



Climatic Changes

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Editorial

What is Climate Change

Climate change refers to long-term shifts in temperature and weather patterns. These shifts may be natural and occur, for example, through changes in the intensity of the sun, slow changes in the Earth's rotation around the sun, or natural processes within the climate system (such as changes in the water cycle in the ocean), but since the nineteenth century, human activities have become the norm. The main cause of climate change on the planet. This is mainly due to the burning of fossil fuels, such as coal, oil and gas as a result of various industries and human activities such as deforestation, reforestation, urbanization, desertification, etc. The burning of fossil fuels results in the emission of gases that act as a blanket around the globe, especially carbon dioxide and methane, which leads to trapping the sun's heat and raising Earth temperatures. These gases result from the use of fuel in cars, deforestation, and the emission of gases from various industries, which lead to the release of carbon dioxide, and landfills are a major source of methane emissions. The production and consumption of energy, industry, transportation, buildings, agriculture and land use are the main sources of emissions. Recent studies have proven that the concentrations of these gases have reached their highest levels since two million years ago. Emissions continue to rise as a result of the continuation of their sources. As a result, the globe is now 1.1°C warmer than it was in the late 19th century.

What are the Expected Effects of Climate Change?

The phenomenon of climate change is distinguished from most other environmental problems in that it is global in nature, as it has crossed the borders of countries to

pose a threat to the whole world. It has been confirmed the steady increase in surface air temperatures over the globe as a whole, as the global average increased at a rate ranging from 0.3 to 0.6 degrees during the past 100 years. Studies of the Intergovernmental Panel on Climate Change (IPCC) have indicated that this continuous rise in the global average temperature will lead to many serious problems such as rising sea levels threatening to drown some areas in the world, as well as affecting water resources and crop production, in addition to spread of some diseases. Climate change is certain to affect our health and ability to agriculture, housing, safety and work. The consequences of climate change include severe drought, water scarcity, severe fires, rising sea levels, saltwater intrusion into adjacent lands, floods, melting polar ice and the degradation of biodiversity. In a 2018 report prepared by the United Nations, scientists recognized that limiting global temperature rise to no more than 1.5°C would help us avoid the worst climate impacts and maintain a habitable climate. Conversely, the current trajectory of carbon dioxide emissions could increase global temperatures by as much as 4.4 degrees Celsius by the end of the century.

Everyone asks: can we stop the Phenomenon of Climate Change?

The frank scientific answer: It is only possible to slow down the pace of global warming and not stop it completely, and thus delay and reduce the amount of damage until the end of the current century, in the hope that we will be able to coexist as a human race with the variables that we have caused.

Climate Change Poses a Great Challenge to Humanity, so do we Have Solutions to this Phenomenon?

The countries of the world have become aware of the danger

of being silent on the phenomenon of climate change and the need to confront it effectively, as the effects of climate change have been present for some time, but some countries of the world were not dealing with this crisis effectively and sufficiently, especially the industrialized countries that cause more climate changes and are more remiss in The right of developing countries where measures are not taken to protect the world from climate change and do not provide adequate funding. Despite this, there are some measures that can be taken to reduce this phenomenon and its catastrophic effects, the most important of which are:

Reducing Emissions: This can be done by converting existing energy systems from fossil fuels to new and renewable energy sources, such as solar or wind energy, thus reducing emissions that cause climate change. Here a growing coalition of countries is committed to zero emissions by 2050, yet current emissions must be cut by about half by 2030 to keep global warming below 1.5 degrees Celsius, and fossil fuel production must fall by 6 per cent. Cent annually during the decade 2020-2030.

Adaptation to the Effects of Climate: Humanity must also adapt to the consequences of climate change that may occur in the future. Priority must be given to the most vulnerable people who have the least resources to face climate risks, especially in developing countries that are least involved in the occurrence of the phenomenon and most affected by it.

Financing the Required Modifications and Procedures: Climate adaptation and coping with its impacts require significant financial investments, but climate inaction costs dearly. One of the important steps is for the industrialized countries and the main cause of the phenomenon to fulfill their commitment to provide financial allocations to developing countries so that they can adapt and move towards greener economies.

Climate Change Summit in Glasgow

What does the World Expect from this Summit?

The current round of climate change talks under the auspices of the United Nations 2021 will be held at its twenty-sixth session in Glasgow, Scotland, within the ceiling of high expectations in dealing with the problems of climate change that beset our planet, as climate stakeholders around the world call on countries of the world to preserve the environment from pollution in order to avoid catastrophe Climatic. Where all climate reports indicate a gap in carbon emissions due to which countries may fail to maintain the global temperature increase at a rate of less than 1.5 degrees Celsius during this century. In fact, the world is heading for a rise in temperatures of about 2.7 degrees Celsius, which will cause very devastating effects, according to the analysis of the United Nations Environment Program. Hence the most

important challenge before the summit, which is to limit the rise in temperatures to 1.5 degrees Celsius, according to what the President of the United Nations Climate Change Conference, Alok Sharma, stressed in media statements on the need to reduce emissions by 45 percent by 2030.

The other pressing issue is the failure of rich countries to allocate \$100 billion annually based on a pledge first issued in 2009, starting from 2020, to help developing countries reduce emissions and adapt. This goal was postponed to the year 2023, to exacerbate the crisis of confidence between the northern countries responsible for global warming, and those in the global south, which are victims of its repercussions. A few days before the opening of the Climate Summit 26 in Glasgow, a scientific report on climate change appeared and it is a resounding wake-up cry as it raises the alarm and warns of accelerating global warming. The unprecedented report by United Nations scientists confirmed that persistent emissions of greenhouse gases could also see a change in key temperature limits in just over a decade. The report's supervisors also made it clear that a sea level rise of nearly two meters by the end of the current century "cannot be ruled out ". There is hope, however, that temperatures will be significantly curbed if the United Nations' long-term goal of carbon neutrality and net zero emissions is reached by the middle of the century.

What are the Groups Most Affected by the Phenomenon of Climate Change?

Although all groups are affected by the consequences of the negative climate change phenomenon, children bear the brunt of its effects, although they are the least responsible group for the occurrence of the phenomenon, as climate change poses a direct threat to the child's ability to survive, grow and thrive. From where:

- The severity of weather phenomena such as hurricanes and heat waves threaten the lives of children and destroy the infrastructure vital to their well-being.
- Floods cause destruction and damage to water and sanitation facilities, which leads to the spread of various diseases, which represent a grave danger to humans in general and children in particular.
- Drought and the global change in rainfall leads to a disruption in crop productivity and an increase in food prices, which means food insecurity and food deprivation for poor people, including children, of course.
- Children are the most vulnerable group to diseases that will increase in prevalence as a result of climate change and drought, such as malaria, fever and pneumonia, which alone kills 2,400 children per day worldwide, which is closely related to under nutrition, lack of safe drinking water and air pollution, which are symptoms that are exacerbated by the phenomenon Climate change.

The Frightening and Terrifying Effects of Climate Change

In a report broadcast by Agence France-Presse, on the impact of climate change on humanity, it is clear that:

- About 166 million people in Africa and Central America needed assistance between 2015 and 2019 due to food emergencies linked to climate change.
- There are between 15 and 75 million people, most at risk of starvation by 2050.
- About 1.4 million children will be severely stunted in Africa due to climate change in 2050.
- Agricultural yields decreased by 4-10% globally during

the past thirty years.

- The quantities of fish caught in the tropics declined at a rate ranging between 40 and 70 percent, in light of the increase in emissions.
- As for the impact of climate change on internal migration, its rate will increase between 2020 and 2050 to 6 times the current rate.
- Global warming will also have terrifying effects on “water stress”, as 122 million people in Central America, 28 million in Brazil, and 31 million in the rest of South America will be affected by a lack of water allocations.