of population is low since high birth rate is balanced by high death rate.

Second Stage of Demographic Transition

With economic development resulting in high incomes, improvement in public health facilities there is a marked decline in mortality that raises life expectancy from under 40 years to 60 years. However, the decline in death rate is not immediately accompanied by decline in fertility. In this stage of demographic
transition, with declining death rate, birth rate does not fall correspondingly. This leads to transition from stable or slow growing population to rapidly increasing population.

**Third Stage of Demographic Transition**

The forces and influences of modernisation (including increase in female work participation rate and move towards nuclear families) and economic development causes fertility rate to decline so that falling birth rate eventually converges with the death rate leaving little or no population growth. The characteristics of the third stage are low birth rate, low death rate, small family size and low growth rate of population.

### 3.3 DEMOGRAPHIC PROFILE OF INDIA

#### 3.3.1 Size and Growth Rate of Population in India

The study of India’s demography is essential to understand the dynamics of economic development and economic welfare. Theory of demographic transition helps to understand and analyse the change in the magnitude of population.

India has around 2.4 per cent of the total land area of the world and approximately 17 per cent of the world population residing in this country. In 2011 the population of India was 1210 million, making it the second largest in the world. Area-wise, India is at the seventh position in the world.

**India’s Demographic Phases:**

A study of growth rate of India’s population can be categorised into four phases

**Phase I: 1891-1921 (Stagnant Population)**

During the first phase of 30 years India’s population grew from 236 million in 1891 to 251 million in 1921. High birth rate was neutralised by high death rate that ensured that population growth was stable during this period. Population increased by 15 million only and the compound annual growth rate was just 0.19 per cent per year. India’s first stage of demographic transition was marked by stagnant population.

**Phase II: 1921-1951 (Steady Growth)**

During the second phase of demographic transition population grew from 251 million in 1921 to 361 million in 1951. The population grew by 110 million with compound growth rate of 1.22 per cent per year. The death rate during this period decreased from 47 per thousand to 27 per thousand. The fall in death rate was mainly due to control of widespread epidemics like plague, smallpox, cholera etc. that took heavy toll of human lives. From 1921 onwards India entered the second phase of demographic transition marked by steady but low growth rate of population.

**Phase III: 1951-1981 (Rapid Growth)**

During the third phase of 30 years India’s population grew from 361 million in 1951 to 683 million in 1981. There was a record growth of population by 322 million with compound annual growth rate of 1.22 per cent per annum. With the beginning of planning, the extension of hospitals and medical facilities was under-
taken on a large scale. This resulted in sharp decline in death rate to 15 per thousand, but the birth rate did not fall at the same pace. It fell from 40 to 37 per thousand and this led to population explosion during this period. A steep rise in population growth rate (over 2 per cent) was due to a steep fall in the mortality rate accompanied by high fertility rate.

**Table 3.1: Growth of Population in India (1891-2008)**

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Populations in millions</th>
<th>Increase or Decrease (in millions)</th>
<th>Percentage Increase or Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>236</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1901</td>
<td>236</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1911</td>
<td>252</td>
<td>+16</td>
<td>+5.7</td>
</tr>
<tr>
<td>1921</td>
<td>251</td>
<td>-1</td>
<td>-0.3</td>
</tr>
<tr>
<td>(1891-1921)</td>
<td></td>
<td>+15</td>
<td>+0.19</td>
</tr>
<tr>
<td>1931</td>
<td>279</td>
<td>+28</td>
<td>+11.0</td>
</tr>
<tr>
<td>1941</td>
<td>319</td>
<td>+40</td>
<td>+14.2</td>
</tr>
<tr>
<td>1951</td>
<td>361</td>
<td>+42</td>
<td>+13.3</td>
</tr>
<tr>
<td>(1921-1951)</td>
<td></td>
<td>+110</td>
<td>+1.22</td>
</tr>
<tr>
<td>1961</td>
<td>439</td>
<td>+78</td>
<td>+21.6</td>
</tr>
<tr>
<td>1971</td>
<td>548</td>
<td>+109</td>
<td>+24.8</td>
</tr>
<tr>
<td>1981</td>
<td>683</td>
<td>+135</td>
<td>+24.7</td>
</tr>
<tr>
<td>(1951-1981)</td>
<td></td>
<td>+322</td>
<td>+2.14</td>
</tr>
<tr>
<td>1991</td>
<td>846</td>
<td>+161</td>
<td>+23.9</td>
</tr>
<tr>
<td>2001</td>
<td>1029</td>
<td>+183</td>
<td>+21.5</td>
</tr>
<tr>
<td>2011</td>
<td>1210</td>
<td>+181</td>
<td>+17.64</td>
</tr>
<tr>
<td>(1981-2011)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Phase IV: 1981-2011** (High growth with definite signs of slowing down)

India entered the fourth phase of demographic transition marked by high population growth with definite sign of slowing down. Total population increased from 683 million in 1981 to 1210 million in 2011 indicating an increase of 77.2 per cent during the 30 year period. The compound annual growth rate of population reduced from 2.14 per cent (1991-2001) to 1.64 per cent (2001-2011). Most Indian states such as Kerala, Tamil Nadu, Andhra Pradesh, West Bengal, Punjab, Himachal Pradesh, Gujarat and Assam have recorded low birth rates during this phase. States like Madhya Pradesh, Uttar Pradesh, Bihar and Rajasthan will take some more years for complete implementation of family planning programme.
Table 3.2: Compound annual Growth Rate of Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891-1921</td>
<td>0.19</td>
</tr>
<tr>
<td>1921-1951</td>
<td>1.22</td>
</tr>
<tr>
<td>1951-1981</td>
<td>2.15</td>
</tr>
<tr>
<td>1981-2001</td>
<td>1.93</td>
</tr>
<tr>
<td>2001-2011</td>
<td>1.64</td>
</tr>
</tbody>
</table>

Source: Census of India 2001

Although the results from the Census 2021 have been delayed due to COVID 19, there are indications that India is moving faster than earlier projected towards attaining replacement level fertility rates at the state level and the consequent stabilisation of population. Recent surveys show that in majority of Indian states fertility rate has fallen well below the replacement level of 2.1 and the country is fast approaching the replacement level itself. The total fertility rate of India stands at 2.2 as of 2017.

3.3.2 Birth Rates and Death Rates

The rate of growth of population depends on birth rate and death rate. The difference between birth rate and death rate gives us acceleration or deceleration in the growth of population.

1) The growth of population was very low before 1921 due to prevalence of high birth rate and high death rate. The birth rate varied between 46 and 49 per thousand and death rate fluctuated between 42 and 48 per thousand.

Table 3.3: Average Annual Birth and Death Rates in India

<table>
<thead>
<tr>
<th>Decade</th>
<th>Births per 1000</th>
<th>Deaths per 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891-1900</td>
<td>45.8</td>
<td>44.4</td>
</tr>
<tr>
<td>1901-1910</td>
<td>48.1</td>
<td>42.6</td>
</tr>
<tr>
<td>1911-20</td>
<td>49.2</td>
<td>48.6</td>
</tr>
<tr>
<td>1921-30</td>
<td>46.4</td>
<td>36.3</td>
</tr>
<tr>
<td>1931-40</td>
<td>45.2</td>
<td>31.2</td>
</tr>
<tr>
<td>1941-50</td>
<td>39.9</td>
<td>27.4</td>
</tr>
<tr>
<td>1951-60</td>
<td>40.0</td>
<td>18.0</td>
</tr>
<tr>
<td>1961-70</td>
<td>41.2</td>
<td>19.2</td>
</tr>
<tr>
<td>1971-80</td>
<td>37.2</td>
<td>15.0</td>
</tr>
<tr>
<td>1985-86</td>
<td>32.6</td>
<td>11.1</td>
</tr>
<tr>
<td>2010-11</td>
<td>21.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>


2) After 1921 the gap between birth rate and death rate widened. There was fall in the death rate from 48.6 per thousand in 1911-20 to 7.1 per thousand in 2001-2010.
3) The birth rate also showed a decline after 1971 due to family planning programs. States like Kerala, Tamil Nadu, Maharashtra, Andhra Pradesh, West Bengal, Karnata and Punjab achieved a birth rate below 20 per thousand. But states like Haryana, Gujarat, Uttar Pradesh, Rajasthan, Bihar, Madhya Pradesh had high birth rates ranging from 27-28 per thousand. Hence India as a whole did not enter third stage of demographic transition.

4) The high growth rate of population in India is an outcome of consistently high birth rate but relatively fast declining death rate.

### 3.3.3 Gender Composition of the Population

Gender ratio is a perfect way to find the number of women in any country. Gender ratio shows ratio of females to that of males in India. According to Census 2011, there were 940 females per 1000 males compared to 933 females per 1000 males in 2001. The imbalance in gender ratio in India has been persistent, showing a continuous declining trend since 1901, with the exception in 1981 and 2011, when it recorded a marginal improvement. It has been found that the probability of women to live longer than men is high. This is supported by evidence in the advanced western countries where the proportion of women in total population is higher than that of males. In India 108 females are born per 100 males but the loss of more females or problem of missing women as highlighted by Prof. Amartya Sen is due to reasons including the following:

1) Ignoring the nutrition needs of a girl child leading to higher mortality
2) High maternal mortality due to insufficient care and attention
3) Sex selection abortions due to social preference for a boy across communities
4) Female infanticide
5) Deterioration in the gender ratio at birth

<table>
<thead>
<tr>
<th>Year</th>
<th>Females per 1000 Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>972</td>
</tr>
<tr>
<td>1911</td>
<td>964</td>
</tr>
<tr>
<td>1921</td>
<td>955</td>
</tr>
<tr>
<td>1931</td>
<td>950</td>
</tr>
<tr>
<td>1941</td>
<td>945</td>
</tr>
<tr>
<td>1951</td>
<td>946</td>
</tr>
<tr>
<td>1961</td>
<td>941</td>
</tr>
<tr>
<td>1971</td>
<td>930</td>
</tr>
<tr>
<td>1981</td>
<td>934</td>
</tr>
<tr>
<td>1991</td>
<td>927</td>
</tr>
<tr>
<td>2001</td>
<td>933</td>
</tr>
<tr>
<td>2011</td>
<td>940</td>
</tr>
</tbody>
</table>

As a consequence, in 2011 females per thousand males were 940, while in Russia it was (1,140), in Japan (1041) and in U.S.A (1029). The imbalance in gender
Indian Economic Development: An Overview

Indian Economic Development: An Overview

The gender ratio varied from 818 in Chandigarh to 1084 in Kerala in 2011. In case of Child Sex Ratio (CSR) Haryana was at the bottom with CSR of 834 while Meghalaya and Mizoram were at the top with CSR of 970. Pondicherry and Kerala have maximum number of women in India while Haryana and Daman & Diu have lowest gender ratio. Few states like Maharashtra, Karnataka and Andhra Pradesh showed improvement in gender ratio in 2011.

There has been sharp deterioration in the gender ratio in Bihar from 946 in 1981 to 916 in 2011. In Punjab, U.P and Haryana gender ratio varies from 877 to 908 per 1000 males.

Table 3.5: Gender Ratio (female per 1000 males) in Major States of India Arranged in Descending Order on the Basis of 1991, 2001 and 2011 Census

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kerala</td>
<td>1040</td>
<td>1058</td>
<td>1084</td>
</tr>
<tr>
<td>2.</td>
<td>Tamil Nadu</td>
<td>972</td>
<td>986</td>
<td>995</td>
</tr>
<tr>
<td>3.</td>
<td>Andhra Pradesh</td>
<td>972</td>
<td>978</td>
<td>992</td>
</tr>
<tr>
<td>4.</td>
<td>Odisha</td>
<td>972</td>
<td>972</td>
<td>978</td>
</tr>
<tr>
<td>5.</td>
<td>Himachal Pradesh</td>
<td>996</td>
<td>970</td>
<td>974</td>
</tr>
<tr>
<td>6.</td>
<td>Karnataka</td>
<td>960</td>
<td>964</td>
<td>968</td>
</tr>
<tr>
<td>7.</td>
<td>West Bengal</td>
<td>917</td>
<td>934</td>
<td>947</td>
</tr>
<tr>
<td>8.</td>
<td>Assam</td>
<td>925</td>
<td>932</td>
<td>935</td>
</tr>
<tr>
<td>9.</td>
<td>Madhya Pradesh</td>
<td>932</td>
<td>920</td>
<td>930</td>
</tr>
<tr>
<td>10.</td>
<td>Rajasthan</td>
<td>913</td>
<td>922</td>
<td>926</td>
</tr>
<tr>
<td>11.</td>
<td>Maharashtra</td>
<td>936</td>
<td>922</td>
<td>925</td>
</tr>
<tr>
<td>12.</td>
<td>Gujarat</td>
<td>936</td>
<td>921</td>
<td>918</td>
</tr>
<tr>
<td>13.</td>
<td>Bihar</td>
<td>912</td>
<td>921</td>
<td>916</td>
</tr>
<tr>
<td>14.</td>
<td>Uttar Pradesh</td>
<td>882</td>
<td>898</td>
<td>908</td>
</tr>
<tr>
<td>15.</td>
<td>Punjab</td>
<td>888</td>
<td>874</td>
<td>893</td>
</tr>
<tr>
<td>16.</td>
<td>Haryana</td>
<td>874</td>
<td>861</td>
<td>877</td>
</tr>
<tr>
<td>17.</td>
<td>India</td>
<td>927</td>
<td>933</td>
<td>940</td>
</tr>
</tbody>
</table>


3.3.4 Literacy and Gender Composition

Literacy is an important indicator of development. It helps in advancing modernisation, urbanisation, industrialisation, communication, and commerce. It plays a vital role in economic mobility, creating equality and contributing to social development including by addressing the factors behind imbalances in the sex ratio. The spread of education and improvement in educational status has led to the fall in the sex ratio. As per the reports of NFHS-5 (National Family Health Survey, 2019-20) Andhra Pradesh (68.6%), Bihar (57.8%) and Telangana (66.6%)
accounted for lowest literacy rates among women, while Kerala (98.3%), Lakshadweep (96.5%) and Mizoram (94.4%) recorded the highest literacy rate among women in surveyed states and UTs. Literacy according to the survey refers to women or men who completed standard 9 or higher and women or men who can read a whole sentence or part of sentence.

3.3.4.1 Gender Selective Abortions in India

The proportion of female in India’s total population has been low and declining since several decades. The declining gender ratio or sex imbalances have been the cause of grave concern since it reflects the mindsets of people. India is a country where son is given strong preference compared to daughters in many families. There are various social, cultural, and economic factors like economic support, property inheritance, old age security, prestige, beliefs about religious rituals and salvation that leads to preference for sons over daughters. The son is seen as an insurance against old age in the absence of strong social security system. The discriminatory allocation of good diet, medical care and other family resources in favour of sons over daughters is due to the consideration of potential benefits that puts sons above daughters. Daughters in many families in India are still considered as financial liability by their parents. A study conducted by CARE (Co-operative for American Relief Everywhere) for pre-school children in Punjab showed that 29 per cent of male children suffered from severe malnutrition but the proportion was 71 per cent in case of females. Consequently, infant mortality rates are high among girl child even in states like Punjab which has the highest per-capita income.

The sudden fall in the number of girls aged 0-6 years age group shows linkages between invention of new medical technologies such as pre-natal diagnostic techniques and increased incidence of sex selective abortions or female foeticide. The advancement in medical technologies has led to misuse of sex determination technologies such as ultrasound scanning and amniocentesis. These technologies were introduced to determine genetic abnormalities among fetus and were used to detect sex of the child.

The recent legislation about Medical Termination of Pregnancy embodied in 1971 Act states that abortion can be performed legally if pregnancy causes danger to the life of the women or if it affects her physical or mental health or if the child is going to be born with serious abnormalities. The proliferation of sex determination tests (amniocentesis) has made it possible to kill female foetus before birth. The unregulated sex determination and female infanticide prior to birth has exercised a negative influence on sex ratio which is moving against the females.

3.3.4.2 Government Response

Sex determination tests have become a part of strategy to ensure desired family sex composition. Sex selection in fact is preferable alternative to female infanticide or discriminatory ill-treatment of girls after birth. The response of Indian government has been slow and ineffective.

In 1998 The Prenatal Diagnostic Techniques Regulations and Prevention of Misuse Bill was introduced. The law covers all the clinics, hospitals and laboratories offering prenatal testing.
The salient features of the bill are as follows-

1) Prenatal Diagnostics can only be conducted to detect genetic abnormalities (including sex linked genetic diseases).

2) The test may only be undertaken by high-risk pregnant women who meet at least one of the following criteria
   a) Age over 35 years
   b) History of 2 or more abortions
   c) History of exposure to hazardous substances
   d) Family history of genetic disorder
   e) Any other conditions as specified by the authorities

3) Use of prenatal diagnostic technologies for indicating the sex of the foetus is banned. Offences are punishable by both imprisonment and a fine.

The government sponsored girl child schemes like Beti Bachao Beti Padhao, Sukhanya Samriddhi Yojana, Balika Samriddhi Yojana, Dhanalakshmi Scheme, C.B.S.E Udaan Scheme have been introduced to bring change in social attitude towards girl children. The government also needs to address the issues like low levels of education, poor health, unhygienic living conditions and poverty to uplift the status of the women in society. With economic development and high female literacy and female labour force participation rate the gender bias against women are bound to decline and the sex ratio will improve.

3.3.5 Age Composition

The age structure or composition of a population is the distribution by age of the population. Age is the central concept in demography for two reasons:

1) Demographic behaviour and benefits of demographic dividend depends on the age structure of the population.

2) Populations of different age structure relate to each other.

As populations shift from high mortality and high fertility to low mortality and low fertility there will be a bulge in the younger age group. This youth bulge can be a burden or dividend depending upon policies, institutions, and economic circumstances. If the economy hits rock bottom and there is high unemployment youth may turn to criminal activity or generate social unrest. Otherwise, demographic dividend helps in accelerating economic growth.

In the age group 0-14 the male population is about 1 per cent more than the female population. A higher proportion of male and female in the working age group 15-59 live in the urban areas as compared to rural areas. The Table 3.6 shows that a declining child population (0-14) and old age group (60+) reflects a declining dependency ratio in the rural and urban areas. An increasing working age population reflects that India is enjoying the benefits of favourable demographics and potential demographic dividend in near future. This youth bulge can be demographic dividend or demographic disaster depending upon governance, infrastructure, education, health, employment opportunities etc.
Table 3.6: Percentage distribution of population by Broad Age Groups to Total population by Gender and Residence, India, 2011

<table>
<thead>
<tr>
<th>Residence</th>
<th>Gender</th>
<th>Broad Age Groups (years)</th>
<th>0-14</th>
<th>15-59</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>29.5</td>
<td>62.5</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Total</td>
<td>30.0</td>
<td>62.2</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Total</td>
<td>28.8</td>
<td>62.8</td>
<td>8.4</td>
</tr>
<tr>
<td>Rural</td>
<td>Male</td>
<td>Total</td>
<td>31.5</td>
<td>60.7</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Total</td>
<td>30.3</td>
<td>61.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Urban</td>
<td>Male</td>
<td>Total</td>
<td>26.1</td>
<td>66.2</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Total</td>
<td>24.9</td>
<td>66.9</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Note: Total percentage may not add to 100 on account of rounding in broad age groups

Source: Census of India (2011)

3.3.6 Life Expectancy

Life expectancy is the number of years a newborn child would live if subjected to the mortality risks prevailing for the population at the time of child’s birth. In the period 1901-10, life expectancy was very low (23 years). The rise became substantial from 1951. It was 41.3 years in 1961, 45.6 years in 1971 and 50.5 years in 1981 and 63.4 years in 2004. At present it is 69 years with women expected to live for 70.4 years and men for 67.8 years.

3.3.7 Rural-Urban Migration

The process of economic development is associated with growth of urbanisation. The urban population has been growing rapidly since 1961. As per cent of total population, the urban population was about 11 per cent in 1901, about 18 per cent in 1961, about 26 per cent in 1991, 29 per cent in 2004 and 31 per cent in 2011. With slowing of the rate of growth of population and acceleration of industrialisation, the pace of rural-urban migration is expected to increase. Factors like higher incomes, job security, education, health, entertainment attract people to urban areas. The push and pull factors have played an important role in the degree of urbanisation.

Check Your Progress 1

1) Elaborate the theory of Demographic Transition. Highlight the main trends of population in India.
2) Explain the problem of missing women in India as coined by Prof. Amartya Sen.

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3) Explain the pattern of population growth in India since 1891.

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3.4 POPULATION GROWTH AND DEVELOPMENT

Economic development is possible when a nation optimally utilises labour force and capital so that productive potential is realised. Labour force expansion has positive and negative effects on the process of economic development. According to K. Sundaram the implications of growing demographic pressures in India for the process of development in general and the progress towards poverty eradication become clearer once we focus on the labour force consequences of the population growth. The magnitude of the addition to the workforce brings forth challenges pertaining to their productive absorption and capital constraints in the labour market. Skilling and training millions of youth entering the labour force is a herculean task for any government.

1) Population and Agriculture

The rising labour force puts pressure on land thereby reducing per-capita cultivated area. The fall in the cultivated land-man ratio can be compensated by making efforts to raise productivity. Irrigation potential if fully utilised can raise agricultural productivity and fulfil the requirements of rising population. With green revolution India has become self-sufficient in the production of food grains, but the distribution of food grains has still remained a critical issue. The incidence of nutritional deprivation and undernourishment has been highest in India. Hence the challenges of food production, food consumption and food availability have to be seen in this light.

2) Population Growth and Per-capita Income

A high growth rate of population has been a retarding factor to raise per-capita income. There is cumulative effect of the growth of population and increase in economic activity. This effect depends on several factors like
food and nutritional adequacy, environmental degradation, infrastructural pressures etc. Economic growth can also increase on sustainable basis if we improve the education and health status of the population and create productive employment opportunities for the people joining labour force. The advantages and the limitations of population growth depend on the pace of human capital formation and its deployment in productive activities.

3) Population and Unemployment
Rising population is accompanied by rise in the labour force that has a bearing on the problem of unemployment. Millions of youth enter labour force every year and absorption of all of them in the manufacturing and services sector is a challenging task. Generating employment opportunities to absorb the increasing labour force and the backlog of the unemployed pool has to be a priority of the government. Job creation requires significant amount of resources invested in infrastructure, tourism, manufacturing, construction, MSMEs, railways, etc. Similarly, promotion of women’s employment opportunities and female literacy can play a vital role in harnessing the demographic dividend of the nation.

4) Population Growth and Environment
The demographic growth has implications on environmental resources, including on water resources, fodder and forest products, fisheries, air quality, soil, and other non-renewable resources. The degradation of environment has a deteriorating impact on the quality of life and well-being of the people. The greater reliance on solar and nuclear energy, judicious use of water resources, afforestation and organic farming can play a significant role in preserving the environment.

5) Population Growth and Social Infrastructure
Population growth leads to excessive pressure on social and economic infrastructure including sewage systems, hospital facilities, education institutions, highways, railways network, power grids, garbage-processing plants, and other public amenities. Due to urban agglomeration, there has been qualitative deterioration of social and physical or economic infrastructure. The pace of rural-urban migration has further increased slums in metropolitan cities burdening the already inadequate infrastructure resources. India needs to increase its expenditure on health and education to enhance labour productivity and employability. Creating quality education institutions at primary, secondary and tertiary level and expenditures on skill development and training are essential to take advantage of new and innovative technologies in future. Similarly, India suffers from problem of low doctor-population ratio and high out of pocket expenditure on health. Hence, by increasing public expenditure on health we can improve medical facilities and achieve goals of eradicating malnutrition and disease burden. The task of providing housing to every Indian requires allocation of resources and political will to execute the required social interventions.

3.4.1 Population Policy
The alarming increase in population calls for an effective population policy that can slow down the rate of population growth.
Indian Economic Development: An Overview

Family Planning and Five-year Plans

India became the first country in the world to adopt an official national population policy in support of family planning (Cadwell 1988, Visaria and Jain 1976). In the third five-year plan (1961-66), the objective of stabilising the growth of population within a reasonable period was put at the centre of India’s planned development. The late 1960’s saw a shift in the emphasis of family planning delivery from clinic-based approach to wider community extension strategy. In 1968 a demographic goal was set to reduce birth rate from 41 to 23 per 1000 within 10 years but the performance was far from desired.

By early 1970’s India experienced very high rate of population growth. The 1971 Census showed a decadal increment of 109 million. Consequently, there was renewed emphasis on targets, compensation payments and male sterilisation. In the fifth five-year plan Prime Minister Indira Gandhi tried to implement population control using coercive and dictatorial powers. The Emergency in 1975 -77 saw forced sterilisation in mass camps that ended up being a failure and undermining family planning in the country.

The rhetoric of the population control and forced sterilisation largely disappeared in the Sixth Plan (1980-85). However, family planning became more widespread in practice. Since Seventh Plan there were efforts to tailor family planning programme to the conditions prevailing in different states and adoption of multi-sectoral approach that recognised linkages between birth control and education programmes.

To achieve family planning goals government adopted following measures:

1) Motivation programme to spread knowledge of family planning through newspapers, radio, T.V., film, etc.
2) Involvement of private sector in contraceptive delivery to all rural and urban population.
3) Financial incentives and political restrictions to encourage family planning.
4) Extensive sterilisation of both males and females.

With the fall in fertility rate, there was preference for boys over girls that resulted in problem of missing women in India. In 2010, the ratio of males to females in India had reached 108 to 100, one of the highest in the world. Kerala emphasised on poverty reduction and human development and achieved a sharp decline in fertility rate in India. In Kerala, more than 85 per cent of women are literate, which means they have more power in household and opportunities in the work force. The success of Kerala suggested that by bringing in women empowerment, literacy, and human development we can bring in reduced fertility rates and preferences for small family could be improved.

3.4.2 National Population Policy, 2000

The National Population Policy, 2000 was announced on 15th February 2000 with an objective to control the rapidly growing population and stabilise it at reasonable level.
**Immediate Objective**

The immediate objective is to provide for facilities to meet the unmet needs for contraception, health care infrastructure and health personnel and an integrated service delivery for basic reproductive and child health care.

**Medium-term Objective**

The medium objective is to bring Total fertility rate (TFR) to replacement level by 2010.

**Long-term Objective**

The long-term objective is to stabilise population by 2045, at a level consistent with requirements of sustainable economic growth, social development, and environmental protection.

National Population Policy listed the following measures to achieve a stable population by 2046.

1) Reduction of infant mortality rate below 30 per 1000 live births.
2) Reduction of maternal mortality rate to below 100 per 1,00,000 live births.
3) Health insurance cover of Rs. 5000 for couples below poverty line, with two living children, who undergo sterilisation.
4) To achieve 80 per cent deliveries in regular dispensaries, hospitals, and medical institutions with trained staff.
5) A special reward for women who marry after 21 and opt for terminal method of contraception after the second child.
6) Self-help groups at village panchayat levels comprising mostly of housewives to engage with health care workers and gram panchayats.
8) Access to information containing AIDS, prevention and control of communicable diseases.
9) Incentive to adopt two child small family norms. The message of small family is to be spread through dissemination of information, education, and communication.
10) Facilities for safe abortions to be increased. Contraceptive technology and research in the reproductive and child health are to be encouraged.
11) Elementary education to be made free and compulsory.
12) A National Commission on Population headed by Prime Minister to monitor implementation of new policy.
13) A National Population Stabilisation Fund renamed as Janasankhya Sthirata Kosh (JSK) to support projects schemes, initiatives and innovative ideas designed to help population stabilisation and provide window for canalising resources through voluntary contributions.
Achievements

It has been estimated that 320 million births have been averted during the period 1956-2011 through family welfare programme. The incidence of acceptance of family planning methods peaked at 62.9 million at the beginning of 2011. The couple protection rate has gone up to 48.0 per cent (against the world average of 61 per cent).

It brings out that the demographic transition has already set in India and is moving swiftly to its final stage. The resulting differential impact on fertility level and on population growth rate is clearly reflected in 2011 census. India will reach the threshold of the Net Reproduction Rate of 1 within a decade from now. The desired family size is already close to replacement level in 10 states. In other states it is much lower than the actual number of children born.

The population policy seems to have great potential for attaining the goal of a stable population in the stipulated time frame. There are opportunities that are untapped. If we seize these opportunities we can reduce birth rate, infant mortality rate and promote adoption of small family norms in the country.

Limitations

1) Population control programme is led by government bureaucracy, which can be effective in addressing technical matters, but here we need transformation in the attitudes of people in the favour of small family norm.

2) The main targets laid down in the Population policy are over-ambitious. Goals like making school education up to age of 14 free and compulsory, reducing school drop-out rates to below 20 per cent for both girls and boys, achieving TFR of 2.1 by 2010, reducing infant mortality rate to 42 per 1000 live births, reducing maternal mortality rate to below 100 (from 437) per 100000 live births, achieving universal immunisation of children against all vaccine preventable diseases are too ambitious to be achieved in the stipulated timeframe.

3) The incentives mostly in cash resulted in widespread corruption and cooking of data. These incentives did not reach people who were living in areas where the fertility is high (urban slums, tribal communities). The social transformation can only be brought with effective implementation of policies at the grass root level and requires an active participation of people.

Check Your Progress 2

1) Critically examine the link between population growth and economic development in India.
2) How does population growth hinder economic development in India? Discuss the measures that have been undertaken in India to check population growth.

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3) Examine the population policy and government measures to control population growth in India.

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3.5 DEMOGRAPHIC CHANGE AND ECONOMIC GROWTH

India has witnessed rapid population growth from 448 million in 1960 to 1.04 billion in 2000 to 1.21 billion in 2010. India’s population is currently growing at a rate of 1.4% per year. This rapid growth of population has been accompanied by an unparallel decline in mortality rates and an increase in income per-capita.

3.5.1 Age Structure and Economic Growth

There have been two significant breakthroughs regarding the impact of demography on economic growth. The first is the effect of changing age structure of the population and the second relates to population health.

The age structure of the population can have a large effect on economic growth. This can be due to shifts as a result of baby booms and busts and their echo effects. The baby boom is not caused by increase in births but by the sharp reduction in infant and child mortality due to increased access to vaccines, antibiotics, safe water and sanitation. This type of baby-boom starts with higher survival and fertility declines as couples recognise that fewer births are needed to reach their targets for surviving children and those targets are moderated. Presence of more children requires more resources for food, clothing, housing, medical care, and schooling. This gives boost to consumption led growth. The babies born will reach working ages with period of 15-25 years where they become productive and contribute to the process of economic growth and development.

3.5.2 Concept of Demographic Dividend

Demographic Dividend is an accelerated economic growth that a nation experiences once in a lifetime when working age population grows at a faster pace than dependent population, provided that government policies and
institutions are conducive to create employment opportunities for an expanding labour force. Demographic dividend is a window of opportunity when the share of working age population in total population rises, which is known to have many benefits flow to its people. Before the dividend begins the nation is burdened with high dependency ratio, with a large and growing share of population below working age of 15. Once the dividend period has passed share of elderly population rises and they have to be provided with pension and health benefits. Demographic dividend lying between two periods is characterised by low dependency ratio and high share of working age population.

The Population Reference Bureau defines Demographic Dividend as follows

“The demographic dividend is the accelerated economic growth that may result from decline in a country’s mortality and fertility and the subsequent change in the age structure of the population. With fewer people to support a country has window of opportunity for rapid economic growth if the right social and economic policies are developed and investments made.”

Demographic Dividends are composite of five distinct forces-

1) The swelling of labour force as baby boomers reach working age.

2) The ability to divert social resources to investments in physical capital, job training and technological progress.

3) The rise in women’s work-force activity or labour force participation rate that naturally accompanies a decline in fertility.

4) The working age or age between 15 years to 59 years is prime age for savings which augments accumulation of physical and human capital and technological innovation.

5) With increase in life expectancy there is boost to savings that occur, as the incentive to save for longer periods of retirement increases.

The East Asian miracle happened because demographic change accounted for approximately 2 percentage points of growth rate of income per-capita, representing one-third of the supposed miracle. East Asian’s rapid economic growth was spurred by its demographic transition with decline in the fertility. Fertility decline lowers youth dependency immediately but does not appreciably affect the working age population for 20-25 years. As the share of working age population increases and dependent population declines there is an opportunity for economic growth.

However, demography dividend is not destined. An increase in working age population or productive population does not automatically lead to acceleration of economic growth. In order to capitalise the demographic dividend we need appropriate policies and institutions that would enable this working age population to find productive employment opportunities, thereby boost economic growth. In the absence of right policies and good governance, a nation may find itself with large number of unemployed or underemployed working age individuals. This unemployed pool in some instances would promote state fragility and failure with adverse political, social, economic, and ecological spill overs. Demographic dividend in that scenario gets turned to demographic disaster.

India began reaping the benefits of demographic dividend in the early 1980’s, more concretely in 1990s and is expected to reap till 2040. India has 20 more
years to realise the benefits of this demographic dividend. India needs visionary policies in the field of education, health and employment and speedy decision making to increase and sustain GDP, reduce poverty, and enhance human capabilities of our citizens. We need to ensure employment-intensive growth and social inclusion for the next quarter century to capitalise on the demographic window of opportunity.

3.5.3 Population Health

Health is a strong driver of economic growth. A productive and healthy workforce can be easily absorbed in the labour market thereby maximising the benefits of demographic dividend. Healthy populations have higher savings rates and better cognitive skills. They also attract higher foreign direct investment. According to Bloom (2011), healthier countries experience faster growth in average income and that a 10-year gain in life expectancy translates into as much as 1 additional percentage point of annual growth of income per-capita.

India’s health and nutrition indicators are very poor relative to the developed and developing nations. This is because healthcare has been one of the most neglected sectors of development and has suffered from persistent neglect in the public policy. The lack of effective public involvement with health matters in India has played no small part in the resilience of India’s health predicament. (Dreaze and Sen, 2013)

It is important for India to develop a comprehensive vision of health care for the country. This should be accompanied by better health delivery mechanism through institutional change and by devoting greater proportion of GDP to public expenditure on health. This has to go hand in hand with cultivation of greater efficiency and accountability in public services. Lessons can be learnt from states like Tamil Nadu, Kerala and Himachal Pradesh that have demonstrated the possibility of making rapid progress in health at an early stage of development. India can also learn from countries like Thailand, Brazil, Mexico, and China that have transformed health policies for the well-being of their citizens.

3.6 DEMOGRAPHIC DIVIDEND AND POLICY INTERVENTIONS

According to National Population Stabilisation Fund, India’s population stands at 1.34 billion constituting 17.25 per cent of the world population and growing at 1.2 percent per annum. India will have around 1.53 billion people by 2030 and will boost of world’s largest working age population which is expected to touch 962 million by 2030. The growth rate of labour force will continue to be higher than the dependent population. This shows that India’s demographic window of opportunity or demographic dividend shall witness huge potential during this period.

According to the Economic Survey 2014-15 ‘300 million youth will enter the labour force by 2025 and 25 per cent of the world’s workers in the next three years will be Indians. Population projections indicate that in 2020, the average age of India’s population will be lowest in the world around 29 years compared to 37 years in China and United States of America, 45 years in West Europe and 48 years in Japan.’ Consequently, while the global economy is expected to witness
a shortage of young population of around 56 million by 2020, India will be only
country with a youth surplus of 47 million. (Report on Education, Skill
will not only have a young work force to fulfil its domestic needs but also an
opportunity to become the global hub for skilled work-force. (Niti Aayog, 2017).

According to Dyson “More than half of the demographic growth during 2001-
2026 will occur in the northern states like Bihar, Madhya Pradesh, Rajasthan
and U.P. The populations of these four states will increase around 45-55 per cent
over this period, but those of other states will grow by only about 20-30 per
cent.” Unleashing the demographic dividend is one of the biggest challenges
that India faces today. Some states like Kerala, Goa, Tamil Nadu, Andhra Pradesh,
Punjab, Himachal Pradesh and West Bengal have surpassed average age of 29
years and hence shall be experiencing population ageing soon. States like Bihar,
Madhya Pradesh, Rajasthan, and Uttar Pradesh have huge potential demographic
dividend that can be utilised if timely action is taken. Equipping the young
population with health, education, employment opportunities and adequate skills
is of paramount importance.

The demographic window of opportunity has several challenges.

1) **Education and Skills**

Human resource development plays an important role in unlocking
demographic dividend. Investment in education helps in increasing
productive labour force and empowers them with increased knowledge and
skill. The public expenditure on education has been very low (around 3.6
per cent) as against the goal of 6 per cent. The current contribution is
significantly less if we aim universalisation of elementary education,
universal provision of resources, universal enrolment and retention and
growth in secondary and higher education. Education can act as a powerful
instrument of social change and economic development. The quality of
education needs to be addressed immediately which is possible if we increase
investment in education and allocate resources judiciously.

Education empowers youth with skills and vision that help them contribute
productively in today’s knowledge economy. India dreams of becoming skill
capital in today’s world. For that we need to work on the quality of India’s
primary, secondary and tertiary education. Quality education augments
knowledge, skills and productivity of students who later on get employed
productively in different sectors of the economy. Hence education is the
back-bone of young India’s ability to harness the demographic dividend.
Girl’s education can further serve as an instrument for promoting fertility
decline. Education raises the opportunity cost of having children and hence
working and educated women prefer having less number of children. The
cost of investment per child also goes up as parents invest more in health
and education of each child raising productive capacity of future generation.

States need to adopt specific policy measures in the field of education-

i) Improving access to education considering high dropout rates among
senior students.

ii) Removing gender disparity in the higher age group and in the rural
areas.
iii) Improving quality of education, including pupil-teacher ratios and provision of amenities in schools, especially in view of the declining learning levels. (Economic Survey 2014-15).

Southern states had harnessed the benefits of demographic dividend since they had higher education enrolment and better quality of education and learning levels. The northern states have huge demographic potential due to declining fertility rate. They have time to plan and pursue policies in several areas like education, health, gender issues and employment generation to garner the benefits of demographic opportunity.

2) Employment

The benefits of demographic bonus with diminishing dependency ratio cannot be reaped unless the country’s working age population to total population improves in the face of expansion in employment opportunities. The benefits of demographic dividend are neither automatic nor guaranteed. India’s economic growth has not been very employment friendly. The quality of available employment has fallen as the share of unorganised and casual work in total employment has risen. Roughly 93 per cent of the workforce is employed in the informal sector. India’s high rate of informality is a drag on its economic development and source of economic inequality. Informal workers lack job security and are vulnerable to shocks such as loss of income and illness. They earn less, work in unsafe environment and are hence less productive compared to the formal workers.

India experienced three paradoxes of economic growth (Santosh Mehrotra, 2016)

i) There has been social inclusion but very little inclusive growth. Inclusive growth can be defined as one where output growth is accompanied by employment growth. When the growth is inclusive, the benefits of growth reach the bottom sections of the society. It was found that, despite high growth rate of national income, most of the increase in the employment took place in unregistered enterprises in the form of informal employment.

ii) In the period of sustained rapid economic growth from 2005-10 manufacturing employment declined in the absolute terms and services employment barely grew at all. Employment increase has been concentrated in construction sector which absorbed unskilled workers leaving agriculture, due to slow agricultural growth and chronic rural distress driven by shrinking farm size.

iii) The female labour force participation rates have been falling, despite rising per-capita income. Women’s labour force participation rate dropped from 42.7 per cent in 2004-05 to 31.2 per cent in 2011-12 and further to 27.4 per cent in 2015-16. The participation rates are lower in urban areas and among the educated women.

India is at a crucial point of its demographic dividend since window of opportunity will not last forever. The youth must get productive jobs in agricultural and non-agricultural sector for the demographic dividend to be realised.
The realisation of India’s demographic dividend depends upon favourable demographics and capacity to create productive employment opportunities for youth. We have the advantage of being youngest nation on the planet but we still have not skilled our youth sufficiently and created ample job opportunities. Youth unemployment is one of the biggest challenges that our nation is facing today. To overcome this challenge we have to adopt certain policies:

A) **Efficient Infrastructure**

Economic infrastructure includes reliable roads, railways, telecommunications, water supply, sanitation, agricultural needs etc. Social infrastructure also comprises of education and health services that needs to be improved considerably. Investment in education and training will equip the youth with different skills and enhance their employability capabilities. Expansion of primary and secondary schools along with quality upgradation can help in achieving goal of universalisation of literacy and promote employment opportunities. Expansion of health services will promote demand for doctors, paramedical personnel and other diagnostic centre that will enlarge employment.

Provision of rural infrastructure can be tapped as an important source of employment generation. Connecting roads in rural areas to urban areas and four lane highways projects should be encouraged. Prime Minister’s Gram Sadak Yojana is aimed at connecting all villages with pucca road and is a labour-intensive project.

B) **Information Technology**

IT industry has opened employment opportunities for educated youth and has a great future. Government has a major role in expanding computer education to rural areas and bottom sections of the society so that the capabilities of youth are directed towards IT jobs.

C) **Small Scale Industries**

In the manufacturing sector, small scale industries contribute 86 per cent of the employment while medium and large scale industries contribute 14 per cent of the employment. The major problem with SSI units is credit and upgradation of technology. The government’s initiatives in providing higher amount of credit through MUDRA schemes would enlarge employment generation.

D) **Reformed Outlook towards Informal Sector**

Informal sector employs a large proportion of casual workers and self employed workers in total labour force. Around 93 per cent of the workforce is absorbed in the informal or unorganised sector. Hence it is important to make it easier and accessible for the job seekers to find self-employment in productive work during the transformation of economic structure into organised system. All the legal and regulatory hurdles in form of difficulties in availability of credit and marketing should be addressed by the government immediately. Encouraging the informal sector by providing the workers social security and cash transfers would help them to sustain lives and improve their standard of living.
3) **Environmental Issues**

The future population growth will have a major impact upon country’s demand for water, food production, forest products, non-renewable resources, etc. The aim is to ensure that development is sustainable where the needs of present generation are met and the resources for future generation are secured. The rapid urbanisation and growth of industrial production had a major impact on environmental quality. Hence it is important to ensure that benefits of demographic dividend do not come at the cost of the environment.

4) **Family Planning Programme**

India’s demographic window of opportunity involves acceleration of fertility decline. The expansion of family planning services and satisfying India’s unmet need for contraception would help India bring down the total fertility rate below replacement level. Secondly, vaccination against childhood disease would improve the probability of infant and child survival and lower fertility rate. Expansion of coverage of established and inexpensive vaccinations such as those against polio, tetanus, measles or inclusion of expensive vaccinations against rotavirus, pneumococcal disease and Haemophilus influenza type b (Hib) would address the leading causes of child death in India.

The provision of high-quality family planning and reproductive health care services will certainly benefit the bottom sections of the society and women. The faster pace of fertility decline will also ensure that growth of youth entering labour force decline which would enhance employment prospects and increase standard of living of people. Parents can invest in health and education of their children that would help in building skilled and productive workforce of our nation. Family planning is also instrumental in reducing pressure on environmental resources.

5) **Good Governance**

In a nation where institutions function efficiently there is transparency in legal system, low level of corruption, respect for property rights and sanctity of contracts exist, the development accelerates at a fast pace. A good governance model is the key ingredient to balanced growth, equity and stability in the nation. It helps in channelising the resources in an efficient manner so that youth gets productively absorbed in the agriculture, manufacturing and services sector. Policies that promote inclusive economic growth avoid severe trade imbalances and reduce inflation should be encouraged. The governance model comprises not only of prudent fiscal and monetary policies but also well developed and competitive financial markets. Labour markets with labour reforms can ensure that rights of workers are protected and secured.

The daunting challenge of training large workforce and skilling them while ensuring quality and speed with the help from private and public sector is before us. To realise the benefits of demographic dividend India needs reforms in primary, secondary and higher education along with health infrastructure that can equip the young population. We also need to correct the mismatch between demand and supply of skills and address these issues in time-bound manner. Massive effort is needed in improving investment in social infrastructure, empowerment of women and skill development.
In the long run population growth shall necessitate administrative reforms and decentralisation of governance. With millions of people getting added every year we need modern technology and strong public service delivery. With the help of information and digital technology India can remove multiple layers of governance. Schemes like direct benefit transfer, Jandhan yojana, e-payment under Mahatma Gandhi National Rural Employment Guarantee facilitated the beneficiaries and were useful social sector programmes. The success, however, depends upon greater degree of accessibility to information for the public, greater accountability, transparency, efficiency and proper execution of policies of the government.

3.6.1 Capturing India’s Demographic Dividend

India has the advantage of harnessing the benefits of demographic dividend but this is neither obvious nor guaranteed. It requires favourable policies and institutions along with good governance to reap the benefits in time bound manner. The proper execution of right policies will reduce the gap between potential demographic dividend and the actual demographic dividend. India has huge potential and opportunities in health and education sector. The establishment of Public Health Foundation of India and National Rural Health Mission is significant step in promotion and protection of health including training and deployment of health professionals who focus on prevention, treatment and care. Similarly India’s demographic dividend is nothing but education dividend based on empirical findings of research papers. The secondary and higher education will equip India’s youth with skills that are needed in knowledge and technology based economy. The productive work-force and ample job opportunities are essential in unlocking the demographic dividend.

A new model of development is essential to capture demographic dividend. The model should emphasise on three pillars of development- Education, Health and Employment. India needs combination of various approaches and policies and proper execution to harness the window of opportunity. The model of development should reconcile growth rate with employment generation and ‘decent work for all’ as its ultimate objective. Instead of spending on subsidies the government should spend resources on development of rural infrastructure in form of minor irrigation and watershed development that raises productivity and employment opportunities.

Poor states like Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh have been experiencing falling fertility rates and rising share of working age population. But favourable demographics are not supported by quality education and productive employment opportunities for millions of youth entering labour force. Hence the untapped demographic potential will go waste if not acted upon at the right time. The role of government is to identify skill gaps in different states and execute the policies that are suitable to capture the demographic dividend.

Check Your Progress 3

1) Explain the concept of Demographic Dividend. Is India’s demographic transition supportive of enabling her to harness this dividend?

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2) In order to realise the demographic dividend India needs reforms in education, health and employment generation. Explain.

3) Youth unemployment is one of the biggest challenges that our nation is facing today. Explain. What are the policies that government should adopt to overcome this challenge?

3.7 LET US SUM UP

Demographics matter for economic development. India has several advantages that can make potential demographic dividend become actual demographic dividend. But there are several constraints as well that make the gap between the potential and the actual demographic dividend difficult to bridge. Demographic dividend manifests itself when there is careful interaction of demographic change with policies in the areas of education, health, trade, governance, labour market conditions and capital markets. A productively employed working age population is the key to realisation of actual demographic dividend. A healthy workforce that is educated and productively absorbed in different sectors is always an asset for a nation. To attain the goal of absorption of millions of youth entering labour force every year we need to emphasise on improved health care facilities, human resource development skills, quality education, reduction of malnutrition and productive employment opportunities. The effect of labour force participation rates especially female labour force participation shall also determine India’s ability to unlock the demographic dividend. This window of opportunity will close around 2040. Hence, given the limited time and resources and huge unemployed pool of manpower it is a challenging task for any government. It will not take much for the demographic dividend to turn into demographic disaster. How effectively India tackles this issue will determine its progress to becoming a developed nation in the near future.
3.8 TERM - END EXERCISES

1) “India has the advantage of harnessing the benefits of demographic dividend but this is neither obvious nor guaranteed.” Explain.

2) “The Demographic Dividend is one time opportunity and is expected to last for 25 years.” In the light of the statement explain the challenges on the way of reaping demographic dividend in India.

3) Write Short Notes on:
   i) National Population Policy
   ii) Age Structure of the population
   iii) Population Health

4) ‘The problem of imbalance in the gender ratio in India is a disturbing revelation showing a continuous trend of decline in gender ratio since 1901.’ Explain the problem of missing women in India. What has been the response of Indian government in its attempts to improve the gender ratio?

3.9 REFERENCES


### 3.10 KEY WORDS

**Crude Birth Rate**: The number of children born alive each year per 1000 population.

**Death Rate**: The number of deaths each year per 1000 population.

**Demography**: A study of the different aspects of population.

**Demographic Dividend**: It is an accelerated economic growth that a nation experiences once in a lifetime when working age population grows at a faster pace than dependent population provided that government policies and institutions are conducive.

**Demographic Transition**: The theory postulates three stage sequences of birth and death rate which is associated with economic development. It explains phasing out process of population growth rates from virtually stagnant growth stage characterised by high birth rates and death rates through a rapid-growth stage with high birth rates and low death rates to stable, low growth stage in which both birth rates and death rates are low.

**Life Expectancy**: It is the number of years a new born child would live if subjected to the mortality risks prevailing for the population at the time of child’s birth.

**Population Growth Rate**: It is calculated as the difference between the birth rate and the death rate of a given population after adjusting for immigration and emigration.

**Total Fertility Rate**: It is defined as the average number of children per women in the reproductive age group.

**Youth dependency ratio**: The proportion of young people under age 15 to the working population aged 16-59 in a country.

### 3.11 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) See Section 3.3
2) See Sub-section 3.3.3
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3) See Sub-section 3.3.1

Check Your Progress 2
1) See Section 3.4
2) See Section 3.4
3) See Sub-sections 3.4.1 and 3.4.2

Check Your Progress 3
1) See Sub-section 3.5.2
2) See Section 3.6
3) See Section 3.6