

Climate change on the rocks – did you know ...

... that the sea level in Brest will rise more than on the coast of Iceland?

Global warming is causing the sea level to rise – even as a result of thermal expansion of the water. However, the extent of the rise varies in different ocean regions and at the coasts, as a result of the ocean currents, vertical land movements, and other factors. The sea level around Iceland will only rise about half as much as in Brest!

... that the melting of the ice in the Arctic Ocean will not cause the sea level to rise at all?

The reason: ice masses floating in water are in a state of equilibrium with the surrounding fluid, technically termed buoyant stability. The effect of this can be observed when having a drink “on the rocks”. When the ice cubes melt, the level of the fluid in the glass does not change – unless you take a sip of course.

... that under a 2°C warming scenario, the extreme flood magnitude is projected to substantially increase in large parts of Europe?

The increases are found for large regions of Central and South Europe and can partly be explained by increases in heavy precipitation. Due to less snow accumulation, extreme flood magnitudes will decrease in Northern Europe.

... that under a 2°C warming scenario, the number of heat wave days are expected to more than double in Europe, with even stronger increases in the Mediterranean?

Current climate models project heat waves in Europe under a 2°C warming scenario to become more frequent, more intense and to last longer. Strong increases will affect southern France and other Mediterranean regions.

... that under a 2°C warming scenario, the snow season length is expected to be shortened and lower altitudes may lose the snow season?

In the Alps, the number of days with >30 cm snow are projected to decrease by approx. 35% in the altitude range 1500–2000 m with harsh consequences for winter tourism.

... that losses from drought/subsidence, inundation, and storms in France could almost double until 2040?

This is the result of a recent study by the Association Française De L'Assurance, which found that losses from these perils over the period 1988–2013 amounting to Euro 48.4bn will increase to Euro 92bn for the time horizon from now to 2040. The study takes into account the projected effects of both socioeconomic and climate changes.

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