



Climate Change

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Abstract

The issue of global climate change has already occurred. Increased human emissions of heat-trapping greenhouse gases are altering Earth's climate, and these changes are already having a significant impact on the environment. For example, glaciers and ice sheets are melting faster, lake and river ice is breaking up earlier, plant and animal ranges are shifting, and flowers and leaves are blooming earlier. Sea ice loss, accelerated sea level rise, and longer, more intense heat waves are just a few of the effects of global climate change that scientists have long predicted would happen. Droughts, wildfires, and extreme rainfall are a few examples of changes that are occurring more quickly than previously thought by scientists. In fact, the Intergovernmental Panel on Climate Change (IPCC), a body of the UN tasked with evaluating the science surrounding climate change, asserts that the observed changes in our planet's climate are unprecedented in human history and that some of these changes will be irreversible over the course of the next hundreds to thousands of years. The majority of the greenhouse gases produced by human activity, according to scientists, are to blame for the long-term rise in global temperatures.

Keywords: Climate change; Environment

Introduction

Long-term modifications to weather and temperature patterns are referred to as climate change. These changes might occur naturally, for instance through variations in the solar cycle. But since the 1800s, burning fossil fuels like coal, oil, and gas has been the primary cause of climate change, which is mostly attributable to human activity. Fossil fuel combustion produces greenhouse gas emissions that act as a blanket around the planet, trapping heat from the sun and increasing temperatures. Carbon dioxide and methane are two examples of greenhouse gas emissions that are contributing to climate change. These are produced, for instance, while burning coal or gasoline to heat a building. Carbon dioxide can also be released during forest and land clearing. Methane emissions are primarily produced by waste landfills. Among the major emitters are energy, industry, transportation, buildings, agriculture, and land use [1-4].

The Amount of Greenhouse Gas Concentrations Is the Highest It Has Been In 2 Million Years

Emissions are still increasing. The Earth is now roughly 1.1°C warmer than it was in the late 1800s as a result. The warmest decade on record was from 2011 to 2020. Most people believe that rising temperatures are the main effect of climate change. The story doesn't actually start with the temperature increase. Changes in one place can have an impact on changes in all other areas of the Earth since everything is interrelated and the Earth is a system [5,6]. Currently, the effects of climate change include, among others, severe fires, water scarcity, acute droughts, increasing sea levels, flooding, melting polar ice, catastrophic storms, and a loss of biodiversity.

Various Ways That Climate Change [7]

Health, food production, housing, safety, and employment are all impacted by climate change. Some of us are already more susceptible to the effects of climate change, such as residents of small island states and other poor nations. Long-lasting droughts are putting people at danger of famine, while conditions like sea level rise and saltwater intrusion have become severe enough to force entire towns to evacuate. Future predictions predict an increase in the number of "climate refugees." Numerous UN reports were endorsed by thousands of scientists and government reviewers who concluded that keeping the increase in

global temperature to 1.5°C would help us avoid the worst climate effects and maintain a livable climate. But present policies predict a 2.8°C temperature increase by the end of the century [8,9].

Everyone is affected by the global emissions that contribute to climate change, but some nations produce significantly more than others. 3 percent of global emissions are produced by the top 100 polluting nations. 68% of the contribution comes from the top 10 emitting nations. Everyone must take action on climate change, but those who contribute most to the issue and the nations that do so have a greater duty to lead the way.

Challenge [10]

Numerous approaches to combating climate change can boost the economy while also enhancing our quality of life and safeguarding the environment. In order to direct development, there are also international frameworks and agreements in place, including the Paris Agreement, the UN Framework Convention on Climate Change, and the Sustainable Development Goals. Adapting to climate impacts, reducing emissions, and funding necessary adaptations are the three main types of action. By switching from fossil fuels to renewable energy sources like solar or wind, we can cut the emissions that cause climate change. But we must get started immediately. While an increasing number of nations have pledged to achieve net zero emissions by 2050, it is necessary to achieve around half of those reductions by 2030 in order to prevent global warming to 1.5°C or less. Production of fossil fuels must drop by about 6%. Protecting people, their homes, places of business, livelihoods, infrastructure, and ecosystems against the effects of climate change. It encompasses both current and potential future effects. While adaptation will be necessary everywhere, it must be given

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priority right away for the most vulnerable populations who have the fewest resources to deal with climate risks. The rate of return may be substantial. For instance, early warning systems for disasters can save lives and property and produce benefits up to ten times their initial cost. Governments and corporations must make large financial investments in climate action. But ignoring the climate costs even more. In order for developing nations to adapt and transition to greener economies, industrialised nations must fulfil their pledge to give them \$100 billion annually.

Discussion

Since many hope studies are cross-sectional in nature, it is also possible that in addition to hope leading to action, action also fosters hope. Qualitative research on collective engagement reveals that those who are involved mention that one benefit of being involved is that it makes them feel more hopeful, for instance because they realise that they are not fighting climate change alone and that they receive support from other activists. Climate-change hope has also been examined as emerging through prefigurative practice; that is, being a role model by living in accordance with one's values, despite what others do, can lead to hopeful feelings for oneself as well as for others, who understand that a more sustainable way. The majority of intervention studies that emphasise instilling hope through upbeat messages aim to evoke a sense of possibility for change, but they run the risk of inspiring optimism that everything will turn out just fine without any of the participants having to do anything. According to research based on the "fantasy realisation theory," in order for active engagement to take place, it is necessary to elaborate on the differences between a desired future and the present reality's negative aspects as well as acknowledge that the present reality stands in the way of the desired future.

Conclusion

This study demonstrates a consistently favourable relationship between participation and cognitive measures of hope for averting climate change. Researchers studying hope in relation to climate change, however, must be careful not to lose sight of hope as a distinctive idea. Less consistent findings apply to climate change hope as an emotion and involvement. Here, researchers need to be aware of the propensity to conceptually conflate notions like hope and optimism in interventions that promote hope as well as in hope measurement. The varied results also highlight the significance of identifying the foundational elements upon which hope as an emotion is built, since these elements may be both beneficial and detrimental from the standpoint of involvement. Future research may find value in focusing on specific climatic change as well. Future studies ought to consider the environment in which they are conducted as well. It depends on the

country and the time period as to what a source of hope, like faith in politicians, means. Sometimes it means a source of hope that inspires action, but other times it means something more akin to denial, as in the case of politicians who don't actually take any action. The idea of "critical hope" would be a welcome addition to studies on climate change in this regard. More research is required to examine how people struggle to use various pathways to combat climate change, which is the active component of the agency concept. Although this strategy has not been particularly effective, intervention studies frequently concentrate on upbeat messages about overall progress. The emphasis should be placed more clearly on problem-solving individual and group action in hope-based appeals. Additionally, it is crucial to consider information from studies that have concentrated on potential explanatory factors of positive hope, such as nature contact, knowledge of art mitigation and adaptation, a sense of effectiveness, self-control, and the significance of educators respecting students' negative emotions regarding climate change, combined with having a solution-focused outlook on the future.

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