

# CLIMATE CHANGE AND ADAPTATION

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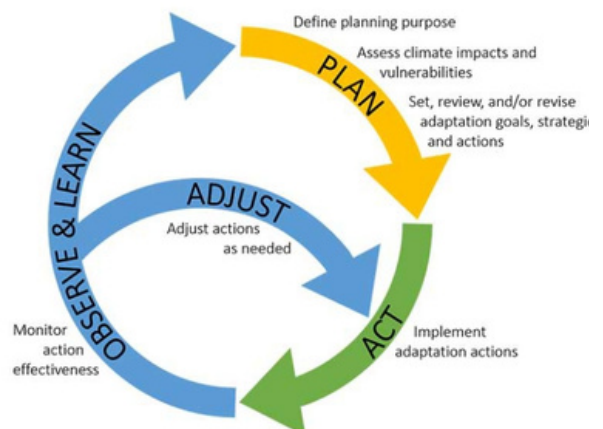
Ever wondered how it heats up when it's not summer and showers when it's not rainy?

This Drastic change in the climate cycle is the consequence of a phenomenon called climate change or global warming to be precise. Urbanization and excessive consumption of fossil fuels lead to greenhouse gases and these entrapped greenhouse gases lead to a rise in temperature leading to climate change. According to the IPCC report, It is widely accepted that global temperatures will increase and rainfall will become more variable, thereby affecting local climates across the world and that this can be largely attributed to human impacts.

Climate change leads to reduced freshwater sources due to a rise in temperature and reduced vegetation. Reduction in Freshwater sources also impacts the agricultural practices imposing a significant impact on the regional economy. Forces that can contribute to climate change include the sun's intensity, volcanic eruptions, and changes in naturally occurring greenhouse gas concentrations. Deforestation releases sequestered or stored carbon into the air. It's estimated that logging, clearcutting, fires, and other forms of forest degradation release an average of 8.1 billion metric tons of carbon dioxide per year, accounting for more than 20 percent of all global CO2 emissions. Depletion of the ozone layer is further adding more carbon dioxide to the earth's atmosphere.

Governments and companies are increasingly committing to climate action. Yet significant challenges stand in the way, not least the scale of economic transformation that a net-zero transition would entail and the difficulty of balancing the substantial short-term risks of poorly prepared or uncoordinated action with the longer-term risks of insufficient or delayed action. As the earth's atmosphere heats up, it collects, retains, and drops more water, changing weather patterns and making wet areas wetter and dry areas drier. Higher temperatures worsen and increase the frequency of many types of disasters, including storms, floods, heatwaves, and droughts. These events can have devastating and costly consequences, jeopardizing access to clean drinking water, fueling out-of-control wildfires, damaging property, creating hazardous material spills, polluting the air, and leading to loss of life.

Climate Change Adaptation Cycle



SOURCE: countercurrents.org

The global anomaly in surface temperature might cause an increase in sea level, a decrease in arctic ice, and a growing number of weather-related catastrophes, including storms, floods, and droughts. Carbon dioxide is a colorless, naturally occurring gas that is released after people and animals inhale oxygen. It is a greenhouse gas, meaning it absorbs and releases thermal radiation which in turn creates the “greenhouse effect”. China is the most polluting country worldwide, having released 10.7 billion metric tons of carbon dioxide emissions in 2020, thus making it evident that the population also impacts climate change by releasing more carbon dioxide into the atmosphere.

As climate change effect agricultural irrigation, it increases food insecurity due to less crop yields and disturbed harvesting. Another habitat that thrives on the vegetative crop is also affected and leads to the extinction of species and the food chain gets disrupted. Change in climatic conditions also leads to domestic and international migration when people search for a new livelihood. The Intergovernmental Panel on Climate Change concludes that the best estimate for global average surface air warming over the current century ranges from 1.8°C to 4.0°C (IPCC 2007).

Adaptation is the best way for responding to climate impacts and mitigation of reducing GHG emissions are necessary measures that can be

taken to address climate change. Prepping up for that intense summer is the precautionary measure that we can take to beat the heat. Practice cold eating habits and protect yourself from harmful UV radiations that could affect the skin.

Monitor sea levels and take precautionary measures in case of tides and act as a buffer against that storm surges and erosion. Train yourself for the sudden climatic hazard and stay updated with equipment and new technologies for mitigation plans. Greenhouse farming is the unique farm practice of growing crops within sheltered structures covered by transparent, partially transparent, material.

The main purpose of greenhouses is to provide favorable growing conditions and to protect crops from unfavorable weather and various pests. Monitor and treat the emissions from factories and industrial waste to reduce air pollution which intern does not result in the formation of smog. Adopt clean energy production and renewable fuels to focus on green building to reduce the carbon footprints using decarbonization strategies!

