ISSUE VI | VOLUME I | JULY 2025

# AHBBUBPRIA

Crafting a Future that Breathes Blue

July Edition

The Dilemma of Human Effort-Will You Succumb to Putrid Hell, Or Reg For Forgiveness?

By JIYA GANDHI

Climate change Organisations in India

BY ADIT CHOPRA

Al in climate modeling and prediction

BY ADIBA KASHIF







## THE DILEMMA OF HUMAN EFFORT

WILL YOU SUCCUMB TO PUTRID HELL, OR BEG FOR FORGIVENESS?

-JIYA GANDHI

Climate change is real. It's happening. And we are not prepared for it. The Arctic's winter sea ice cover has reached its smallest maximum extent since its tracking nearly half a century ago. Latest data from National Snow and Ice Data Center and Nasa, on Mar 22, 2025, shows how the sea ice has reached its lowest recorded annual high point. The ice covered about 14.33 million square kilometers, which is slightly below the previous record set in 2017.



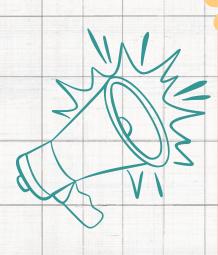
To simplify it, Arctic sea ice grows during cold winter months, and reaches its biggest size in late February or early March. It melts as spring and summer arrive back into its smallest size in September. Satellites are used to note this cycle every year, and the data clearly shows us the picture of how ice changes over time. In 2025–this year, it was not only the smallest winter peak, but it also came ten days later than usual.

This is not a new phenomenon. This is a part of a long-term trend. All of the top 10 smallest winter ice extents have happened since 2007, and the sea ice has been shrinking every season for decades. The main reason? You guessed it—global warming. This rapid warming means that less ice forms in winter and more ice melts in summer. The overall amount of ice is steadily decreasing.





This is a wake-up call. The loss of sea ice will have big consequences for the planet. Sea ice acts like a giant mirror, it reflects sunlight and heat back into space. Without ice, the dark ocean absorbs the heat and warms up the Arctic even faster, and speeds up the melting process. These changes can even affect the weather patterns far beyond polar regions as well. Regions where you and I live. Regions where our loved ones spend their days.



At the same time, the Antarctic-the other side of the world, is also seeing record low sea ice. In early 2025, global sea ice cover dropped to its lowest, according to Copernicus Climate Change Service-a strong signal of how climate change is having an impact on different parts of the world, especially both the polar regions. The future holds no promising miracles. If this continues, we might come across zero sea ice before the middle of this century. The long term decline in ice covers shows that the Arctic is now at its warmest in at least 4,000 years.

The common stories of animals attacking humans due to declining wildlife unfolds an entirely new aspect. Less ice will make it harder for animals such as polar bears to survive. The result? Human-wildlife conflict as animals edge closer to human settlements. However, less ice would result in new shipping routes in the Arctic. But is that price we are willing to pay for destruction?



# IN CLIMATE MODELING AND PREDICTION

-ADIT CHOPRA

Lately, I've found myself thinking a lot about the weather. Not just in the "should I carry an umbrella today?" kind of way, but in the bigger-picture, unsettling way—like how every summer seems hotter than the last, or how rain shows up out of nowhere and floods a city in minutes. We've all felt it: the climate is changing, and the unpredictability is becoming the new normal. So naturally, I've been curious—how do we keep up with that? And more importantly, how do we stay ahead?

That's when I stumbled across something fascinating: DeepMind's MetNet-3. It's an AI model designed to forecast weather with quite a high speed and accuracy, and honestly, it feels like a glimpse into the future of climate prediction. Unlike the traditional methods that simulate complex physics using massive amounts of computing power, MetNet-3 does things differently. It learns directly from satellite and radar data—massive

and radar data—massive amounts of it—and uses deep learning to recognize patterns that even trained meteorologists might miss.

What really caught my attention is how localized and fast it is.

MetNet-3 can predict weather conditions at a resolution of just

1 kilometer, and it does it up to 24 hours in advance.

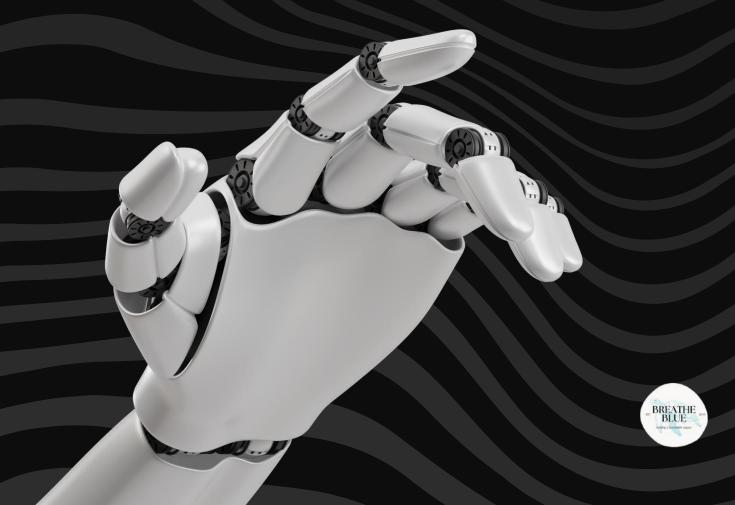


And here's the cool part: MetNet-3 doesn't just give one forecast. It offers a range of possibilities, showing the likelihood of different weather events happening. That's something I really appreciate—because in real life, weather isn't black and white. There's always a chance of rain, a chance of wind, a chance of chaos. Having a model that reflects that uncertainty honestly feels more human.

Of course, I know AI isn't a magic fix. It won't stop climate change or replace the incredible work that scientists and meteorologists have been doing for decades. But it's a powerful tool—a complement rather than a replacement.

For me, learning about MetNet-3 has made me oddly hopeful. It reminds me that even in the face of something as overwhelming as climate change, there are people building tools that help us adapt and act smarter. Maybe we can't control the climate, but with the right technology and awareness, we can control how we respond to it.

And honestly, in a world that feels increasingly uncertain, that's a reassuring thought.





# CLIMATE CHANCE ORGANISATIONS IN INDIA

#### <u>Centre for Science and Environment</u> (<u>CSE</u>)

When I first picked up CSE's magazine *Down To Earth*, the jargon around air pollution and climate policy suddenly made sense. CSE, rooted in Delhi since 1980, doesn't stop at publishing reports, they push for cleaner air, safer water, and smarter cities. I've sat in on a couple of their workshops, and each time I walk away better equipped to talk about these issues with friends and colleagues.

#### The Energy and Resources Institute (TERI)

TERI constantly pops up in my research on sustainable living. They turn big ideas, like solar power and green buildings into practical plans that governments and businesses can adopt. Watching a livestream of their World Sustainable Development Summit convinced me that India really can lead global conversations on climate action when science and policy sit at the same table.

#### <u> Indian Youth Climate Network (IYCN)</u>

I've volunteered at a few IYCN events, and the energy is contagious. This youth-led movement proves that you don't need a fancy title to make a difference. From beach clean-ups to policy petitions, they give students, artists, and young professionals a stage, and a megaphone to demand change.

## CLIMATE CHANGE ORGANISATIONS IN INDIA

#### Environmentalist Foundation of India (EFI)

One Saturday morning, I joined EFI volunteers to clean a neglected city pond. By the end of the day, I was muddy, exhausted, and unbelievably hopeful. EFI's grassroots projects breathe life back into dried-up lakes and wetlands, and they always invite local schools and residents to be part of the transformation. Seeing birds return to a pond we'd just cleared of trash is a feeling I won't forget.

# Council on Energy, Environment and Water (CEEW)

Whenever I need hard numbers or clear explanations on climate finance or renewable-energy policy, I turn to CEEW. Their reports are deep dives, yet they're written so even a non-expert like me can grasp the stakes. It's reassuring to know that their research often lands on the desks of policymakers who can turn insight into action.

Watching these organisations in motion keeps my optimism alive. Yes, the climate crisis is daunting. But every day, people across India prove that determined hearts and informed minds can spark real change.





The practice of restoring land to a more natural, wild state.





## Who Are We?

The air we breathe, the water we cherish, the earth we stand on, everything around us is a story of balance and connection. At BreatheBlue, we believe in protecting that delicate harmony.

Registered under Section 8 of the Companies Act of 2013, BreatheBlue India Foundation is a purpose driven organisation committed to fostering sustainable change.



It all started in 2019 with a simple yet impactful vision, eliminating single use plastics. Our founder, Lakshika Khurana, a dreamer with a pragmatic approach, initiated BreatheBlue with a student-led campaign that gathered over 400 signatures advocating for an end to single-use plastics.







Together for a greener future.

#### Who Are We?

By 2022, BreatheBlue had evolved into something bigger. A dedicated team of planners, managers, photographers, and videographers came together to create the BreatheBlue Youth Summit, a platform where young minds engage in discussions on how the fundamental Greek Elements can shape a sustainable, climate conscious future. Over the years, we have successfully hosted three youth summits annually, with last year's event seeing double the number of registrants from the previous year.

Our summits are designed for young changemakers aged 13-20, focusing on igniting their curiosity and passion for the environment. Within these discussions, we host an 'Art O Environment' session, an intimate moment where students write heartfelt postcards to their favourite element, expressing their hopes and dreams for a greener planet.

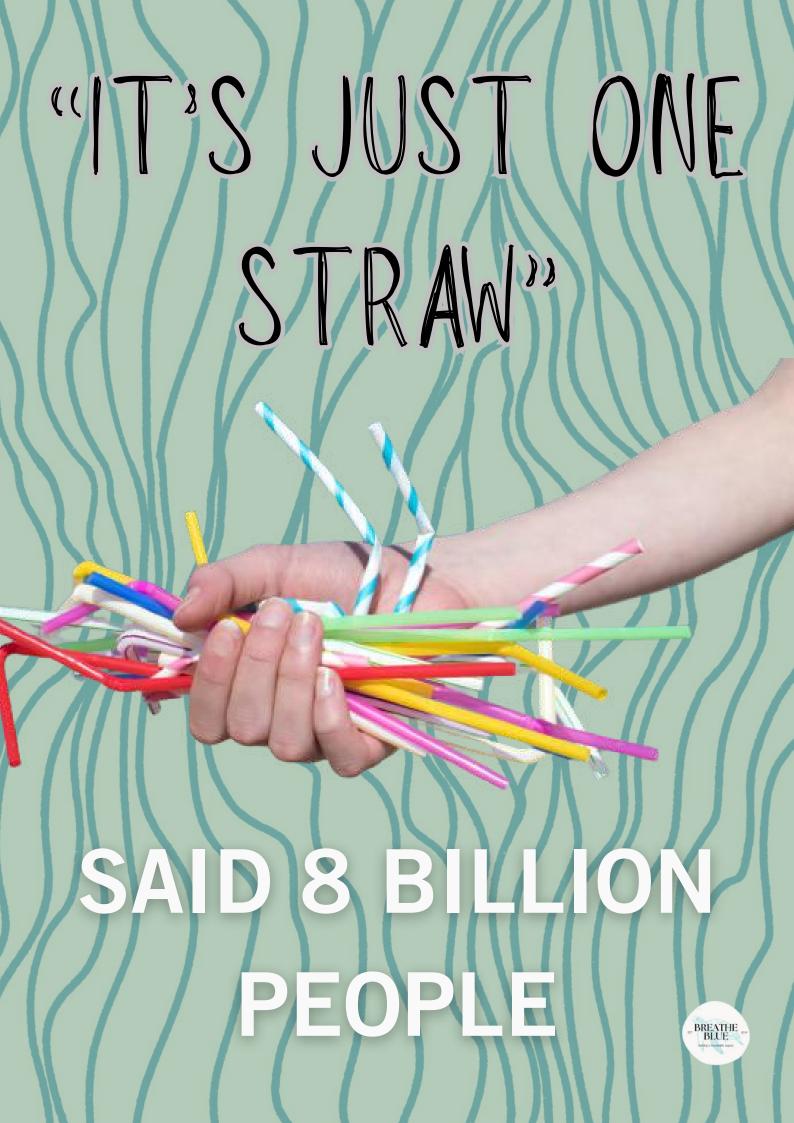
These postcards, crafted using wooden pencils and recyclable paper, are preserved and showcased at the next year's summit, allowing participants to reflect on their journey, witness their own growth, and be inspired by their evolving perspectives.

Our inaugural summit saw over 35 passionate participants, and since then, each event has sparked deeper discussions, greater inspiration, and tangible change. The seeds of action we plant today will grow into the forests of tomorrow, and the voices of the youth will shape the sustainable future we all dream of.

BreatheBlue is not just an initiative, it is a revolution, a movement of hearts and minds coming together to protect our shared home. Let's breathe, let's dream, and let's build a bluer, greener world together.







ISSUE VI

# MIBRIAN STATE

Crafting a Future that Breathes Blue

