

## Temperature Change in Europe

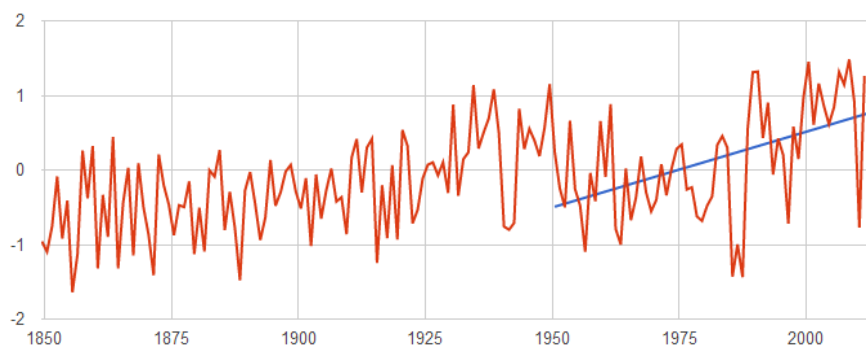
Along the last weeks, we have been able to see that the global temperatures have experienced an increase all over the world. According to the report from IPCC "*Climate Change 2007: the AR4 Synthesis Report*", eleven of the last twelve years (1995-2006) rank among the twelve warmest years in the instrumental record of global surface temperature (since 1850) and observational evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases. The temperature increase is widespread over the globe and is greater at higher northern latitudes. Average Northern Hemisphere temperatures during the second half of the 20th century were very likely higher than during any other 50-year period in the last 500 years and likely the highest in at least the past 1300 years.

Making use of *CLIMATE TIME SERIES Browser*, it can be proved if this increase of temperatures is real. To do this, a series of meteorological stations have been selected along all European countries as it shows next:



Picture 1. Meteorological station selected

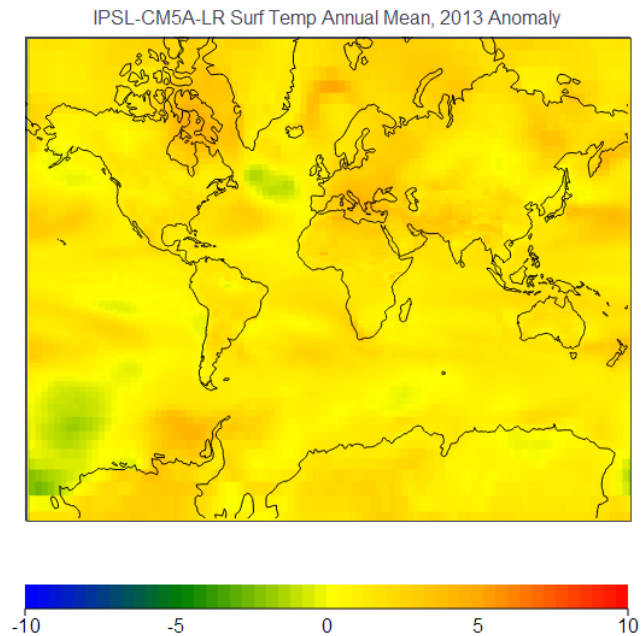
From those meteorological stations have been obtained the data can be seen in the following graph where we can observe the surface temperature change between 1850 and 2013:



Picture 2. Temperature Change in Europe

In the last picture it can be observed an increase in the mean temperature in Europe along the last decades as the IPCC report said.

This increase in the temperature can be observed also in the following map, which has been made with the *AR5 Climate Model Mapper*.



Picture 3. Surface Temperature Mean: Anomalies between 1850 and 2013.

**Bibliography:**

- [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr\\_sp.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_sp.pdf)
- [http://www.ipcc.ch/publications\\_and\\_data/ar4/syr/en/mains1.html](http://www.ipcc.ch/publications_and_data/ar4/syr/en/mains1.html)
- <http://climatemodels.uchicago.edu/timeseries/#JdpJBhEOBJGFFHUGIJKDeBdBIBxCmLjDiGCBODgPEJEMsMUT>
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