



Overpopulation and Underpopulation

Lesson Highlights

1. Concepts of overpopulation and underpopulation
2. Causes and Impact of overpopulation and underpopulation
3. Factors affecting growth rate of population
4. A Comparative Case Study (Canada and Tanzania)

Ecologists believe "Human population, now over 7 billion, cannot continue to grow indefinitely. There are limits to the life-sustaining resources earth can provide us". In other words, there is a 'carrying capacity' for human life on our planet. Carrying capacity is the maximum number of a species an environment can support indefinitely. Simply put, there is just not enough of the world's resources to give every human a decent standard of living. This raises several issues: though we are expected to reach 9 billion by 2100, the planet cannot sustain a decent lifestyle for the entire planet! (Source: World Population History)

OVERPOPULATION

The term overpopulation means that a region has too many people and not enough resources to maintain a reasonable standard of living. Resources may include food, jobs, technology, services, and energy resources. Overpopulated areas are often on the verge of famine and have high emigration. Examples of overpopulated countries are Bangladesh and Mali.

Causes of Overpopulation

- **Birth and Death rates:** Due to improved technology, efficient healthcare and medical facilities, global birth rates have risen and death rates have declined. This has caused growth in the overall population.

- **Poverty:** Economically poor nations do not have the capacity to support their growing population. Also, the families living below the poverty line try to cope with their poverty by increasing the size of their families to increase the earning hands.
- **Illiteracy and lack of family planning:** Literacy and growth rates are directly interrelated. Literacy rates in developing, mostly agro-based, nations are low. Increase in literacy rates improves the general awareness of people and changes their attitude towards family size and birth control. Lack of efficient and enforced family planning policies also leads to overpopulation.

Impact of Overpopulation

- **Depletion of natural resources:** As a result of overpopulation, there is great pressure on resources such as food and water. Their insufficient supply results in malnutrition and lower resistance to diseases. Growing population and limited food resources leads to an increase in imports which could lead to national debts.
- **Environmental hazards:** Growth in population puts increasing demand for land which leads to deforestation or loss of natural habitat. Industrialisation and urbanisation would increase the global pollution levels too, causing imbalances in the atmosphere and global warming.
- **Unemployment and poverty:** Large populations become a burden on the economy. This gives rise to scarcity of jobs and the country cannot support its population. In such a scenario, majority of the population would be subjected to poverty, low incomes, high cost of living and low standards of living.

- **Health and sanitation:** Haphazard land use and poor infrastructure lower the quality of health conditions, hygiene and sanitation. Inadequate or inaccessible medical facilities have a negative impact on demographic characteristics like IMR (Infant Mortality Rate).

- **Imbalance in trade:** Developing countries spend huge amounts of money on medical care, housing and other public facilities. This in turn affects industrial development and increases the nation's dependence on developed or advanced countries for superior goods and technology.

UNDERPOPULATION

The term underpopulation means that there are not enough people to make full use of the resources and technology of the place they live in. Underpopulation is also characterized by a situation where the available resources can support a much larger population with no reduction in living standards. The situation is found in regions of low technical development such as equatorial Congo, Amazon River Basin or the rich Prairie region of North America.



Fig. 3.1 Poverty is Closely linked to Overpopulation, Health and Sanitation

Canada is said to be underpopulated because it could increase its population but still have a high standard of living.

Causes of Underpopulation

- **Fertility rate:** The fertility rate in many developed and developing countries has dropped to about two children per woman due to factors such as literacy, economic development or urbanisation, making the idea of having big families impractical. Changed attitude towards fewer children and an improvement in the social role of women has also affected fertility rates.
- **Emigration:** Emigration is the movement of individuals from one country to another with the intention of permanently settling in their destination. Many factors contribute to this type of movement. They can be divided into 'push' and 'pull' factors. 'Push' factors would be the negative factors associated with the current region or nation the individuals reside in, like lack of employment, oppressive political conditions, poor economies, etc. Whereas 'pull' factors would be the favourable factors of the country the individuals want to

move to (like better employment opportunities, political freedom and economic stability, etc.). Either way, this movement always has a negative effect on the population of the host country.

- **Disease:** Disease and illness has always caused a decline in the population. The emergence of new diseases like HIV/AIDS has decreased the population globally.
- **Famine:** Famine is the scarcity of food caused due to factors like crop failure and disproportionate population. Being a 'push' factor, it has an adverse effect on the population of a region or country.
- **War and conflicts:** People have waged wars since the middle ages and continue to do so. Advanced technology has made modern warfare a huge factor in the decline of population. Individuals fighting over resources and space, end up killing each other on a massive scale due to the introduction of nuclear and chemical warfare which has a negative effect on the overall population of a region. People leave or even flee from war and conflict zones, e.g. Syria.

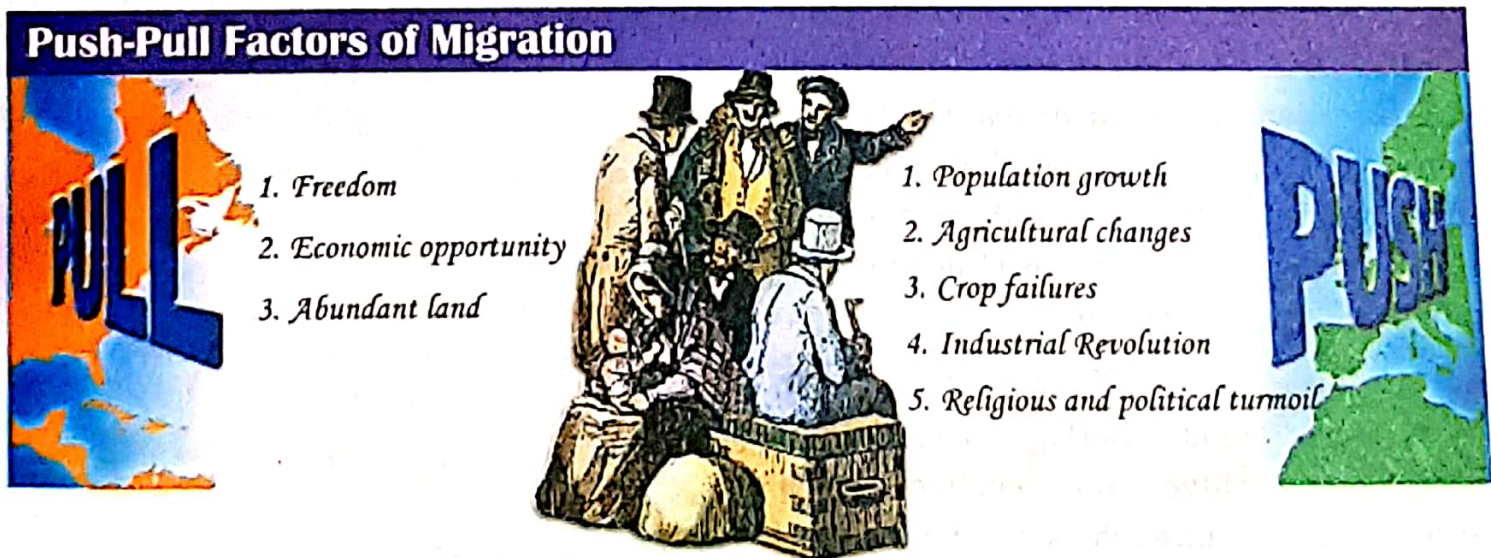


Fig. 3.2 Push and Pull Factors for Migration

□ Answer the following questions - :

1. Define -
a) Carrying capacity.
b) Overpopulation.
c) Underpopulation.
2. Mention the causes of overpopulation.
3. How overpopulation affect the environment?
4. How overpopulation affect the trade of a country?
5. Mention the causes of Underpopulation.