

What risks are associated with climate change and what should we be doing about it?

A common misconception nowadays is that “*Homo industrialis*” are the apex of evolution and therefore the world was put here for our use. This is absurd as saying that the Sagrada Familia is in construction purely so that a scrap of paint would have somewhere to rest. Our dynamic Earth faces significant change which, now more than ever, requires us to act before we reach irreversible damage; too far from pre-industrial atmospheric norms. This can be done by progressing our understanding of the Earth and its systems but also how human activity affects and is affected by them.

The United Nations defines climate change as a long-term shift in temperature and weather patterns¹. This may be natural; following patterns of temperature fluctuations seen in climate history as glaciers advanced and retreated across the globe. However, since the 1800s, human activities have been the main driver of climate change. This is primarily due to the burning of fossil fuels which produce heat-trapping gases. The enhanced greenhouse effect has become particularly prominent since the industrial revolution and characterises climatic conditions observed in the current proposed geological epoch named the Anthropocene². We entered this period at the point where anthropogenic activity began to have significant effects on ecosystems.

The reason that climate change is such a concern and emphasised in society today is in view of the catastrophic ramifications it causes on a broad spectrum of both physical and human systems. Human governance of Earth has exploited the natural world and attempted to tame its forces. Attitudes are revolted against nature which result in environmental damage and a climate crisis; entailing but not limited to climate change. Sustainability is accentuated as it involves working towards systems and lifestyles that cooperate with the natural world to sustain future generations.

Approaches to climate change are typically classified as either adaptation or mitigation. Adaptation focuses on altering practices to be more suited to the changed conditions whereas mitigation surrounds the idea that human interference can prevent further climate change or even reverse it. These physical measures taken are mostly seen where climate change is having a direct affect on livelihood. There is great risk associated with lifestyles that are dependent on natural resources. For example, the Ladakhi people in the Himalayas who are reliant on glacial meltwater, farmers in the Sahel region of Africa who place great importance in the consistency of seasonal weather and Maldivians whose islands rely on the protection of coral reefs³. While of course there is concern for the natural landscape, in these instances, it's the case that the economic and social damage is far more severe. For the people of Ladakh, India, income is solely based on subsistence farming and trade. For decades, Ladakhis have aligned their agricultural practices with the summer months'

¹ United Nations, ClimateChange.org

² Adventures in the Anthropocene, Gaia Vince

³ Adventures in the Anthropocene, Gaia Vince

glacial meltwater which replenish rivers and provide a source of freshwater. With 95% of Himalayan glaciers in retreat, meltwater supplies are irregular and farmers face severe water shortages. Desperate Ladakhis find themselves turning to other means of income like hunting or tourism which lead to further environmental exhaustion. After the Indian government failed to come to aid, locals took it upon themselves to find a solution. Excess water from villages would be piped up to stratified altitudes where droplets freeze in the sub-zero air temperature. These are termed artificial glaciers and with calculated thinking, have allowed continuation of agricultural practice in the region. They must be strategically arranged so that they melt in correlation with plant sowing and growing seasons. This is an example of an adaptive measure. Innovative thinking and appropriate technology are salient in solutions to climate change induced problems. This is not to say that we should avert lifestyle sustained by natural resources but rather we must progress practices alongside the climate. Traditional methods may be impossible and we must be determined in research to master the art of adaptation: restoring a balance between nature's forces and human life. It is often the remote villages and indigenous people who are most familiar with the patterns of nature and much can be learned from their innovations which can often be implemented on a larger scale by a nation's authority. This is demonstrative of the significance of effective cooperation in efforts towards the climate crisis: affirming the need for the IPCC and international discussion.

Developed countries are generally the promoters of climate change due to their major consumerism. Years of intensive economic growth goals have led to unsustainable attitudes from established nations. The colossal waste production and energy consumption are the most pronounced areas of concern with an urgent need to transition from the current linear economic model into a more circular economy. While extremely aspirational due to our engrained lifestyles, gradual systematic change is essential. It has been suggested by economists that wealthy economies must disregard the growth of GDP as a goal, scale down and deconstruct unnecessary forms of production and reduce energy and material use. This encouragement of degrowth would be an excellent sustainable approach which also focuses on securing human needs and wellbeing. It would seem to be a positive shift of societal priorities however would prove much more complex with restructuring and underlying competitive attitudes between nations. Once again, this is an example of a collaborative scheme which requires countries to work independently with a common goal of improving Earth's climate crisis.⁴

To conclude, the vast majority of people in our day and age have knowledge of the risks that climate change entails. In most cases, individuals feel powerless in such a large-scale issue. This is why it calls for global discussion with every nation playing their part whether it be manual action or

⁴ Financial Times, Europe's Climate Leaders Reports

cooperation in authoritative decisions. Developing countries must work with ecological awareness and established economies must aim to channel profit towards climatic aid.