

****Overview****

Global warming is a pressing issue that has been gaining attention in recent years. It refers to the gradual increase in the overall temperature of the Earth's atmosphere, primarily caused by human activities. In this explanation, we will delve into the causes, effects, and applications of global warming.

****Causes****

- * The continuous rise in temperature of the planet is primarily caused by global warming.
- * Global warming begins when sunlight reaches the Earth, and the remaining energy is absorbed by oceans, air, and land, heating up the surface and atmosphere.
- * The greenhouse effect is a natural process that occurs when certain gases in the atmosphere, such as carbon dioxide, methane, and water vapor, trap heat from the sun, keeping the Earth warm enough to support life.
- * However, the concentration of greenhouse gases in the atmosphere has increased significantly due to human activities, such as the burning of fossil fuels, deforestation, and agricultural practices, leading to an enhancement of the greenhouse effect and global warming.

****Effects****

- * The Earth's average surface temperature has increased by 0.6 to 0.9 degrees Celsius between 1906 and 2006, with the last 50 years seeing a nearly doubling of the rate of temperature increase.
- * Sea levels have risen by about 0.17 meters during the 20th century.
- * The extent of Arctic sea ice has steadily reduced by 2.7 % per decade since 1978.
- * Global warming is expected to have significant climate change, a rise in sea levels, and extreme weather events if left unchecked.

****Applications****

- * The increased levels of greenhouse gases in the atmosphere hinder the natural process of thermal radiation, leading to a phenomenon known as human-enhanced global warming.
- * The burning of fossil fuels, deforestation, and agricultural practices are major contributors to the increase in greenhouse gases in the atmosphere.
- * Alternative energy sources, such as solar, wind, hydro, geothermal, and biomass, need to be seriously pursued to combat global warming effectively.
- * Implementing solutions to reduce greenhouse gas emissions and mitigate the effects of global warming is crucial to ensure the health of the planet and its ecosystems.

****Conclusion****

Global warming is a pressing issue that requires immediate attention and action. The causes, effects, and applications of global warming are well understood, and it is essential to take steps to reduce greenhouse gas emissions and mitigate the effects of global warming. The use of alternative energy sources, reducing fossil fuel consumption, and implementing sustainable practices are some of the ways to combat global warming.