

CLIMATE CONTROL: CAN WE SAVE THE PLANET?

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Climate Control: Can We Save The Planet?

Harmful effects like pollution, deforestation and global warming are directly related to our increasing consumption and lifestyle patterns



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To save the planet, would actually infer saving the planet for humanity. The Earth has ample time on her side; it is humanity that is running out of time. Our planet has been through several catastrophes and has rebuilt itself, confirming it can do it again if required. What we need to think of is, if humans will be a part of that rebuilding process or not?

In the not so distant future, we would reach levels of technological advancement that will allow us to become carbon neutral or even negative. The tipping point will be when the increased consumption of a particular product will be offset by the decrease in the energy used to manufacture and use that product. For instance, if the total cars being used keeps going up by 5%, while the energy consumed to manufacture and run those cars keeps coming down by over 5%, there will be a net decrease in the total energy consumed. We will then achieve a net energy-neutral situation, thus removing pressure off the planet and consequently reversing the impact on our climate.

What has energy got to do with climate? The entire climatic impact of humans is directly related to the quantum of energy usage - as anything we do is directly or indirectly related to energy consumption. Harmful effects like pollution, deforestation and global warming are directly related to our increasing consumption and lifestyle patterns. The advancements in technology has inadvertently fuelled consumerism, thus increasing the consumption of energy both at a macro as well as individual level. However, everything we consider as positive indicators like economic growth, infrastructure development, healthcare advancement and improved communication are also directly related to energy consumption.

Why can't we reduce energy consumption? We cannot, and on the contrary, we will need to incrementally increase energy consumption as any decrease may directly correlate to an economic downturn. Any dip in energy consumption in any region at any point of time in history has usually coincided with recession and all the socio-politico-economic problems that come with it.

So how do we combat climate change? Make no mistake that the world population will continue to grow, slated to reach close to 10 billion by 2050. How do we provide for this growing population while trying to limit our carbon footprint? The answer lies in looking at how we generate our energy. The current process of electricity generation, the single largest polluter in the world, contributes more than 25% of global greenhouse gases. If we include fuel consumed in industrial activities and transportation, we are talking of more than 70% of all air pollution. Any change in the process of energy production will go a long way in managing climate change. Therefore, the most obvious answer to climate change will be to alter the current energy mix by moving to renewable energy sources.

Another, lesser talked about, advantage of renewable energy is low usage of water. Most fossil fuel and nuclear energy production consumes humongous quantities of water. Fresh water is a very scarce resource, which the world is losing at an alarming rate. However, most renewable energies are not water dependant, and where they are the usage is lot more sustainable.

But perhaps the biggest advantage of renewable energy is the feasibility of universal access. Wind, solar and hydro can be deployed at micro scale, especially in areas where grid hasn't or cannot reach due to remote or difficult terrain, thus reducing the energy divide. Currently, 16% of world and 25% of India's population does not have access to grid electricity. This makes communities here depend on alternative sources of fuel, including firewood, which contributes to deforestation.

Based on current trends, renewable energy should eventually contribute between 20 - 30% of the world's energy needs. However, this is not enough to meet the 2 degrees reduction goal by 2100. The only way we will reach zero emission from energy production by 2070 will be by shifting to renewable energy at an accelerated pace.

What will be India's role? Most developed nations, with some of the highest per capita consumption of energy, have a slowing or stagnant rate of energy consumption. And most of them, with a limited exception of USA, are moving towards renewable energy. China, which is today the largest consumer of energy, is also the largest producer of hydro and wind energies and the second largest in solar. Of the countries which will see a significant increase in per capita consumption of energy over the next couple of decades, India will play a key role, due to its large and young population.

What India does, in the foreseeable future, will be of paramount importance. We can say with pride that our government's focus and policy framework is moving in the right direction, giving the proper foundation for renewable to become the mainstay in future. Renewable energy provides numerous opportunities for India to significantly contribute in tackling global climate change, while achieving energy independence.