

Can we still avoid the climate tipping point?

The risks of climate change are greater than currently feared. A report in the December 2017 issue of the British Journal *Nature* presents a doomsday scenario for the planet by concluding that the rise in average global temperature by the end of the century under the “business as usual scenario” is likely to be about 5 degrees Celsius above pre-industrial levels. This is off by a huge margin from 2 degrees Celsius scenario which has been considered by the global scientific community as the upper threshold that the Earth’s environment can withstand, beyond which irreversible changes in the global climate are likely to occur.

Similarly, in November 2017, a report by the US government, the “Fourth National Climate Assessment” (NCA4), reaffirmed that climate change is “real” and “man-made” and that anthropogenic activities are fundamentally altering the Earth’s environment. It further said that the average global surface temperature has already risen by 1 degrees Celsius since the start of the industrial revolution and could further rise by another 4 degrees Celsius by the end of the century. It also mentioned that the past 115 years have been the warmest “in the history of modern civilization”.

In December 2015, in a radical departure from the top-down approach to global climate negotiations, 196 parties came together under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) to steer the world towards sustainable development by agreeing to limit global average surface temperature rise to 2 degrees Celsius above than pre-industrial levels. However, the progress of the Paris agreement, two years after it was signed and hailed as the “greatest diplomatic success”, has been dismal. A study by Climate Tracker shows that no advanced industrial country is on track to meeting its pledges to control greenhouse-gas emissions. Not the EU. Not the US. Not Canada. Not Japan. In fact, global greenhouse gas (GHG) emissions continue to rise. The World Meteorological Organization says that global emissions reached a record high of 403.3 parts per million (ppm) in 2016, the highest in 800,000 years, and presents a scary picture of irreversible changes already happening in the global climate system.

Now, the important question is, can we still avoid the climate tipping point? It requires unprecedented response at the global level, the kind we haven’t seen before. While the 2 degrees Celsius threshold looks unlikely now, we, however, can still minimize its impact while simultaneously developing infrastructure to face the worst scenario. I suggest five measures:

First, we need to accept the fact that the status quo is not going to work. We need to fundamentally change our northern model of development which is based on the excessive resource consumption. If the same model of development were to continue, it is going to be ecologically unsustainable for the planet.

Second, we ought to treat the natural environment as a fundamental right and ask politicians to ensure it. Political will flows from the people—when citizens care, politicians too act. How many politicians can win elections on the promise of sustainable development, wonders Prof. Nazli Choucri of the MIT. While most of us blame lack of a political will for the poor response to climate change, we as citizens have not demanded a measured action from our public representatives.

Third, in the past, the US helped in shaping the global response to climate change. Now when it has relinquished the global climate leadership by pulling out of the Paris agreement, it seems unlikely that there will be a global agreement now or in the near future. Hence rather than a grand national or global strategy, we need to focus on regional, national and local strategies, e.g., cities. The global urban population is likely to go up from 54% (3.9 billion) in 2014 to 66% (6.4 billion) in 2050. Investing in energy-efficient appliances, powering homes with renewable energy, reducing

water waste, using public transport and other measures can help in lowering the national, and ultimately the global, carbon profile. Sharing platforms like Airbnb, Craigslist and Uber too can help cities in cutting emissions.

Fourth, the sharp fall in renewable energy cost had led to a record renewable capacity addition of 161 gigawatt (GW) in 2016, a 10% rise over 2015. The falling price of renewable energy has made its cost comparable to fossil fuel in many parts of the world. This is likely to accelerate the transition towards a fossil-free future. Already, 47 countries—some of them are among the poorest in the world—are moving towards a fossil-free energy future by 2050.

Finally, as the impact of climate change becomes increasingly visible, developing countries like India, which are at the risk of facing serious threats due to climate change, need to focus more on adaptation than mitigation. They need to develop infrastructure to rehabilitate people in their coastal areas, meet food demand with changing rain patterns and manage immigration caused by climate change.

Thus, as the latest data on GHG emissions shows a continuous growth and the global response to limit these emissions remains lackadaisical, the fight to restrict the global average temperature rise to 2 degrees Celsius looks over. Now, the only question is how much we can do to stabilize the temperature not very far off from the 2 degrees Celsius to avoid catastrophic changes in the global environment.

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Comments are welcome at theirview@livemint.com.

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