

## Summer of 2022: the standard for 2050?

The summer of 2022 saw extreme weather in many parts of the world: for Europe, it was the hottest summer on record, combined with catastrophic drought; in France, high temperatures caused the premature death of more than 10,000 persons, according to INSEE<sup>1</sup>; heat and drought combined to breed devastating forest wildfires; destructive thunderstorms and violent Mediterranean events hit several “départements”. Forest wildfires affected many countries in Europe and elsewhere, with California once again heavily stricken by these fires. Catastrophic drought also occurred elsewhere, such as in China. In Pakistan, heavy rains and associated flooding killed over 1,000 persons.

Such a violent situation on a global scale would have been extremely unlikely without global warming. Indeed, global warming increases the probability, and therefore the occurrence, of such situations. And if global warming increases, summers like the one we just experienced could become the norm in a few decades.

Climatologists from various European countries have estimated the risks that global warming will abruptly disrupt key elements of the Earth's environment for several hundred years or more, significantly altering our living conditions. Such disruptions are less likely and potentially manageable if we succeed in containing warming below 1.5°C compared to the preindustrial era<sup>2</sup>; on the other hand, their probability and number will increase very rapidly with the warming.

Warming in the high latitudes is much faster than in the rest of the world, with strong impacts in these regions: permafrost melting, which would automatically lead to significant CO<sub>2</sub> and even methane emissions and thus intensify the warming; disappearance of continental and sea ice in various regions of the Arctic and Antarctic; and cessation of marine currents in the Labrador Sea. Such phenomena would have important consequences on the climates of the intermediate latitudes.

It is therefore urgent to take action simultaneously in 2 directions:

- Massively reduce our emissions of all greenhouse gases, first and foremost carbon dioxide and methane, but without forgetting the other gases; Save the Climate, which has been warning of this absolute necessity since its creation, has issued numerous recommendations on this matter, in particular in its Climate-Energy White Paper<sup>3</sup>.
- Take appropriate adaptation measures now to limit the deleterious effects of climate change impacts such as those experienced during the summer of 2022.

May this summer serve as a final warning!

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1 Institut National de la Statistique et des Études Économiques – National Institute of Statistics and Economic Studies which collects, analyses and disseminates information on the French economy and society.

2 Current warming is 1.1°C above preindustrial temperatures and the quantities of greenhouse gases emitted on a global scale are not decreasing.

3 Available in French only.