

## Climate change and health impact: is food missing in the equation?

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It has been generally recognized by researchers and regulators that climate change constitutes an important driver affecting the food sector, representing a public health issue that deserves particular attention. Climate change is associated with increasing temperatures and more extreme rainfall; it alters relationships among crops, pests, pathogens, and weeds; and it exacerbates several trends including declines in pollinating insects, increasing water scarcity, increasing ground-level ozone concentrations, and fishery declines. In one hand, climate change threatens our ability to ensure global food security, eradicate poverty and achieve sustainable development. Agricultural productivity is affected by changing rainfall patterns, drought, flooding and the geographical redistribution of pests and diseases, with consequent implications in food availability, a key requirement for food security. On the other hand, despite less debated, climate change could also affect food safety, namely through the occurrence of food safety hazards at various stages of the food chain, from “farm to fork”. The tendency to increase the use of agrochemicals to balance the effects of more frequent extreme weather events and water scarcity in some regions could become more frequent. In addition to pesticide residues, both chemical and microbiological risks are expected to impair food and feed safety as a consequence of climate change: in particular mycotoxins, marine biotoxins (phycotoxins), trace metals, among others. Here, all these concepts will be discussed and integrated, to highlight the potential impact of climate change in food systems, focusing particularly on the contribution to human health especially in what concerns food safety.