Humans: The real threat to life on earth

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By Stephen Emmott

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Earth is home to millions of species. Just one dominates it. Us. Our cleverness, our inventiveness and our activities have modified almost every part of our planet. In fact, we are having a profound impact on it. Indeed, our cleverness, our inventiveness and our activities are now the drivers of every global problem we face. And every one of these problems is accelerating as we continue to grow towards a global population of 10 billion. In fact, I believe we can rightly call the situation we're in right now an emergency – an unprecedented planetary emergency.

We humans emerged as a species about 200,000 years ago. In geological time, that is really incredibly recent. Just 10,000 years ago, there were one million of us. By 1800, just over 200 years ago, there were 1 billion of us. By 1960, 50 years ago, there were 3 billion of us. There are now over 7 billion of us. By 2050, your children, or your children's children, will be living on a planet with at least 9 billion other people. Some time towards the end of this century, there will be at least 10 billion of us. Possibly more.

We got to where we are now through a number of civilization- and society-shaping "events", most notably the agricultural revolution, the scientific revolution, the industrial revolution and – in the West – the public-health revolution. By 1980, there were 4 billion of us on the planet. Just 10 years later, in 1990, there were 5 billion of us. By this point initial signs of the consequences of our growth were starting to show. Not the least of these was on water. Our demand for water – not just the water we drank but the water we needed for food production and to make all the stuff we were consuming – was going through the roof. But something was starting to happen to water.

Back in 1984, journalists reported from Ethiopia about a famine of biblical proportions caused by widespread drought. Unusual drought, and unusual flooding, was increasing everywhere: Australia, Asia, the US, Europe. Water, a vital resource we had thought of as abundant, was now suddenly something that had the potential to be scarce.

1. Why do you think an increase in human population would cause water resources to decrease?

By 2000 there were 6 billion of us. It was becoming clear to the world's scientific community that the accumulation of CO2, methane and other greenhouse gases in the atmosphere – as a result of increasing agriculture, land use and the production, processing and transportation of everything we were consuming – was changing the climate. And that, as a result, we had a serious problem on our hands; 1998 had been the warmest year on record. The 10 warmest years on record have occurred since 1998.

There are now more than 7 billion of us on Earth. As our numbers continue to grow, we continue to increase our need for far more water, far more food, far more land, far more transport and far more energy. As a result, we are accelerating the rate at which we're changing our climate. In fact, our activities are not only completely interconnected with but now also interact with, the complex system we live on: Earth. It is important to understand how all this is connected.

**Human Population WebQuest**

This activity is designed for you to see how the population of the Earth continues to change over the course of time. At some point in time the carrying capacity of the Earth may be reached. Use the links below to discover more about the human carrying capacity as well as to answer the corresponding questions.

**Click here:** [**http://www.census.gov/popclock/**](http://www.census.gov/popclock/)

1. What is the current world population?
2. What is the exact time right now?
3. What is the U.S. population right now?
4. Where does the US rank among the nations of the world in terms of population?
5. Where is New York ranked among state populations?
6. What percent of people in the US live in New York?

**Click Here:** [**http://tinyurl.com/q87cwvz**](http://tinyurl.com/q87cwvz)

**Navigate around this website and answer the questions below.**

1. What is life expectancy? Where does the US rank for life expectancy at birth?
2. What is the life expectancy at birth in the US?
3. Which country has the highest life expectancy at birth and which has the lowest? Why might this be?

**Click here for a list of least developed countries:**  [**http://tinyurl.com/6z2pg4p**](http://tinyurl.com/6z2pg4p)

13. Select one country from the list and find the following data:

        a. Country:

        b. Population:

        c. Surface area:

        d. Population density (Population / Surface area = Population Density):