

## What is climate change? <sup>[1]</sup>

Climate change is a complex and global phenomenon. The United Nations Framework Convention on Climate Change (UNFCCC) defines it as:

"a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods."

Human influence on the current climate change is clear. Scientists agree that the main cause of climate change is the emission of greenhouse gases (GHG). These gases increase the capacity of the earth's atmosphere to retain heat, giving rise to the phenomenon of global warming..

## How does it affect us? Effects and impacts of climate change

Climate change affects us and will affect us in the future in many aspects of our lives. Some of the **concrete effects** of climate change that can already be observed in different parts of the planet are the following:

- The atmosphere and ocean have warmed
- Ice and snow volumes have decreased
- Sea levels have risen

These effects translate into a series of impacts or consequences on natural systems and on human beings. In the case of the **Mediterranean region**, where our country is located, some specific **impacts** are as follows:

- Temperature increase higher than the increase of the European average.
- Decrease in annual precipitation
- Decrease in annual river flows
- Decrease in crop productivity
- Increased risk of forest fires
- Increased mortality due to high temperatures
- Expansion of the habitat of disease vectors typical of southern latitudes.
- Etc.

## What can we do? Responses to Climate Change: Mitigation and Adaptation

Faced with this situation, we can act from different approaches and strategies, both individually and collectively, taking into account climate change mitigation and adaptation.

**Mitigation** includes all strategies aimed at reducing greenhouse gas emissions of human origin and increasing removals by sinks.

**Adaptation** groups together strategies aimed at minimizing the risks and impacts derived from climate change, seeking a better adjustment to current and future climate conditions.

The two responses must be **complementary** because, on the one hand, without mitigation, our adaptive capacity may be overcome more rapidly by the magnitude of climate change impacts and, on the other, adaptation is essential to deal with the impacts that climate change is already having today and will inevitably have in the future. Likewise, adaptation that is not low in greenhouse gas emissions intensifies the change whose effects are to be avoided, and mitigation that does not integrate adaptation criteria may be at risk from the impacts of climate change.

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