

Empowering India to Lead the Climate Change Crisis Response

I vividly remember the morning of February 7, 2021. I woke up to the rumbling sounds of the Nanda Devi glacier bursting in Uttarakhand in North India. The breaking up of the glacier led to massive landslides, uncontrollable floods, and unfortunate loss of lives. A piece of glacier that was 75 football fields in size had separated from the mountain and gushed into the Rishiganga tributary. The videos were shocking to watch. All of this was predictable. All of this was avoidable. Scientists have been warning about the impending global warming crisis for decades. Regarding the Himalayan glaciers, their forecasts had been dire given that millions of Indians rely on the river Ganga for their sustenance across three different heavily populated states of Uttarakhand, Uttar Pradesh, and Bihar. India should not be a mere spectator in the climate change crisis but rather lead from the front by adopting policies and educating its masses to change the direction of this catastrophic emergency.

The global warming crisis has been around since the early 19th century. It has gotten increasingly worse with dry days and droughts over the years. The effects of climate change are becoming more acute globally – bleaching of the Great Barrier Reef, dry weather spells in Cape Town, power grid failures in Texas, submerging of nations in Pacific Islands and more. The climate crisis is slowly getting worse and deadly and the only option that can save the Earth is us.

Just like the Covid pandemic, climate change is an oncoming human-made disaster that has all the makings of a catastrophic event that is hurling towards us in slow motion and can accelerate to unmitigable levels soon. We are well past the phase when incremental solutions and policies could have made the difference. The world requires all hands-on deck and address many sources of carbon emission at the same time. As former CEO of Microsoft, Bill Gates noted in

his recent book, “we need to get to *zero greenhouse gas emissions* to avoid climate disaster.”¹ Anything less than zero will slow climate change but will not eliminate the threat. Gates proposes electrifying every process possible and use carbon capture to absorb emissions to reach zero emissions manufacturing. Similarly, we can use electric vehicles to get to zero emissions in transportation. I believe, we will need to lean on technology more than ever to bring us solutions, so we have a shot to thwart this menacingly growing crisis.

The global temperature has risen an average of 2.1 degrees Fahrenheit since 1880, and the sea level is rising 3.3 millimeters per year.² The Intergovernmental Panel on Climate Change (IPCC) has been providing regular updates on the science related to climate change.³ There is irrefutable evidence that climate change is increasing the risks for humans at an alarming rate, and we need to adapt and mitigate these risks. There should be an elimination of fossil fuel usage, and we should promote the alternatives that are eco-friendly.

It is important for corporations to get involved in finding solutions. The financial impact on global-supply chains due to environmental change is expected to be \$1.26 trillion over the next five years.⁴ So, it is imperative that the governments and the companies around the world must unite to solve the immediate problems. It is good for business.

My generation will have to deal with the consequences of inaction of the collective political leadership around the world. As such, it is important for youth to get involved in not

¹ How to Avoid a Climate Disaster: The Solutions we have and the Breakthroughs we need, Bill Gates, Knopf, Feb 2021

² Source: <https://climate.nasa.gov/>. More details about temperature rise – <https://climate.nasa.gov/vital-signs/global-temperature/> and sea level rise - <https://climate.nasa.gov/vital-signs/sea-level/>

³ IPCC’s sixth assessment report (AR6) is expected to be released later this year <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>

⁴ Source: Transparency to Transformation: A Chain Reaction, Global Supply Chain Report 2020, February 2020. <https://www.cdp.net/en/research/global-reports/transparency-to-transformation>

only getting educated about the science and impact of climate change but also become a change agent in their respective towns, cities, neighborhoods, schools, and communities. Each change starts small but can have a profound ripple effect.

My strategic initiatives will have four main components: education, cooperation on global climate change policies, use of renewable energy, and investing heavily in technological solutions that go to the root cause of carbon emissions. Educated citizens are more likely to take initiatives to solve our climate crisis. Techniques such as carbon capture and storage, solar panels and other renewable energy sources, and electric vehicles for eco-friendly transportation which is still one of the leading causes of this crisis.⁵

While climate change is a collective responsibility of nations around the world, to solve immediate short-term problems, the country must focus on what can it do *now* to relieve its citizens from impending disaster. Having thought about it for some time, I would focus on India to execute the carbon reduction plan with specific timelines:

Immediate Actions – Steps that India can take to lessen the impact of air pollution such as replacing open-stoves with clean burning methane stoves that use biogas, installing solar-powered lighting, stopping construction in sensitive glacier zones such as Uttarakhand, and deploying smart thermostat in homes to reduce energy consumption.

Mid-term Mitigating Actions – Steps that the governments at every level can do over a few months to measurably lower fossil fuel usage across the country by focusing on low-emissions cement, steel, and transportation. Also, make strict pollution and waste disposal standards.

⁵ 10 Solutions for Climate Change, David Biello, 2007. <https://www.scientificamerican.com/article/10-solutions-for-climate-change/>

Long-term Sustainable Actions – This category of solutions are policies and actions that require tremendous amount of global collaboration (such as Paris agreement), behavioral changes (recycling), increase R&D budgets (for continuous climate related technology breakthroughs) and consensus building to formulate long-term strategies (eliminate crop burning).

India is home to one-seventh of humanity. If we are going to make a dent in the climate crisis, India will have to be at the forefront of solutions with everyday citizens actively working to reduce and then eliminating the impact of the deteriorating climate. An aggressive awareness campaign needs to underpin any strategic climate change response strategy. India is a beautiful country from the Himalayas to Kanyakumari. Everyone, especially kids deserve to grow and live in a clean and healthy environment. By working on practical solutions that I discussed in this essay, I am confident that India can make significant progress in tackling the climate change crisis.