

Climate monitoring and AI: The Copernicus Project



AN OPEN DIALOGUE

Dr. Abdullah Shibli
is an economist and works for Change Healthcare, Inc., an information technology company. He also serves as a senior research fellow at the US-based International Sustainable Development Institute (ISDI).

ABDULLAH SHIBLI

Travelling to Bangladesh this summer is again on my radar screen. Like many others, I usually wait for the weather to cool down before making my travel plans, but this year, we need to be in Dhaka by mid-June to celebrate my octogenarian mother-in-law's birthday. "It's going to be very hot this year," she warns us. "No worries, it's our pleasure," we reassure her. "If you can take the heat, so can I."

However, we all know this year could be one of the hottest in recorded history. But I don't want to stay indoors in Bangladesh during the entire trip, so I am counting on the monsoons to bring some relief.

Coming back to the main topic of my column for today, climate change and global warming—last week, the Copernicus Report announced that on February 2024, the world marked the ninth consecutive month of record-breaking heat. New data from Copernicus, the European Union's climate change monitoring service, shows that last month was also the hottest February on record globally, with "exceptionally high" temperatures in both the air and sea.

The Copernicus Report is another reminder for global leaders about the global warming trajectory that we are on now. The world is on track to cross over a dangerous line, the 1.5 degrees Celsius of warming on average, a key limit in the Paris Climate Agreement. The report focuses primarily on surface air and sea level air temperature in European countries and their water bodies. It also shows that the average global sea surface temperature (SST) for February 2024 over 60 degrees South to 60 degrees North was 21.06 degrees Celsius, the highest for any month in the dataset, above the previous record of August 2023 (20.98 degrees Celsius).

This report provides an assessment of past and projected climate change and its impacts on ecosystems and society. It showed that surface temperature and SST have been rising over the last few months as well as years.

Regardless of the efforts of the European countries to curtail fossil fuel consumption and its vigorous renewable energy effects, Europe is on the path to exceeding the 1.5 degrees Celsius mark.

The Copernicus Group is part of the "European Earth observation programme for monitoring our planet and its environment for the benefit of Europe's citizens." According to its website, the Copernicus Climate Change Service (C3S) supports society by providing authoritative information about the past, present, and future climate in Europe and the rest of the World.

So, what do we make of this data and report? What are the major takeaways?

First, the rest of the world must take notice that we are now still in the so-called Goldilocks zone, where the temperature is not too hot and not too cold for our survival. Since the 2016 Paris Agreement, we have been mired in many wars, and various other short-term and medium-term crises have overtaken our concern for the well-being of people on this planet, who are spread geographically and also for the next generation. Secondly, we must prioritise the action plan for sustainable growth again while we wait for the next COP meeting. We need to look at the other pointers, metrics, and indicators to assess what else we need to do to lower carbon emissions and the cost of renewable energy, enforce the recently signed global methane protocol, and rein in other contributors to global warming. Thirdly, the international community acting in unison would do well to reassess our sustainability targets and the impact of all the work we have done so far. While we have not heard from the UN or Intergovernmental Panel on Climate Change (IPCC) lately, we need more regional cooperation in Asia and Africa to match Europe in collecting regional data and early warning systems to combat the effects of climate change. The South Asian countries could use effective tools for early warning and monitoring catastrophic events:

drought, floods, earthquakes, and wildfires.

An essential lesson for Bangladesh, particularly in light of the recent shopping mall fire, is the need for disaster risk management (DRM) furthered by proactive measures and aggressive enforcement. The government agencies engaged in urban development, similarly, need to explore better tools for urban trend monitoring, analysis, and calculation of spatial urbanisation and

Along with Europe, the USA continues to battle weather extremes. In recent weeks, communities nationwide have seen spring- and summer-like temperatures, extreme rain and flooding, massive snowfall, and fire weather conditions that drove Texas' largest-ever wildfire which quickly became one of the biggest in US history. Those extremes are a byproduct of the climate change-fuelled rise in global temperatures and are only expected

needs to immediately address these issues to protect its energy, food security, water, and health, the agency said.

The report identified 36 major climate risks for the continent and found that more than half demand more action now.

What's the lesson for Bangladesh? Invest in DRM tools for the management of water resources, energy, agriculture forestry, and health. Also, better planning and risk



Two men trying to find a shade under the scorching sun at a busy street in Dhaka.

PHOTO: PALASH KHAN

trend identification to inform local policies and actions.

The Copernicus Group has used drone imagery and AI to successfully guide disaster response. Case studies include major floods in Greece, Slovenia, Italy, and Libya, wildfires in Greece, and seismic activities in Morocco. DRM is constantly upgraded through machine learning and artificial intelligence. The next development area is integrating high-resolution aerial and drone data with satellite imagery to increase mapping accuracy for GIS.

to become more frequent and intense as warming continues.

Last week, the European Environment Agency sounded an alarm in its first-ever risk assessment for the bloc. The European continent is not ready for climate change: it faces growing climate risks and is unprepared for them, the agency said on March 11. Europe, the fastest-warming continent, has been heating up twice as fast as other regions since the 1980s. It is prone to more frequent and punishing weather extremes, including wildfires, drought, and flooding. Europe

management strategies will help us to manage tourism, infrastructure, insurance, disaster risk, transport, and coastal protection.

As I prepare for my upcoming trip to Bangladesh, I am looking at the maps and GIS data to find out a soft landing time frame. I am looking for the best few weeks to allow us to be in Dhaka and other towns where I grew up, including Sylhet, Barisal, Mymensingh, and Dinajpur, while staying cool and dry. Almost like the Goldilocks fairy tale, where one always hopes for a perfect weather regime that is not too hot nor too cold.

104TH BIRTH ANNIVERSARY OF BANGABANDHU SHEIKH MUJIBUR RAHMAN

Becoming Bangabandhu



Enayetullah Khan
is editor-in-chief of UNB and Dhaka Courier.

ENAYETULLAH KHAN

What does it mean for a man, or a woman, to have "a life led in politics?" Is it one in the midst or at the forefront of great events, fashioning them and in so doing, changing the course of the destiny of nations? Is it one spent embroiled in the chicanery and attendant skullduggery of court intrigue and manoeuvring, striking down opponents while forwarding the cause of allies, both forged largely as a matter of expediency and with the ultimate aim of arriving at the pinnacle yourself? Or is it one spent privy to history as it unfolds before you, all the time doing your bit to ensure no great harm is done to the natural order of things, but mostly just being along for the ride, with no sway or influence over how the deck of cards was dealt?

Most of history's great men and women, in particular those who held the privilege of also at the same time being great leaders, would subscribe to one or a combination of those three outcomes. But in assessing the life of Bangabandhu Sheikh Mujibur Rahman, whose life was quintessentially political from any angle you look, we find all three of these descriptions falling short in the face of one simple epitaph: he led it for his people.

This is the single greatest attribute that shines through, right from the start of his political education, that we may date to the visit in 1938 by Prime Minister AK Fazlul Huq and Labour Minister HS Suhrawardy of Bengal's provincial government to Gopalganj, during which Bangabandhu, aged hardly 18, first met and then subsequently started a correspondence with the latter that would continue till 1963, the year of Suhrawardy's death. The relationship they formed throughout the quarter-century they knew each other would prove of acute significance to the lives of the people whose cause they espoused—the people of Bengal. As the founding father of a nation-state with a population touching 75 million at the hour of independence, Bangabandhu may well be said to have surpassed his mentor in history's estimation. But for anyone to undermine the influence Suhrawardy had over the young

at injustice when its brunt is faced by others? These are instincts that would have to be innate to a person's self, to exert the kind of influence they did over Bangabandhu's life and actions that we saw throughout the life he led.

It is in the words he has written, even though they end up covering such a short period of his life—till 1955—that we get certain hints of the humanity, that seamless

from hearing it (Suleiman the Magnificent, Ivan the Terrible, the Mahatma), but it can never lie. And in the case of Bangabandhu, in its almost homespun simplicity lies the secret to its time-tested truth: right from the days that the people of Bengal (his *maa-e-ra*, his *bhai-ra*, pronounced with such sincerity in his speeches) first started making his acquaintance as a strapping, bespectacled youth with a genuine face that encouraged

unhealthy obsession with *obhijaat* family histories, and to that end, people's efforts to glorify it and exaggerate even the good bits.

Bangabandhu, in describing the fortunes of the Sheikhs of Tungipara since their arrival on the banks of the Modhumati through one Sheikh Borhanuddin "many years ago," almost denigrates it for how it had mismanaged wealth and property to be reduced to living, at the time of his birth, to "tin-roofed houses surrounding these crumbled buildings." It isn't self-deprecating as much as it is disarmingly honest. In addressing his people, Sheikh Mujib could never deign to lie to them. I have written elsewhere on the honesty that comes through in his speeches. Speeches, interviews, books, and memoirs form the compendium of a leader's dialogue with his people. And in that dialogue, Bangabandhu never deigned to lie to them. It would rob him of the conviction with which he always pronounced, "my people," in some of his English interviews, such as the one with David Frost, the great British journalist, or at that memorable press conference at Heathrow on January 9, 1972. And always, "Amar maa-e-ra, amar bhai-ra."

His people are what you can never take away from him. And his identification with them was, to be sure, innate. You learn this not just from his epochal deeds that feature in history's timeline, but also in noting some of his most casual ones, from people's private recollections. I was fortunate to be privy to a few such occasions, and also hearing about them from those belonging to my generation, or older ones. Just from how he would address them to how he would render minute details relating to the life of people you would think so far removed from him. Little did anyone know how he saw things so differently. In assessing Bangabandhu's leadership, the great lesson on the timeless art of leadership it delivers is that it stems from those who succeed most, in thinking of themselves as part of the people they represent; in internalising the attachment that a leader must achieve in his relationship with the people. His was perhaps not a bookish sort of democracy, the word itself derived from the Greek demos, meaning people. And there can be no doubt from the life he led in politics that Bangabandhu Sheikh Mujibur Rahman was always unquestioningly for, unflinchingly of, and unfailingly by, his people.

The article was first published in *The Daily Star* on March 17, 2016.



PHOTO: MD SAIDUL ISLAM

Mujib would be sadly misguided.

Notably, Suhrawardy's name is the first to appear, indeed in just the second paragraph of Bangabandhu's revelatory *Unfinished Memoirs*, which finally came out in 2010, 35 years after his cruel and unjust assassination at the hands of some disgruntled army officers on August 15, 1975—a black date if there ever was one. In it, penning the words in the confines of his small room in Dhaka Central Jail, Bangabandhu credits Suhrawardy for having taught him "the essentials of political life." Yet the question remains, can anyone be taught to feel empathy for people you are not related to? Can you bristle with indignation

sense of being at one with his fellow men and women, even as he was their leader, that would end up characterising his words and deeds, the choices he made, in becoming Bangabandhu—the Friend of Bengal, as he was proclaimed upon his release from the jail term he was serving from 1966-69 in connection with the Agartala Conspiracy Case.

Can there be any greater recognition for a leader, than to be conferred with the title of your people's friend? A nickname itself denotes a kind of transcendent place even within the pages of history, and it can often be grandiose, in which case you know just

you to open up about your problems, their "Mojibor," to the bitter but already triumphant end as the one who gave them their nation, history's Sheikh Mujib, here was a man who always stood by his people.

In *Unfinished Memoirs*, this comes through in an early section on his birth and the house into which he was born in Tungipara of Gopalganj. Now in almost our fifth decade as an independent country, one cannot help but notice how our society still struggles to let go of unhealthy bondage to regressive conceptions of status and self-worth, which are the definitive leftovers of a feudal and colonised past. We note the