THE CLIMATE Crisis in the WORLD

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01

CONSEQUENCE OF THE CLIMATE CRISIS

Climate crisis how it affects food supply

Climate crisis how it affects food supply:

Climate change affects food production, processing, distribution and consumption, as well as the availability of safe and secure food. The quality of these parameters decreases when food systems are stressed.
Effects of climate change
One of the main consequences, according to published research, is that rising sea surface temperatures lead to an increased incidence of waterborne infectious diseases linked to the presence of toxins in shellfish.

Climate crisis how it affects food supply:

According to the 2015 research, carried out by experts from Ghent University (Belgium) and Wageningen University (Netherlands), there is a link between changes in temperature and precipitation and the contamination of fruit and vegetables. Ambient temperature and rainfall patterns influence food and waterborne diseases. Among the most common pathogens, the scientists list Salmonella, Campylobacter and enteroviruses.

The effects on food security vary according to the different processes that can result from the effects of climate change (US Department of Agriculture). Drought, for example, mainly leads to a loss of plant vigour, which makes plants more susceptible to disease. Floods and heavy rains, on the other hand, favour the growth of pathogenic fungi on leaves, and many disease-causing organisms are spread by air currents.

Climate crisis how it affects freshwater

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Whether in liquid, solid or gaseous form, water is vital to our planet. We depend on it for drinking, agriculture and livestock, and countless species need freshwater ecosystems to live. The oceans help modulate CO2 levels and maintain global temperatures, while transporting nutrients and supporting marine ecosystems.

As the climate changes, so will the freshwater and saltwater resources on which our societies and economies are based. And as the climate changes, our relationship with water will or should chang
In any case, we will have to learn to cope with a complicated future where water, land, atmosphere and all the living things we inhabit will change forever. Here are some of the ways in which climate change affects water on Earth:

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Chemical equilibrium

Populations at risk

Underground reserves

Overcrowding

The thaw

The ravages of drought

Climate crisis how it affects each partner country

Climate crisis how it affects freshwater

The consequences of the climate crisis are increasingly felt, especially in the most vulnerable countries. However, it is a problem that does not discriminate between rich and poor as it affects everyone equally. Weather events, among others, are increasing, bringing with them more poverty and a greater number of health emergencies.

Scientific research and the development of plans aimed at restoring the climate balance are necessary to ensure life on the planet. In this sense, technology can help humanity to find energy alternatives to curb the climate emergency.

IBERDROLA

Los 5 países más afectados

por el cambio climático en el siglo XXI

PUERTO RICO
IRC: 6,67

La devastación provocada por el huracán María en 2017 dejó casi **3.000 muertos y pérdidas millonarias** en el país caribeño.

PAKISTÁN
IRC: 28,83

El **monzón** causa estragos en este país cada año, pero especialmente duro fue su impacto en 2010 dejando **20 millones de afectados.**

FILIPINAS
IRC: 17,67

Los **eventos climáticos extremos** son una constante en el país asiático. De hecho, en lo que va de siglo han sufrido **317.**

HAITÍ
IRC: 13,83

El país caribeño ha sufrido dos de los **huracanes** más devastadores de lo que llevamos de siglo **(Jeanne en 2004 y Sandy en 2016).**

MYANMAR
IRC: 10,33

El **ciclón Nargis** dejó alrededor de **140.000 muertos en 2008** y el país aún intenta recuperarse de las pérdidas materiales.

IRC 0 — Mucho riesgo

IRC 100 — Menos riesgo

Fuente: Germanwatch.

02

HOW THE CLIMATE CRISIS WILL CHANGE THE MAP OF THE WORLD

SEA LEVEL RISE

Sea level rise is not new. But now its magnitude is more important than we think and it could reach two meters in height by the end of the 21st century.
Rising sea levels could cause thousands of kilometers of coastline to go under water or be continually in danger of flooding.

SEA LEVEL RISE

In total, this problem would affect:

745 million people around the world

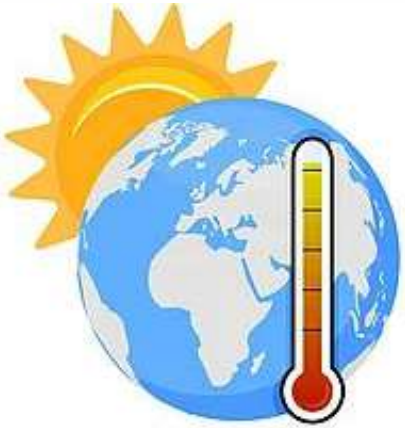
In fact, we see how catastrophes such as floods, ports destroyed by waves and other similar phenomena occur more often.

MELTING POLES

The melting and melting of the ice caps resulted in an increase of more than:

430 gigatonnes of fresh water in the oceans

The increase in temperature has led to an increase of 2.7 cm in sea level. It seems little, but it affects millions of people residing on the coasts around the world.



TERRITORIAL CONSEQUENCES

The most direct consequences will depend on the region of the world, the climate, the infrastructures and many more factors.

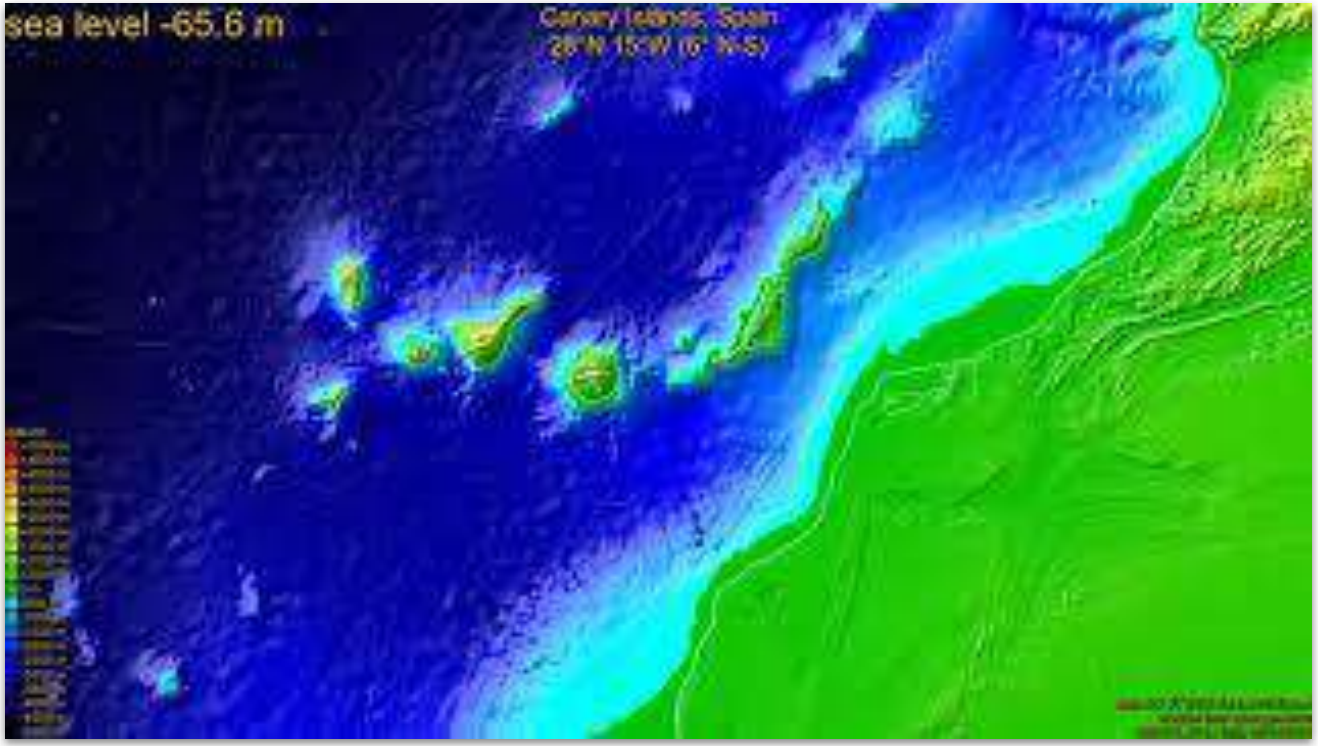
However, the areas most exposed to the sea, such as islands and coastal cities, face serious danger.

The rise in sea level also causes serious erosion of the coastlines, worsens water quality and damages the historical and artistic heritage.

AREAS MOST AFFECTED BY SEA LEVEL RISE

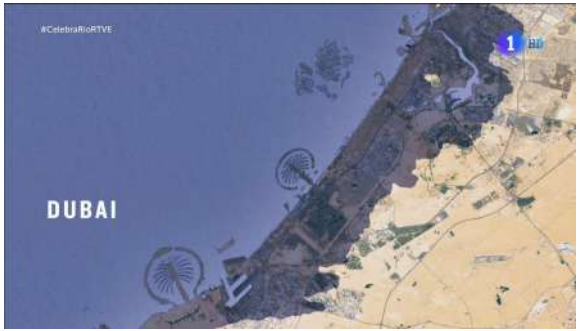
In Spain, in the province of Cádiz, areas such as the port or the bay are expected to be flooded; that even affects nearby areas such as the town of San Fernando. That would imply the destruction of both fishing activity and tourism.

SEA LEVEL RISE IN THE CANARY ISLANDS, SPAIN



AREAS MOST AFFECTED BY SEA LEVEL RISE

But this is not something exclusive in Spain. Other cities such as Cancun, Rio de Janeiro or New York would also see their beaches, facilities and even transportation routes end up under water. **Cities in 5 years:**



FUTURE RISE OF SEA LEVEL

In **2050** the sea level will have suffered an increase of between **20 and 30 cm.**

Predictions **for 2100** point to a rise in sea level of between **84 cm and 2 metres.**

Natural climate variability

What is natural climate variability?
Climate variability refers to fluctuations in the components of climate - temperature and precipitation, among others - over given time periods, which can be as wide-ranging as a few days to decades.

According to the UNCCD, areas susceptible to desertification are arid, semi-arid and dry sub-humid areas, i.e. those areas where the ratio of annual precipitation to potential evapotranspiration is between 0.05 and 0.65.

Natural climate variability

Desertification, the development of drylands and the increase of areas with scarce water availability ("dryland"), is one of the main consequences of climate change. Groundwater sources are becoming scarce and drought events are increasing and becoming more widespread.

This can lead to storms, floods, landslides, extreme temperatures and forest fires are all related to climate variability.

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climate variability

Desertification

How can desertification reduce soil fertility?

Desertification and soil erosion cause the loss of vital components such as nutrients and minerals. As a consequence, many people lose their agricultural production base, their source of food and income, or even their livelihoods.

How can desertification cause a decrease in agricultural yields in the long term?

Soil productivity decreases, food production is reduced, the land is stripped of its vegetation cover and all of this negatively impacts areas that are not directly affected by these symptoms, causing flooding, soil salinization, deterioration of the water quality

How can it affect the standing plant biomass and plant biodiversity?

The loss of biodiversity by worsening the living conditions of many species. Food insecurity due to crop loss or reduced yields. The loss of vegetation cover and, therefore, of food for livestock and humans