

# Global Warming



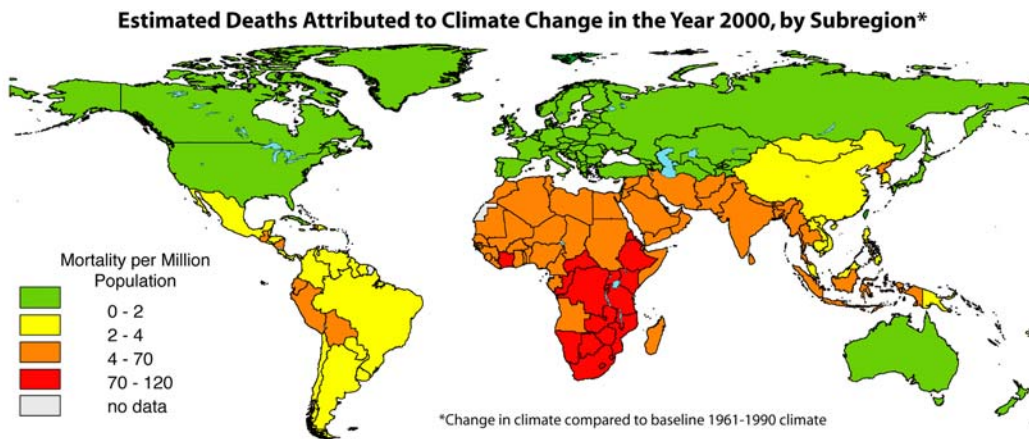
Global warming is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose approximately 1°C in the 20th century. The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years is attributable to human activities". The increased amounts of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. They are released by the burning of fossil fuels, land clearing and agriculture, etc. and lead to an increase in the greenhouse effect.

## Environmental Refugees

Even a relatively small rise in sea level would make some densely settled coastal plains uninhabitable and create a significant refugee problem. If the sea level were to rise in excess of 4 metres, almost every coastal city in the world would be severely affected, with the potential for major impacts on world-wide trade and economy. Presently, the IPCC predicts sea level rise of less than 1 metre through 2100, but they also warn that global warming during that time may lead to irreversible changes in the Earth's glacial system and ultimately melt enough ice to raise sea level many meters over the next millennia. It is estimated that around 200 million people could be affected by sea level rise, especially in Vietnam, Bangladesh, China, India, Thailand, Philippines, Indonesia, and Egypt.

## Spread of Disease

Global warming may extend the range of vectors conveying infectious diseases such as malaria. Bluetongue disease in domesticated ruminants associated with mite bites has recently spread to the north Mediterranean region. Hantavirus infection, Crimean-Congo hemorrhagic fever, tularemia and rabies increased in wide areas of Russia during 2004–2005.



Data Source:  
McMichael, J.J., Campbell-Lendrum D, Kovats R.S., et al. Global Climate Change. In Comparative Quantification of Health Risks: Global and Regional Burden of Disease due to Selected Major Risk Factors. M. Ezzati, Lopez, A.D., Rodgers A., Murray C.J.L. Geneva, World Health Organization, 2004



Maps produced by the Center for Sustainability and the Global Environment (SAGE)