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# Warming Cycles Are Not Caused by CO2

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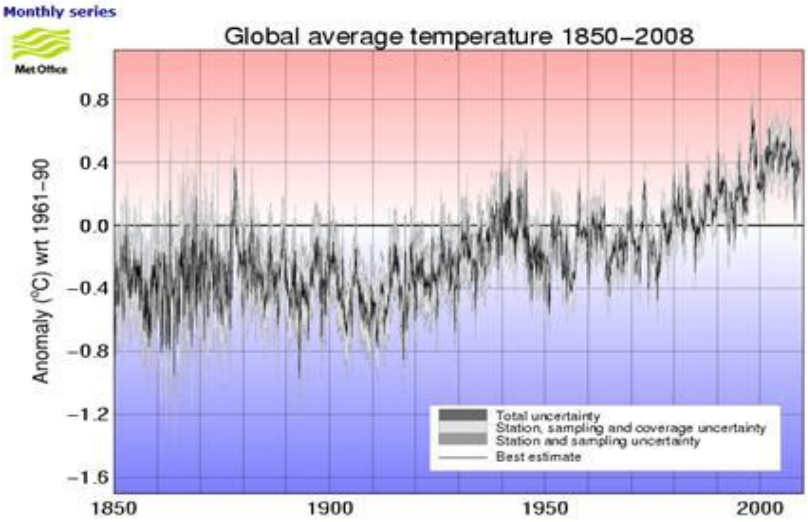
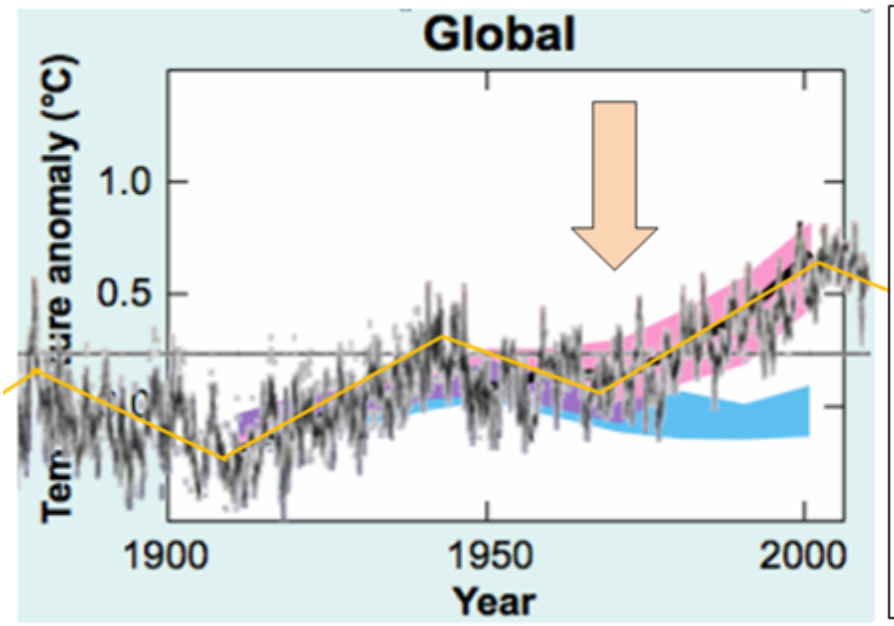
**Summary: The evidence that recent warming was caused by CO2 is lacking – the computer models do not match the reality of the observations. CO2 is not a threat to human health.**

The following figure shows global temperature anomalies 1850 – 2008 (Hadley Centre data [http://hadobs.metoffice.com/hadcrut3/diagnostics/global/nh+sh/] – the data used by the IPCC).



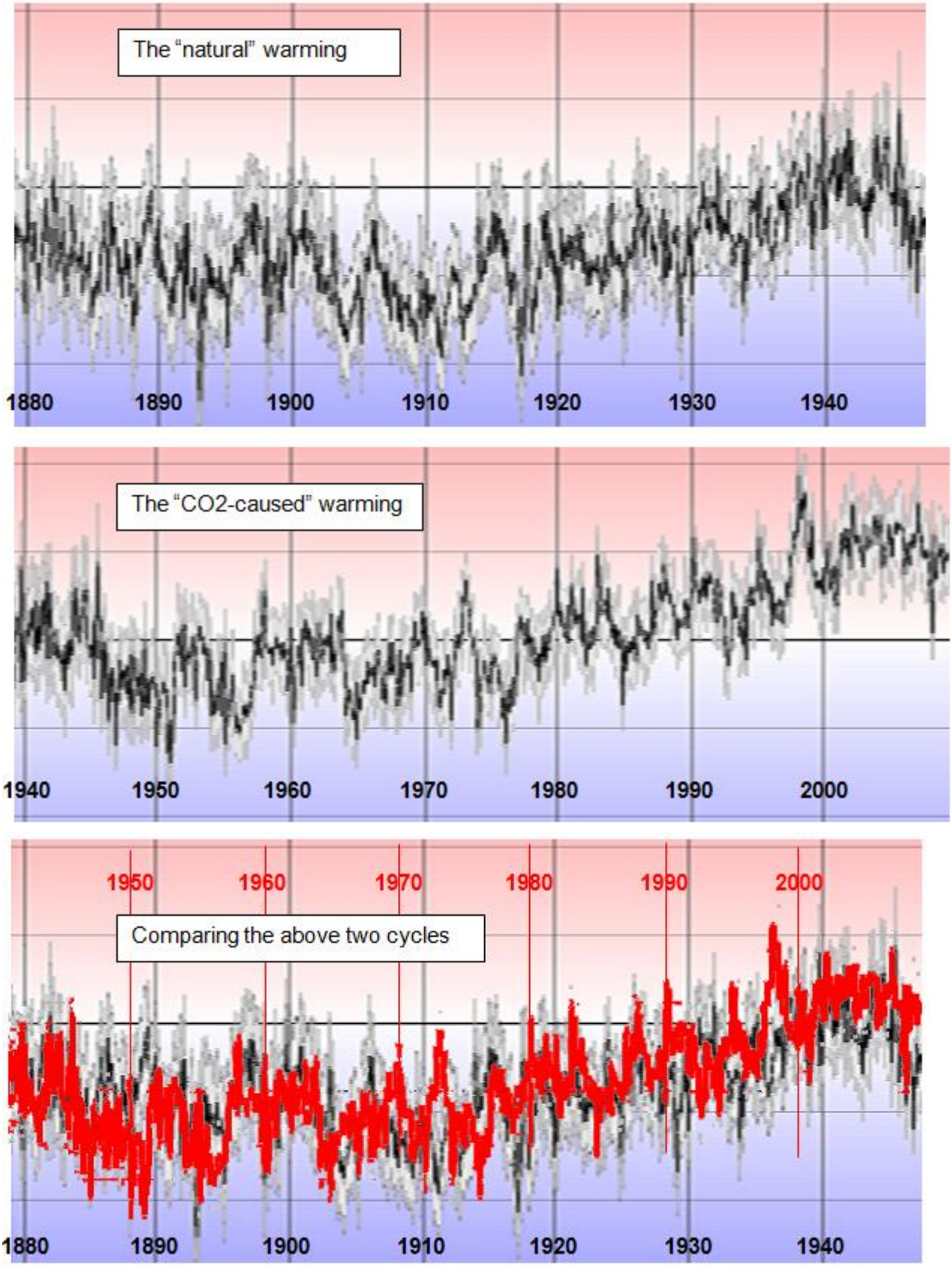

The following figure superimposes the above temperature anomalies on the IPCC graph of model outputs. (IPCC 2007 AR4 Figure SPM-4 [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf])




In this figure, the blue shaded bands show the results climate models using only the natural forcings; red shaded bands show the result of climate models including anthropogenic CO2. This clearly shows that **prior to the 1970s, the global warming is fully explained by climate models using only natural forcings (i.e. no human CO2).**

Note that the slope of the 30-year "natural" 1910-1940 warming is the same as the 30-year "human-caused" warming of 1970-2000.

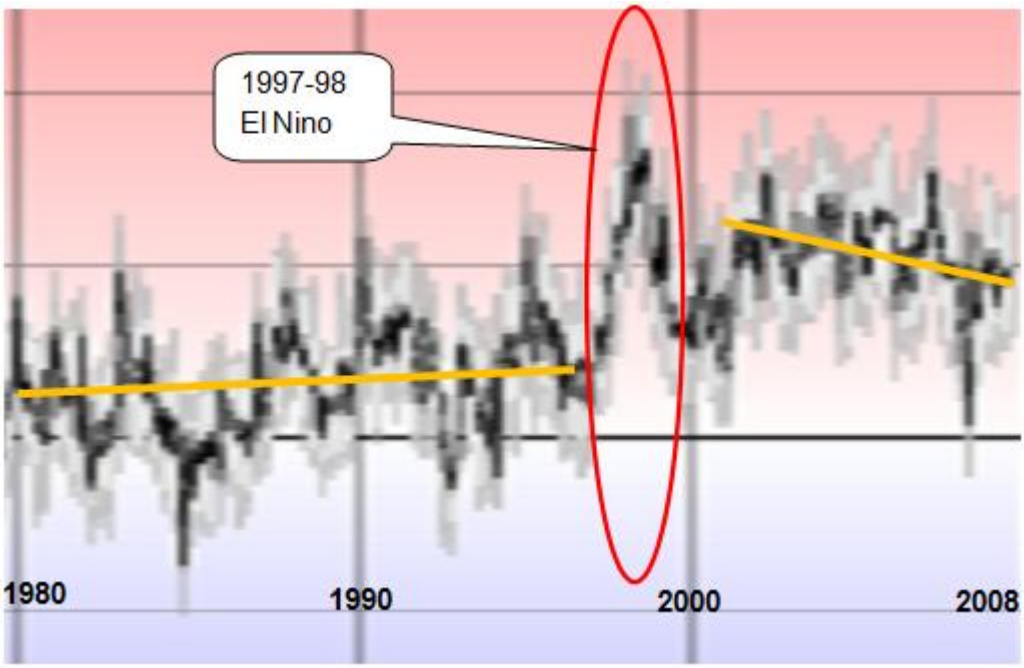
The following figures show the global temperature anomalies from the Hadley figure shown previously. Top figure: 1880-1946; middle: 1940-2008; and bottom: 1942-2008 changed to red and overlaid on 1880-1946 (shifted by 0.3 degrees).



As can be seen from the above figures, the two cycles were virtually identical, and yet the IPCC says the models can explain the early 1900s cycle with natural forcings, but anthropogenic CO2 is needed for the later cycle! There appears to be a problem with the models.

There is an overall upwards net trend in the cycles due to the fact that the earth has been warming since the Little Ice Age: "The coldest time was during the 16th and 17th Centuries. By 1850 the climate began to warm." [http://www.windows.ucar.edu/tour/link=/earth/climate/little_ice_age.html]

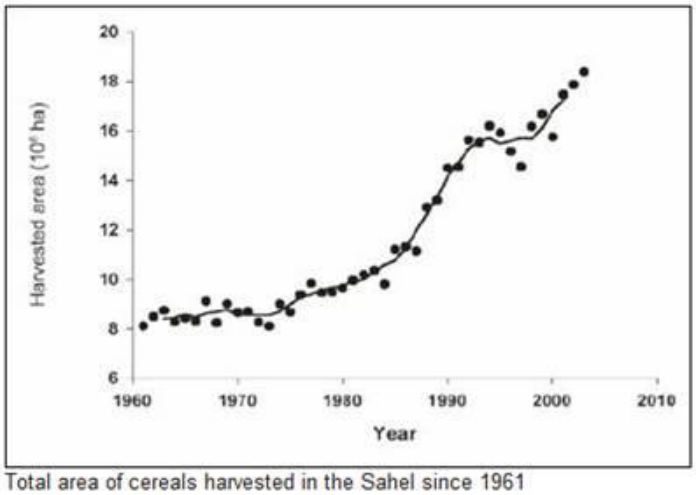
The following figure shows the global average temperature anomalies for the last 30 years. Almost all of the warming occurred in a single year resulting from an El Nino. For the two decades prior to the El Nino, the warming rate was about 0.05 degrees per decade (i.e. 0.5 degrees per century). **Since the El Nino there has been a decade of cooling**.



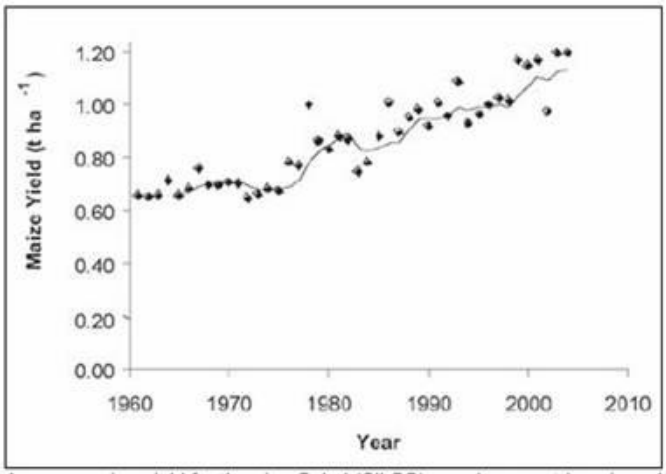

Atmospheric CO2 has been steadily increasing throughout this same time period – there is no correlation of CO2 with temperature.

News stories say that Africa will be the hardest hit by the effects of CO2. But a United Nations Environment Program (UNEP) report in 2006 ("Climate Change and Variability in the Sahel Region: Impacts and Adaptation Strategies in the Agricultural Sector") states: "The increase in aggregate food production (per capita food production has been declining due to rapid population growth), which has been observed in the Sahel and many other parts of sub-Saharan Africa since the early 1980s, has primarily been driven by the continued expansion of the cultivated areas".[http://www.unep.org/Themes/Freshwater/Documents/pdf/ClimateChangeSahelCombine.pdf]

The following figures are from that report showing that over the same period that CO2 has supposedly been a "hazard", agricultural productivity in Africa has been increasing.

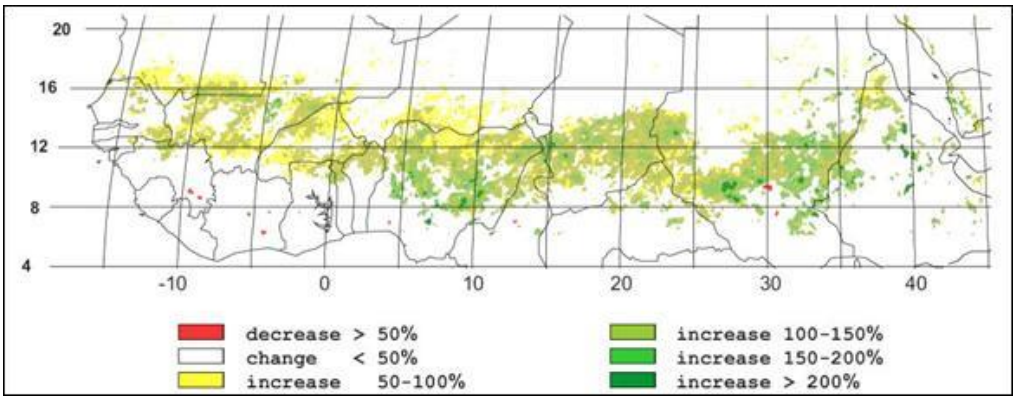


Total area of cereals harvested in the Sahel since 1961



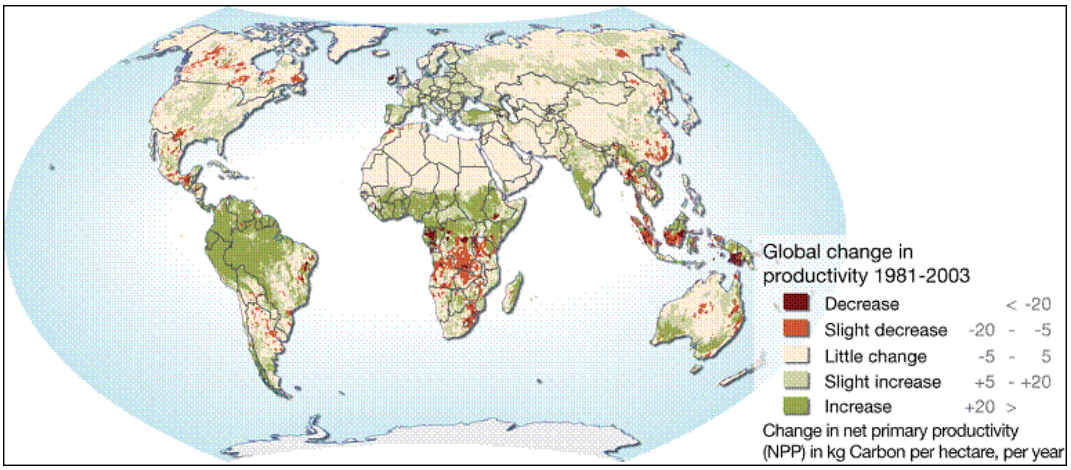
Average maize yield for the nine Sahel (CILSS) member countries since 1961

Since the 1980s, the vegetation has been increasing in the Sahel. The following figure shows the Normalized Difference Vegetation Index (NDVI), showing substantial increases throughout most of the region. [http://www.eoearth.org/article/Greening_of_the_Sahel]. Temperatures in the Sahel are similar to the 1930s.



NDVI (Normalized Difference Vegetation Index) 1982 - 1999

The following figure is from a United Nations UNEP report showing a substantial increase in global carbon productivity from 1981 – 2003. [http://maps.grida.no/go/graphic/losses-in-land-productivity-due-to-land-degradation]




**If anything, increased CO2 is a benefit since it helps increase agricultural productivity. It is definitely not a hazard to human health.**