

PLUS +

THE HIMALAYAN RISK



BRICS and the dragon
in the room

The man who
mapped the world

The problem in OpenAI's
Navier-Stokes 'solution'



THIS ISSUE

● COVER : THE HIMALAYAN RISK

Dear Reader,

The Himalayas have always been a landscape of extremes. But the devastation in Nepal is a reminder that the risks facing the region are changing. A glacial collapse or landslide can quickly become a cascading disaster, exposing the vulnerabilities created by a warming climate, fragile geology and unchecked infrastructure. And because rivers, mountains and weather systems do not recognise borders, the lessons extend well beyond Nepal. Our cover package examines what India, China and Nepal must do differently. We also look at how British forest policies transformed the Himalayas, and how faith, colonial history and geopolitics shaped Mount Kailash as a modern pilgrimage.

The idea of looking beneath the surface runs through this issue.

Gerardus Mercator never travelled far from home, yet his 1569 projection shaped how billions picture the planet. The UN has now voted to retire it, a reminder that maps can conceal the choices behind them.

Technology, too, is rarely just about technology. Apple's entry into foldables is as much about economics and timing as it is about a new device. Meanwhile, OpenAI's claimed progress on the Navier-Stokes problem raises another question: what counts as mathematical discovery when AI enters the process?

And BRICS, formed to counterweight the G7, now confronts a different imbalance: China's economy is larger than those of its other members combined.

Together, these stories invite us to look beyond the headline — at the forces, choices and histories shaping the world we see.

We hope you enjoy reading this issue.

INDEX

**Why the Nepal floods are a warning
for the Himalayas — and India** **05**

Amitabh Sinha

**4 lessons India, China, and
Nepal must learn** **17**

Mahendra Lama

What are ‘hanging glaciers’? **24**

Anil Sasi

**The red flags in dam-building
in the Himalayas** **33**

Rishika Singh

**How British policies changed
the Himalayas forever** **41**

Adrija Roychowdhury

**Mount Kailash: How faith,
geography and geopolitics
shaped a modern pilgrimage** **52**

Nikita Mohta

**BRICS and the dragon
in the room** **66**

Udit Misra

INDEX

**How a man who never travelled
far mapped the world**

73

Nikita Mohta

**The problem in OpenAI's
Navier-Stokes 'solution'**

86

Nameera Anjum

**Behind the iPhone Duo's timing
is pure economics**

99

Nandagopal Rajan

**The feminist lessons Gloria Steinem
carried from India to America**

105

Aishwarya Khosla

**Why leave India when you have
'India Premium'?**

112

Vaishnawi Sinha



Why the **Nepal floods** are a warning for the Himalayas — and India

by Amitabh Sinha

The devastating flooding in Nepal's Bhotekoshi-Trishuli river, which has left over 1,300 dead, is yet another reminder of the vulnerability of the Himalayan region to major disasters.

Though they were all triggered by a unique set of circumstances, the Nepal tragedy is not very different from similar disasters seen in India over the last 15 years — Kedarnath in 2013, Chamoli in 2021, Sikkim's South Lhonak lake in 2023, and Uttarakhand's Dharali last year.



Each of them involved a very large and sudden release of water in the mountainous rivers, either due to a breach in a glacial lake or because of a large block of glacial ice breaking off and falling into the river.

The breach in the lake or the breaking off of the ice block can be spontaneous — under accumulated stress over time — or be caused by an extremely heavy rainfall, a landslide or an earthquake.

The result, however, is the same — a series of cascading events in which a mass of water, stones and soil gushes downstream at great speed, eroding river banks, uprooting trees, triggering landslides, and destroying buildings, roads and bridges. The debris being collected by the river on the way further strengthens its force and its potential to cause damage. The situation continues till the river arrives at a flatter landscape, offering the raging flow an opportunity to spread out and disperse.



What caused the Nepal event

The August 26 event, which started in the northeastern district of Rasua in Nepal, is understood to have been triggered by a rock and ice avalanche, a result of a large block of glacier in the upper reaches of the Bhotekashi River (the lower side is also called the Trishuli) falling off.



The deadly path of the Nepal flash flood



The US Geological Survey had reported a 4.4 magnitude earthquake in the region on the same day, which was initially believed to be the trigger. The next day, however, it said the signal captured by its sensors was most probably a result of a landslide and not a seismic event.

“This event was initially reported as a magnitude 4.4 earthquake. Additional analysis of nearby seismic stations, long-period seismic waves and satellite imagery led to the determination that the seismic event was instead a glacial collapse and debris flow, and that no earthquake had occurred,” said the USGS update.

That could mean that a large chunk of snow broke off from the glacier on its own, possibly under its own internal stress, and caused a landslide which triggered the chain of events.

But Syed Iqbal Hasnain, a veteran glaciologist and former vice-chancellor of the University of Calicut, pointed out that ice blocks were not visible in any of



the videos of the disaster. “The ice that breaks off from a glacier is almost like a solid rock. It does not melt immediately. But no ice block is visible in the videos of the incident. It is possible therefore that the incident was caused not by ice blocks breaking off from a glacier, but from a glacial lake outburst,” he said.

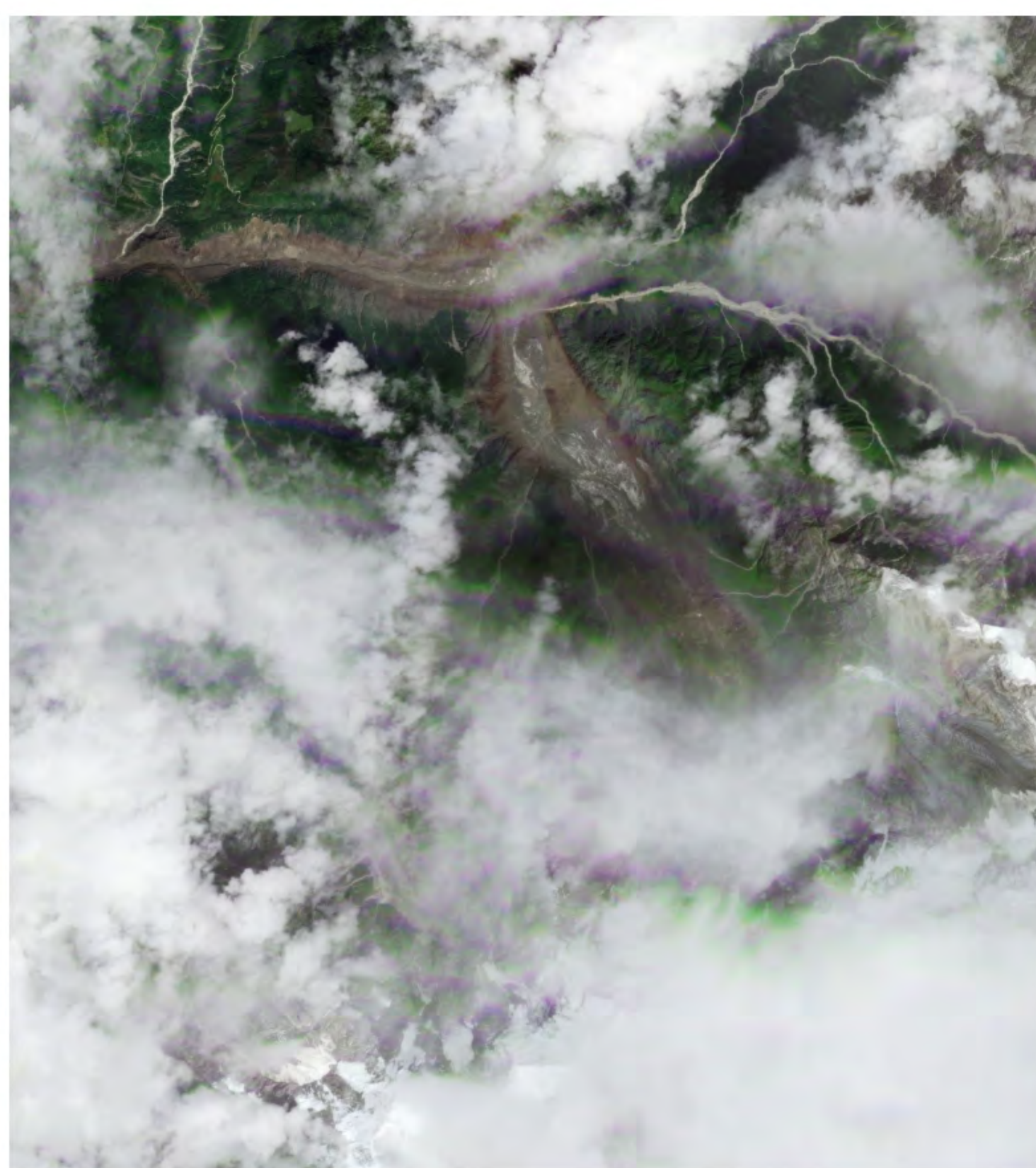
Safi Ahsan Rizvi, an IPS officer who worked with the National Disaster Management Authority (NDMA) before his retirement, suggested that it could have been a result of a breach in a “supra-glacial lake”. Lakes are generally formed at the end of a glacier, but sometimes, mainly as a consequence of climate change, lakes emerge within the glaciers themselves and are known as supra-glacial lakes. A breach in this kind of lake could explain the lack of ice blocks in the visuals.

Previous events

The actual sequence of events can be ascertained only after scientists are able to complete a comprehensive study. But

it unfolded in a manner very similar to the other incidents in India in the previous years.

“As of now, the Nepal event looks very similar to the Chamoli disaster of 2021 in the way it got triggered. But in terms of its impact downstream, and the destruction it has caused, it is more like the Kedarnath tragedy of 2013,” said Farooq Azam, an associate professor at IIT Indore. Azam currently heads the Cryosphere group at the Kathmandu-based The International Centre for Integrated Mountain Development (ICIMOD), a major research organisation working on the Himalayas.



A border area between Nepal and Tibet (China), before the flooding (left) and after (right). (Planet Labs PBC via AP)



Chamoli was caused by an ice and rock avalanche, a result of a large ice block of a glacier, estimated to be 27 million cubic metres in all, breaking away and falling downhill. Kedarnath, on the other hand, was a GLOF (Glacial Lake Outburst Flood) event, the result of a breach in a glacial lake.

The Kedarnath incident was much more devastating. The damage potential of an event like this depends on factors like geography, the incline of the river, vegetation, population, and urbanisation. The amount of rock and ice that fell off in the Nepal incident is yet to be estimated, but the fact that its fall was captured as a fairly large seismic wave (USGS had revised its 4.4 measurement to 5.2) suggests the involvement of a very big chunk of mass. It is not surprising, therefore, that the impact of the Nepal event appears to be significantly bigger than the Chamoli incident, in which about 200 people were reported to have been killed or gone missing.



The reason these events in the Himalayan region become so risky is that while they start off as individual events — extreme rainfall or landslide or lake overflow — they soon transform into a multi-hazard disaster, involving multiple landslides, flooding and building collapse episodes.

I HIMALAYAN DISASTERS



Kedarnath, 2013: In June, Uttarakhand received an unusually high amount of rainfall, leading to the melting of the Chorabari glacier and the Mandakini river overflowing. The floods affected large parts of Uttarakhand, Himachal Pradesh and Western Nepal, causing massive flash floods and landslides. Nearly 6,000 people were presumed dead.



Chamoli, 2021: A large glacier broke away and set off a flood, leading to surging waters in the Rishiganga river in Uttarakhand. Over 200 people were reported dead.



Sikkim, 2023: A glacial lake (large bodies of water that sit in front of, on top of, or beneath a melting glacier) situated in northwest Sikkim at 5,000 metres burst due to incessant rains. It led to the release of water in downstream areas and the deaths of at least 55 people.



Dharali, 2025: The terrain of the region in Uttarakhand (6,900 metres above mean sea level), combined with continuous rain for days, triggered mudslides, debris slides and flash floods. At least 69 people were reported dead.

Disasters in the Himalayas

“The Himalayan region is very fragile. Such events lead to a chain reaction. A surging river with large rocks and ice blocks would erode the banks and slopes, and more soil, mud and rocks would become part of the raging river. It becomes a cascading disaster because the waters do not have any other way to

spread out. That is why any such event in the Himalayan ecosystem becomes extremely dangerous,” Azam told The Indian Express.

A study published in Science magazine last year about a 2023 event in Sikkim captured the cascading impact of such flash flood events in the mountains. This event had been triggered by the collapse of a large chunk of glacier into the South Lhonak lake, situated over 5,000 metres above sea level, in northern Sikkim. This led to a GLOF event that took the shape of flash floods.



Nepal's Syapru Besi before (left) and after (right) the floods. (Planet Labs PBC via AP)

The study found that a landslide had resulted in the collapse of nearly 14.7



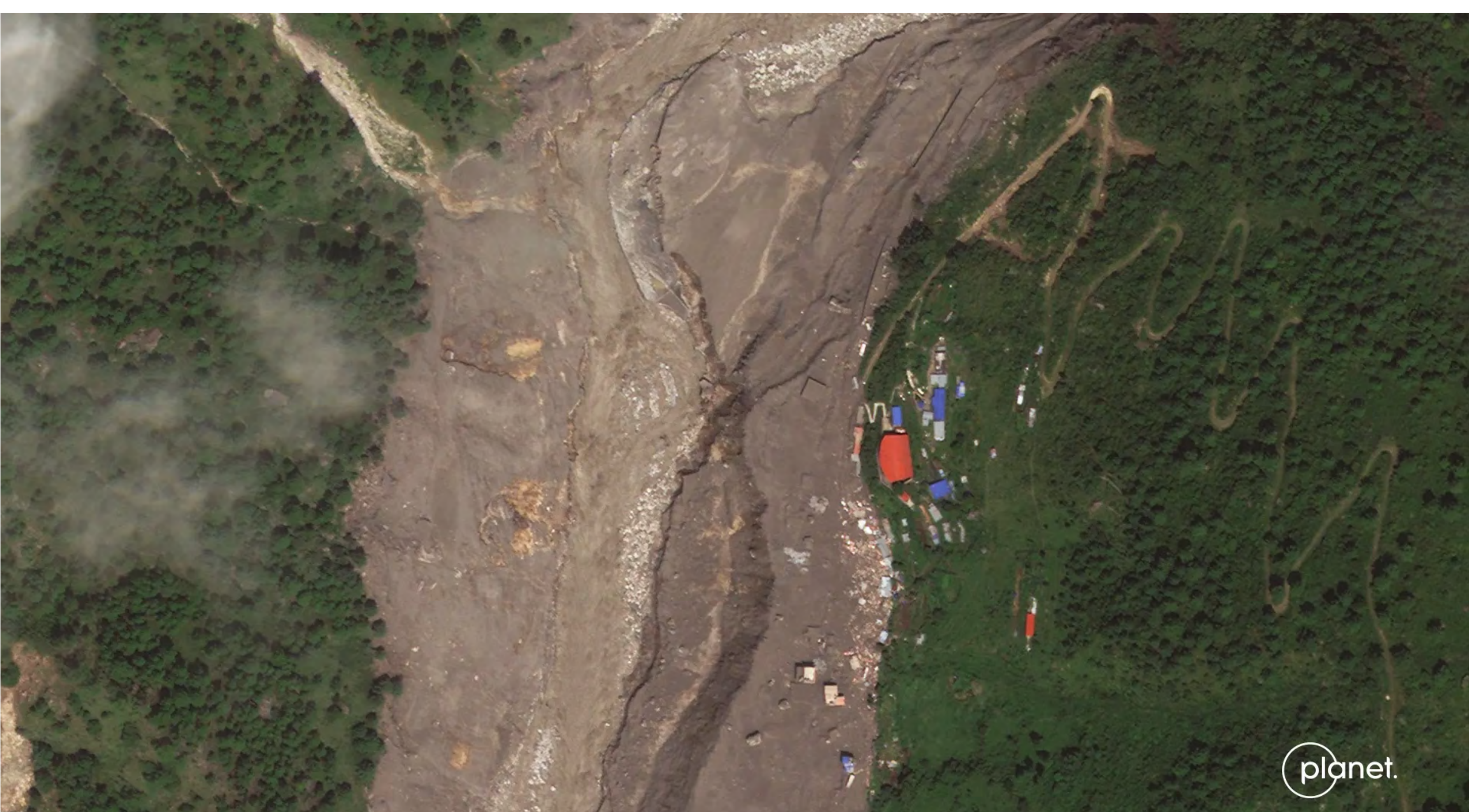
million cubic metres of rocks, soil and snow deposited around a glacier into the South Lhonak lake, which triggered a series of cascading events. The volume of the flowing sediment downstream had grown to about 270 million cubic metres.

“The collapse of approximately 14.7 million cubic metres of frozen lateral moraine into the South Lhonak Lake ... on 3 October 2023 generated a 20-m-high displacement wave. The wave overtopped and breached the frontal frozen moraine, causing the sudden drainage of approximately 50 million cubic metres of water... The GLOF eroded approximately 270 million cubic metres of sediment and triggered 45 secondary landslides. Most of the erosion occurred within about 67.5 km of the lake,” the study had found.

Vulnerable Himalayas

Azam said the entire Himalayan region was “out of balance entirely” because of population pressure and climate change.

“The whole ecosystem is vulnerable. Because of climate change and increasing instances of extreme weather events, newer areas are getting exposed. Earthquakes or heavy rainfall events are quite common, and any of them can trigger these kinds of disasters,” he said.



Flooding in Timure, Nepal on Aug. 27, 2026. (Planet Labs PBC via AP)

Incidentally, the Himalayan region is also one of the most dangerous places for earthquakes. The region has recorded some of the biggest earthquakes in the past. Nepal itself was the victim of a 7.2 magnitude earthquake in 2015.

The only way to minimise the damage from such events is to install early warning systems, prepare evacuation plans, and strictly monitor and regulate



construction and other activities in the ecologically fragile region so that further instability is avoided.

After the Sikkim disaster, the NDMA had initiated a National GLOF Risk Mitigation Programme (NGRMP) seeking to install early warning systems at glacial lakes at high risk of facing a breach. The Rs 150-crore programme is targeting connecting 195 glacial lakes in Sikkim, Uttarakhand, Arunachal Pradesh, Himachal Pradesh and the union territories of Jammu and Kashmir and Ladakh with early warning systems.

“As of now, no such early warning system exists, not in Nepal as well. The Chinese and the Nepalese sides may have some informal mechanism to exchange information but an established mechanism does not exist. The same is the case in India as well. It will take some time, but most of the risky glacial lakes would eventually be connected to an early warning set-up. This is likely to substantially reduce the risks from such events,” Rizvi said.



4 lessons India, China, and Nepal must learn

by Mahendra Lama

The devastating flood in the Bhotekoshi and Trishuli rivers in Nepal's thinly populated (48,000) Rasuwa district was an extraordinary, diabolical recurrence of the July 8, 2025 devastation in the same area. This vertical tsunami has triggered four new debates across the fragile Himalayan region.

Borders don't hold against nature

First, the border as a geometric line — whose breach by another sovereign

nation is considered the uppermost national security concern — is clearly not respected by natural disasters. Amid speculation over the Nepal deluge's origin, scientists and glaciologists have now confirmed that the flood was caused by an avalanche and glacial collapse on the Chinese side of the glaciers near Langtang Lirung.

Thus, the borderland needs to be treated as a distinct, complex space. Nation-states can no longer afford dependence-generating diplomacy in terms of sharing information and expertise. Interdependence — in data sharing, joint studies, institutional collaboration, non-sovereignty-centric treatment of climate change impact, and a close inter-governmental early warning framework — has become central.

Translating science into simple public goods for awareness; retraining border defence personnel for changing security threats; ensuring human security in these far-flung terrains; and drawing on traditional knowledge in operations have all acquired new urgency.

The energy stakes are transborder

Second, the flood's damage to over 15 hydro projects of varying capacities along the Trishuli, and the downstream exposure it triggered, could cause huge national-to-transborder environmental damage. Cascading effects within Nepal, China and India, and further downstream in Bangladesh, have hit the national and public psyche hard, and could disrupt cross-border energy trading and regional power pools, causing acute energy insecurity.



A man stands amid debris after flash floods, at Belkotgadhi in Nuwakot, Nepal, Sunday, Aug. 30. (PTI Photo)

India's Central Water and Power Commission took the initiative in 1953



to build the first hydel project on the Trishuli. An agreement was signed in 1958, and this 21 MW run-of-the-river project was commissioned in the sleepy mountain village of Tuphe, 6.4 km upstream from Trishuli Bazar, in June 1972 at a cost of Rs 13.55 crore. It long supplied power to Kathmandu. The project now remains largely decimated.

Many China-built highways to Kathmandu run through river belts. The first — a 115-km highway between Kathmandu and Kodari in Tibet, built in 1967 — runs through the Sunkoshi valley, both for strategic reasons and easy access to sand and boulders. Huge settlements have since sprung up as ribbon development along these highways. This flood and others have pushed aid donors for big infra projects to rethink their strategies.

The local-national disconnect in disaster response

Third, the Rasuwagadhi flood surfaced a formidable local-versus-national dynamic. The real impact falls at a very local, remote level, where locals are

both first victims and first responders — while the response comes from distant, capital-centric institutions in Kathmandu.

Similar examples exist in India. In October 2023, massive calving from the South Lhonak glacier's snout triggered a Glacial Lake Outburst Flood (GLOF) in North Sikkim; within hours, the Teesta rose 15-20 metres. The flash flood killed people and animals, and swept away villages, houses, farmland, industrial projects, social infrastructure, tourism and health facilities, defence personnel and ammunition storage, roads, highways, and 33 bridges. The Chungthang dam's 1,200-MW hydro project was destroyed, and the Teesta was scoured out entirely.

Downstream townships in Sikkim, West Bengal and Bangladesh were buried in slush and debris. Damage was estimated at over Rs 25,000 crore — nearly 60% of Sikkim's 2022-23 GDP. The loss of 1,800 MW of generation alone cost over Rs 19,000 crore. Though the state's Chief Minister led the disaster response with National and State Disaster

Management teams, the devastation exposed several critical gaps in climate impact management.

The need for interdisciplinary, all-sector understanding of climate change came into sharp focus. Local institutions lacked training, technique and orientation, and their coping mechanisms had little resilience. Municipalities and panchayats stood helpless before the scale of destruction, without training, awareness, preparedness or means to cope. No early warning mechanism existed, and no agency was responsible for one.

This underscored the need to base national institutions and resources at the local level — the real theatre of disaster.

A region without a common climate policy

Fourth, the Himalayan region still lacks a robust, resilient climate policy and institutional framework spanning local, national and regional levels across all sectors. Compartmentalisation persists

both within India and across the Hindu Kush Himalayas, and China has its own interpretations and reservations. ICIMOD, based in Kathmandu, has published evidence-based reports warning of tipping points in the region's deteriorating glaciology.

India has a National and State Action Plan on Climate Change and eight sectoral missions, including one for the Himalayas. The SAARC Convention on Cooperation on Environment was signed and took effect in 2013.

These scattered approaches must be brought onto a common platform. Who will bell this human-insecurity-centric cat is today's transborder question.

(Mahendra Lama is an Honorary Senior Adviser at ICIMOD, Kathmandu, and a former Member of the National Security Advisory Board, Government of India)





What are ‘hanging glaciers’?

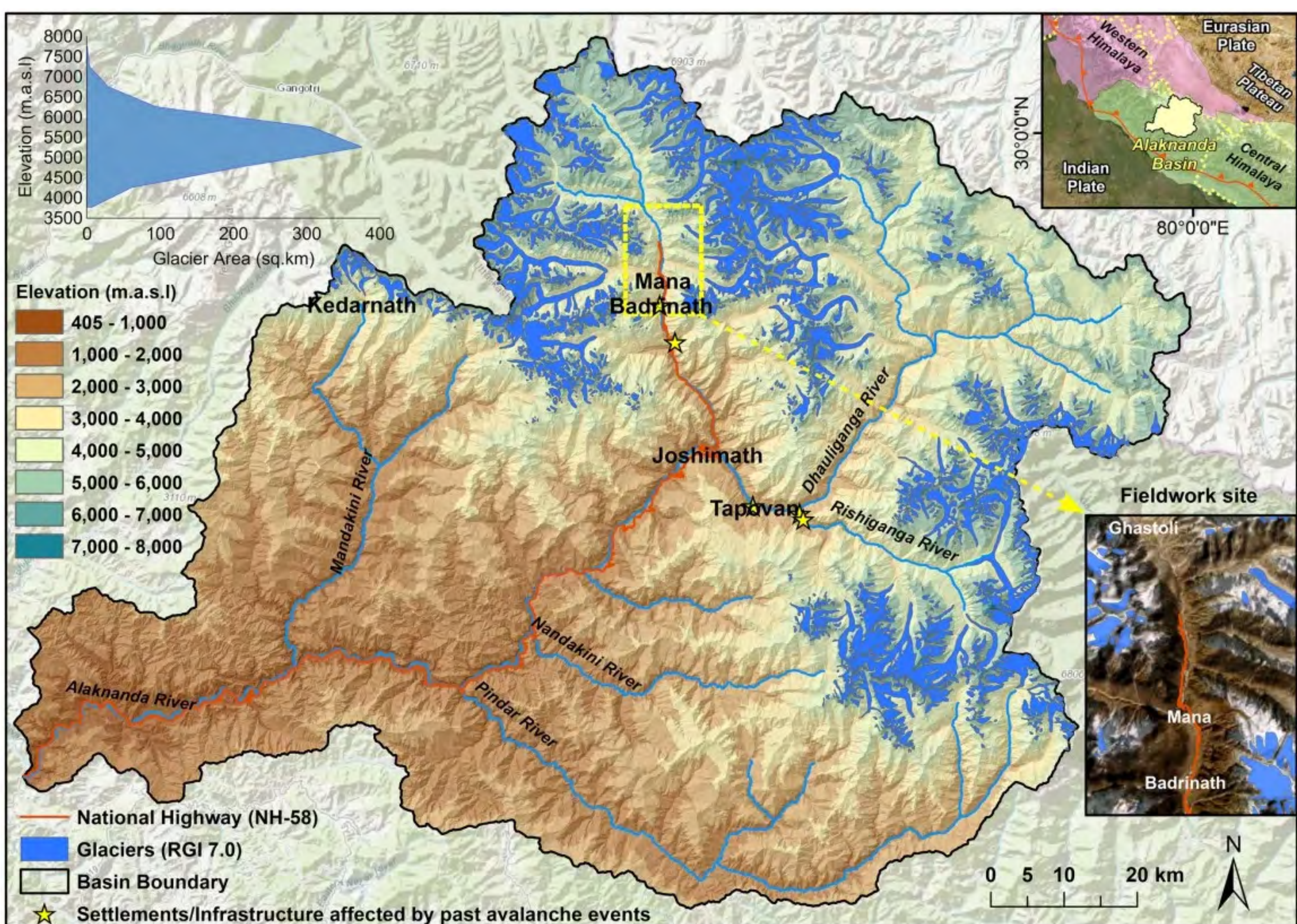
by Anil Sasi

The flooding in Nepal has similarities to at least four major incidents in India over the last decade-and-a-half, each involving a sudden release of large volumes of water in the mountainous rivers.

But there are more warning bells for India. As rising temperatures and shifting regional precipitation patterns reduce the stability of the Himalayan glaciers, some of them could evolve into “hanging glaciers” — ice masses perched on steep slopes that can detach and trigger massive avalanches.

An April 2026 study published in *Nature* magazine has found that there are as many as 219 hanging glaciers in the Alaknanda basin of the Garhwal Himalayas. Nearly a third of this unstable ice, according to the study, is concentrated in the Upper Alaknanda basin.

How do hanging glaciers form?



Distribution of glaciers in the Alaknanda basin. Credit: 'Basin-scale inventory and exposure assessment of hanging glaciers, Central Himalaya'

The study — by Ashim Sattar of the School of Earth, Ocean and Climate Sciences, Indian Institute of Technology, Bhubaneswar and Nandu Krishnan of

the Divecha Centre for Climate Change, Indian Institute of Science, Bengaluru, alongside two colleagues — flagged that Himalayan glaciers are increasingly exhibiting “geometric and dynamic instability” owing to rapid warming and climate variability.

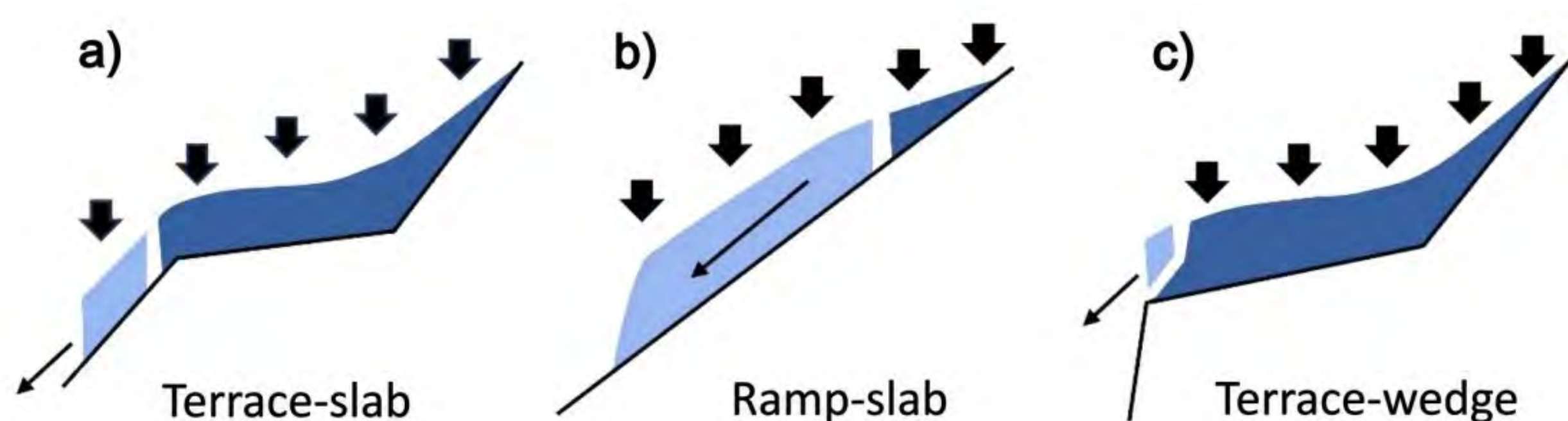
Unstable glaciers are essentially those whose velocity may change by an order of magnitude or more during a comparatively short period of time. The result is redistribution of ice, accompanied by geometric and structural and tectonic shifts.

This instability then leads to the development of hanging glaciers on steep slopes. While these glaciers have been extensively studied in the Alps, basin-scale assessments in the Himalayas remain limited.

What happens if they break off?

Hanging glaciers pose a significant risk of break-offs. The study’s simulations indicated that the resultant avalanche

flows could exceed 50 metres in height in Uttarakhand's Badrinath-Mana sector. Such a severe event would swallow major settlements and infrastructure.



Types of hanging glaciers. Credit: 'Basin-scale inventory and exposure assessment of hanging glaciers, Central Himalaya'

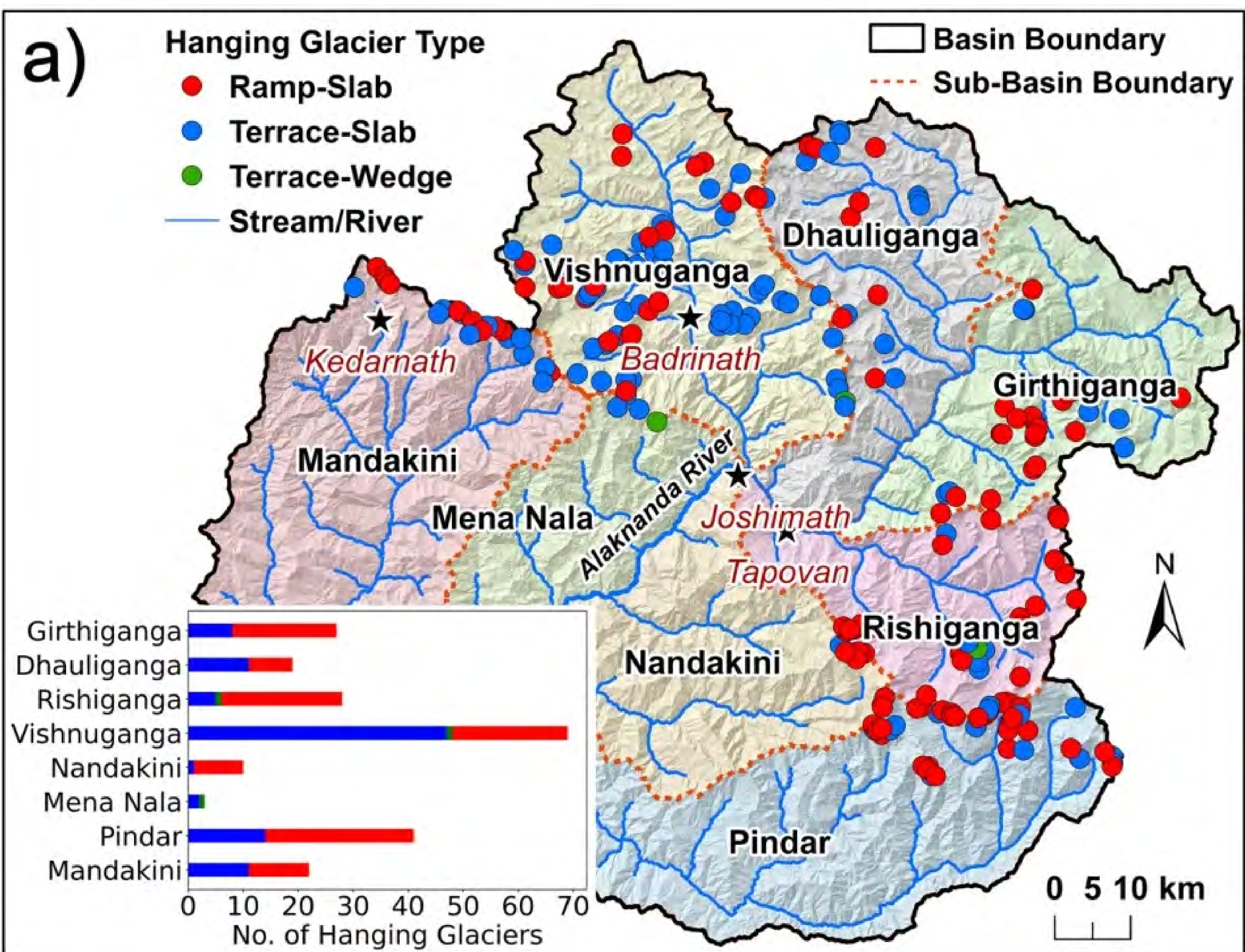
The break-offs from hanging glaciers can also trigger secondary hazards such as glacial lake outburst floods (GLOFs).

The study identified a total of 219 hanging glaciers in the Alaknanda basin of the Garhwal Himalayas, covering 71.7 ± 3.5 sq km, with an estimated ice volume of 2.39 ± 0.42 km³, including 0.74 ± 0.14 km³ of hanging ice mass.

Growing risk

Exposure to avalanche-related risks in this basin is projected to increase over the next decade, with 120% more buildings and infrastructure land area at risk by 2030 compared to 2000, said the study.

The number of people living in these at-risk areas, meanwhile, is projected to surge by 17% over the same period.



Hanging glaciers in the Alaknanda basin. Credit: Basin-scale inventory and exposure assessment of hanging glaciers, Central Himalaya

This underscores the need for systematic identification and monitoring of high-risk glaciers, alongside risk-informed land-use planning, to reduce downstream hazards in mountain regions. What happened in Nepal offers a clear warning sign.

“This study... sadly predicted the tragic events (and)... underscores the need to monitor such ‘hanging glaciers’



closely to give better warning of such catastrophes in future to vulnerable downstream communities. This will require much greater funding of monitoring programs; but such funding is small compared to the costs of loss of life and livelihoods,” Pam Pearson, Director of International Cryosphere Climate Initiative (ICCI) told *The Indian Express*.

“This should also, however, prove a wake-up call that we really must accept that the era of fossil fuel use needs to end, and transition to carbon-free energy sources, and on an emergency basis. Here again, the economic costs of such a transition will be far less than the cost of continued use, in terms of such disasters alongside other economic burdens from drought (in part from lesser snowpack) and heatwaves,” said Pearson.

The Burlington, Vermont-based ICCI had done a “capsule” summary of the April 2026 study, flagging it as a warning.



“Otherwise, these kinds of highly damaging events — where in this case, it appears that the previously-frozen ground under the glacier thawed to such an extent that it collapsed, carrying a massive piece of the glacier with it on a scale previously seen only in Greenland or Antarctica — will only continue and intensify,” Pearson said.

Preparing for calamity

Another relevant study, published in Nature on March 6, made an interesting point about preparedness in the event of a calamity in the warming Himalayas.

The study, by Anshuman Bhardwaj, Rayees Ahmed and two other colleagues, compared two events.

The first was the 2021 Chamoli disaster, which saw a massive wall of ice and rock collapse into the Rishiganga valley. The event destroyed hydropower plants, swept away bridges and killed over 200 people.



Four years later, a large ice–rock avalanche struck and buried most of the village of Blatten in Switzerland. Only one person died.

The difference between catastrophe and survival, the study said, “was not luck, but preparedness, monitoring, and rapid response”. In Blatten, authorities and residents acted on precursory signs of slope instability, enabling timely evacuation.

Bhardwaj, one of the study’s authors, told *The Indian Express*: “The Nepal event highlights that we need to think of these as cascading hazards, rather than isolated landslides, avalanches, or floods... Second, we need to strengthen anticipatory monitoring and preparedness... Third, this is also a transboundary risk-management issue... Finally, we should be careful not to rush process attribution while responding to the immediate emergency.”

“Overall, the Nepal event reinforces the central message of our work: the



Himalaya needs to shift from reacting to cryospheric disasters to anticipating them. With a warming Himalaya, the conditions that destabilise ice and rock are becoming more widespread, making preparedness increasingly urgent. The goal is not to predict every avalanche, but to systematically reduce the likelihood that a foreseeable mountain hazard becomes an avoidable human catastrophe,” said Bhardwaj, who is also the Head of Department (Planetary Sciences) and Programme Director (MSc Planetary Sciences) at the School of Geosciences, University of Aberdeen.



The **red flags in dam-building** in the Himalayas

by Rishika Singh

The glacier collapse near the China-Tibet border was not a rare occurrence. The Himalayan region is all too familiar with other similarly destructive phenomena. The event has also led experts to reiterate concerns about recent man-made changes, ranging from infrastructure buildup to high tourist volumes, all occurring amid quickly changing climatic conditions.

Y Nithiyanandam, a professor and the head of the Geospatial Programme at The Takshashila Institution, Bengaluru,



told The Indian Express, “The Himalayas are a naturally fragile mountain system, already prone to earthquakes, landslides, avalanches and flash floods. What climate change may be doing is increasing the underlying vulnerability.”

The geology

The Himalayan topography includes lakes formed by melting glaciers, fast-flowing rivers and steep slopes. They dot a region highly vulnerable to strong earthquakes and disproportionately affected by climate change.

In a 2022 article for *Nature*, researchers highlighted that “High Mountain Asia (HMA), the Earth’s most important and vulnerable water tower, is warming at a rate that is double the global average (0.32°C per decade compared with the global average of 0.16°C per decade).” The HMA includes the Tibetan Plateau and surrounding ranges, like the Himalayas.

Temperature changes affect the pace and frequency of natural processes,

including the melting and thawing of snow and glacial lake outburst floods (GLOFs) or when water collected from melting glaciers overflows.

Nithiyanandam said that a warming planet means less snow cover in some areas. “The relatively darker glacier ice gets exposed, absorbs more heat and can melt faster, weakening glacier fronts. In such conditions, an earthquake, heavy rainfall or sudden ice movement can become the immediate trigger,” he said. While linking any one disaster directly to climate change still needs more scientific assessment, the overall risk appears to be increasing, he added.

Mirza Zulfiqur Rahman, a researcher on the Brahmaputra river basin, told The Indian Express that in this particular flood, aspects including infrastructure build-up and high tourist footfall have compounded the disaster’s toll.

The build-up

Dams and reservoirs can regulate the flow of water and provide wider access



to services for people living in remote regions.

But they also increase vulnerability. In the recent floods, 13 hydropower plants, including several under-construction projects, were affected, denting power generation capacity and access. In turn, Rahman said, “Building a dam also shakes up the geology of the area and makes it much more prone to earthquakes. A lot of drilling and a lot of tunnelling is happening in order to build more... ultimately, the Himalayas are going to be its biggest casualty.”

Nithiyanandam agreed that hydropower development across the Himalayas is now extensive, with hundreds of projects in various stages of completion. “One recent study identified at least 193 dams built or planned across the wider Tibetan region since 2000, while a Nepal hydropower database lists more than 570 projects at different stages,” he said.

China is often seen as a leader in installing infrastructure projects, including the massive under-

construction dam on the Yarlung Tsangpo river (the upper course of the Brahmaputra) near Arunachal Pradesh, but others are amping up construction as well.

“Chinese infrastructure building in Tibet is of concern. Obviously, China also looks at its infrastructure building in Tibet in a very different manner, as sovereignty markers over Tibet. India, Nepal, and Bhutan have also responded to it in a similar manner and come up with their own set of dams. India is also helping Bhutan build a series of hydropower dams, making this part of a larger geopolitical game, signalling and counter-signalling,” Rahman said.

In July, Chinese researchers flagged an active fault line (a fracture between two blocks of rock) directly beneath the Yarlung Tsangpo mega-dam. According to a report in the *South China Morning Post*, they said the terrain around the project has a “loose structure and weak cohesion”. Even without any one country acting in bad faith, the risks of large projects in the Himalayas are

naturally significant.

The gap

As disaster risk rises, so could the scale of devastation, but experts flag a continued lack of adequate communication among Himalayan nations, which could help mitigation and planning. Rahman said, “There has not been substantial cooperation between China and Nepal or China and India in terms of how we really manage the ecosystem.”

Some disasters in the 2000s prompted a Memorandum of Understanding between India and China in 2002, with an expert-level mechanism on transboundary rivers created in 2005. “Such mechanisms also have to be expanded to include other aspects such as GLOFs,” Rahman added.

Nithiyanandam said the key difference was transparency: “Nepal officially publishes fairly detailed project and licensing information, whereas in China project-level information is available

but remains scattered across different official documents and announcements rather than through a comparable consolidated public database.”

Gaps in information and data-sharing between countries can complicate early warning for hazards originating across the border. “There is no clearly established public system between China and Nepal for continuous, real-time sharing of upstream river flow, reservoir operations or glacial-lake conditions from Tibet,” he added.

Stronger transboundary cooperation would necessarily include continuous sharing of hydrological, weather and climate data. “Where sustained monitoring has a cost, downstream countries could also co-invest in upstream observation systems or pay for specialised datasets, creating a model that benefits both sides. Automated public warning systems, joint scientific studies and regular emergency exercises should complement this,” Nithiyanandam said.



Rahman pointed out that downstream countries also lack consensus to build alliances that can deal better with China. “In that sense, there is no scope for international arbitration. But even if they had signed agreements to that effect, China does not really follow those kinds of international norms, as we can see in the South China Sea dispute as well,” he said.

That possibility, however, does not take away from the necessity of such processes. “A nation-state-centric, container approach in the Himalayas does not make sense because all of these disasters really do not limit themselves strictly within national boundaries. It has ramifications all across the landscape, and hence the solutions also need to be applied to that end. Scientific research also has to be done from a landscape perspective to actually create any sustainable form of infrastructure development in the Himalayas,” Rahman said.



How **British policies** changed the Himalayas forever

by Adrija Roychowdhury

In the mid-19th century, an Englishman named Frederick Wilson arrived in the upper reaches of the Himalayas and struck a bargain with the Raja of Tehri-Garhwal. He secured a lease to exploit the forests of the rugged Bhagirathi Valley, a landscape covered in towering deodar and chir pines.

Soon, the sound of his axes echoed through the mountains.

Trees that had stood for centuries were felled in great numbers, and vast stretches of forest were cleared, marking the beginning of a new era of large-scale commercial timber exploitation in the region.

Wilson came as a soldier in the East India Company's army. He deserted the army during the First Anglo-Afghan War under circumstances that remain unclear. The story goes that he eventually settled in the remote village of Harsil in the Bhagirathi Valley, where he made a considerable fortune through hunting, the trade in animal skins and musk, and, most importantly, timber.

His wealth and influence in the region earned him the sobriquet 'Pahari' Wilson, and he came to be known as the Raja of Harsil.

Wilson's enterprise opened the door to a new kind of colonial exploitation – one that would reshape the Himalayan landscape for decades to come.



HIMALAYAS – KEY LOCATIONS

Where the story unfolded



WHAT HAPPENED WHERE

1 Bhagirathi Valley Frederick Wilson began felling deodar and chir pine here in the mid-19th century, launching commercial timber extraction in the Himalayas. 	2 Tehri-Garhwal The princely state whose Raja granted Wilson’s original lease, later extended by the British for 20 years. 	3 Pauri Garhwal Part of the Garhwal region where forest settlements of 1911-17 enforced reserved-forest restrictions on local communities. 	4 Kumaon Came under British control after the 1814-16 Anglo-Nepalese War; all regional forests were placed under the Commissioner of Kumaon by 1858. 	5 Almora Epicentre of the 1921 forest-burning campaign against British restrictions and compulsory labour — the flashpoint that forced a Grievances Committee inquiry. 
--	---	--	---	---

Sources: Dhirendra Datt Dangwal, “Commercialisation of Forests, Timber Extraction and Deforestation in Uttaranchal” (2005) · Ramachandra Guha, “The Unquiet Woods” (1991) · The Indian Express

Impressed by the scale of his success, the British authorities in the North-Western Provinces secured a 20-year lease from the Raja of Tehri-Garhwal and enlisted Wilson himself to exploit the forests on their behalf.

As the railway network expanded in the second half of the 19th century, demand for timber surged. This was followed by



further demands for timber and firewood during the two World Wars. The colonial state consequently tightened its grip on the Himalayan forests. In the process, local communities were steadily stripped of their traditional rights over the forests, while the expansion of commercial timber extraction left an ecological legacy whose consequences are still visible today.

How timber brought the British deeper into the Himalayas

Kumaon and Garhwal, in present-day Uttarakhand, came under British control after the Anglo-Nepalese War, also called the Gorkha War, of 1814-16. While the British initially showed limited interest in the region's forests, this changed by the mid-19th century as demand for timber and firewood grew.

Environmental historian Dhirendra Datt Dangwal of Ambedkar University explains how British control over the Himalayan forests expanded, and what



that meant for the mountains and their people.

“The British had been attracted to the region since the time they set foot upon the subcontinent. European travelers would frequent the Himalayas, lured by its scenic beauty,” says Dangwal. In the years following the war, the British opened a sanatorium in the Himalayas for soldiers and others seeking to recuperate.

The population of the hills at this time consisted largely of peasant proprietors who cultivated small landholdings and depended heavily on forests for their existence. In the initial years, British policies in the region were largely confined to collecting certain forest dues along the foothills. By the late 1840s, however, forests had gained increasing importance as demand for timber and firewood grew.

Dangwal notes that the introduction of the railways in 1853 was particularly



instrumental in expanding demand for timber from the Himalayan forests. Timber was required for sleepers used to lay railway tracks. “They identified Teak, Sal, and Deodhar trees to be especially useful in this regard. While Sal was found extensively in the Himalayan foothills, Deodhar trees grew in abundance deep inside the region.”

Wilson’s success in transporting timber had also provided a viable precedent, demonstrating to the British the possibility of undertaking similar operations on a much larger scale.

**13,959**

Trees felled/year
1870s avg

**65,000+**

Trees felled/year
by the 1880s

**5,000+**

Witnesses examined
1921 committee

To bring large quantities of timber under their control, all forests were placed under the Commissioner of Kumaun by 1858. The Forest Acts of 1865 and 1878 facilitated a further expansion of state

control over the region.

“In 1879, large tracts of sub-Himalayan forests were reserved. In these reserved forests, the rights of local people were redefined: they were granted only limited rights that were recorded and specified in the forest settlement,” writes Dangwal in his research paper, *Commercialisation of Forests, Timber Extraction and Deforestation in Uttarakhand* (2005).

Further, in 1893, all unassessed lands outside the reserved areas were constituted as District Protected Forests, which were thereafter controlled by the Deputy Commissioner. Restrictions were also imposed on forest use by local communities.

The process of controlling the forests and restricting the rights of their users went hand in hand with the construction of roads and other communication networks to transport timber. “The contradiction of roads by itself is



destructive to forests, but more than that, these roads opened up forests for further destruction,” Dangwal notes in his paper.

The numbers are telling. During the 1870s, he writes, an average of 13,959 trees were felled annually in Kumaun and Garhwal alone. By the 1880s, the number had risen to more than 65,000.

When villagers turned against the forest department

The tightening of British control over the forests provoked growing resistance among local communities, particularly following the forest settlements of 1911–17. The discontent reached a dramatic peak in 1921, when protests against forest restrictions and compulsory labour escalated into a widespread campaign of forest burning.

Historian Ramachandra Guha, in his book *The Unquiet Woods* (1991), writes,



“from the last week of April (1921) a systematic campaign, especially in Almora district, had been launched for the firing of the forest.” When the Forest Department called upon villagers to extinguish the blazes, many refused and instead helped the fires spread.

The scale of the unrest forced the colonial government to establish the Kumaon Forest Grievances Committee in 1921. The committee travelled through the hills and examined more than 5,000 witnesses, who complained of restrictions on grazing, lopping trees, collecting forest produce and obtaining timber, as well as the intrusive conduct of forest officials.

The committee’s recommendations led to the reclassification of forests and the transfer of large areas of less commercially valuable forest from the Forest Department to the Revenue Department. A further consequence



was the introduction of the Kumaon Panchayat Forest Rules in 1931, which provided the legal basis for the creation of van panchayats, giving village communities a degree of control over designated forests.

The ecological cost of commercial forestry

Dangwal believes that despite the concessions made by the British government after 1921, the fundamental thrust of its forest policy in the Himalayan region remained unchanged, carrying a high environmental cost.

“The Himalaya is a temperate forest and not as dense as the central Indian forests,” he says. “Significant removal of the forest cover resulted in loss of soil, siltation of the river, and so on.”

As forest cover was removed, soil became increasingly exposed and vulnerable to erosion and landslides.



The consequences of this transformation extended beyond the colonial period.

The exploitation of Himalayan forests did not end with the British. Independent India continued many of the commercial forestry practices inherited from the colonial period, fuelling new conflicts over forest access, livelihoods and conservation. It was against this backdrop that the Chipko movement emerged in the 1970s, bringing the question of who controls the forests — and for whose benefit — back to the centre of public debate.

Today, as floods and landslides expose the vulnerability of Himalayan communities from Uttarakhand to Nepal, the history of forest exploitation offers a crucial lens for understanding how centuries of human intervention have altered the fragile mountain ecology in which these disasters unfold.



Mount Kailash: How faith, geography and geopolitics shaped a modern pilgrimage

by Nikita Mohta

Hours after floods hit Nepal, Sandesha Rayapa, a faculty member at Jawaharlal Nehru University, posted her anguish on social media.

“Every time a calamity strikes the Himalayas, we call it a ‘natural disaster’. But perhaps we also need to ask how much of the devastation is intensified by human choices — our idea of development, excessive tourism, disregard for ecological limits and our



insistence on making every remote mountain accessible.”

For Rayapa, the question is personal. She belongs to the Rung community, an indigenous Himalayan community whose members live predominantly on the Indian side of the Himalayas.

For centuries, reaching Mount Kailash meant crossing by foot some of the most difficult terrain in the Himalayas. That has changed dramatically. Roads, infrastructure, tourism and unregulated homestays have transformed a pilgrimage once defined by physical hardship.

Accessibility, however, comes at a cost. “Mountains are being blasted to create roads and remote settlements have become tourist destinations,” Rayapa tells indianexpress.com.

That tension — between devotion and development, accessibility and ecological limits — lies at the heart of the modern story of Mount Kailash.

A mountain sacred to many faiths

At 6,660 metres, Mount Kailash is among the world's most revered sacred mountains. The snow-clad peak lies at the centre of a ring of ranges in the southwestern Tibetan Plateau. To its south are the vast freshwater lakes Manasarovar and Rakas Tal, while nearby lie the sources of four major rivers: the Brahmaputra, Indus, Karnali and Sutlej.



Mani stones on the path around Mount Kailash (Wikipedia)

For Hindus, Mount Kailash is the abode of Lord Śhiva; for Tibetan Buddhists, it is associated with the deity Demchok.



Jain traditions associate it with Mount Aśtapada, where Rīśabha, the legendary first tirthankara, is believed to have attained liberation. The mountain is also sacred to the Bönpo, the Tibetan religious tradition that coexists with Buddhism.

But beyond faith, the story of Kailash is shaped by the extraordinary geography of the Himalayas, the routes through which pilgrims travelled, the interventions of colonial rule and the shifting geopolitics of India, Nepal and China.

Historian Alex McKay challenges the assumption that Mount Kailash has been a major pilgrimage site for millennia. “As recently as the early 1900s, it was not a site of any great appeal. It was certainly not the most sacred place in Hindu understanding. While Kailas had long been used as a metaphor for strength and purity in Indic literature, the literary Kailas was an ideal rather than a real place,” he writes in *Kailas Histories* (2015).



Mount Kailash in the ancient texts





The earliest Indian Buddhist references to the Kailash region, interestingly, concerned not a mountain but a lake, most likely Manasarovar.

“The sources of rivers such as the Ganges carried a particular sanctity in Indic conceptions, and even today Manasarovar rather than Kailash is the ritual focus of Hindu pilgrimage there,” McKay notes.

In *Pilgrimage in Tibet* (1998), McKay points out that the earlier Vedic texts make no mention of ‘Kailasa,’ despite the Rigveda-Samhita covering a broad geographical area and containing references to the mountains and rivers of the Indus system.

References to Kailash-Manasarovar in Mahabharata and Ramayana are similarly brief. “The Mahabharata is one of the world’s longest works of prose. It contains more than 90,000 stanzas, of which only a handful contain any meaningful allusion to Kailas-Manasarovar, as is the case with the

Ramayana,” McKay writes.



An illustration depicting Shiva at Kailasha (c.1810-1820, Wikipedia)

The Puranic tradition presents a similar picture. The Sivapurana, a text detailing rituals associated with the worship of Shiva and generally dated to around the



9th-11th centuries, does not mention Kailash, instead describing Shiva as residing at Himavat.

Yet the mountain's presence in oral traditions, ancient art, and scattered textual references suggests that its sacred associations developed over time.

Among the more detailed Indian accounts of the Kailash yatra is Swami Pranavananda's *Kailas-Manasarovar* (1949). Having undertaken the pilgrimage several times, Pranavananda presents the mountain as a sacred centre across religious traditions. He also offers a practical guide to the pilgrimage, detailing the geography of the region, routes to the mountain, passport requirements, medicines and other necessities as well as the physical preparation required for the journey.

The making of a modern pilgrimage

The emergence of Kailash-Manasarovar as a major spiritual and pilgrimage



site beyond Asia was a slow process. In colonial India, European knowledge of the Himalayas expanded after the establishment of trading centres in the early 17th century. Manasarovar was occasionally mentioned in connection with commodities such as borax and musk, but there were no first-hand European accounts of the site or indications of significant spiritual associations. “Not until 1715 did the first European, Italian Jesuit Ippolito Desideri, report sighting Kailas. He stated that the region was held sacred by the Tibetans,” McKay notes.

As the East India Company expanded, so did British efforts to map and document the Himalayan region. By the early 20th century, this geographical interest had begun to intersect with commercial considerations. Charles Sherring, the Deputy Commissioner at Almora, Uttarakhand, recognised the potential economic benefits of pilgrimage. Ordinary pilgrims, however, were unlikely to undertake the difficult and unsafe journey to Kailash. After

visiting the region in 1905, Sherring recommended improving roads along the pilgrimage route so that, “as elsewhere the devotee will be the pioneer of trade.”



Yaks used in the pilgrimage to Mount Kailash on the banks of Lake Mansarovar (Wikipedia)

“Sherring never returned to Tibet after his 1905 visit, but he became a key figure in the history of pilgrimage to Mount Kailas, indeed he may be identified as the primary agent in the construction of the modern understanding of the site,” McKay argues in his work.

Changes in border regulations facilitated cross-border travel, while improvements to the route gradually made the journey

more accessible. By 1951, the last year for which figures were published before the frontiers closed, an estimated 600 pilgrims had travelled from Almora to Kailash. Following the Chinese takeover of Tibet in 1950, Indian pilgrims came under closer monitoring, and the borders were sealed in 1959, bringing the pilgrimage to an end until its revival in the 1980s.

People such as Sherring and the Swedish explorer Sven Hedin helped bring the mountain into public discourse, while the emergence of an Indian middle class made long-distance pilgrimage increasingly possible.

Summing up, McKay writes: “Colonial government contributed through enhanced provision of law and order and with improved transport—notably the railways. There was, therefore, a nexus of factors that came together both to elevate the sanctity of Kailas and to enable it to function as a popular Indic pilgrimage site in the late colonial and modern period.”



Faith across borders

Within India, deteriorating relations with China, culminating in the Sino-Indian war of 1962, also led to a major expansion of road-building in the Himalayas. Improved infrastructure would later facilitate greater access to the region's pilgrimage sites.

By the late 1970s, as China began to ease some of its earlier restrictions on religious practice and open up to foreign tourism, Kailash emerged as an early beneficiary of this shift. “Kailas was at the forefront of that process, credit for which is claimed by an Iyer Brahmin, Dr. Subramaniam Swamy...” McKay writes.

In April 1981, Swamy raised the issue with Deng Xiaoping, the Chinese Foreign Minister, and arrangements were finalised during his visit to India that July. Two months later, the first group of 60 Indian pilgrims set out for Kailash via Almora and the Lipu Lekh Pass.

Speaking to indianexpress.com, Antara Ghosal Singh, Fellow at the Strategic Studies Programme at the Observer Research Foundation, New Delhi, says the Kailash Yatra has long served as a symbol of cultural exchange and a degree of normalcy in India-China relations. The pilgrimage also has an economic dimension: tourism contributes to the local economy in Tibet, making the yatra relevant to the Chinese authorities.

Yet Beijing remains highly sensitive to issues concerning Tibet and regional security. Public discourse in China, Singh says, can view Indian pilgrims with suspicion, including concerns that they may be gathering intelligence or asserting India's cultural claims in territory under Chinese control.

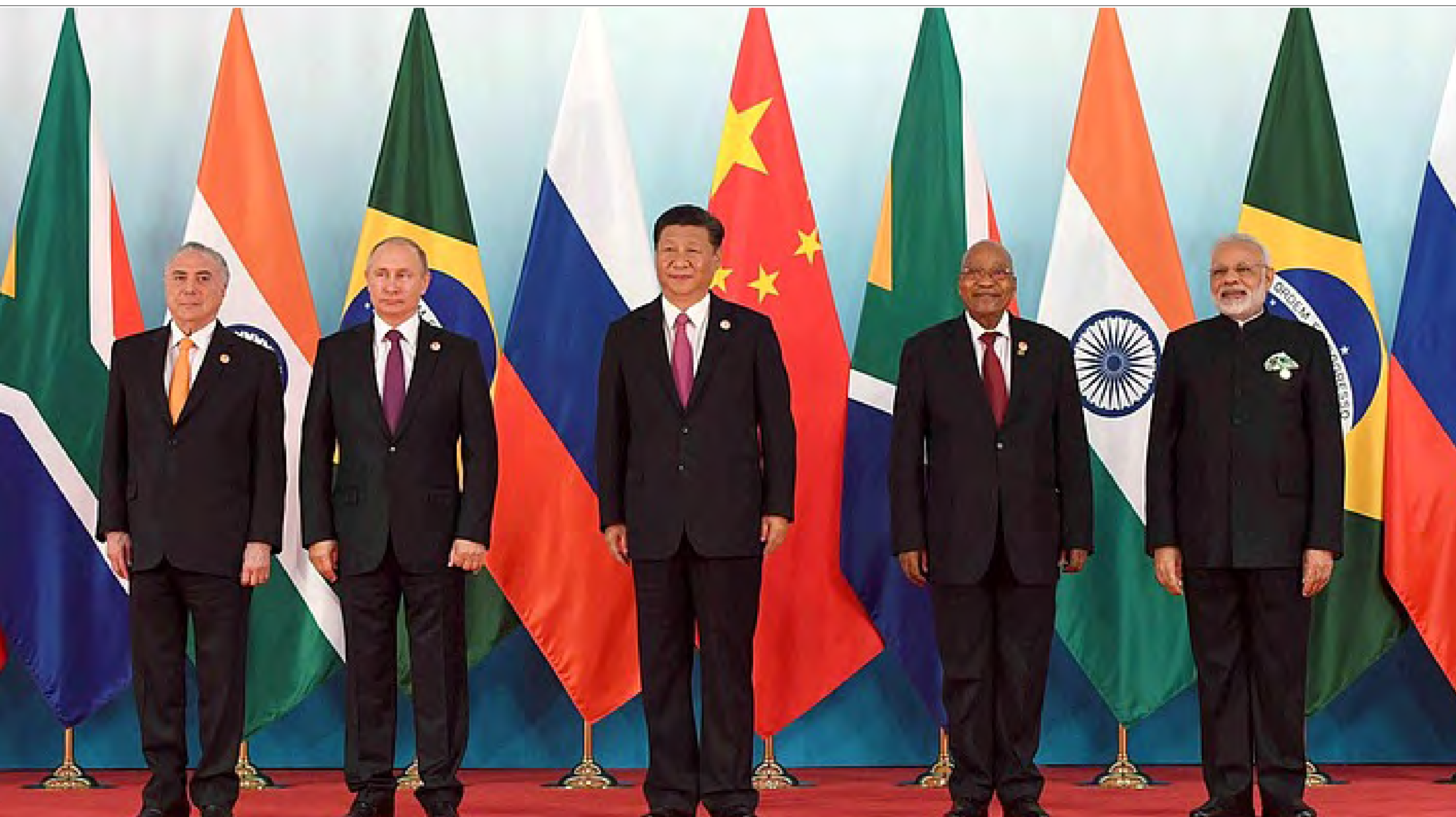
The pilgrimage also exists within an increasingly fraught environmental landscape. One of the most significant concerns is China's large-scale infrastructure development on the Yarlung Tsangpo river, known as the



Brahmaputra once it enters India.

Rayapa cautions against assuming that such projects can be sustainable. “Today, we talk about sustainable development, but sustainable development is a myth. Calling something sustainable does not guarantee that it will not damage the environment,” she says.

Despite these tensions, the pull of Kailash is resilient. “Faith is unexplainable, especially when it is about the Kailash-Mansarovar,” Singh says.



BRICS and the dragon in the room

by Udit Misra

India hosted the 18th BRICS Summit in New Delhi on September 12 and 13. BRICS is an informal grouping of 11 major emerging markets and developing countries: Brazil, China, Egypt, Ethiopia, India, Indonesia, Iran, Russia, Saudi Arabia, South Africa and the United Arab Emirates.

However, it started out as BRIC — referring to the four countries that initially came together, namely Brazil, Russia, India, and China — on the



sidelines of the United Nations General Assembly in New York in 2006. In 2010, South Africa joined the grouping, and it was renamed BRICS.

The idea was to provide a platform for the concerns of emerging economies of the time and counter the overwhelming domination of the industrialised and developed economies (read: the G7) in international institutions.

This is the 20th year since the grouping began, but curiously enough, there is now a dragon in the room: China. Key economic data shows just how much China dwarfs the rest of the BRICS members.

Typically, economic might is ascertained by the overall size of the economy as measured by the Gross Domestic Product (GDP) in US dollar terms. Similarly, economic prosperity is measured by GDP per capita, which gives a semblance of how rich an average citizen is in a country.

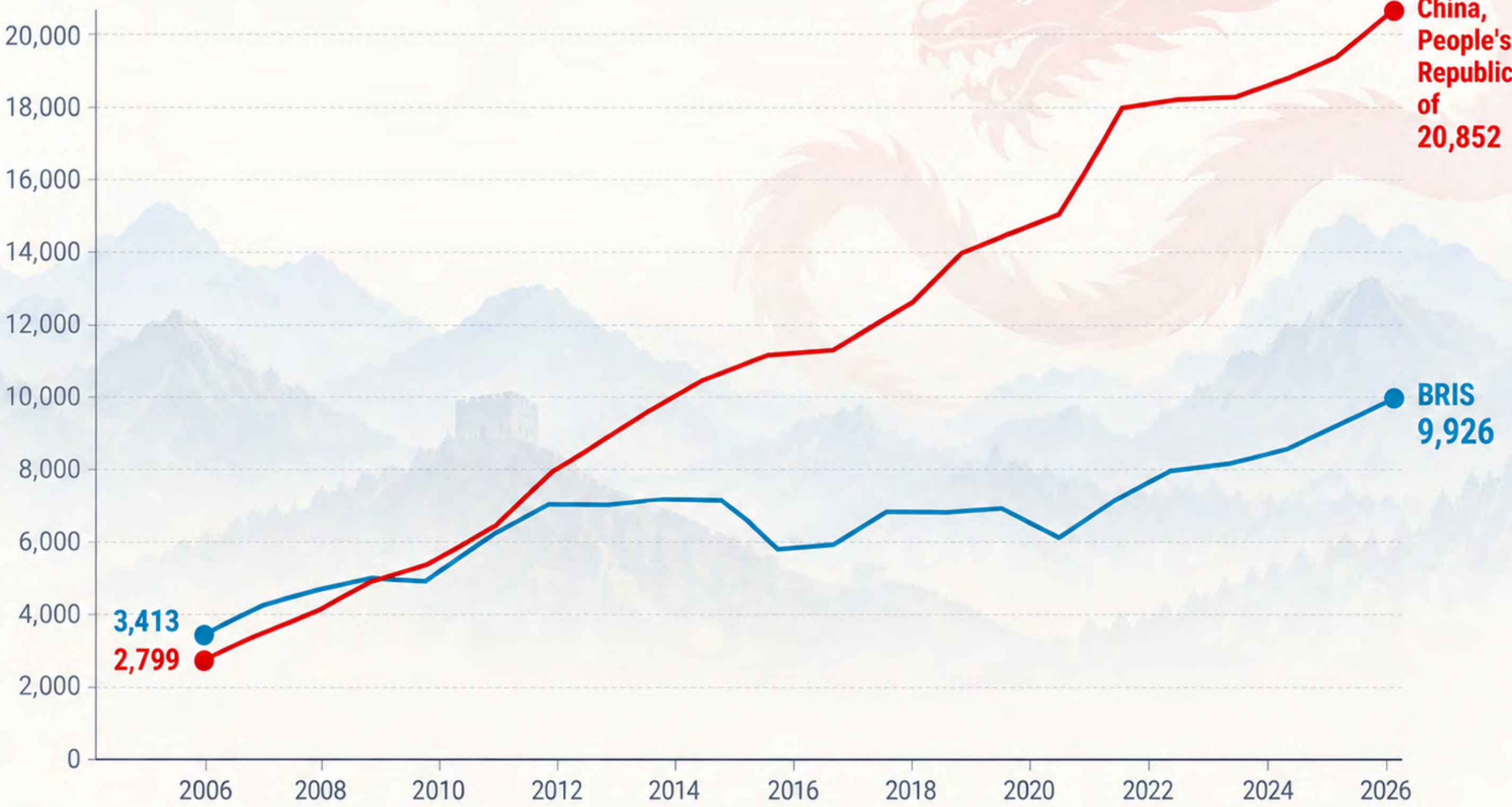


Overall size of the economy

Even in 2006, China was the largest economy among the five countries after which the grouping is named. Yet, as **CHART 1** shows, when taken together — and for the ease of analysis, data for South Africa is taken since 2006 — China’s overall GDP was less than the GDP of the other four members.

BRICS and the dragon in the room

GDP in billions of US dollars



BRIS is BRICS minus China

• Source: IMF

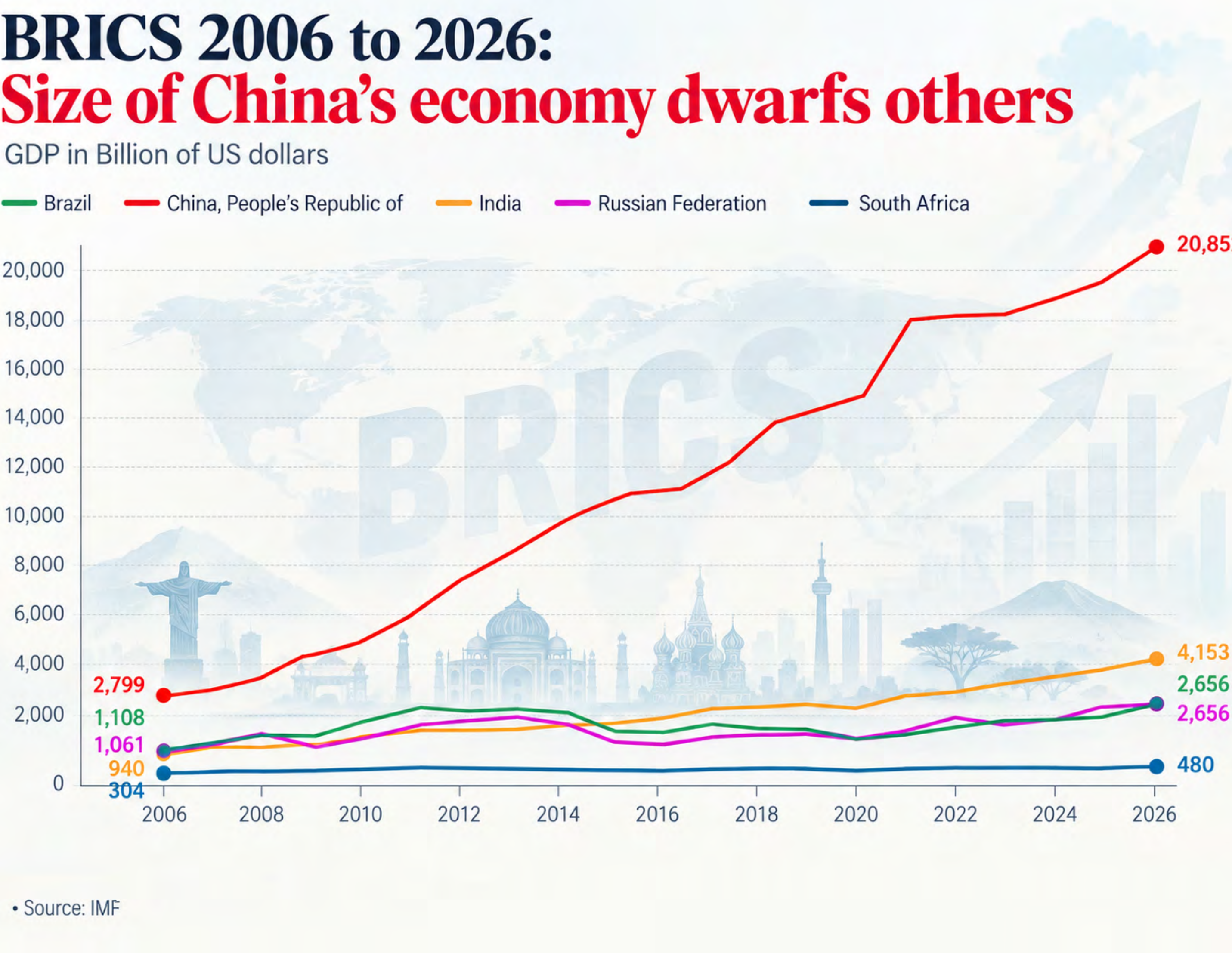
Chart 1

However, such was the pace of increase in China’s economic growth that by the time the inaugural summit meeting happened in 2009, China had overtaken



the combined economic size of BRIS (BRICS minus China). Since then, the gap has continued to increase each year. As of 2026, China’s GDP alone is more than double that of the other four combined.

CHART 2 shows the country-specific GDP trajectory. Between 2006 and 2015, India did better than the others and overtook them to become the second-biggest economy within BRICS. However, China’s rise dwarfs all the rest.



Indeed, as **CHART 3** shows, since 2009,



China has opened a similarly massive gap even against all the G7 countries (barring the US). While the Great Financial Crisis of 2008 dragged back most other developed countries, China grew fast to become the second-largest economy in the world.

IMF DataMapper

GDP, current prices (Billions of U.S. dollars)

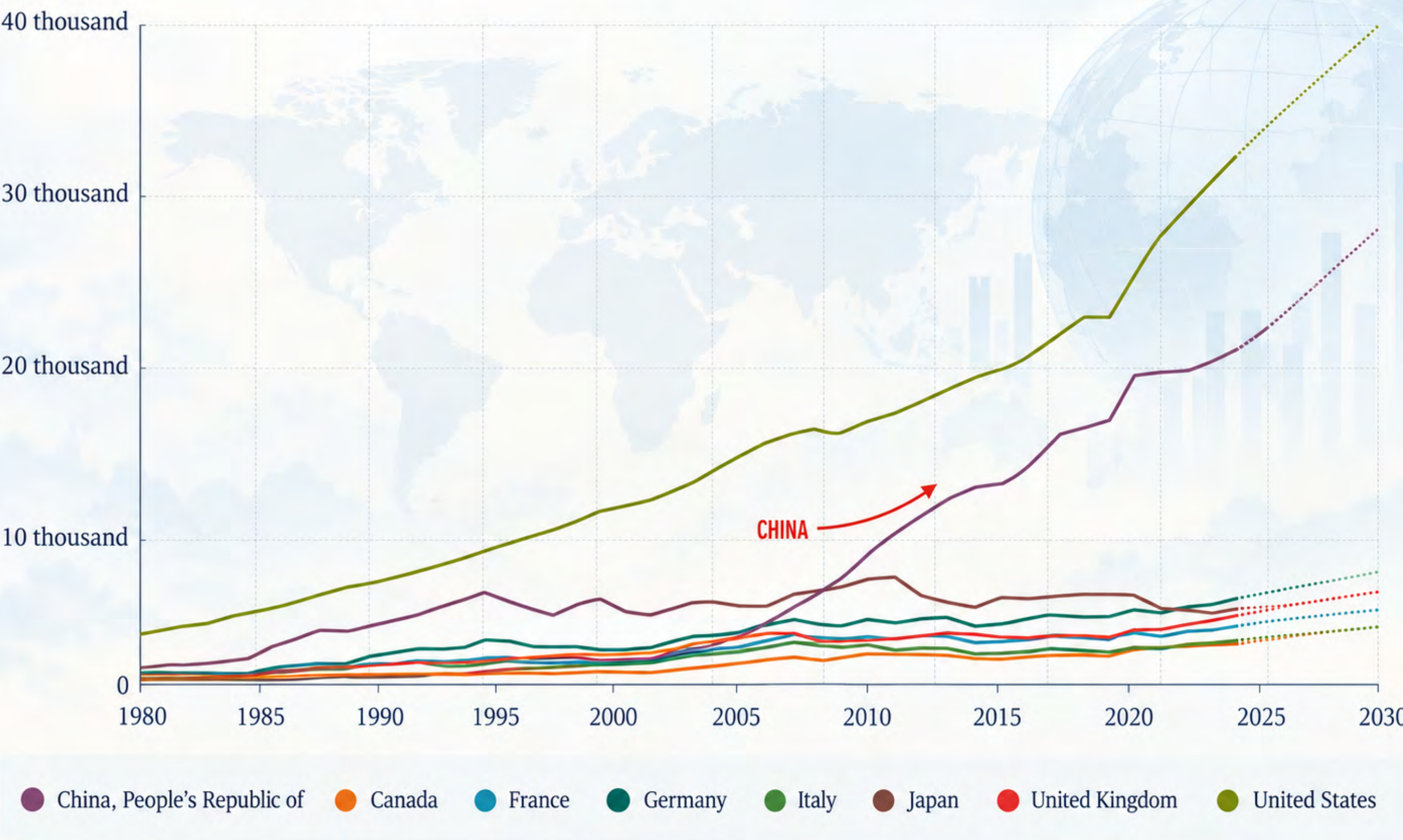


Chart 3

Prosperity of an average citizen

Even though China was the largest economy within the BRICS in 2006, it was nowhere near the most prosperous. In 2006, an average Russian, Brazilian or South African was anywhere between

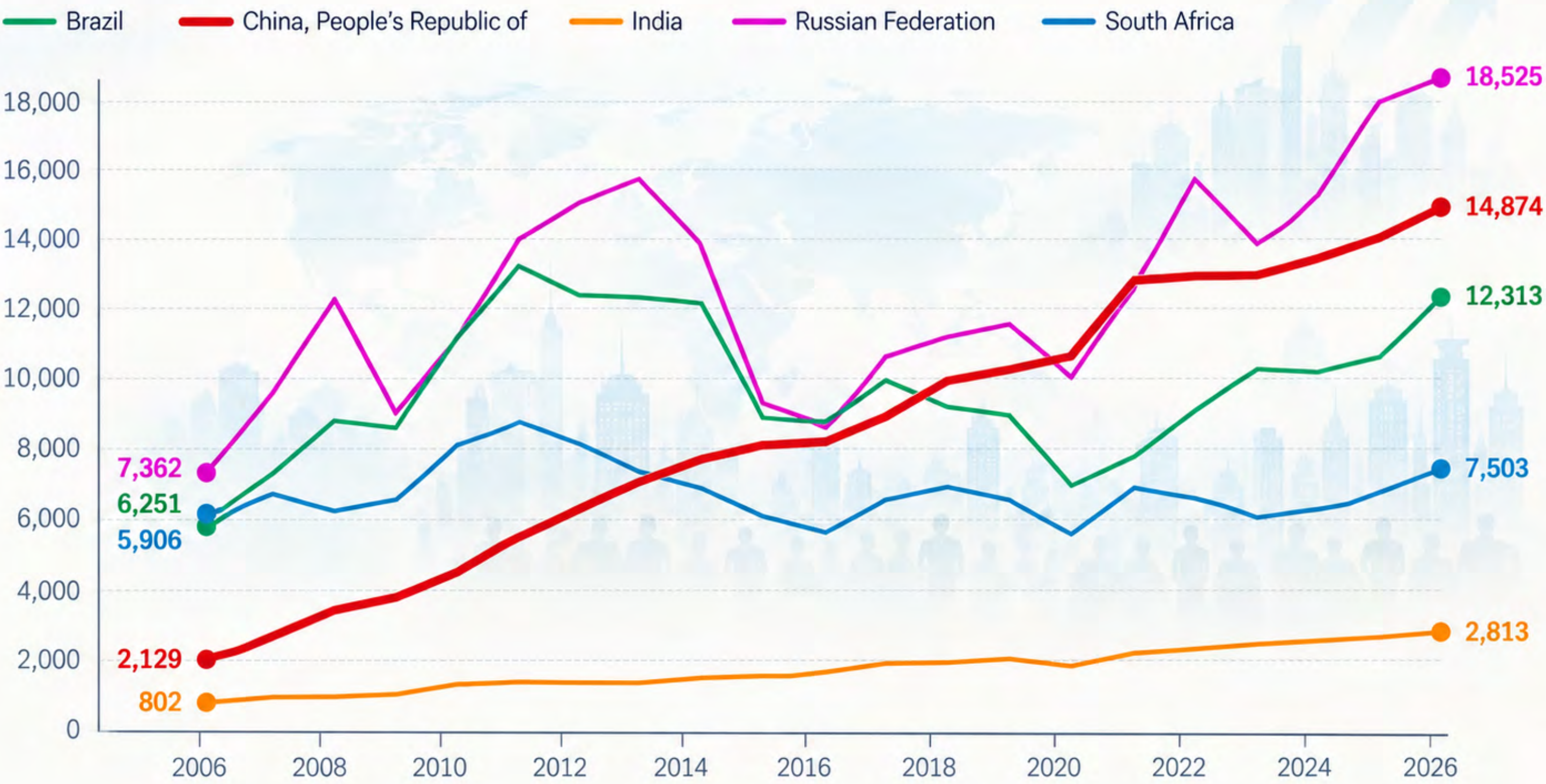


3 and 3.5 times richer than an average Chinese.

As **CHART 4** shows, two decades later, an average Chinese is richer than a Brazilian and twice as rich as a South African, and is closing the gap with an average Russian. As against an average Indian, an average Chinese was about three times richer in 2006 and is five times richer now.

China’s GDP per capita: From second last to second best

In US dollars



• Source: IMF

Chart 4

Upshot

The central idea behind BRICS in 2006



was to challenge the dominance of the big industrialised economies in how the world was run.

However, China has grown so fast that today it is “the” big industrialised superpower on the planet. In the process, it has dwarfed not just all its BRICS siblings but almost all the erstwhile big economies. Indeed, China has grown so fast that the rest of the world is now finding ways to counterbalance China.

The key question is: Will such an overwhelming economic might not have an imprint on what the grouping decides?



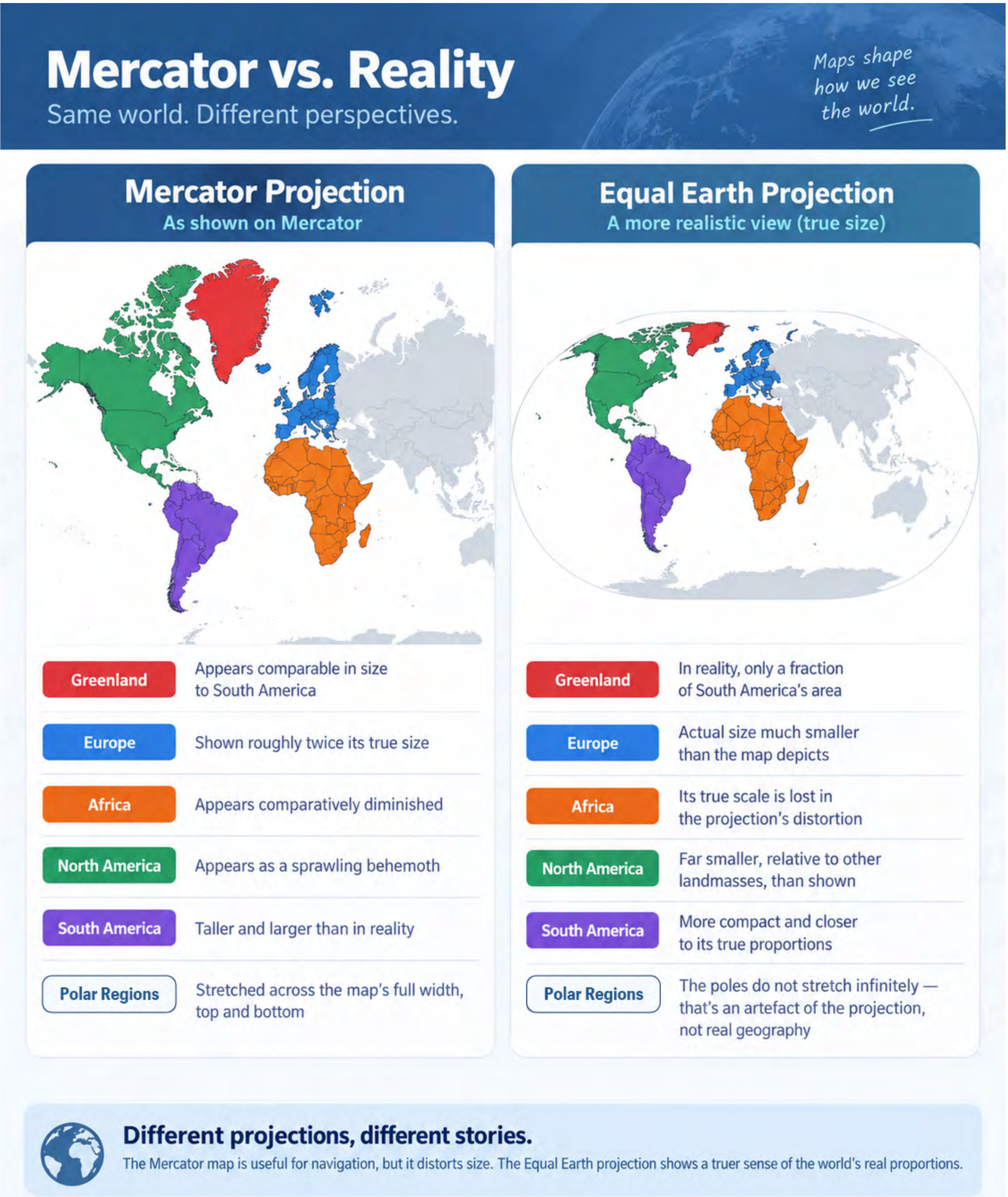
How a man who never travelled far **mapped the world**

by Nikita Mohta

Last week, the UN General Assembly voted to replace Mercator's world map with one that reflects Africa's size more accurately. Since 1569, the Mercator projection – a map design by Flemish geographer Gerardus Mercator – has been the subject of heated debate, particularly over the distortions it introduces in the size of countries and continents. In *On The Map: Why the World Looks the Way it Does* (2012), author Simon Garfield asks, “Well, what is the good of Mercator's famous world map of 1569? It's riddled with



distortions and full of countries many times larger than they really are.”



Note: The comparative descriptions (e.g. “roughly twice its true size”) come from source reporting; no precise multipliers were given there. The maps above use real country boundary data rendered in the Mercator and Equal Earth projections — the projection the UN’s September 2026 resolution encourages adopting — confirmed via independent reporting since the source article did not name it.

And yet, it remains the map we use today. “Countries have been added of course, and the shapes of coasts and borders have been corrected and

politically adjusted, but the map that shaped the end of the Renaissance, saw in the Enlightenment and adorned Victorian classrooms remains the display of choice, right through to the latest Google Maps,” Garfield adds.

From philosophy to maps

What Mercator created in 1569 was not simply a map, but a projection of the world and a template for future maps. There is, however, an irony to this. British historian Jerry Brotton writes in *A History of the World in 12 Maps* (2012), “Throughout his long life, his travels never took him further than a 200 kilometre radius away from his birthplace of Rupelmonde, a small town on the bank of the River Scheldt in the modern-day Belgian region of East Flanders, where he was born in 1512 and named Gerard Kremer [or Gerardus Mercator].” When he laid out his famous world projection in 1569, at the age of 57, he had produced fewer than ten maps.

Although Mercator regarded himself as a cosmographer, he was initially drawn

to philosophy. Realising that a career in philosophy offered limited prospects, he turned instead to astronomy and mathematics.



Rupelmonde, now in Belgium (Wikipedia)

By 1533, he was in Antwerp, studying both disciplines and beginning his association with a group of men who would help transform him from an aspiring philosopher into a geographer.

“These were the members of the first generation of Flemish geographers who, following (Portuguese explorer Ferdinand) Magellan’s voyage, were trying to project the terrestrial world onto globes as well as maps,” notes Brotton.



Mercator:

The Man and The Mechanism

*A map
that changed
how we see
the world.*

The Man



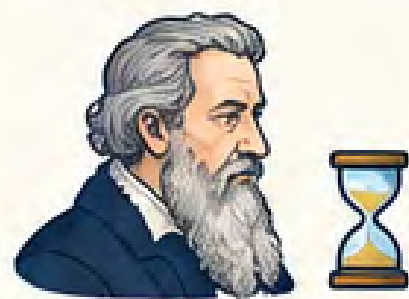
Born

Gerard Kremer
in Rupelmonde,
East Flanders
(modern-day Belgium)



200 km

Farthest he ever
travelled from
his birthplace,
his entire life



Age 57

When he produced
his famous 1569
world projection —
after fewer than
10 prior maps



1594

Died at 82;
his son Rumold
published his
completed Atlas
the following year

Gerardus
Mercator
(1512 – 1594)



The Mechanism

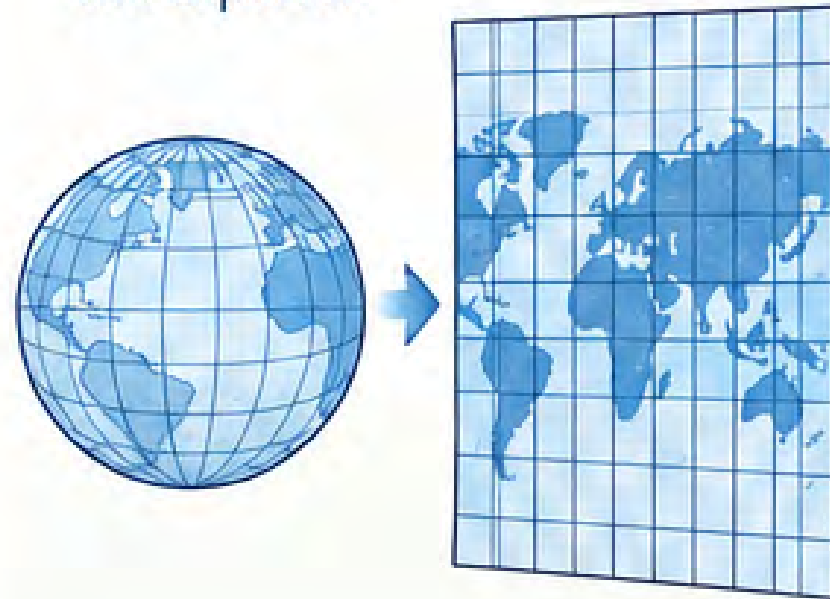
The Problem

How to represent a curved
globe's surface on a flat chart –
a navigator on a constant
course actually sails an
endless curve.



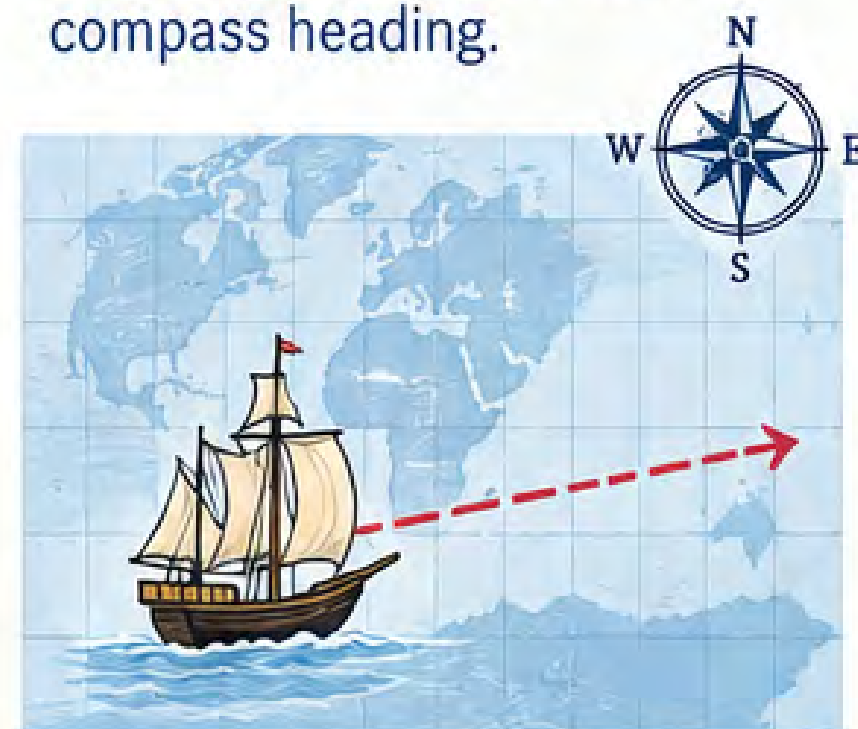
The Breakthrough

His Conformal projection
kept all angles straight by
spacing latitude lines further
apart moving away from
the Equator.



The Payoff

Rhumb lines could now be
drawn as straight lines,
matching a ship's constant
compass heading.

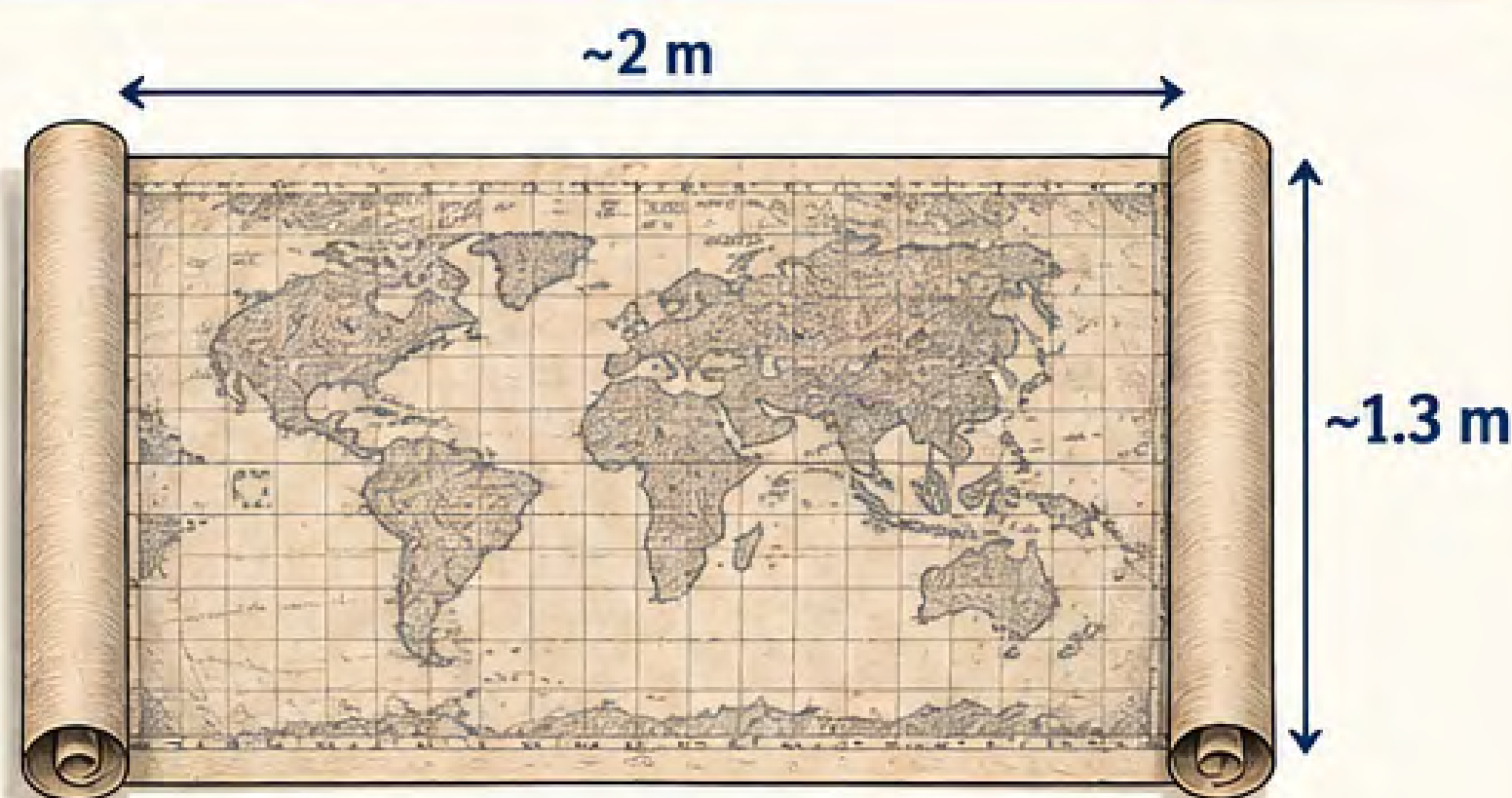


The Map Itself



18
sheets

Engraved panels making up
the full wall map



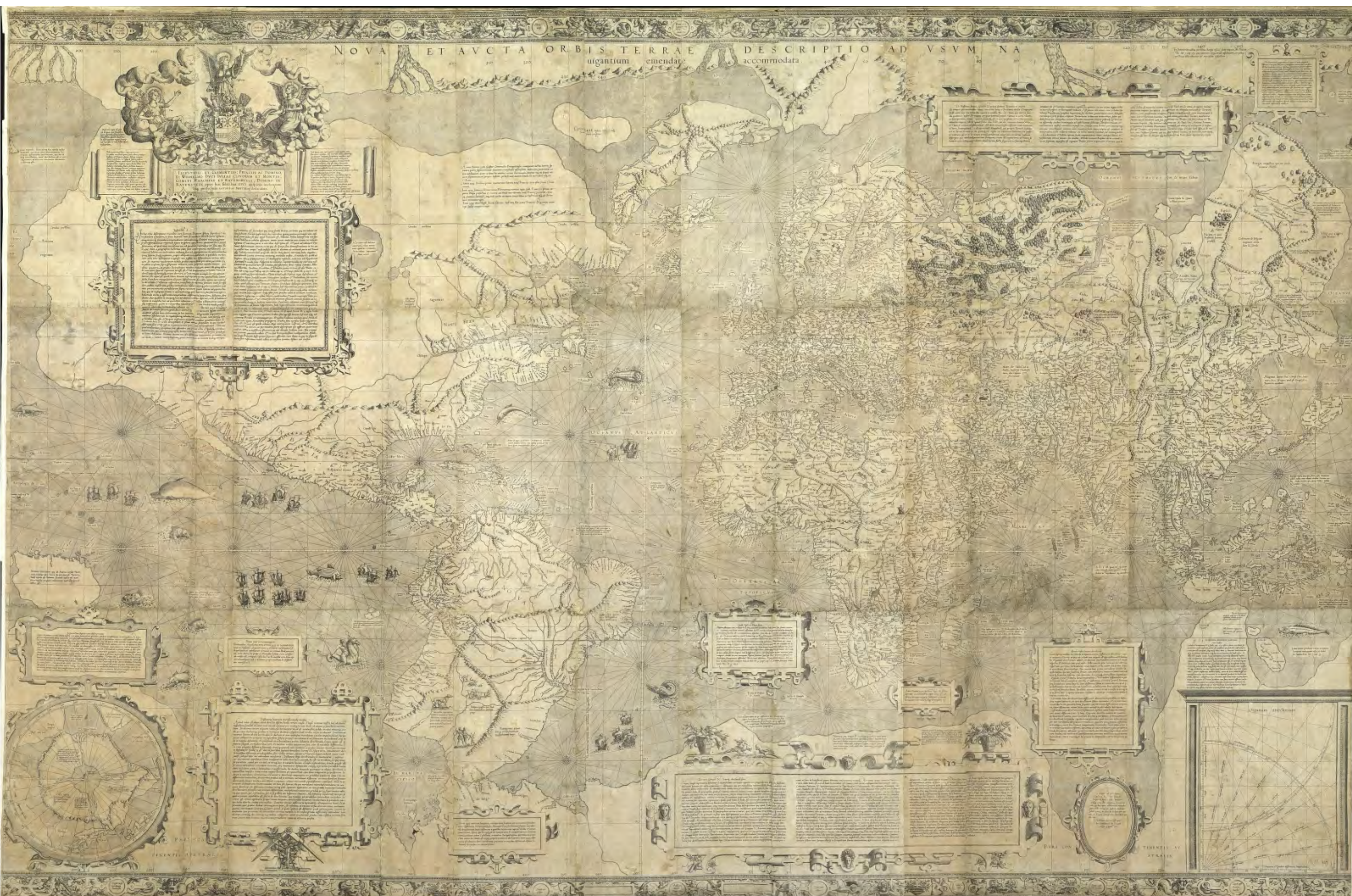
Approximate assembled size of the map

Note: Source does not specify an exact date for the UN General Assembly's vote to replace the Mercator projection, only "last week."

Mercator was also drawn to copperplate engraving, a technique that was transforming cartography. "The effect on mapmaking was immediate. Copperplate

engraving transformed the appearance of maps and globes,” notes Brotton.

His earliest maps were collaborative works. In his first independent map, Mercator turned from political geography to religion. In 1538, he published an engraved wall map of the Holy Land, designed, according to its title, ‘for the better understanding of the Bible’. It allowed Mercator to pursue his interest in theology while also being lucrative: no regional maps sold better than those of the Holy Land. In 1541, he devised a navigator’s globe on which rhumb lines spiralled outward from compass roses.



The 1569 Mercator map of the world (Wikipedia)

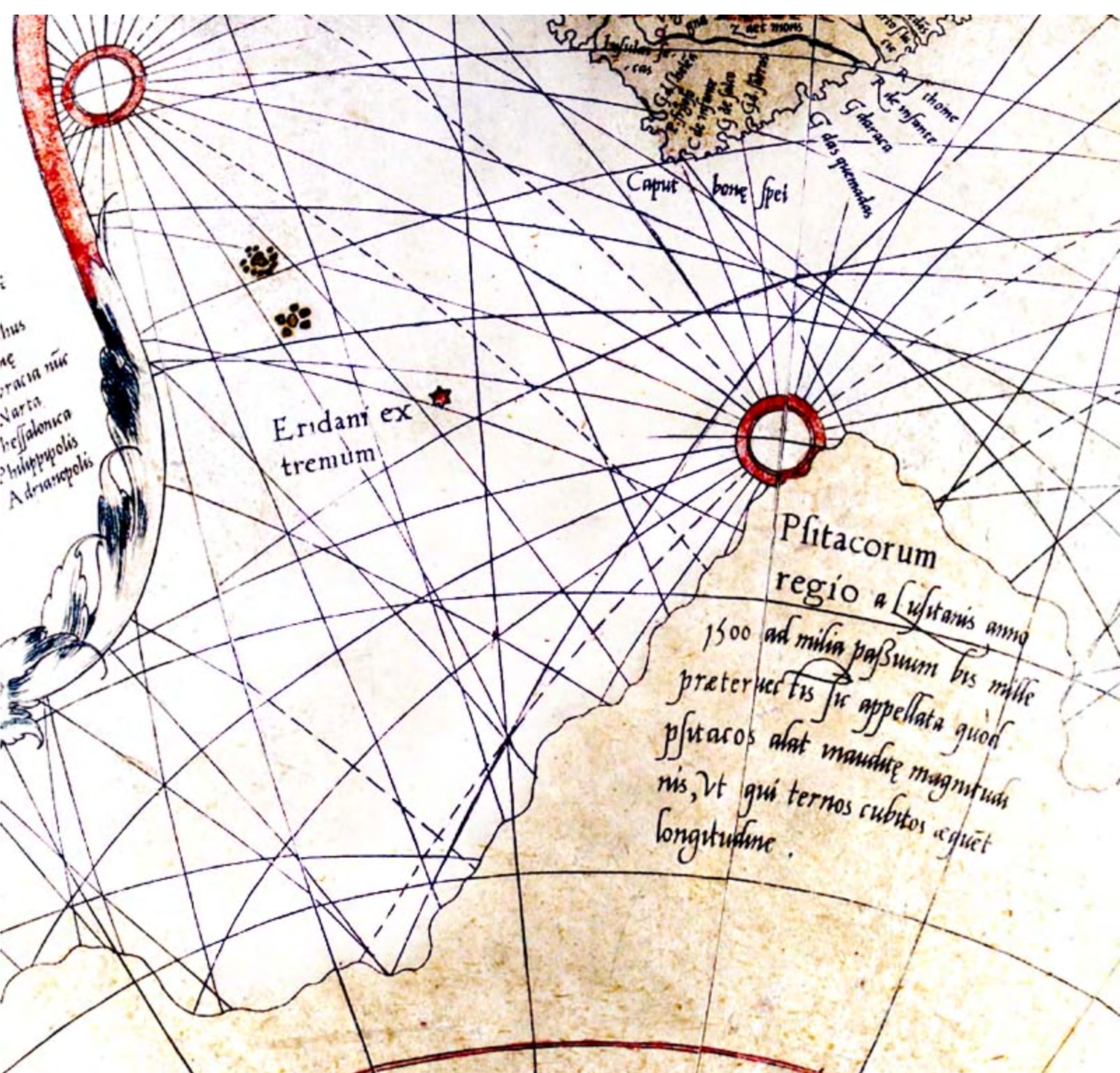
But it was his 1569 projection that truly set him apart. It revolutionised navigation by allowing rhumb lines — an arc crossing all meridians of longitude at the same angle — to be represented as straight lines on a flat map. Brotton writes, “Mercator’s 1569 projection may be the most influential map in the history of geography, but it was also one of the most peculiar. Nothing prepared Mercator’s contemporaries for such a strange object: not its scale, its appearance, or its claims ‘for use in navigation’.”

The world made flat

Engraved on 18 sheets and intended to hang on a wall, the map measured more than 2 metres in length and nearly 1.3 metres in height when assembled. But the map’s significance lay beyond its size.

Its main attribute was technical. It offered a solution to a problem that had troubled map-makers since the world was recognised as a sphere: how to represent the curved surface of the globe

on a flat chart. The established grid of latitude and longitude worked well for theoretical coordinates, but a navigator following a constant course sailed along an endless curve.



Globe with rhumb lines (Wikipedia)

Garfield writes, “Mercator had already displayed this curving course on his globes through his rings or ‘rhumb’ lines, and now he wanted to convert them to a map, and enable any navigator to swiftly locate his position and find his way to any destination”



Rhumb lines were not the only method of navigating across the earth's surface, but the existing methods became increasingly impractical beyond the Mediterranean, leaving sailors so far adrift that a better solution was needed.

Mercator's map drew heavily on Roman astronomer Ptolemy's gazetteer while incorporating recent discoveries, notably the outline of North America. But, "his enduring breakthrough," finds Garfield, "was his new Conformal projection, the method by which he manoeuvred his latitudinal rings to keep all the angles straight (the lines of latitude became further apart as they moved from the Equator). Mariners would thus be able to navigate across the map in straight lines, in keeping with the desired direction of their flickering compass."

Mercator was also working on an atlas. Five months after he died in 1594, at the age of 82, his son Rumold published the completed work in 1595. According to Brotton, "Mercator's Atlas still deserves its description as the first modern atlas"



The politics of a map

The projection was not flawless. Among its most obvious distortions was the exaggerated size of land masses at higher latitudes. North America appeared as a sprawling behemoth, while Europe was roughly twice its true size and Africa comparatively diminished. Greenland appeared comparable in size to South America, when in reality it is only a fraction of its area.



An updated version of the 1554 map of Europe as it appears in the 1595 atlas (Wikipedia)

“Even more peculiar is Mercator’s depiction of the polar regions, which were shown running the full width of the map’s top and bottom, making no apparent concession at all to the earth’s sphericity,” writes Brotton.

The projection came under renewed scrutiny in the 20th century. “A stronger impetus for the Mercator map’s decline was the war with Germany and Japan, which heightened public awareness of relative distance and cartographic perspective,” writes Mark Monmonier in *Rhumb Lines and Map Wars: A Social History of the Mercator Projection* (2004). Media critics subsequently attacked the projection for its scale distortions and its exaggerated separation of the United States from Europe and Asia.

But perhaps the most persistent criticism of the Mercator map has been its alleged Eurocentrism. Speaking with indianexpress.com, Monmonier says: “Horizontally, any projection centred on the Greenwich meridian is also centred on Africa. Vertically, any cylindrical projection on which the poles lie an

infinite distance from the equator can be configured with Europe at the centre. Insist on showing all of Greenland and not a hint of Antarctica, and a Mercator map becomes Eurocentric.”

The projection, however, also has its defenders. Garfield writes, “The things that look wrong to us now—Greenland the size of Australia rather than a third of it, an Antarctic continent that bumps raggedly and indefinitely along the base—were not the strangest things then, for exact proportionate sizes were not yet known and the polar regions were but dismal myth”.

The map that endures

The projection’s resilience is remarkable given the forces that have challenged it over the last 450 years. Even Google found Mercator’s neat and symmetrical rectangles perfectly suited to the pixelated tiles that make up a digital map.

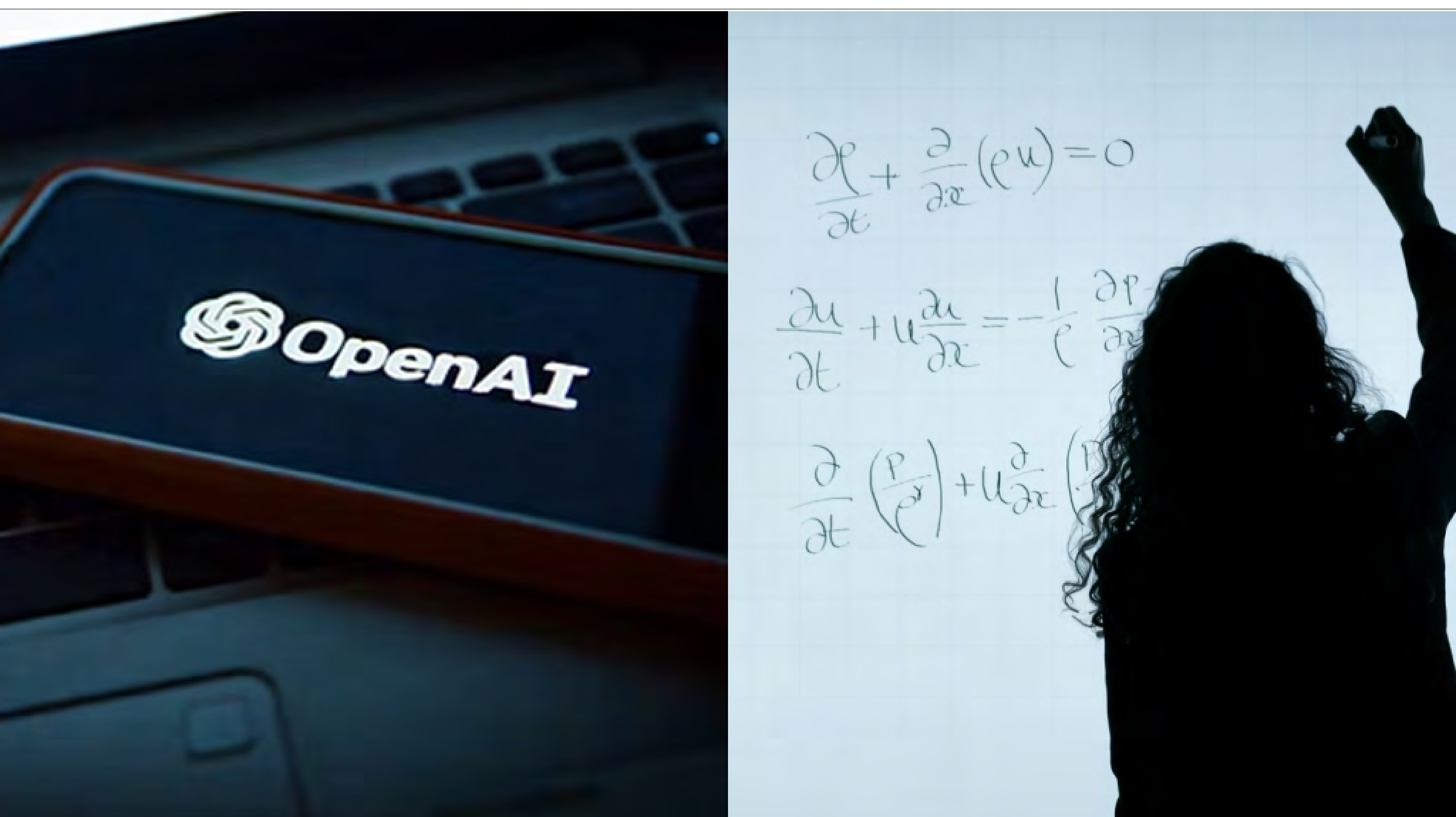
Garfield asks in his work, “Will one projection emerge victorious? It’s

already happened. Mercator’s map casts its shadow over the digital world just as it did in the world of those navigators opening up new trade routes half a millennium ago, and the possibilities for its future manipulation are therefore limitless. It is the projection used not only by Google Maps, but also (with a spherical interpretation) by its rivals, Microsoft’s Bing and OpenStreetMap.”

“Any alternative [map] would have to be imposed centrally by a court bigger than the United Nations, whose logo, incidentally, is a projection of a globe centred on the Arctic Circle and wreathed in olive branches that first appeared twelve years after Mercator’s,” writes Garfield.

Asked whether we are being too harsh on Mercator, Monmonier’s answer is simple: “In one word, I would say yes.”





The problem in **OpenAI's** Navier-Stokes 'solution'

by Nameera Anjum

OpenAI's claim that its artificial intelligence (AI) agents have generated a solution to the Navier-Stokes Millennium Prize Problem has posed a new question for mathematical research: What happens when researchers' work is fed into AI systems, and "de-identified" data from those interactions is later used to improve the models?

The ChatGPT maker said its researchers and AI agents did not access specific



user data to solve the problem. But in a blog post this week, the company also said it could not rule out the possibility that de-identified data from researchers' use of its products had helped improve its models. De-identified data refers to information from which personal identifiers have been removed.

The blog post has drawn scrutiny from mathematicians, particularly because New York University professor Tristan Buckmaster and Anthropic researcher Levent Alpöge had been working on related Navier-Stokes research using AI tools, including OpenAI's Codex.

Separately, mathematician Andreas Thom has raised a similar concern, questioning whether his private ChatGPT conversations on related research had informed an earlier OpenAI mathematical result.

An OpenAI researcher told him "that did not happen", but Thom said the response did not clarify whether his conversations had been used in training.



OpenAI has not publicly responded to his latest allegations.

“De-identified use of a researcher’s conversations blurs the line between assisting someone’s thinking and drawing on it without their knowledge,” Vijay Keswani, professor at the Indian Institute of Technology, Delhi told The Indian Express.

For Keswani, the issue goes beyond data privacy. It raises questions of “epistemic ownership” — whether AI companies can draw on ideas generated by researchers using their tools without clear acknowledgement or consent.

The controversy comes as AI systems are increasingly being used not just to assist mathematicians but to generate proofs and explore problems that have resisted human researchers for decades.

What does de-identification mean for researchers?

In general, de-identification involves

removing or changing information that can identify the person who generated the data. But that does not necessarily mean the underlying information, ideas or content have not been used by a model. The exact process OpenAI uses for de-identification in this context is not publicly clear.

That has become particularly sensitive in mathematics because researchers increasingly use AI systems to discuss unfinished ideas, test approaches and work through problems before publishing them.

OpenAI has said no specific user data was accessed to solve the Navier-Stokes problem. But that is a narrower claim than ruling out the possibility that de-identified data from users' interactions may have contributed to training or improving its models.

Keswani said the concern is amplified by the imbalance between individual researchers and AI companies, which have access to both researchers'



interactions with their systems and computing resources far beyond what individual mathematicians can access.

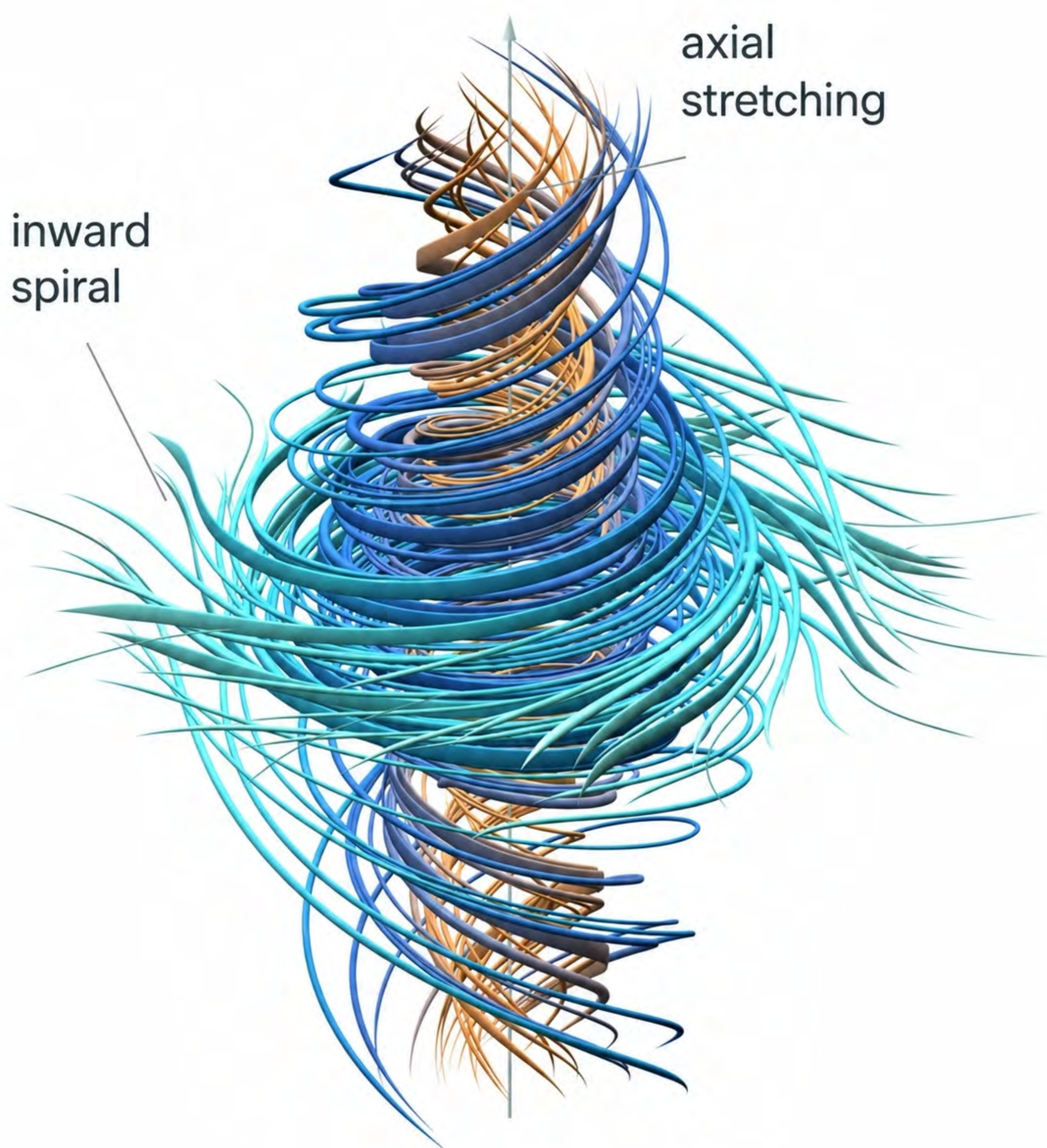
“Is it fair for a company to have visibility into researchers’ ideas and be able to leverage that visibility, combined with vast computing resources available only to them, to scoop the researchers whose thinking informed the result?” he said.

He also pointed to a distinction between what may be permitted under a service’s terms and what researchers may reasonably understand as informed consent: “De-identified” use of a researcher’s conversations may be permitted under terms of service, but that is different from the researcher knowingly consenting to their ideas being used in a competing research effort.

The \$1 million math problem

The Navier-Stokes Millennium Prize Problem is one of the seven mathematical problems identified by

the Clay Mathematics Institute (CMI) as among the most important unsolved questions in mathematics, carrying a million-dollar bounty for whoever cracks it.



A vortex that spirals inward and gets increasingly elongated shows that the Navier-Stokes equations governing the motion of fluids can break down. (OpenAI)

The Navier-Stokes equations describe how fluids move. They are used to model everything from water flowing around a boat and air moving around an aircraft to blood moving through the human



body. The equations build on 19th-century work by Claude-Louis Navier and George Gabriel Stokes to describe how fluids move, taking into account factors such as pressure, velocity and viscosity.

The problem is whether, in three dimensions, a fluid that starts out behaving smoothly can always continue to do so — or whether its behaviour can become infinitely intense in a finite amount of time.

In simple terms, the question is: if you start with a fluid whose motion is well behaved, can the equations ever produce a point where the fluid’s velocity becomes infinitely large?

This possibility is called a singularity or “blow-up”. Viscosity tends to smooth out fluid motion, but the equations also allow different scales and forces within a fluid to interact in complicated ways. Understanding whether those effects can lead to a blow-up is at the heart of the problem.



This is largely theoretical. A solution would not suddenly make it possible to predict weather, design aircraft or model blood flow — those applications already use the Navier-Stokes equations — but it would establish whether the equations can always produce mathematically well-behaved solutions under the conditions in question.

How did OpenAI approach the problem?

In a blog post on September 8, OpenAI said 10,000 concurrently running AI agents — systems that carry out tasks autonomously — cracked the problem in about 88 hours.

The result was then formalised in Lean, a proof assistant used for checking mathematical arguments.

OpenAI said its paper constructs a mathematical fluid that starts from rest and, under a specially constructed smooth external force, develops a point at which the velocity grows without



bound in finite time, while its overall energy remains bounded.

The result has not yet been independently verified or accepted by the mathematics community. CMI continues to list Navier-Stokes among the unsolved Millennium Prize Problems, while the Poincaré Conjecture remains the only one of the seven to have been resolved

Siddhartha Gadgil, a professor of Mathematics at the Indian Institute of Science, Bangalore, told The Indian Express that the use of formal verification could be significant as AI-generated mathematics becomes more common. “Lean provided hope for a superhuman level of correctness,” he said. “This can be much better than human evaluation for checking correctness,” although he cautioned that it is not foolproof.

A formally verified proof could also offer something beyond checking whether an argument follows logically from its

formal assumptions. “Once we have a proof object in Lean — we can simplify it, view it in many ways, and try to extract insights,” he said.

But formal verification does not answer the question of how an AI model arrived at the result in the first place.

Can an AI system make a mathematical discovery?

The question is not entirely new. In May, one of OpenAI’s internal models successfully tackled the famous planar unit distance problem.

Thomas Bloom, a researcher at the University of Manchester who maintains the website erdosproblems.com, had told The Indian Express that he ranked the “unit distance problem” among his top 10 Erdős problems.

Notably, the previous breakthrough reflected AI’s reasoning and creation capabilities, as the “problem had no answer to retrieve. The model produced



a new construction that humans had not found in eighty years of trying,” said Sayan Ranu, professor at the Indian Institute of Technology, Delhi.

If an AI system produces a proof that humans had not previously found, mathematicians may have to grapple with a question that traditional math research has largely avoided: is producing a correct proof enough to count as mathematical discovery if the machine’s route to that result is difficult for humans to understand?

“We lack reliable tools to trace how a model arrived at a given output,” Keswani said. That makes it difficult to determine whether a result is a near-retrieval of something already present in a model’s training data, a recombination of existing ideas, or genuinely new reasoning.

According to Keswani, current AI systems have not demonstrated complete autonomy in scientific research, because humans continue to



frame the problem, define the objective and determine what constitutes a successful result. “Current systems haven’t demonstrated real autonomy, and more compute doesn’t change that,” he said.

For Gadgil, the question also extends to how mathematics recognises and rewards discoveries. “The traditional systems of credit and evaluation, including the Millennium Prize Problems, will face many problems in the age of AI,” he said.

Russian mathematician Grigori Perelman resolved the Poincaré Conjecture, the only Millennium Prize Problem to have been resolved so far, and later declined the \$1-million prize. “Perelman posted a couple of preprints, but it was years before other mathematicians worked out the details and accepted this as correct. This has happened with many other major advances in mathematics,” Gadgil said.

On September 11, Fields Medal



winners issued an open declaration titled “A Severe Misalignment of AI in Mathematics”, warning that the AI industry’s push to use mathematical problem-solving as a benchmark risks undermining the discipline’s focus on conceptual understanding and insight.

“These issues must be addressed urgently, in the mathematical community, by the companies developing these technologies and, more broadly, by a society that will confront similar problems in many other forms of intellectual work,” it said.

Meanwhile, OpenAI has declined to claim the Millennium Prize for its result, saying that the aim behind releasing it was to report on the progress of its AI models.





Behind the **iPhone Duo's timing** is pure economics

by Nandagopal Rajan

Holding the new iPhone Duo, Apple's first foldable device unveiled this week, it's clear the company spent years watching Samsung's Galaxy Fold line and other foldables evolve before making its move. Nothing about the Duo feels like a first attempt.

Seven years on, the biggest talking point with any foldable is still the crease. Apple has played it smart, disguising the crease rather than eliminating it, using a nano-texture display finish that reduces



glare and visibility at the fold line. It's as if Apple is telling the competition it was all optics from the start. The effect is a screen that opens into something closer to a seamless, iPad-like display than two phones stuck together.

To its credit, the Duo doesn't lean too heavily on Samsung's design language. It instead feels like a device the industry had largely forgotten: the Microsoft Surface Duo. Apple appears to have begun work on this form factor around the time Microsoft announced its own foldable six years ago — the name itself reads like an ode to that original attempt.

But hardware aside, what's really



Apple has used a nano-texture display finish on the iPhone Duo to make the foldable's crease less visible. (Image: Nandagopal Rajan/The Indian Express)



driving Apple into this category now is economics.

Why now

Android manufacturers spent nearly a decade priming premium buyers for foldables: absorbing the early pain of sharp edges, stiff hinges, and a sceptical market in the process. Apple has let that groundwork happen without it, and is now positioned to capture pent-up demand from iOS users who have watched the category from the sidelines for years. It's a familiar Apple pattern: let competitors take the early risk of establishing a category, then enter once the market is ready. However, this is a notable contrast to the Steve Jobs-era instinct to define categories outright rather than wait for them to mature.

The Duo is priced at \$1,999 in the US, roughly \$500 below what analysts expected. Even so, that's 1.6 times the \$1,209 average selling price of a standard iPhone. IDC expects Apple to sell more than 10 million Duo units in



its first 12 months, generating roughly \$27 billion in revenue; enough, IDC projects, to make Apple the largest foldable vendor globally by 2027, overtaking Huawei. That shift comes as Android foldable unit sales are forecast to decline by double digits in 2026.

In India, the Duo will retail at Rs 2,99,900, a significant markup on the US price. Neil Shah, Vice President of Research at Counterpoint Research, expects the device to expand India's foldable segment "in terms of value but not volume", at least for now.

The real story is revenue, not units

Foldables remain a small slice of the smartphone market and will stay that way: IDC forecasts the category growing from 2.2% of global smartphone units in 2026 to just 3.1% by 2030. But its share of industry revenue is projected to climb as high as 10% in the same period.

“The value growth rate materially



exceeds unit growth, confirming that foldables remain a premium-value opportunity rather than a volume-led smartphone category,” said Francisco Jeronimo, Vice-President, Devices at IDC, describing the gap between unit and value growth as the category’s “core strategic point.”

Shah sees a similar dynamic in the device’s engineering. Despite being a first-generation product, he said the Duo “has hit all the right notes with respect to differentiation on both hardware and software engineering.” He also pointed to Apple’s developer ecosystem, which he said was fully aligned on delivering distinct foldable experiences as a lasting advantage over Android rivals.

Jeronimo argued that what matters isn’t whether the Duo becomes an aspirational Day 1 purchase for most buyers, but whether it can “capture a disproportionate share of category revenue by setting the premium reference point.” With overall smartphone sales slowing and upgrade

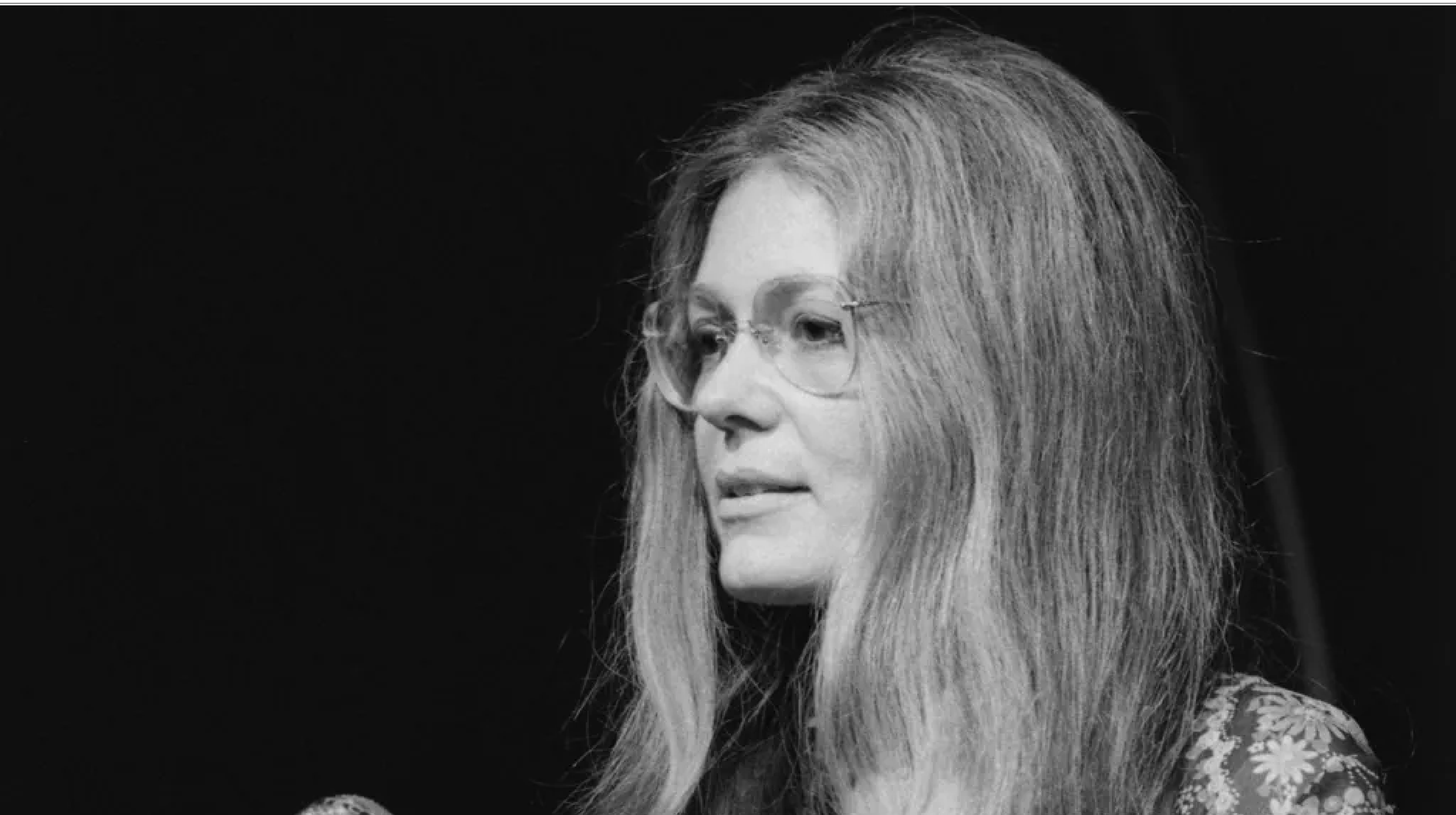


cycles lengthening, Apple appears to be betting the Duo can move both its revenue and profit lines even without moving significant volume.

As Jeronimo put it: “Apple is on course to capture most of the foldable revenues. It has found the rare product where scarcity and profit rise together.”

The author was in California at the invitation of Apple.





The feminist lessons **Gloria Steinem** carried from India to America

by Aishwarya Khosla

In the late 1970s, when second-wave feminism — which sought social, legal, and economic equality after securing suffrage during the first wave — was gaining momentum, American feminist activist Gloria Steinem came to India hoping to create a blueprint for women's movements worldwide using Gandhian tactics of non-violent resistance.

Steinem, along with her co-author, Gandhian economist Devaki Jain, interviewed Kamaladevi Chattopadhyay, an associate of Mahatma Gandhi and



co-founder and first secretary of the All India Women's Conference, at her home in New Delhi in 1976.

In her 2015 memoir, *My Life on the Road* (Random House), Steinem recalls explaining their project to Chattopadhyay as she sat rocking on her verandah, sipping tea. Once they were done, pat came the response: “Well, of course, my dears,” she said. “We taught him everything he knew.”

Chattopadhyay, the first woman to be arrested by the British government during the 1930 Satyagraha movement, explained that Gandhi himself had been inspired by a massive women's movement in India against the practice of sati.

Gandhi had also studied the suffrage movement in England (1866 to equal voting rights in 1928), Chattopadhyay told Steinem and Jain, and had urged activists to emulate the Pankhursts (followers of Emmeline Pankhurst and her daughters, Christabel and Sylvia) who embraced arrest as a core political strategy once they realised peaceful

lobbying was failing.

Unlearning the ‘Great Man’ theory

In looking for Gandhian tactics to use for women’s resistance, Chattopadhyay pointed out to Steinem and Jain that they had essentially fallen for the Great Man Theory — a 19th-century concept holding that history and major world events are shaped and driven by exceptional individuals — forgetting that the tactics they were drawn to were those of ordinary people.

Steinem writes she was reminded of the words of British novelist Vita Sackville-West: “I worshipped dead men for their strength, forgetting I was strong.”

Giving up ‘memsahib travel’

Incidentally, Steinem learnt how to organise grassroots movements during her association with Gandhian groups during her two-year stay in India, 20 years ago.

The famous journalist, known for her

exposé of the Playboy magazine, came to India in 1956 after securing the Chester Bowles Asian Fellowship upon graduating from Smith College, and stayed in the country for two years.



Gloria Steinem photographed in India in the 1950s. (Instagram/ gloriasteinem)

Initially she was wary of travelling with the people, but after her friends encouraged her to give up “memsahib travel” (using a car and driver) and take a women-only railway car, a legacy of the British Raj, she decided to travel from Calcutta to Kerala on her own,



“stopping at villages and temples on her way to the oldest part of India at its southern tip.”

In her book, she describes the third-class car as “a dormitory on wheels,” where women of different ages and sizes sat in groups, talking, nursing babies, sharing meals from tiered brass tiffins. As a foreigner in a sari, Steinem inspired curiosity, and she was exposed to the very Indian habit of asking personal questions.

“Why hasn’t your family found you a husband?” “All Americans are rich, so why are you with us in third class?” “How do American women keep from having too many babies?” were some of the questions put to her, she recalls. But it also taught her that women were likely to share their issues freely in safe spaces where their concerns could not be downplayed by men.

From Indian villages to American talking circles

It was in Ramnad, now known as Ramanathapuram, in Tamil Nadu, which

had just witnessed riots over caste, that Steinem learnt her most enduring lesson about outreach and organisation for a mass movement in 1957.

As the area was cordoned off, with even journalists denied access, Steinem joined a group of Gandhian activists walking from village to village, carrying only a cup and a comb.

“Without possessions,” she wrote, “I felt oddly free.”

In the evenings, villagers emerged from mud huts to sit in circles, lit by kerosene lamps. “It was the first time I witnessed the ancient and modern magic of groups in which anyone may speak in turn, everyone must listen, and consensus is more important than time,” she wrote.

The Gandhians taught her, she wrote, “if you want people to listen to you, you have to listen to them.”

Little did she know that, a decade after leaving India, similar “on-the-road organizing” would take up most of her life.



“I had walked in Indian villages in the 1950s,” she wrote, “sure that they had no relevance to my own life. But now a women’s revolution was springing from talking circles of our own.”

On her return to America, she went on to visit battered women’s shelters, freestanding women’s clinics, women’s centers on campuses, and protests by single mothers trying to survive on welfare. Her becoming an itinerant feminist organiser, she realised, was just a Western version of walking in villages.

“That’s why, if I had to name the most important discovery of my life, it would be the portable community of talking circles; groups that gather with all five senses, and allow consciousness to change,” she wrote.





Why leave India when you have **‘India Premium’?**

by Vaishnawi Sinha

There is a particular humiliation that comes from watching luxury real estate reels from inside an aging apartment complex with peeling paint, questionable plumbing and surroundings that seem like the result of a particularly optimistic municipal meeting.

But I scroll anyway, and the questions come apace – ‘What’s your rent?’ ‘Can I come into your apartment?’ ‘Come with me for a tour of this Rs 100-crore home

in Gurgaon‘

And, just as suddenly, I am shown a residential complex with four restaurants, manicured lawns, professional running tracks, Pilates studios, swimming pools, and drainage systems that have never heard the phrase ‘Delhi NCR waterlogging’.

I watch these reels from my perfectly ordinary society – where our version of luxury infrastructure is when the lift works on the first try. We lower our AQI the old-fashioned way – by planting trees and hoping they survive the summer.

There are no water cannons aimed at buildings, no private wellness centres, and certainly no Michelin-adjacent restaurant downstairs. If you want dinner, you leave the gate, encounter traffic, negotiate parking, and return having aged approximately four years. But perhaps this is what makes these reels so fascinating.



They are not really ‘apartment tours’ anymore. They are tours of an alternate urban reality – a version of Gurgaon where the roads work, the air is manageable, the lawns are enormous and everything you could possibly need exists within the perimeter of your housing society. At some point, luxury real estate stopped selling square footage and started selling escape velocity. You don’t have to leave India; you just have to earn enough to live somewhere that doesn’t feel like the India outside its gates.

Welcome to India Premium, where the maintenance charge is eye-watering, the amenities are borderline absurd and the city – mercifully – is someone else’s problem.

Welcome to the city inside the city

I should probably clarify I am not watching these real estate reels from some crumbling tenement where the ceiling fan doubles up as the only



ventilation system.

I live in a fairly decent residential society in Delhi. By the city's standards, it is quite respectable. My parents bought our flat when it was for roughly Rs 20 lakh – a number that now sounds like an error in a WhatsApp forward.

But if you wanted to buy a flat here today, you need to be an actual crorepati... which is a mildly offensive thought considering what you would be getting for the money.

Because the amenities in my society are, at best, functional.

The water that comes out of the bathroom tap has occasionally been a shade of brown that makes you question whether you are brushing your teeth or marinating them. Our ACs go haywire approximately three times a season because apparently living near the Yamuna comes with its own climate package. We have a park, some parking and enough security to make you feel

moderately confident about leaving your house.

Two Cities. Two Realities.

The luxury bubble vs the city outside its gates.

INSIDE THE GATES

- RESTAURANTS**
Gourmet food, steps from home.
- WORLD-CLASS AMENITIES**
Gyms, Pilates studios, pools, spa, sports facilities.
- LANDSCAPED GREEN SPACES**
Acres of manicured lawns, walking & cycling tracks.
- PRIVACY & SECURITY**
Controlled entry, CCTV, private security 24/7.
- RELIABLE INFRASTRUCTURE**
24x7 water, power backup, waste management, no waterlogging.
- BASEMENT TO BASEMENT**
Your car never sees the chaos outside.

Price tag?
₹50 Cr – ₹100 Cr+
for a home that is more than just a home.

VS

OUTSIDE THE GATES

- GRIDLOCKED ROADS**
Hours lost in traffic, every single day.
- DRAINAGE FAILURES**
Waterlogging in every rain, everywhere.
- UNRELIABLE WATER**
Brown tap water, irregular supply.
- POLLUTION & NOISE**
Dirty air, constant honking, no peace, no quiet.
- LACK OF PUBLIC SPACES**
Parks are few, crowded or poorly maintained.
- EVERYDAY STRUGGLES**
Long commutes, high costs, low quality of life.

Price tag?
Paid by everyone.
Every single day.

It's not just about luxury.
It's about escaping the city's failures.

BASIC NEEDS. NOT PREMIUM FEATURES.

CLEAN WATER
Not a luxury.
A right.

CLEAN AIR
Not an amenity.
A necessity.

FUNCTIONING INFRASTRUCTURE
Not a selling point.
The bare minimum.

PUBLIC SPACES
Not a privilege.
A right to the city.

A CITY FOR ALL
Not just for those who can afford to opt out.

A city works when it works for everyone.
That's not India Premium.

THAT SHOULD JUST BE INDIA.

[← INDEX](#)



And the neighbourhood is, well, NCR. You learn to distinguish between the sound of a garbage truck, a generator and something exploding in the distance.

And then I watch a Rs 100-crore apartment tour in Gurgaon and realise: girl, what the hell are these people buying?

Because these are not homes in the traditional sense. They are ecosystems.

But by this point I am not even jealous. I am anthropologically fascinated.

I had always assumed a ‘luxury’ apartment is basically my apartment... but with nicer marble, a bigger balcony, and a kitchen where nobody has ever stored a pressure cooker directly above the gas cylinder.

I was wrong.



Capitalism's ultimate cheat code

There is something deeply capitalist about the idea that the solution to a dysfunctional city is not to fix the city, but to build a better one inside it. It is the ultimate cheat code.

Gurgaon – infamous for gridlocked roads, waterlogging, and infrastructure that routinely struggles to keep pace with its population – is perhaps the most obvious example.

The same logic exists in Mumbai, only vertically.

In Bandra and South Mumbai, the Rs 1.5 lakh or Rs 1.8 lakh you pay as rent for a one-bedroom has little to do with the number of bedrooms. You are paying for altitude.

You are paying to rise above the traffic, the horns, the smells of the street, the crowds, the monsoon puddles, and the general sensory assault of living in one



of the world's densest cities. The higher the floor, the further you are, quite literally, from the city.

Perhaps that is also what luxury real estate is now selling: distance.

Distance from the broken road. Distance from the overflowing drain. Distance from the noise. Distance from the smell. Distance from the people who make a city feel like a city.

There is an odd irony here.

Cities are supposed to be the great democratisers of urban life. You live alongside strangers, share roads, parks, public transport, water systems, and the occasional pothole. But the more money you have, the less of that you need to participate in.

You can move into a private enclave, avail private parking, exercise on a private running track, eat at a private restaurant, and swim in a private pool. You can spend the day surrounded by



people and still experience remarkably little of the city you ‘live’ in.

Who can enter the ‘paradise’?

Being rich is not a sin. If you have Rs 100 crore for a flat in Gurgaon – and honestly, I can only assume you are a drug lord or have discovered a particularly lucrative branch of capitalism – please, go right ahead.

The problem isn’t that some people can afford extraordinary luxury.

It’s that we have made ordinary things extraordinary luxuries.

Clean air shouldn’t be a premium amenity. Clean water shouldn’t be a feature in a brochure. A functioning drainage system shouldn’t be a selling point. A decent park where you can walk without dodging cars, garbage or open drains shouldn’t cost a maintenance bill higher than someone’s monthly salary.

And there is something more insidious



about living inside these little sci-fi cubes. When your entire existence can be contained within a gated society you can become remarkably disconnected from the city outside. Eventually, the things that feel like daily survival to everyone else can begin to look like mere inconvenience.

That is where ‘work harder, earn better’ enters the conversation.

The pothole becomes someone else’s problem. The filthy water becomes someone else’s problem. The unbearable commute becomes someone else’s problem.

Middle-class struggle becomes middle-class cribbing.

The Rs 100 crore flat, then, isn’t troubling because someone can afford it.

It is troubling because it represents a city where basic dignity becomes a purchase instead of the government’s guarantee.



So perhaps the question isn't how much does your flat cost? Perhaps the question should be how much should a city charge you to experience a decent life in it?

Because clean air, clean water, functioning infrastructure, and a patch of green should not be 'India Premium'. They should just be India.
