

Population Pyramids:

• True pyramidal-shaped population diagram: (Developing Countries)

- Broad base with a marked tapering at the top
- Bars of age groups of children become progressively longer towards the base

INDICATES:

- High Fertility Rate (Broad base)
- High Birth Rate (Broad Base)
- 35%< Young dependent population
- High Death Rate (Narrow top)
- Low Life Expectancy. (Narrow top from the 65-69 age group upwards)
- Sex Ratio Balanced
- Little immigration or emigration

Importance: It's necessary to...

1. Increase food production
2. Build more houses and schools
3. Plan for more job opportunities to absorb future young workers
4. Implement a birth control programme

• Bee-hived/ Rocket-shaped population pyramid (Developed Countries)

- Narrow base and is without a marked taper until towards the oldest age groups
- Bars of the age groups of children are progressively shorter towards the base.

INDICATES:

- Low Birth Rate (Narrow Base)
- Low Fertility Rate (Narrow Base)
- 30%> Young Dependent population
- Long Life Expectancy (Broad top)
- Low Death Rate (Broad top)
- Greying Population (Aged account 15%<)
- Possibility of populations shrinking as birth rate continues to drop each year
- Older age groups, horizontal bar of females is more than males as females tend to live longer.

Importance: It's necessary to...

1. Work out incentives to encourage a higher birth rate
2. Be selective about foreign workers who will admit to the country to make up labour shortage
3. Provide geriatric and other medical services, health care and social and communal facilities for the aged
4. Ensure family and community are involved in caring for the growing aged.

Population Studies:

- 5 billion in 1987, 6 billion by 1999, 8.3 billion by 2025
- Population increasing at geometric rate (1,2,4,8,16,32)/ Food production increasing at arithmetic rate (1,2,3,4,5,6)
- **Predicted 2150:** 88% population in developing countries
12% population in developed countries.
- Annual population growth rate declined to 1.2% per year, world population still grows by about 83 million annually.

Statistics:

- **2011:** China population--- 1.34 billion
India population--- 1.24 billion
- **2050:** India population--- 1.69 billion
China population---1.31 billion
- In the Democratic Republic of the Congo, 8/10 residents live on less than US\$2 per day.
- In India, 76% of the population (more than 900 million people) live below US\$2 per day.

Dense and sparse populations:

Factors	Densely populated (Many People)	Sparsely populated (Less People)
Relief	Undulating, low-lying and flat land for agriculture and architecture <i>Chang Jiang Delta in China</i>	High rugged mountains, bad communication and no flat land <i>Himalayan Mountains in India</i>
Climate	Adequate rainfall and suitable temperature. Water requirement met by irrigation <i>North-West Europe</i>	Extreme climatic conditions <i>Sahara Desert</i>
Soils	Well-drained, fertile soils. <i>Alluvial soil on the Hwang He flood plains in China</i>	Poor, stony soil, waterlogged and severe erosion. <i>Thin, stony soil on mountainous slopes in Nepal</i>
Vegetation Cover	Less dense forest (easy clearance) <i>Temperate forest of North-West Europe</i>	Dense forest <i>Rainforest of the Amazon Basin in South America</i>
Mineral and Energy Resources	Mineral for development of industries <i>Ruhr Valley in Germany</i>	Lack of mineral to encourage industrial growth <i>The Sahel in Africa</i>
Accessibility	Well-developed transport and communication facilities <i>Location of Singapore at International air and sea routes</i>	Poor accessibility hindering settlement trade <i>Inaccessible mountains of Kalimantan, Indonesia</i>

Population Terms:

Birth Rate:

No. of Births x 1000/ Total Population

--- Over 30 per 1000 high

--- Below 20 per 1000 low

Death Rate:

No. of Deaths x 1000/ Total Population

--- Over 15-20 per 1000 high

--- Under 10 per 1000 low

Natural Increase/Decrease:

Birth Rate - Death rate = +/-Natural increase/decrease

Net Migration:

Immigrants - emigrants = +/-More immigrants/emigrants

Zero Population Growth

Population Explosion

Life Expectancy:

Length of time expected to live. (Singapore 75 men, 79.2 women)

Infant Mortality:

No. of infant deaths x 1000/ No. of babies born alive

--- Number of babies dead before 1 year old per 1000 babies born alive in a year.

Total Fertility Rate

Sex Ratio

Dependent Population:

(Below 15 + Above 65) x 100/ Working Group (16-64)

Overpopulation:

A situation when there are so many people relative to the resources and level of technology in a country that a reasonable standard of living is difficult to attain.

Causes/ Factors	Effects/ Consequences	Solutions/ Measures
<p>High Birth Rate</p> <p>Low life expectancy</p> <p>High infant mortality rate</p> <p>Culture: <i>China 1949</i> Chairman Mao Zedong belief that bigger population can bring in...</p> <p>1) Military strength and better survival</p> <p>2) With many people, strength is great</p> <p>Contraceptions and abortions were discouraged in 1952</p> <p>Feudalistic Thinking: Boys stay and work, Girls marry and leave</p> <p><i>India</i> 1) Son Preference. Think that boys are better than girls. When girls marry, dowry of gifts or cash are required</p> <p>2) Belief that the more children you have, the better you are. Symbol of wealth.</p> <p>3) Gender Discrimination</p> <p>4) Early arranged marriage so longer fertile period for reproduction</p> <p>Religion: Roman Catholic Church opposes the use of artificial means of birth control</p>	<p>Shortage of food/ housing/ clean water/ sanitation/ medical facilities/ education/ jobs/ competition</p> <p><i>China:</i> 7% arable land, holds 22% world population</p> <p>Boys wanted while girls were aborted, abandoned and killed. (A girl left in a box with only clothes)</p> <p>1st baby bloom, more than 20 million babies born every year from 1950-1957 2nd baby bloom, more than 25 million babies born every year from 1966-1976</p> <p>540 million 1949, 852 million 1976</p> <p>Gender Discrimination: 1) Imbalance sex ratio 2) 28/39 are boys in schools 3) At 2000, 40 million men of marriage age have no one to marry 4) Kidnapping of wives as men need wives for children to carry on their bloodline. (Wife sold to unknown man for \$700 and get abused and raped) 5) Little boys called "Little Emperor" Becomes spoilt and becomes a social problem of these pampered kids.</p>	<p><i>China's One-child policy:</i> Established by Deng Xiaoping in 1979</p> <p><i>Objective:</i> Population would not be more than 1.2 billion by 2000</p> <p>Widely Publicised through newspapers, radio, television and billboards.</p> <p>Rule: 1) Urban--- 1 child 2) Rural--- 2 children 3) Ethnic--- 3 children</p> <p>~If exceed, pay fine over exceeding their pay and even take their properties~</p> <p>- Couples seek permission from the state to have a child</p> <p>- Free contraceptives and available birth measures like abortion and sterilisation. 12.5 million sterilisations in 1991</p> <p>- Birth control and Family Planning education appeared in urban areas.</p> <p>- Scanning of baby's gender in mother's womb banned to prevent abortion</p> <p>- Certificate of Honor for Single-Child Parents 1) Monthly Allowance 2) Special Pension Benefits 3) Priority to Jobs 4) Tax Reliefs 5) Educational help</p>

Causes/ Factors	Effects/ Consequences	Solutions/ Measures
<p>Economy: In agricultural societies, children are a valuable source of labour especially males</p> <p>Child labour allowed in some societies</p> <p>Social: Low illiteracy, child forced out of school by parents to work in farms</p> <p>Mothers and Husbands stop edu of birth control so wives can reproduce more sons.</p> <p>No knowledge of family planning and birth control (contraceptives)</p>	<p><i>India:</i></p> <p>1) Average have 5 child/ women</p> <p>2) Huge sex ratio difference: 35 million fewer women than men</p> <p>2) Female babies abortion and killing by placing them in water after birth to drown them. Killed so to prevent dowry of gifts when married</p> <p>3) Population increase by 2 times by 2050</p> <p>4) Wife wanted no more babies, but husband is the one that can choose the family size, women have no rights.</p> <p>5) Failure to produce sons result in them being tortured or killed by the husband. 25,000 women killed each year for failure of producing sons. (Pour kerosene or chopped)</p>	<p><i>India:</i></p> <p>- Empowering women to have rights by allowing them to be independent and teach them skills like sewing and tailoring.</p> <p>- Improve health care</p> <p>- Social workers educate the women in villages about legalised birth control and health.</p>

China One-Child Policy:

Advantages:

- Decreased birthrate from 3.3% in 1970 to 2.1% in 1990
- In 1970, more than 50% of the annual increase in the Gross National Product of China was used to support the large population, and China resources can only support 1.5-1.6 billion people.
- Academy of Social Science: 10% of China's workforce is unemployed.
- The number of China undergraduates with a doctorate degree in 2005 (born 6 years after one-child policy) was 5 times the number of undergraduates holding doctorate degree in 1995 (born before policy).

Disadvantages:

- An Hui Province 100 females, 170 males
- 40 million men not being able to marry in 2000
- Abduction, selling and rape of wife due to gender imbalance. Men needed wives to carry on their family name.
- Gender discrimination
- Not enough working population to support itself
- (2000): Old dependent 7.1% (2040): 2 working for each elderly dependent
- "Little Emperors" are pampered boys who are usually overweight and stems as a problem for society. These boys are not independent and they are not productive to the society when they grow up.

Ageing Population:

1. Shortage of labour. Difficult to maintain standards of living and achieve higher economic growth
2. Higher labour costs due to labour shortages. Country less attractive to investors due to a less active and vibrant workforce
3. Pay more taxes: Singapore 10 people supporting 1 elderly in 1997, 3 people supporting 1 elderly in 2030.
4. More prone to diseases like deteriorating eyesight, weak bones and diseases.

Solutions:

- Increase retirement age to 62 from 1999
- Longer life span as a result of medical and technological advancements
- Stay fit and healthy by working or participating in activities to motivate elderly in day-care centres.