

Impact of Continued Global Warming

Human Impact

In the future, it is unclear how much global temperatures will rise exactly. Changes in the sun's irradiance, El Niño and La Niña cycles, natural changes in greenhouse gas, and other atmospheric gases all cannot account for rising temperatures the past few decades, proving that human impact is a large contributor to effects of global warming.

Connection

Global warming has been linked to 2011 weather extremes such as the unusually hot and dry weather in Texas for the spring to summer growing season.

The Impact in the Future

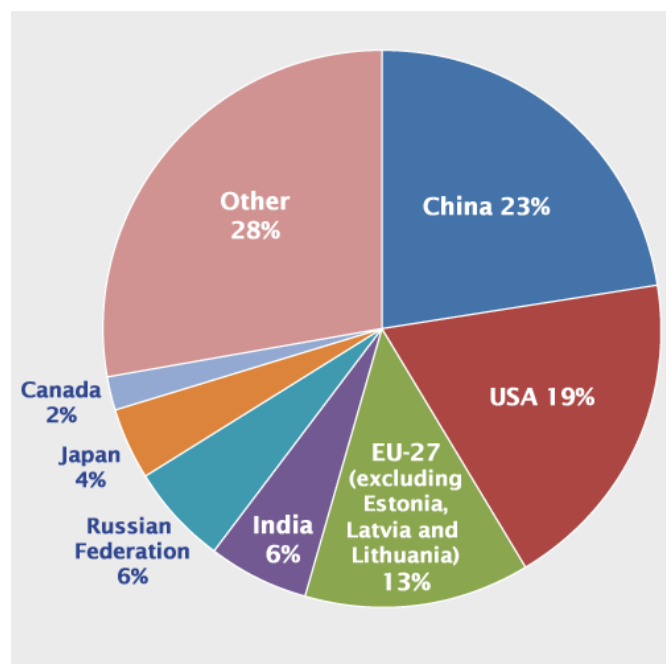
The impact that developed nations have on global warming depend on technological advances in those societies that will produce fewer carbon dioxide emissions. The impact on global warming for developing nations depends on lifestyle changes that may or may not reduce carbon dioxide emissions.

Predictions

Scientists have made models of how the world will be affected by global warming in the near future. Temperatures and sea levels can rise in varied amounts from 1.1°C to 4.5°C and 18 to 97 cm by the year 2100 depending on how quickly humans respond to the situation. They have predicted that carbon dioxide levels become 63% greater than they were in 2002 by 2030 if nothing is done to counteract carbon dioxide emissions. This contributes to an overall warmer earth, as earth's temperature is expected to rise a few degrees due to these effects. Temperature effects will vary globally, heating the poles more than the equator.

Effects on the Environment

The increase of greenhouse gases will bring about extreme changes in global climate. The oceans will become more acidic and sea levels will rise. Ice will melt across the globe and weather will become extreme. These changes will lead to the extinction of many species of plants and animals. Due to the increasing temperatures and more extreme weather conditions, agricultural practices would be difficult to sustain.



This chart shows that the US is responsible for 19% of the world's CO2 emissions in 2008.

Concept Check

- Explain the effects of increasing CO_2 levels and other greenhouse gases on the environment.
- What evidence points towards the fact that humans have impacted global warming?

