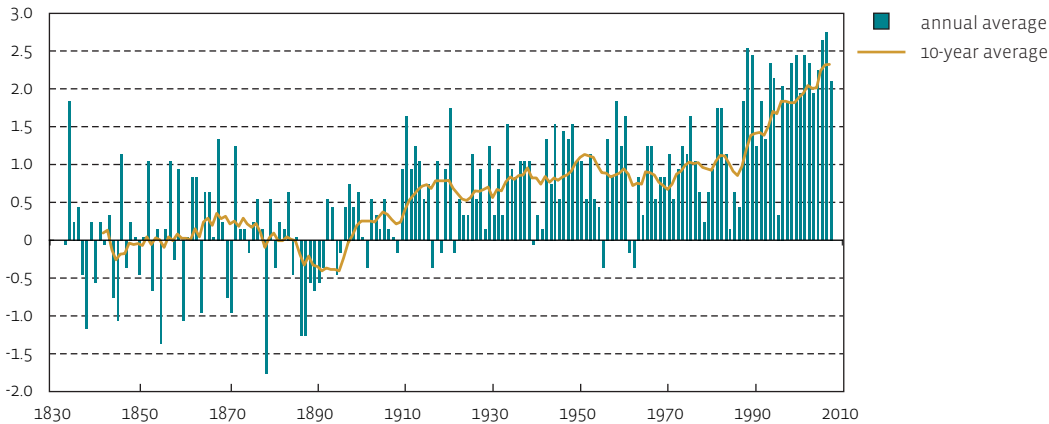




Temperature changes in Belgium since the mid 19th century **DPSIR**

temperature change (°C)



The temperature change is expressed as 1) the deviation of the annual average temperature compared to the average temperature during the period 1850-1899, 2) the ten-year advancing average of the deviation compared to the same period.

Source: MIRA based on data from the KMI

Increasing temperature of the Earth accelerating

To keep the consequences of climate change within limits, Europe uses a maximum increase of the global annual average temperature of 2 °C compared to the pre-industrial period as the target. In 2007, the average annual temperature on Earth was already 0.74 °C above the average of the period 1850-1899. Moreover the temperature increase shows a clear acceleration: in the last 3 decades alone the temperature increased by 0.6 °C, and the 22 warmest years since 1850 were all after 1980.

The IPCC identifies the cause of that undeniable warming mainly as the increasing greenhouse gas concentrations in the atmosphere influenced by human activities (industrial revolution and changes in agriculture).

Within Europe the increase in 2007 compared to the 2nd half of the 19th century was 1 °C, or even 1.2 °C when only the temperatures above land are considered. Spring and summer in particular are becoming warmer.

Greenhouse gas emissions are the determining factor in the temperature changes in Belgium (Ukkel)

In Belgium too, the measurements indicate a clear upward trend. With average annual temperatures of 11.5 °C and 11.4 °C respectively, 2007 and 2006 were the absolute record years since measurements started in 1833. The 10 warmest years since 1833 are all after 1989, whereas the 10 coldest years occurred before 1888. With an average annual temperature of 10.9 °C, 2008 falls just outside the top 10 of warmest years. The KMI mainly attributes the increase since the mid-1980s of approximately 0.9 °C to a reinforcement of the greenhouse impact under the influence of the emissions of greenhouse gases. The share in the measured temperature increase attributable to the natural variation of the climate, the homogeneity or not of the range of temperatures, urbanisation, solar activity and the presence of particulate matter in the atmosphere together is estimated to be only 0.2 to 0.3 °C.