

Extreme temperatures & precipitations

- On July 1, 2017, the highest temperature in Romania was 48° C in the shade and 62°C at ground level in Dăbuleni, southern Oltenia.
- The city of Calama (N of Chile) in the Atacama Desert is the place with the lowest precipitation in the world -75 mm/year
- February 3, 2018 at Craiova was 18°C, and in the south, at Bechet 21°C (Romania), being the highest temperature in Europe.
- Extreme temperatures causes many forest fires in Turkey. Forest fire usually happens between 28,9° C and 36,4° C. Nowadays we can see 40° C and more in many parts of Turkey.
- There is a crucial drought in the middle of Anatolia because of low precipitation.
- April 2018 was recorded as the hottest month in history, with an absolute maximum of 50.2 ° C in Pakistan.(Asia)

Climate change 1990 vs 2018

- The average global temperature is 0.85° C higher than at the end of the 19th century.
- Lake Ciad, located in the heart of Africa, was the main source of water for the communities of Nigeria, Ciad and Niger. Since the 1960s the lake has lost more than 80% of its surface.
- Over the past 30 years, the increase of oceanic water temperature has caused the coral color change in northeastern Australia; they have become white and more sensitive.
- In the last 20 years, the average annual temperature has increased in Craiova (Romania) from 11.1° C (1998) to 12.6° C (2017)
- The climate in Aksaray changes from semi desert to desert.
- The area covered by Arctic ice on the North Pole declined by 10% over the last decades and the ice thickness decreased by about 40%.



The Footprints of Climate Change from Anatolia to Europe



WHAT EVERYBODY SHOULD KNOW...

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About weather and climate Did you know?

- The **weather** is the state of the atmosphere in a certain place and at a time (1-3 days).
- **Climate** - the total of weather phenomena measured on a large area (a country, a continent) and over a long period of time (about 100 years).
- 90% of natural disasters produced in Europe since 1980 are caused by weather and climate.
- Year 2016 was the warmest year in the history of climate measurements, with an average temperature of 14.7°C, by 1.2°C more than in the pre-industrial period.
- Experts estimate that the cities of Bucharest, Madrid and Rome will be the European capitals that will only record temperatures of over 40° C in the future, in the summer.
- Due to climate change in recent years, the temperature in winter rises, spring comes early, autumn comes late, the animals' migration time changes.

Causes of Climate Change in the World

- Cutting forests: trees help regulate climate conditions by absorbing CO₂ from the atmosphere
- Burning fossil fuels to produce electricity and heat
- Industry - cement, aluminum are the largest producers of greenhouse gases
- Ignorance and selfishness of people
- Pollution (lake ,sea)
- Waste natural resources unconsciously
- Not giving importance to renewable energy sources



Effects of Climate Change in the World

- The greenhouse effect - is caused by the accumulation in the atmosphere of carbon dioxide, methane and water vapor, which prevents Earth's reflected radiation from returning into space, thus leading to the warming of the climate.
- The melting of the glaciers and the increase of the planetary ocean by 1-1.5 mm / year in the last century.
- Acid rains are formed in industrialized regions, but the wind also takes them over other areas. They are especially caused by industry and transport.
- Extinction of species (animal, plants).
- Extreme weather events are getting more common.
- Forest fires are increasing.
- Sea level will rise, as water expands with rising temperatures, and oceans absorb more heat than land.