Solutions for Population Growth

by Sophia

	WHAT'S COVERED

In this lesson, we will cover the topic of solutions for population growth. We will discuss overpopulation and how humans have exceeded Earth's carrying capacity with their current lifestyles. We will discuss the impacts of overpopulation, as well as efforts to address the challenges it poses. Specifically, this lesson will cover the following:

1. The Current State of Overpopulation

Overpopulation essentially means that there are more humans than Earth can sustain. With our current lifestyles, we have exceeded Earth's carrying capacity.

	DID YOU KNOW

Over 83 million people per year, that is 200,000 per day or 150 per minute, are joining the human species.

Human population growth has largely occurred as a result of improved medical care and technology. The more people living on Earth, the larger the human population, and the greater the strain on resources such as food, water, energy, and space.

2. Impacts of Overpopulation

The impacts of population growth are diverse. These impacts are presented in the table below under the four categories of food, water, land, and air.

Impacts	Result
Food	Food supplies may not always match population expansion. The size of the current population has resulted in the degradation of arable land in order to provide food and other services, making food availability even more difficult.
Water	Population growth increases the demand for water. However, many human activities pollute water, making it difficult to keep water supplies safe for drinking and bathing. Primarily in developing countries, the challenge of adequate and safe water supply has resulted in millions of deaths every year. Additionally, oceans and their coastlines have been polluted, and fisheries overexploited, decimating aquatic ecosystems and species.

Land	As a result of overpopulation, 10 million hectares of forest per year, which is half of the world's forest cover, are razed, cut, burned, or bulldozed to the ground. As natural resources are mined or cut from local ecology to produce infrastructure for increasing population, approximately 66%, or two thirds, of the world's biological species are declining in population. Not only does this impact biodiversity and habitat availability, but it also reduces carbon sinks like forests, which can absorb carbon dioxide and slow global climate change.
Air	Climate change worsens as air pollution increases. Overpopulation increases the rate at which fossil fuels are burned. As Earth's heating and cooling systems intensify, it may lead to rising sea levels, more frequent and intense natural disasters, flooding, and droughts. With increasing air pollution, there are more airborne heavy metals, which when breathed in, cause health problems or even death.

3. Addressing the Impacts of Overpopulation

In response to such severe impacts of overpopulation, people are building facilities and infrastructure to support rapid population growth.

Private companies and policymakers are attempting to develop sustainable strategies, plans, and technologies to respond to the increasing demands.

Some countries are discussing, or even enforcing, laws to limit the number of children per couple. These laws aimed to ensure population stabilization or even decline.

Scientists and engineers are analyzing current effects and developing models to understand potential futures. This will enable us to develop technologies to mitigate or eliminate challenges posed by population growth.

☑ SUMMARY

In this lesson, we learned about **the current state of overpopulation**. There are more humans than Earth can sustain. We learned about the **impacts of overpopulation**, such as climate change and a decrease in biodiversity. We also learned about how we can **address the impacts of overpopulation** and about solutions to mitigate or eliminate those impacts, especially in the future.

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