

CLIMATE CHANGE

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Annotation: *This article discusses Climate Change , a long with its causes and consequences as well as solutions to prevent fr om repercussions .*

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Climate is the a verage weather on our planet over a long period of time and our climate is changing. So, let' s begin by addressing a fundamental question: Why does climate change matter?

The answer is straightf orward- it threatens humans , animals and countless other living beings .For humans the consequences of climate change are far-reaching. They include: not having enough food or water , health problems , HUGE costs to whole countries, being forced to move a wa y fr om homes , negative impacts on jobs and livelihoods . The effects of climate change vary across different regions populations . Unfortunately , those who have contributed the least to the issue often suffer the most.

Climate change is not just a problem for humans . All living things are at risk- in fact, global extinction rates are now a thousand times faster than we would expect under normal circumstances . In fact, 25% of species are threatened by extinction. It boils down to the greenhouse effect. Certain gases in our atmosphere , known as greenhouse gases , trap heat from the sun, making our planet warmer . While greenhouse gases are not necessarily bad, the amount of them is a bundance. Human activities , in particular our reliance on f ossil fuels like oil, gas and coal for energy , have been releasing an excessive amount of these gases into the atmosphere [5].

We have already warmed the planet by 1.2C in the last hundred years . You may have heard that we are aiming to limit this to 1.5, or at most 2C. It is extremely unlikely that we will be able to limit global warming to 1.5C – but this does not mean that we should give up . In fact 14% and 37% globa l population face severe heat waves every five years with 1.5C and 2% respectively . Geologica l records show that there have been a number of large variations in the Earth's climate . These have been caused by many natura l



factors, including changes in the sun, emissions from volcanoes, variations in Earth's orbit and levels of carbon dioxide (CO₂).

We must stop climate change as fast as possible. At the point that we are at, it is unrealistic to aim at repairing the damage we have done to the planet, at least in the next hundred years. But there is a hope. We can solve the problem now to limit the damage. Solving climate change requires two essential components: mitigation and adaptation.

1. Mitigation focuses on reducing the root causes of climate change by emitting fewer greenhouse gases.

2. Adaptation involves taking action to adjust to climate changes, ensuring our basic needs like food, water, health, and shelter.

It has been estimated that in 2019, humans released 59 gigatonnes of greenhouse gases into the atmosphere. To put that into perspective, that is 59 billion tonnes, or 59 trillion kilograms.

Cities are responsible for around 70% of these emissions. But, the specific emissions of each city vary massively because of factors like population, size, location, and design. The average global citizen contributes 4.7 tonnes of carbon dioxide emissions each year. But it is different for different people, for example, in 2021, Qatar citizen contributes 36 tonnes CO₂, for US average was 15 tonnes CO₂, Central African Republic average was 0.04 tonnes CO₂. To avoid the worst impacts of climate change, we need to get all these numbers as close to zero as possible [5].

In some cases, we can reduce consumption without harming people's well-being, but reducing consumption zero would result in a world of suffering people. There is no one-size-fits-all way to do this, so we need a combination of different techniques and technologies.

Energy is responsible for 76% of global emissions but is also essential for both human health and a country's economic growth. Engineers and scientists have been working tirelessly to develop different technologies like wind power (on land and in the sea), solar power and nuclear power that make the energy we need without burning fossil fuels and releasing vast amounts of emissions [2].

Humans eat a lot of food, so it may be no surprise that food production is the second largest contributor to emissions. But again, there are a variety of ways that we can reduce emissions from food production and make our food systems more resilient to climate change. These include planting specific crops, vertical farming, growing meat in a lab even using weed-zapping robots [4].



We consume more energy every year . So, despite more energy being produced by low carbon sources every year , emissions remain high. To limit warming to 2C or below , almost all of our electricity must come from low-emissions sources by 2050.

While it is true that more innovation and cost reduction are needed, the real challenge lies in the political, financial, and societal willingness to take the action we need at the speed that we need.

We need some big changes . We may even need to change the entire systems underlying polluting industries to support sustainable options for growth. This may seem daunting, but changes like this are not unprecedented in speed. Just think of the global switch from horse-drawn carriages to motor vehicles .

As consumers and voters , each individual’s actions may have a small effect, but when lots of people all take action, it can make a huge difference and strengthen the hands of those who are working towards creating positive change.

Remember, there is no exact roadmap solving climate change, but we know that collective action and individual commitment underpin the changes we need. When people understand the issues and solutions related to climate change , they are able to take action and drive innovation. Scientists need to step up and communicate their research clearly to the public, making it relevant and understandable. Teachers must ensure that future generations have all the information they need to prepare for their climate future, and the media must be accountable for sharing facts without any bias. Together, we can tackle climate change , shape a better future ourselves , and make the planet a more sustainable place [4].

Modern living has led to patterns of overconsumption and as countries develop and get richer , individuals consume more and emissions rise . Currently, almost all countries and people are aiming for the kind of lifestyle that is led by the wealthiest in society. The more we consume, the less happiness we gain from it. For example, having a house is a significant contributor to our happiness , but owning a second house adds little to our well-being while using up precious resources. Current estimates predict up to 1 billion people could become climate migrants by 2050. To avoid a crisis, we need to focus on political and legal solutions, including securing national and international laws that protect climate migrants [1].

In general, climate change is one of the most crucial issues and only we can together curb this menace , if governments , financial institutions make



important financial decisions every day that either keep the current unsustainable economy going or move towards sustainable one.

To my view, humans need to learn how to use from particular resources such as oil, coal and others and contribute to use effectively from new technology in order to keep our atmosphere clean and average degree. In doing so, people can live free without moving and concerning about future, especially young generation.

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