

ES20-HP1

Investigate technologies and processes used for mitigating and managing resource use, waste generation and pollution associated with a growing human population.

Indicators for this outcome

- (a) Identify factors that have contributed to historical and contemporary trends in human population growth and that may influence future growth.
- (b) Investigate the environmental impact of human population changes over the last century on a specific region or area with respect to resource use, waste generation and pollution.
- (e) Assess the impact of factors such as advances in food security and access to medicine that support a growing human population.

Human Population and the Environment:
A Global perspective

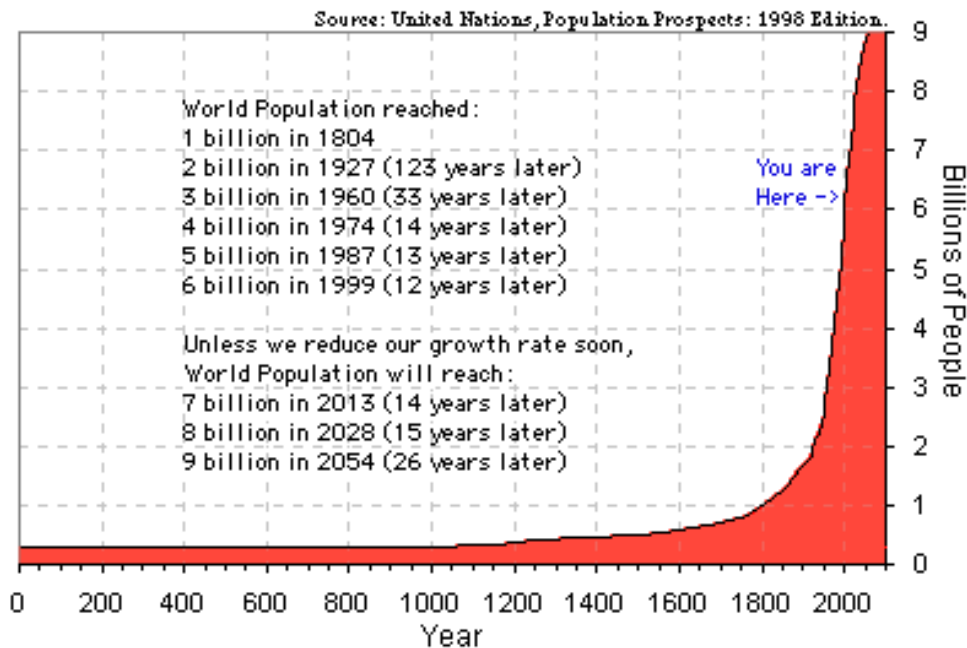
Mission:

Produce a document which answers or reflects upon the following issues / scenarios related to growth and the environment.

1. Global population growth
2. Local population growth
3. Local environmental impacts



Section 1: Global population growth



The above chart describes the growth of the human population (we are currently over 7 billion).

1. How does the following quote make you feel? Are you concerned? Excited? Please describe in 200 words

It took the human species:

300,000 years to reach the first billion
130 years to add the second billion
30 years to add the third billion
15 years to add the fourth billion
12 years to add the fifth AND sixth billion
10 years to add the seventh billion

2. Describe the factors that have caused such a dramatic spike in human population over the last hundred years. Describe some of the benefits and challenges associated with this growth.

Next, select a region/country/city of the world that has experienced significant population growth over the past hundred years. To decide on the city or region, try googling something like “most polluted cities in the world” or “most polluted countries in the world”. Also, consider cities whose pollution you have heard about (Los Angeles smog or radioactive water in Japan)

Section 2: Local population Growth

3. Describe the population growth in your selected region by answering the following questions:
 - a. What was the population of your selection around the year 1900?
 - b. What is the population currently?
 - c. What is the growth rate?
 - d. What is driving the population expansion in that region?
 - e. Which social / economic class is contributing most to the population growth in your region?
 - f. In your opinion, how is this population growth affecting society and the economy?
 - g. What do you anticipate the population will be in the year 2100? Provide an opinion about the pending population totals..

Section 3: Local Environmental Impacts

4. Describe the impacts of human population on the surrounding environment of your selected region:
 - a. Describe the natural environment around the year 1800, in terms of its air, soil, and water quality. Include and describe a photo, if possible.
 - b. Describe the natural environment today, in terms of its air, soil, and water quality. Include and describe a photo, if possible.
 - c. Describe factors that have contributed to the changes to the quality of the air, soil, and water?