

Unit 4

Population Growth and its Impact on Environment

Students Learning Outcomes

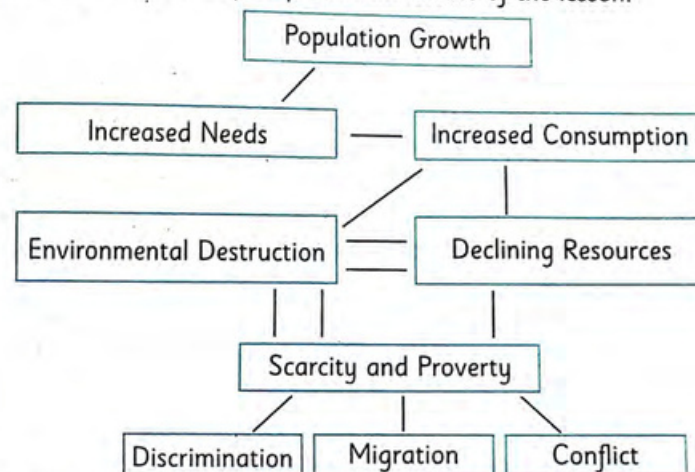
After reading the lesson the students will be able to:

- use pre-reading strategies to predict the content of a text from topic / picture, title / headings, key words and visuals etc. by using prior knowledge, asking questions and contextual clues.
 - analyze passages in the text to identify the theme/ general subject, key idea/ central thought (a statement about the general subject), and supporting details.
 - apply critical thinking to interact with text and use intensive reading strategies (while-reading) to
 - scan to answer short questions.
 - scan to locate an opinion.
 - write a unified paragraph on a given topic to show
 - clear topic sentence using specific words, vivid verbs, modifiers, etc.
 - adequate supporting detail (example, illustration, definition, evidence, comparison, contrast, cause and effect, clarification, explanation) to develop the main idea.
 - appropriate pronoun-antecedent relationship and transitional devices within a paragraph.
 - chronological / sequential / spatial order of arranging detail.
 - order of importance (most important to least important and vice versa, general to specific and vice versa).
 - demonstrate heightened awareness of conventions and dynamics of group discussion and interaction to:
 - share information and ideas.
 - clarify and restate information and ideas.
- illustrate use of tenses learnt earlier.
identify, change the form of, and use present and past perfect continuous tenses.

Population Growth and its Impact on Environment

Pre- reading

- Look at the mind-map to predict the theme of the lesson.



Reading

Population growth has direct impact on the environment. An Increase in population means an increase in consuming more resources and producing vast quantity of waste materials. Presently seven billion and six million people live in this world. It is estimated that world's population will reach 9.2 billion by 2050. The impact of so many people on our environment will be consumption of resources like land, food, water, fossils fuel and production of waste materials like garbage, greenhouse gases and water and air pollutants. Experts in the field



of population and environment worry that this unchecked population growth may result in environmental catastrophe. A quick look at the realities on ground show that the health of our environment has deteriorated because of overpopulation. Increase in population has resulted in heightened demand for fuel, timber, food, clothes and shelter. Consequently more forest have been cleared for ranches, farms and urban use. More factories have been built to fulfil the growing demands of population. More people have moved to cities adding pressure on urban environment of cities. More unwanted materials are thrown away every day, adding to the crust of garbage-mound. The picture of growing population and environmental limitations will become more vivid if we dwell on this problem in some detail.

The conversion of forested areas to non-forest land for uses such as arable land, pasture and urban use is called deforestation. Deforestation can lead to several imbalances in environment and results in decrease in habitat and biodiversity. Urbanization, mining, fires, logging and agricultural activities are few of the causes of deforestation. Forests cover 30% of the earth's land. According to the United Nations Food and Agriculture Organization (FAO), an estimated 18 million acres (7.3 million hectares) of forest are lost each year. Agriculture, urbanization, poverty, over-population and unequal land access are the main causes of man-made deforestation. If the current rate of deforestation continues, it will take less than a 100 years to destroy all forests on the earth. Urbanization is a process whereby populations move from rural to urban area, enabling cities and towns to grow. It can also be termed as the progressive increase of the number of people living in towns and cities. Experts think that future world population growth will be in towns and cities. Much of urban migration is driven by rural populations' desire for the advantages that urban areas offer. Urban advantages include greater opportunities to receive education, health care, and services such as entertainment. Urban people change their environment through their.



consumption of food, energy, water, and land. And in turn, the polluted urban environment affects the health and quality of life of the urban population. Urbanization began during the industrial revolution in the 18th century, when agricultural societies became more industrialized and urban. As a result, workers moved towards manufacturing hubs in cities to obtain jobs in factories as agricultural jobs became less common. Industrialisation has had most severe impact on environment. Huge quantities of pollutants are being let out in the air, water and land by various industries. Industrialization produces a greater amount of waste, both directly as a result of production of goods and indirectly through disposal of those goods once their purpose has been served.

Industrialisation and urbanization is the major cause of waste production. As the world's population has grown and become more urban and affluent, waste production has risen many fold. Every year we dump a massive 2.12 billion tons of waste. By 2025 it will become double of its present production. Rubbish is being generated faster than other environmental pollutants, including greenhouse gases. Plastic clogs the world's oceans and rivers, causing flooding in developing-world cities.

The impact of these factors is so enormous on the environment that scientists use the term "Anthropocene epoch" for our time, which means the dominant influence of humans and their activities on the environment. As the world population continues to grow, more people will use more resources and create more waste. But how many people can earth support? In the view of scientists, the figure ranges from 500 million to more than one trillion. This range is called 'the carrying capacity of earth'. Whether we have 500 million or one trillion, we still have one planet which has limited resources.

To maintain the delicate balance between population growth and environmental limitations, there is no single easy solution. All options must be part of the solution. First of all, we should educate people about their actions and their effects on the environment. Moreover, we need to reassess our consumption patterns. We need to reduce the amount of resources we consume: take shorter showers in bathing; say no to the use of plastics; buy less and recycle our waste. If millions around the world adopt this behaviour and manage the growth of population, we will have the opportunity to lead an

enjoyable and full life and our future generations will find earth a place, worth living.

FAO report on forest Forestry – FAO
www.fao.org › forestry › publications
www.worldbank.org › news › 2013/10/30

Glossary

Words	Meaning
ranches	a large farm, where cows, horses, sheep, etc. are bred
catastrophe	an event causing great and usually sudden damage or suffering; a disaster
Anthropocene epoch	relating to or denoting the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment
garbage-mound	a large pile of waste food, paper, etc. that you throw away
pasture	land covered with grass that is suitable for feeding animals on
habitat	the place where a particular type of animal or plant is normally found
biodiversity	the existence of a large number of different kinds of animals and plants which make a balanced environment
greenhouse gases	any of the gases that are thought to cause the problem of the gradual rise in temperature of the earth's atmosphere, caused by an increase of gases such as carbon dioxide in the air surrounding the earth, which trap the heat of the sun
clog	to block something or to become blocked
deforestation	the act of cutting down or burning the trees in an area
arable	connected with growing crops such as wheat

urbanization	the process in which towns, streets, factories, etc. are built where there was once countryside
industrialization	the process of developing industries in a country or an area

Exercise

Comprehension

A. Answer the following questions.

- Why is there no single and easy solution to the problem of population growth and its impact on environment?
- How is the carrying capacity of earth affected?
- Why does population growth directly affect the environment?
- Analyse any passage of the text 'Population Growth and its Impact on Environment' and identify key idea and its supporting details.
- Locate examples from the text 'Population Growth and its Impact on Environment' that support an opinion.
- Keeping in view the population and the environment of your area, do you agree or not with the content of the lesson? Support your view with solid arguments.

B. Choose the correct option.

- Experts in the field of population and environment worry that this unchecked population growth may result in environmental catastrophe. In this sentence the word "unchecked" means _____.
a) enormous b) unnatural c) free d) limited
- Presently seven billion and six million people live in the world. The idea expressed in this sentence is based on _____.
a) fact b) opinion
c) inference d) comparison and contrast
- A huge quantity of pollutants are being let out in the air. In this sentence the phrase "let out" means _____.
a) released b) produced c) absorbed d) bold

4. According to the text, the term "the carrying capacity of earth" means

- a) the huge quantities of pollutants that are being let out on earth
- b) the maximum population size of the species that the environment can sustain
- c) the dominant influence of humans and their activities on the environment
- d) the difference between the birth rate and the death rate

5. The issue of population growth and environment is the issue of _____

- a) poor and developing nations only.
- b) wealthy and advanced nations only.
- c) poor, developing and advanced nations
- d) neither poor nor advanced nations

Vocabulary

Find out the meaning of the following words, identify their parts of speech and then use them in your own sentences to make their sense clear.

vivid

dwell

deteriorated

pasture

logging

migration

Writing

A. Write an essay of about 500 words on 'Causes and Effects of the Wild Growth of Urban Population' by keeping in mind the following steps:

- ▷ introductory paragraph with central thought
- ▷ provide key ideas that support central thought. Use separate paragraph for each key idea.
- ▷ give evidence, examples or different points of view
- ▷ use transitional device to connect ideas within and between paragraphs
- ▷ add closing paragraph with closing statement.

Listening and speaking

Keeping in view the conventions and dynamics of group discussion and interaction, share your information and ideas about the effects of population growth on Environment with the class.

Grammar

Tenses

A. Rewrite the following sentences using the tense indicated in the brackets.

1. He will do his work with diligence. (Simple present)
2. I followed his instructions. (Simple future)
3. That will be interesting. (Present continuous)
4. I will not allow this to happen. (Simple past)
5. He worked very hard. (Future continuous)
6. I will never raise any demand. (Present perfect)
7. He is crying at the top of his voice. (Past perfect)
8. We buy vegetables from the market. (Present perfect)

B. Fill in the correct form of the verb.

My friend, Hashim, has always been fat, but things _____ (get) so bad recently that he decided to go on a diet. He _____ (begin) his diet a week ago. First of all, he _____ (write) out a long list of all the foods which were forbidden. The list included most of the food he _____ (love): butter, potatoes, rice, cold drink, chocolate, sweets and so on. Yesterday, I _____ (pay) him a visit. I _____ (ring) the bell and was not surprised to see Hashim as fat as ever. He _____ (lead) me to his room and hurriedly _____ (hide) a large parcel under his desk. He was very embarrassed. When I _____ (ask) him what he _____ (do), he _____ (smile) guiltily and then _____ (put) the parcel on the desk. He _____ (show) me the contents of the parcel. It contained five large bars of chocolate and three bags of sweets!

Present Perfect Continuous / Past Perfect Continuous

A. Choose the correct answer.

1. I love this writer's books. I **have been reading / had been reading** them for years.
2. His clothes were dirty because he **has been working / had been working** in the garden.