Researche Article

GLOBAL WARMING. HUMAN ACTIVITY OR NATURAL PHENOMENON

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Abstract

Famous European scientists such as J. Fourier [1], L. Agassiz [2] , J. Tyndal [3] and many more raised their concern about climatic changes since Earth's temperature, at that time, was rising. These concerns prompted a number of other prominent scientists, de Saussure, R. Bunsen, Max Pettenkoffer, Albert Kroch (Nobel Prize 1920) and Otto Warburg (Nobel Prize 1931) to send air balloons equipped with special devices in the Lower Atmosphere to trap the air and measure the atmospheric CO_2 concentrations. For 151 years, 90000 measurements in 138 locations in 4 continents were carried out showing atmospheric CO_2 concentrations to vary from 290 ppm to 450 ppm (1820) with mean concentration for the 19^{th} century of 322 ppm. This prompted S. Arrehnius, in 1986, to correlate the increase of atmospheric CO_2 with the rise of temperature.The temperature increase since 1850, that is after the Little Ice Age, is $+0,75^0$C ($0,44^0$C/100 years) with the following fluctuations: a) from 1850 to 1940 temperature increased by $+0,60\,^0C$. b) from 1940 to 1980 temperature decreased by $-0,2^0$C. c) from 1980 to 1998 temperature increased by $+0,35^0$C and d) since 1998 no temperature increased has been reported.

Atmospheric CO_2 increase does not follow temperature increase. Sometimes it coincides, 1980 to 1998, sometimes not, 1999-2003, and sometimes deviates substantially, 2004-2008. This behavior indicates that the continuous and increasing use of hydrocarbons cannot be connected with the erratic temperature behavior. Therefore it seems that atmospheric CO_2 concentrations are not the driving force behind climatic changes but there are other extraterrestrial drivers such as sunspots.

Keywords: climatic changes, atmospheric CO_2, mean Annual Temperatures, Observatory, Sun spot number

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