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Daily News Feed

D.N.F

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Sabaijor Complex, Near Jamunajor Pul, Castair Town
Deoghar, Mob:-9162500508

Women look at destroyed houses in the aftermath of Cyclone Chido in Mayotte on Wednesday. REUTERS

Devastated Mayotte battles to recover from Cyclone Chido

Agence France-Presse
PAMANDZI

The district of La Vigie in the French overseas territory of Mayotte was until last week a bustling hub of life. Now it no longer exists.

All that remains after Cyclone Chido rammed into Mayotte at the weekend, leaving devastation unprecedented in the last century in its wake, are ravaged hills, piles of tangled sheet metal and wood, and a few bare tree trunks.

"It was like a steamroller that crushed everything," said Nasrine, a teacher who did not give her last name, as she showed people around her now transformed neighbourhood.

Climbing up the hill clutching an umbrella to protect her from the sun, the young woman stopped in horror.

"We are not supposed to see the sea from here – before, the vegetation covered the whole view," she said.

Everyone, from local people of Mayotte to officials far away in Paris, knows that the official toll of 22 dead risks rising exponentially.

"What I fear is that the toll will be far too high," French Interior Minister Bruno Retailleau, who visited Mayotte on Monday, told BFMTV, describing the damage as "colossal".

Communication is almost non-existent. Only the radio can sometimes give snippets of information. But a ray of hope comes from the sense of community as people team up to clear the area and return to a semblance of normal life.

Residents of the neighbourhood worked to clear the roads and remove most of the electrical cables on the ground, defying the authorities' instructions for caution, Nasrine said.

India's market regulator tightens rules for IPOs of small firms

Reuters
MUMBAI

India's market regulator late on Wednesday issued tighter regulations for initial public offerings (IPOs) by small businesses, mandating that entities listing should have been profitable in recent years.

The Securities and Exchange Board of India's (SEBI) tighter rules followed a boom in IPOs by small- and medium-sized companies, which are defined in the country as companies with an annual turnover of ₹5 crore million ($589,157.15) to ₹250 crore ($29.46 million).

More than 159 small and medium enterprises (SMEs) have raised ₹5,700 crore ($675.46 million) through such issues in the financial year till October 15 compared with the previous year's record of ₹6,000 crore, data from SEBI showed.

Madhabi Puri Buch, Chairperson of Securities and Exchange Board of India (SEBI).

A small business can only launch an IPO if it has made a profit of ₹1 crore from operations in two of the three financial years, according to SEBI.

SEBI also said funds from the IPOs cannot be used to repay loans from large shareholders

Offer for sale

It added that the offer for sale or the portion of shares being sold by existing shareholders cannot exceed 20% of the total issue size.

SEBI also said funds from these IPOs cannot be used to repay loans from large shareholders or other related parties.

The market regulator, however, stayed away from mandating a minimum size for the issue or the least required subscription for small business IPOs.

SEBI, in a consultation paper in November, had proposed to raise the minimum application size for the IPOs of SMEs to ₹2,00,000 from ₹100,000.

It had also proposed that an SME company should be eligible for an IPO only if the issue size is more than ₹100 million.

Additionally, the board approved reforms to boost ease of doing business for Debenture Trustees, ESG rating providers, InvITs, REITs, and SM REITs. *(With PTI inputs)*

Indian economy likely to grow at 6.6% in FY26: Ind-Ra

India Ratings and Research (Ind-Ra) projected the Indian economy to grow at 6.6% in 2025-26, up from 6.4% in the current financial year. Ind-Ra believes investments will be a key growth driver for the Indian economy in FY26. The Indian economy has experienced a cyclical growth slowdown in the past three quarters, which it expects to reverse from the December quarter. Ind-Ra expects retail inflation in FY26 to average at 4.4%, lower than the FY25 forecast of 4.9%. PTI

INBRIEF

Cybercrime portal saved ₹3,431 crore, Lok Sabha told

The national cybercrime reporting portal has helped save more than ₹3,431 crore through the resolution of 9.94 lakh complaints, Minister of State for Food and Consumer Affairs B L Verma informed Parliament. In a written reply to the Lok Sabha, Mr. Verma highlighted the portal's effectiveness in addressing financial cybercrimes. Ministry of Home Affairs has issued advisories to all States and Union Territories to publicise the portal and its toll-free helpline number 1930. PTI

Net direct tax collections rise 16.5%

Corporate taxes, after factoring in refunds, grew just 8.6% to ₹7.43 lakh crore while non-corporate taxes rose at a much faster pace of 22.5% to ₹7.97 lakh crore; Securities Transaction Tax receipts jumped a sharp 85.5% to over ₹40,100 crore

Vikas Dhoot
NEW DELHI

With a little over three months left in 2024-25, India's net direct tax collections were up 16.5%, crossing ₹15.82 lakh crore by December 17, with non-corporate taxes leading the growth.

Net corporate tax receipts were up just 8.6% to close to ₹7.43 lakh crore, while net collections from non-corporate taxes rose at almost thrice the pace at 22.5% to ₹7.97 lakh crore, surpassing the corporate receipts. At the same juncture of last year, corporate taxes accounted for more contributions to the exchequer than non-corporate entities, which include individuals, Hindu Undivided Families or HUFs, and associations of persons, local authorities, and artificial juridical persons.

Back in hand: Refunds rose 42.5% by December 17 to nearly ₹3.39 lakh crore, with corporate tax refunds surging 70.3%. GETTYIMAGES

Data shared by the Central Board of Direct Taxes on Wednesday showed that gross tax receipts had grown 20.3% so far this year to cross ₹19.21 lakh crore, with corporate taxes rising 16.9% and non-corporate receipts up 22%.

With stock market volumes holding up despite some tumult in valuations in recent months, receipts from the Securities Transaction Tax (STT) were up a sharp 85.5% to over ₹40,100 crore.

Refunds were up 42.5% by December 17 to nearly ₹3.39 lakh crore, with corporate tax refunds surging 70.3% and non-corporate taxpayers seeing a relatively lower 19.8% uptick in refunds. Advance tax collections had risen 20.9% to over ₹7.56 lakh crore from ₹6.25 lakh crore a year ago, but a similar pattern emerged on this front with corporate taxes growing 16.7%, less than half the 35% increase in non-corporate receipts. In 2023-24, net direct tax revenues had risen 17.7% to ₹19.58 lakh crore, with Personal Income Tax (PIT) share rising to 53.3% from 50.06% in the previous year. Recently, the government stopped sharing data with the PIT nomenclature, calling the category non-corporate taxes instead.

Other taxes, that include Equalization Levy, Fringe Benefit Tax, Wealth Tax, Banking Cash Transaction Tax, Hotel Receipt Tax, Interest Tax, Expenditure Tax, Estate Duty and Gift Tax, rose a mere 5.9% from a year ago.

Nature may be complicated to write about but a gendered outlook can help to enhance the understanding of how to value biodiversity.PTI

Nature whisperers: women's unique connection with the environment

Exploring literature on climate and nature through the perspective of women authors helps to reflect on what it means to live ethically, responsibly and healthily in consonance with nature. The writers exhort stakeholders to listen to women's voices in the larger fight for climate justice

Soma Basu

Scientists and activists have warned the world about climate crisis for long. Yet, climate commitments fall short of actions needed to avoid disastrous consequences. The annual international climate summit (COP) or the environment-related days (nine in a calendar year) remind us of the challenges we face due to climate change but that effort on climate justice is too little and late.

Do we not care enough or we do not know enough to care for the environment?

Interestingly, Amitav Ghosh argues that nature does not need humans to stand up and defend it and so, instead of seeking out new ideas to address the ecological crisis, we should return to ancient stories the earth has been telling us. "We can confront the crisis not by trying to save the planet but by listening to it," he writes in an essay, *Brutes: Meditations on the Myth of the Voiceless*.

American environmentalist Charles Eisenstein underlines in his 2018 book, *Climate A New Theory*, that much of the climate derangement comes from direct disruption of ecosystems. He says the core of the crisis is ecocide, the killing of the ecosystem, and not warming.

Vital cog in the wheel

The work of writers such as American naturalist Henry David Thoreau or environmental philosopher John Muir have helped to shape the way we view nature. But women too are vital voices who are often missing from the proverbial table.

The relationship between women and the land is difficult to trace due to lack of documentation, though women sow and till fields and shape the way their cultures relate to the land. Travel writer Suzanne Roberts gives food for thought on the masculinity of wilderness: "I realised I had been relying on a male translation of nature rather than listening to my own voice".

In his novel *Hungry Tide* (2004), Ghosh portrays nature as mother and writes human beings have to take help of nature for a comfortable life. As nurturers, women have a connect with nature and fight climate change through nature-connectedness. But their voices have remained in a minority in climate discourse and nature writing.

Environmental thinker Vandana Shiva is among the few who has to her credit a score of influential books on the subject. She is one who believes women and nature are associated not in passivity but in creativity and in the maintenance of life. In her new book, *The Nature of Nature: The Metabolic Disorder of Climate Change* (2024), she explores the intimate links between food and climate to look deep into the root causes of climate change.

"What we eat, how we grow the food we eat, how we distribute it, will determine whether humanity survives or pushes itself and other species to extinction," writes Shiva, while explaining the incontrovertible connections between a global warming climate and an agricultural system based on techno-optimism. She says food is the currency of life, indivisible from earth and its natural systems, and argues powerfully for a food and climate future based on regeneration or biodiversity, in partnership with the biosphere.

Turning back to nature

Like Ghosh, she writes that in an age of climate catastrophes, we need to turn back to nature and learn once again how to live sustainably on planet earth, offering alternatives that work according to nature's ecological laws and are the real solutions to rejuvenate and regenerate the planet. Shiva analyses the false promises made by technology – oriented lab-intensive digital agriculture and calls out the fake and ultra-processed food industries that are impacting the world's health and food security.

Another widely published author, Prerna Singh Bindra, lobbies with governments on conservation issues and in her book *The Vanishing – India's Wildlife Crisis* (2017), she exhorts thinking citizens to acknowledge the Indian wildlife crisis due to development projects tearing into their habitats.

'Sixth extinction'

Bindra travels to far-flung forests to put the spotlight on the vanishing natural heritage. India is in the midst of mass 'sixth extinction' is her worry, as she writes, "We are losing species in our backyard." The once ubiquitous sparrows, or the fireflies that lit up the nights have dwindled; in the forests, great Indian bustards are down to a 100; the end of the gharial indicates the poisoning and death of the clear and fast-flowing rivers. She tells readers why extinction matters and how the fate of wildlife is linked to humans. She pushes against this "ecocide."

Arati Kumar Rao journeyed across India's diverse landscapes for more than a decade to study the slow violence inflicted in the fragile environment and how it impacts livelihoods. Her book, *Marginlands – Indian Landscapes on the Brink* (2023) throws light on the subtle tectonic changes taking place across ecosystems in India.

She cites examples of the Thar where miners bulldoze sand dunes that guard life-sustaining water; the Gangetic dolphin that now struggles for survival as its riverine habitat is fragmented by dams and roiled by incessant shipping; the cataclysmic floods that unleashes fury on Mumbai due to encroachments.

"As the spectre of climate change compounds natural and human-induced disasters, India's most endangered landscapes are pushed to the precipice of destruction," she warns, making her book a haunting read about failed government schemes, exaggerated promises and human follies.

Leadership qualities

There are few other books by women writers that attempt to demystify climate change, explain what the fuss is all about and why it matters to our survival.

Named one of the best books of the year by Smithsonian Magazine, *All We Can Save* (2020) by Ayana Elizabeth and Katherine K. Wilkinson contains essays from women at the forefront of the climate movement and reveals their leadership rooted in compassion, connection, and collaboration. "To change everything, we need everyone," is their message.

A groundbreaking perspective is a rare anthology, *Women on Nature* (2021) by Katharine Norbury which has 100+ voices on place, landscape and the natural world. Another book *Everglades: River of Grass* (1947) by journalist and conservationist Marjory Stoneman Douglas is about her efforts to protect the fragile wetlands of Florida.

Nature may be complicated to write about but a gendered outlook can help to enhance the understanding of how to value biodiversity. These books are both a balm and a guide for knowing what has been done to the world, and how to save our collective future.

What did the U.S. Congressional report on COVID origins find?

How did the U.S. government, in the report, arrive at the conclusion that SARS-CoV-2 emerged from a laboratory leak? What is a furin cleavage site and how does it come into play in this case?

Priyali Prakash

The story so far:

A U.S. Congressional committee led by Republican Brad Wenstrup has concluded that the COVID-19 pandemic was the result of the spread of a virus that likely leaked from a research facility in Wuhan, China.

The final report of the Select Subcommittee on the Coronavirus Pandemic, established in 2023, was published on December 2, 2024.

The report runs over 500 pages and, according to committee members, will serve as a roadmap for government action during future pandemics.

"A future pandemic requires a whole-of-America response managed by those without personal benefit or bias," Mr. Wenstrup wrote. "We can always do better, and for the sake of future generations of Americans, we must."

What is the lab-leak theory?

The report stated that SARS-CoV-2, the virus responsible for the COVID-19 pandemic, possibly emerged from a laboratory leak.

It based this conclusion on inferred or circumstantial claims made early during the pandemic.

It quoted an unclassified factsheet from January 2021 published by the U.S. State Department that said: "The U.S. government has reason to believe several researchers inside the WIV [Wuhan Institute of Virology] became sick in autumn 2019, before the first identified case of the outbreak, with symptoms consistent with both COVID-19 and common seasonal illness."

The report itself does not directly prove the lab-leak theory, however.

The report also quoted statements by molecular biologist Alina Chan in June 2024 in support of the lab-leak hypothesis.

In one statement, Dr. Chan said the virus emerged in Wuhan, which is also home to China's "foremost research lab for SARS-like viruses", and that Shi Zhengli, a senior virologist at WIV, "has been researching SARS-like viruses for over a decade and even initially wondered if the outbreak came from the WIV".

But at a conference in Japan on December 4, Dr. Shi reportedly refuted the claim that the viruses she was studying were ancestors of the SARS-CoV-2 pathogen.

She had earlier promised to sequence the genomes of 56 betacoronaviruses she and her team had collected between 2004 and 2021 and were studying. She presented the sequencing data and their analyses at the conference. (The latter have yet to be peer-reviewed.)

The Select Subcommittee report also noted an observation by Nicholas Wade, former science editor at *The New York Times*, in January 2024, that SARS-CoV-2 "possesses a furin cleavage site, found in none of the other 871 known members of its viral family, so it cannot have gained such a site through the ordinary evolutionary swaps of genetic material within a family."

A furin cleavage is the process by which the furin enzyme breaks up specific proteins to activate them. The furin cleavage site in SARS-CoV-2 controls how it interacts with human cells to cause the disease.

A letter published in *The Lancet* in August 2023 by researchers from Cornell University refuted Mr. Wade's idea and said the site could have evolved naturally, as opposed to being genetically engineered.

What else does the report say?

The report also said the U.S. National Institutes of Health (NIH) funded gain-of-function research at WIV.

Gain-of-function research refers to studies where researchers genetically alter organisms to give them additional functions, like enhanced transmissibility or infectivity.

THE GIST

- The report claims several researchers inside the WIV became sick in autumn 2019 with symptoms consistent with both COVID-19 and common seasonal illness
- However, the report itself does not directly prove the lab-leak theory
- The report also says the U.S. National Institutes of Health (NIH) funded gain-of-function research at WIV

Outstanding spinner, capable batter, match winner

The cerebral Ashwin's record is highlighted by his exceptional strike rate, best among spinners

DATA POINT

Srinivasan Ramani

Ravichandran Ashwin, a colossus in Indian cricket, hung up his kit bag and called it quits in international cricket after a stellar career on Wednesday, just as the third Test between Australia and India in Brisbane petered out to a draw. This article will focus only on his Test record.

Ashwin's retirement announcement meant that he finished as the seventh-highest wicket-taker in Tests (537 wickets) at a stellar average (runs per wicket) of 24 and a strike rate (SR, deliveries bowled per wicket) of 50.7. He also scored 3,503 runs at an average of 25.75. Only his former Indian coach Anil Kumble managed a higher wicket tally (619) and only 20 Indian batsmen scored more Test runs than him, indicating his strong all-round ability and performance in cricket's classical version.

Sri Lanka's M. Muralitharan (800), Australia's Shane Warne (708), and Kumble (619) finished with more wickets than Ashwin but the Tamil Nadu player and Chennai-born spinner played fewer matches compared to the other three. With 37 five-wicket-hauls-in-an-inning and eight 10-wicket-hauls-in-a-match, Ashwin was not far behind Warne's 37 5-fers and 10 10-fers, but this statistic was dominated by Muralitharan, who finished with 67 5-fers and 22 10-fers.

Where does Ashwin rank among the all-time best bowlers? As **Chart 1** shows, Ashwin's SR of 50.7 was the top of the pops among spinners (who picked up at least 250 wickets). No other spinner, except for Muralitharan, came close.

Table 1 shows the spinners with 250 or more wickets, ordered on overall SR. Ashwin's phenomenal record in the subcontinent (India, Sri Lanka, and Bangladesh, he did not play in Pakistan), where he picked up a whopping 433 wickets at a SR of 45.8 and an average of 21.76 (second only to Muralitharan's 21.69), helped him register a great overall SR. This is despite a somewhat less sterling 70.8 SR in venues not friendly to spin in other countries, such as South Africa, England, Australia, New Zealand, and West Indies.

Ashwin was a match-winner for India and among the team's most consistent performers in an era when the Indian team dominated Test cricket, especially at home. He won 11 Man of the Series awards in the 44 series he played. Muralitharan also won 11 such awards, but he played in 61 series.

His phenomenal rate of wicket-taking ensured he was always among the fastest to reach various milestones in Test cricket, as **Table 2** shows. He still holds the record for being the fastest to the milestone of 300 wickets in Test cricket (54 matches), and only Muralitharan bests him in later milestones (400 plus onwards).

Ashwin's batting has been an underrated ability and one of the reasons he has won several Man of the Series awards has been his ability to score vital runs as a lower-order batsman. Along with spin twin Ravindra Jadeja, Ashwin not only formed a strong spin tandem but their batting prowess strengthened the batting lineup, pulling the team out of many a batting crisis.

Chart 2 plots all-rounder cricketers' (those who have scored at least 2,000 runs and captured at least 150 wickets in Test) batting and bowling averages (reversed). Ashwin falls under the category of "bowling all-rounders" who could score decent runs and were outstanding bowlers including stalwarts such as Richard Hadlee, Shaun Pollock, Wasim Akram, and Chaminda Vaas. Another attribute of Ashwin that sets him apart from other bowlers – his hegemony over left handed batsmen. Nearly 50% of all his wickets were that of left handed batters **(Table 3)**.

Tweaking to the top

The data for the charts were sourced from ESPNcricinfo

Chart 1: Strike rate of all bowlers who have picked up at least 250 Test wickets

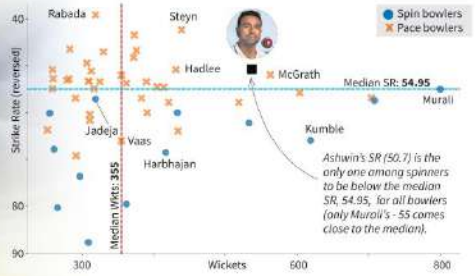

Chart 2: Batting vs bowling avg. for players with more than 2000 runs & 150 wickets

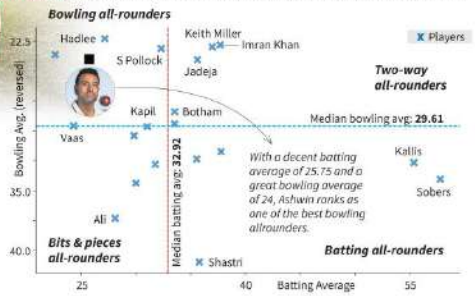

Table 2: The table shows bowlers who were fastest to wickets' milestones

Fastest to... wickets	Record holder (No. of Tests)	Ashwin's rank
50	CTB Turner (6)	Joint 4th (9)
100	GA Lohmann (10)	3rd (18)
200	Yasir Shah (33)	3rd (37)
300	Ashwin (54)	1st
400	Murali (72)	2nd (77)
500	Murali (87)	2nd (98)

Table 3: Table shows total wickets for bowlers & left hand batters as a % of those

Bowler Name	LHB wickets	Total Wickets	%
R Ashwin	268	537	49.7
NM Lyon	188	533	35.3
Harbhajan	139	417	33.3
SCJ Broad	193	604	32.0
JM Anderson	221	704	31.2
DW Steyn	136	439	31.0
SM Pollock	129	421	30.6
GD McGrath	172	563	30.6
A Kumble	167	619	27.0
SK Warne	172	708	24.3
Muralitharan	191	800	23.9

% LHB wickets as a % of total

Table 1: The table shows the spinners (who took 250 plus wickets) ranked on their overall strike rate

Bowler(Team)	Wickets	Avg	Strike Rate	SR in SubCont	SR in SENAWI*
Ashwin	537	24	50.7	45.8	70.9
Murali	800	22.72	55	53.2	58.3
Jadeja	319	24.05	57.1	51.1	79.2
Warne	708	25.41	57.4	56.5	58.6
Herath	433	28.07	60	54	93.4
Swann	255	29.96	60.1	55.2	62.3
Lyon	533	30.45	62.2	56.8	62.3
Kumble	619	29.65	65.9	61.3	76.4
Kaneria	261	34.79	67.8	64.2	71.1
Harbhajan	417	32.46	68.5	68.6	69.5
Underwood	297	25.83	73.6	78.9	71.8
Vettori	362	34.36	79.5	68.6	85.4
Bedi	266	28.71	80.3	78.4	82.4
Gibbs	309	29.09	87.7	78.6	89.6

SENAWI*: South Africa, England, New Zealand, Australia and West Indies

Making affordable generics more reliable

Aditya Sinha

Public policy professional
Views are personal

Generic drugs are crucial for addressing healthcare affordability in a population marked by significant income disparities. Bioequivalent to branded drugs, generics offer cost-effective alternatives. India leverages economies of scale and low production costs to supply affordable medication domestically and internationally.

With out-of-pocket healthcare expenditure at 39.4% of total health expenditure in 2021-22, generics reduce financial burdens and improve treatment adherence. By August 2024, generic medicines worth ₹5,600 crore sold through Pradhan Mantri Bhartiya Janaushadhi Pariyojana over a decade saved consumers an estimated ₹30,000 crore.

Ensuring the quality of generic medicines in India is vital to make them affordable and effective as innovator drugs. Despite being bioequivalent to brand-name drugs, quality control lapses have occasionally compromised their efficacy and safety.

A study by doctors of the Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, published in *Mycoses*, investigated the efficacy of itraconazole in treating chronic pulmonary aspergillosis using the innovator drug and 22 generic formulations. The innovator itraconazole achieved therapeutic drug levels in 73% of patients within two weeks, compared to only 29% for generics, which often required 6-8 weeks, dose escalation, or switching to the innovator. Further, generic capsules had significant defects, including fewer and unevenly sized pellets, critical for optimal drug absorption and bioavailability.

But why do generic and innovator drugs differ in some cases despite being made from the same active ingredient? Generics can differ significantly in their excipients and manufacturing processes, leading to variability in therapeutic outcomes. First, differences in excipients – such as binders, fillers, disintegrants, and coatings – can alter a drug's dissolution rate, stability, and delivery mechanism.

Second, manufacturing processes, including the type of punching machines, compression force, and granulation methods, can influence the drug's physical and chemical properties. Variations in tablet hardness, particle size, and porosity can affect disintegration and absorption. In some cases, while an innovator drug is designed to release the API slowly to achieve a sustained therapeutic effect, generics may release the API more rapidly, potentially leading to fluctuations in drug levels.

Third, the limitations of bioequivalence thresholds contribute to the problem. Regulatory standards often allow pharmacokinetic parameters to fall within 80%-125% of the innovator drug's range. These thresholds may be insufficient for medications with a narrow therapeutic index. Even minor deviations in drug release or bioavailability can lead to subtherapeutic effects or adverse reactions. Stability issues can also further undermine the drug's shelf life and reliability.

The key issue lies in India's decentralised drug regulation system, which grants significant authority to State Drug Regulatory Authorities (SDRAs), leading to inconsistent enforcement and quality standards. The Central Drugs Standard Control Organisation (CDSCO) can only recommend action, leaving States to act. Despite repeated calls for centralisation, crucial functions remain with States, enabling regulatory arbitrage as manufacturers exploit weaker oversight. India must centralise drug regulation, strengthen CDSCO with resources and personnel, and establish more central drug-testing labs to address this issue.

The key issue lies in India's decentralised drug regulation system, which grants significant authority to State Drug Regulatory Authorities, leading to inconsistent enforcement and quality standards

Another reason is the inadequate enforcement of stability testing to ensure drug efficacy under diverse climatic conditions. Stability testing, mandated by the CDSCO in 2018, requires manufacturers to demonstrate that drugs maintain their quality, strength, and identity under specified conditions. However, inconsistent implementation by State licensing authorities and the absence of clear, centralised guidelines undermine compliance. Moreover, the lack of retrospective applicability to generics approved before 2018 perpetuates the presence of substandard drugs in the market. India must enforce uniform stability testing protocols, ensure centralised regulatory oversight, and mandate periodic reassessment of all approved generics to build confidence in drug quality.

Thirdly, India's Pharmacopoeia permits higher drug impurity levels than U.S. and EU standards. The Pharmacopoeia Commission (PC) and CDSCO rejected stricter ICH guidelines as "too expensive". Thus, these standards should be made a bit more stringent. In that case, action needs to be taken at the level of PC, CDCSO, and Centre.

Centralising drug regulation will only be effective with a comprehensive overhaul of the CDSCO. It must be reorganised to deliver robust regulatory safeguards, protecting patients from the dangers of substandard and counterfeit medicines through stringent regulatory protocols and effective inspection and enforcement mechanisms.

We must champion generics – they are indispensable for ensuring equitable access to medicines. But, equity cannot come at the expense of quality. States must relinquish their fragmented control over drug regulation, which has long undermined public confidence in generics. It is time to act on the decades-old recommendations of the Bhatia (1954), Hathi (1975), and Mashelkar (2003) committees, all of which have called for centralised oversight.

Strengthening the roots of an agri-carbon market

Carbon markets hold the potential to transform Indian agriculture, turning sustainable farming practices into a lucrative opportunity for farmers while combating climate change. In this, carbon pricing is a critical tool for mitigating climate change. It functions through compliance and voluntary carbon markets. Compliance markets, regulated by governments or international bodies such as the United Nations, impose emissions caps on companies. Businesses exceeding these caps must either purchase carbon credits from projects that mitigate greenhouse gas (GHG) emissions, such as agroforestry or sustainable agriculture projects, or pay carbon taxes for their extra emissions. In contrast, the voluntary carbon market operates without regulation, allowing organisations to trade carbon credits through mechanisms such as the Clean Development Mechanism, Verra, and Gold Standard, among others. Together, these systems aim to reduce GHG emissions and support global climate goals.

Carbon markets, their working

Carbon markets are gaining momentum. At COP29, in November 2024, for instance, a centralised carbon market under the UN got a green signal. Last year, India announced that it would launch its own compliance and voluntary carbon markets. Recently, the National Bank for Agriculture and Rural Development, in collaboration with the Indian Council of Agricultural Research and State universities, listed five agriculture carbon credit projects in Verra.

Carbon markets rely on two key principles: additionality and permanence. Additionality ensures emission reductions happen only due to carbon credits, requiring farmers to adopt new practices. This means that those who already use sustainable methods are not eligible for credits. Permanence refers to the long-term durability of these benefits. Permanence guarantees these benefits last, such as ensuring carbon stored in soils through reduced tillage is not lost due to a return to conventional ploughing. Therefore, projects that aim to generate and trade carbon credits must adhere to certain conditions, including additionality and permanence.

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Lead Economist (Adoption and Gender) in the SAS Program, CIMMYT-India

In India, existing carbon credit projects listed under non-governmental entities need to be examined to ensure inclusivity and efficiency

To assess the readiness of India's agriculture sector for a full-scale carbon market, we must examine the existing carbon credit projects listed under non-governmental entities such as Verra. This highlights challenges and the necessary fixes before scaling up. If projects fail to deliver promised environmental benefits, producing unreliable credits, buyers may lose confidence and stop purchasing agriculture carbon credits. This deprives farmers of extra income and discourages the adoption of sustainable practices. Ensuring high-quality credits from the start of Indian carbon markets is crucial for trust and long-term farmer participation.

In just four years, over 50 agriculture carbon farming projects have been listed in the Verra registry, targeting 1.6 million hectares of farmland in India. These projects aim to generate approximately 4.7 million carbon credits annually, equivalent to offsetting the GHG emitted from 11 billion miles driven by an average gasoline-powered vehicle. However, none of these projects is registered, which means carbon credits have not been issued and that farmers have not received the money.

Carbon farming projects in India

A recent study by the writers of this article published in Climate Policy – "Carbon farming in India: are the existing projects inclusive, additional, and permanent?" – examines seven such carbon farming projects in Haryana and Madhya Pradesh, focusing on socio-economic inclusiveness, additionality, and permanence. The findings show that marginalised communities and small farmers were largely excluded, with women making up only 4% of participants. Carbon farmers in these States cultivated significantly more land – 51% more in Haryana and 32% more in Madhya Pradesh – than non-carbon farmers. Among non-carbon farmers, 46% of the land was owned by non-marginalised castes (general castes) and 17% by Scheduled Caste-Scheduled Tribe (SC/ST) farmers, whereas among carbon farmers, 63% of the land was under non-marginalised castes and only 13% was owned by SC/ST farmers.

Further, while some sustainable practices were already in place before the projects began, others such as zero tillage, alternate wetting and drying, intercropping, reduced chemical fertilizer use, micro-irrigation, and tree planting were newly adopted, which satisfies the additionality condition. This demonstrates that, when implemented effectively, these projects can genuinely reduce GHG emissions.

Significant challenges remain in these projects: 45% of farmers reported no communication, over 60% lacked training in new techniques, and 28% stopped sustainable practices by the second year, mainly due to insufficient financial incentives. Alarmingly, 99% had not received carbon credit payments, with additional issues including yield penalties and inadequate information on carbon farming.

Despite these setbacks, projects managed by startups focused solely on carbon credits, termed "Carbon Core" in this study, performed better than those run by subsidiaries or offshoots of larger corporations. However, these projects were less inclusive of smallholders and marginalised communities.

To address these issues, India's carbon market must incentivise socially inclusive projects by offering higher prices for carbon credits from projects that include smallholders and marginalised communities. Effective communication, regular training, and guaranteed, timely payments can enhance farmer participation. Collaborating with national and international research institutions to target suitable regions and interventions can prevent yield penalties and protect food security.

An improving science

The science of measuring soil carbon and GHG emissions is expected to improve over time. In recent years, digital technologies have advanced significantly. Tools such as remote sensing, satellite imagery, drones, and sensors for monitoring project activities will soon become more accessible. However, for carbon markets to succeed, the critical focus must be addressing the grand old implementation challenges.

Building a thriving agricultural carbon market in India requires collaboration among policymakers, researchers, and private entities to ensure inclusivity, transparency, timely rewards for farmers, and improved project implementation.

Section 6A of the Citizenship Act — why it fails Assam

Ravi Singh Chhikara

an advocate at the Supreme Court of India and also the Delhi High Court

Arnav Roy

a third-year student at the National Law University, Delhi

The 4:1 majority ruling by a Constitution Bench of the Supreme Court of India, in October 2024, that upheld the constitutional validity of Section 6A of the Citizenship Act, 1955 is significant. This provision establishes a distinct framework for migrants from the former East Pakistan (Bangladesh) who settled in Assam, allowing them to acquire Indian citizenship if they arrived before March 25, 1971. It is worth analysing the judgment for constitutional violations that were overlooked by the majority decision, and also discussing the potential negative implications of the ruling.

The judgment seems to suffer from arbitrary reasoning. The then Chief Justice of India, D.Y Chandrachud, while justifying the test of Article 14, i.e., taking out of Assam against other States, said, "Though other states such as West Bengal (2216.7 km), Meghalaya (443 km), Tripura (856 km) and Mizoram (318 km) share a larger border with Bangladesh as compared to Assam (263 km), the magnitude of influx to Assam and its impact on the cultural and political rights of the Assamese and Tribal populations is higher...The impact of forty lakh migrants in Assam may conceivably be greater than the impact of fifty seven lakh migrants in West Bengal because of Assam's lesser population and land area compared to West Bengal. Thus, the singling out of Assam is based on rational considerations." However, while testing the law against Article 29, the Court held that the influx of the people did not affect the language, script, or culture of the Assamese people nor did it affect their ability to protect the same. A simple examination of the contradictory reasoning indicates that the judgment was crafted to support the provision rather than to evaluate it against constitutional principles.

The background

Section 6A of the Citizenship Act was introduced in 1985 following the Assam Accord, an agreement reached between the Government of India and the leaders of the Assam Movement. The movement arose in response to the migration from East Pakistan (now Bangladesh) into Assam, sparking concerns about the preservation of the local culture, economic strain, and political imbalance. The Assam Accord sought to resolve these issues by setting specific cut-off dates for granting citizenship to migrants: before January 1, 1966 - all Indians who migrated to Assam were declared Indian citizens; between January 1, 1966, and March 25, 1971 - citizenship can be granted to the people after 10 years of residence in Assam; after March 25, 1971 - all these people were declared illegal migrants and were liable to detection and deportation.

The top court's recent ruling upholding the constitutional validity of Section 6A, fails to address key constitutional concerns, particularly those that impact Assam's indigenous population

Gaps in the reasoning

There are constitutional pitfalls in Section 6A of the Citizenship Act. There is a violation of Article 29 of the Constitution – cultural and linguistic displacement. Article 29 of the Constitution guarantees the protection of distinct cultural and linguistic identities within India. In its ruling, the Court held that Section 6A was not violative of Article 29(1), stating that the mere presence of different ethnic groups in a State does not automatically infringe upon the cultural rights guaranteed by the Constitution. It said Article 29(1) confers the right to "conserve" culture, which it interpreted as allowing a section of citizens to take positive steps to protect their language, script, or culture, and that the law must not prevent such efforts. The Court emphasised that the petitioners failed to prove that the influx of migrants, facilitated by Section 6A, directly hindered the Assamese people's ability to take steps to conserve their culture.

However, this reasoning is completely flawed. While the Court laid emphasis on the abstract right to "conserve" culture, it overlooked the fact that the provision creates hindrances to the people in meaningfully preserving their cultural identity. It failed to observe that mere formal recognition of the right to conserve culture is insufficient if the State allows circumstances to unfold which erode the very culture it seeks to protect. Research by Dinesh Bhugra and Matthew A. Becker found out that during the acculturation process, both the immigrant and host cultures may change. Changes in attitudes, family values, generational status and social affiliations can occur in both the majority and minority cultures as the two interact. Further, the Court also took note of the research paper titled "The Change of Religion and Language Composition in the State of Assam in Northeast India: A Statistical Analysis Since 1951 to 2001", which indicates that between 1951 and 2001, the percentage of the Bengali-speaking population in Assam had increased by 29.7%, from 21.2% to 27.5%, while the proportion of Assamese-speaking people had declined by 12.26%, from 69.3% to 60.8%. Further, as per the submissions of the petitioners recorded by the Court, from 1951 to 2011, the percentage of the Bengali-speaking population in Assam had increased by 36.36% (from 21.2% to 28.91% of the total population of Assam), while the proportion of Assamese speaking people in the State had declined by 30.18%, i.e., from 69.3% to 48.38% of the total population of Assam. This demographic shift is not a mere coexistence of ethnic groups but represents a cultural and linguistic displacement that has severely undermined the distinct identity of the Assamese people.

One of the most striking constitutional flaws of Section 6A is its temporal unreasonableness, a concept under the doctrine of manifest arbitrariness. Laws that are constitutional at the time of enactment can become unreasonable over time due to changing circumstances, and Section 6A is a clear example of this.

The law lacks any temporal limitation on its operation, allowing individuals from this stream to apply for citizenship indefinitely. More than 40 years after the cut-off date, the law still remains in force, which has rendered it ineffective in addressing the original problem it was designed to solve.

Faulty mechanism, its impact

The mechanism for identifying and processing these migrants under Section 6A(3) is flawed because it places the burden of initiating proceedings on the state, without providing a means for voluntary self-identification by migrants. This means that suspected illegal immigrants must be referred to a foreigners' tribunal, which then determines their status. However, the absence of any deadline for making such referrals allows the law to remain operational indefinitely, perpetuating a system that no longer serves its intended purpose.

Further, the foreigners' tribunal, which is responsible for determining the citizenship status of individuals referred under Section 6A, has become bogged down by the sheer volume of cases. Even individuals who do not qualify under Section 6A can claim to fall within its purview, slowing down the entire process and leading to widespread confusion.

It seems the Court wrote the judgment to merely justify the enactment of Section 6A. The ruling fails to address key constitutional concerns, particularly those regarding the cultural and demographic impact on Assam's indigenous population. The judgment overlooked how unchecked migration has eroded the linguistic and cultural identity of the Assamese people, in violation of Article 29's protective intent. Moreover, the Court's neglect of the provision's temporal unreasonableness perpetuates arbitrary and outdated policies.

How scientists are exploring what extraterrestrial life could look like

Advanced forms of life on alien planets could be so strange that they are unrecognisable. As astrobiologists try to detect life off earth, they will need to be creative. One strategy is to measure mineral signatures on the rocky surfaces of exoplanets, since mineral diversity tracks biological evolution

Chris Impey

We have only one example of biology forming in the universe: life on earth. But what if life can form in other ways? How do you look for alien life when you don't know what alien life might look like?

These questions are preoccupying astrobiologists, who are scientists who look for life beyond earth. Astrobiologists have attempted to come up with universal rules that govern the emergence of complex physical and biological systems both on earth and beyond.

I'm an astronomer who has written extensively about astrobiology. Through my research, I've learned that the most abundant form of extraterrestrial life is likely to be microbial, since single cells can form more readily than large organisms. But just in case there's advanced alien life out there, I'm on the international advisory council for the group designing messages to send to those civilisations.

A slice of the Esquel meteorite. This type of meteorite is from the core-mantle boundary of an ancient planetoid that was smacked apart billions of years ago. DOUG BOWMAN

Detecting life beyond earth

Since the first discovery of an exoplanet in 1995, over 5,000 exoplanets, or planets orbiting other stars, have been found. Many of these exoplanets are small and rocky, like earth, and in the habitable zones of their stars. The habitable zone is the range of distances between the surface of a planet and the star it orbits that would allow the planet to have liquid water, and thus support life as we on earth know it.

The sample of exoplanets detected so far projects 300 million potential biological experiments in our galaxy – or 300 million places, including exoplanets and other bodies such as moons, with suitable conditions for biology to arise. The uncertainty for researchers starts with the definition of life. It feels like defining life should be easy, since we know life when we see it, whether it's a flying bird or a microbe moving in a drop of water. But scientists don't agree on a definition, and some think a comprehensive definition might not be possible.

NASA defines life as a "self-sustaining chemical reaction capable of Darwinian evolution." That means organisms with a complex chemical system that evolve by adapting to their environment. Darwinian evolution says that the survival of an organism depends on its fitness in its environment. The evolution of life on earth has progressed over billions of years from single-celled organisms to large animals and other species, including humans. Evolution is the process of change in systems. It can describe how a group of something becomes more complex - or even just different - over time.

Exoplanets are remote and hundreds of millions of times fainter than their parent stars, so studying them is challenging. Astronomers can inspect the atmospheres and surfaces of earth-like exoplanets using a method called spectroscopy to look for chemical signatures of life. Spectroscopy might detect signatures of oxygen in a planet's atmosphere, which microbes called blue-green algae created by photosynthesis on earth several billion years ago, or chlorophyll signatures, which indicate plant life. NASA's definition of life leads to some important but unanswered questions. Is Darwinian evolution universal? What chemical reactions can lead to biology off earth?

Evolution and complexity

All life on earth, from a fungal spore to a blue whale, evolved from a microbial last common ancestor about 4 billion years ago. The same chemical processes are seen in all living organisms on earth, and those processes might be universal. They also may be radically different elsewhere. In October 2024, a diverse group of scientists gathered to think outside the box on evolution. They wanted to step back and explore what sort of processes created order in the universe – biological or not – to figure out how to study the emergence of life totally unlike life on earth. Two researchers present argued that complex systems of chemicals or minerals, when in environments that allow some configurations to persist better than others, evolve to store larger amounts of information. As time goes by, the system will grow more diverse and complex, gaining the functions needed for survival through a kind of natural selection.

They speculated that there might be a law to describe the evolution of a wide variety of physical systems. Biological evolution through natural selection would be just one example of this broader law. In biology, information refers to the instructions stored in the sequence of nucleotides on a DNA molecule, which collectively make up an organism's genome and dictate what the organism looks like and how it functions. If you define complexity in terms of information theory, natural selection will cause a genome to grow more complex as it stores more information about its environment.

Complexity might be useful in measuring the boundary between life and nonlife. However, it's wrong to conclude that animals are more complex than microbes. Biological information increases with genome size, but evolutionary information density drops. Evolutionary information density is the fraction of functional genes within the genome, or the fraction of the total genetic material that expresses fitness for the environment. Organisms that people think of as primitive, such as bacteria, have genomes with high information density and so appear better designed than the genomes of plants or animals. A universal theory of life is still elusive. Such a theory would include the concepts of complexity and information storage, but it would not be tied to DNA or the particular kinds of cells we find in terrestrial biology.

All life on earth, from a fungal spore to a whale, evolved from a microbial last common ancestor about 4 billion years ago. The same chemical processes are seen in all living organisms on earth, and those processes might be universal

Implications for search for life

Researchers have explored alternatives to terrestrial biochemistry. All known living organisms, from bacteria to humans, contain water, and it is a solvent that is essential for life on earth. A solvent is a liquid medium that facilitates chemical reactions from which life could emerge. But life could potentially emerge from other solvents, too. Astrobiologists William Bains and Sara Seager have explored thousands of molecules that might be associated with life. Plausible solvents include sulfuric acid, ammonia, liquid carbon dioxide, and even liquid sulphur. Alien life might not be based on carbon, which forms the backbone of all life's essential molecules – at least here on Earth. It might not even need a planet to survive.

Advanced forms of life on alien planets could be so strange that they're unrecognisable. As astrobiologists try to detect life off earth, they'll need to be creative. One strategy is to measure mineral signatures on the rocky surfaces of exoplanets, since mineral diversity tracks terrestrial biological evolution. As life evolved on earth, it used and created minerals for exoskeletons and habitats. The hundred minerals present when life first formed have grown to about 5,000 today. For example, zircons are simple silicate crystals that date back to the time before life started. A zircon found in Australia is the oldest known piece of earth's crust. But other minerals, such as apatite, a complex calcium phosphate mineral, are created by biology. Apatite is a primary ingredient in bones, teeth, and fish scales.

Another strategy to finding life unlike that on earth is to detect evidence of a civilisation, such as artificial lights or the industrial pollutant nitrogen dioxide in the atmosphere. These are examples of traces of intelligent life called technosignatures. It's unclear how and when a first detection of life beyond earth will happen. It might be within the solar system, or by sniffing exoplanet atmospheres, or by detecting artificial radio signals from a distant civilisation. The search is a twisting road, not a straightforward path. And that's for life as we know it – for life as we don't know it, all bets are off.

(Chris Impey is University Distinguished Professor of Astronomy, University of Arizona. *This article is republished from* The Conversation.)

All 17,130 police stations in the country linked through centralised online platform CCTNS

Vijaita Singh
NEW DELHI

Nearly 15 years after it was launched, all 17,130 police stations in the country have been linked through the Crime and Criminal Tracking Network and Systems (CCTNS), a centralised online platform to file first information reports (FIRs), chargesheets, and investigation reports. The online database can be accessed by law enforcement authorities across the country.

The last of nearly 40 police stations in Manipur, Nagaland, Bihar, Jharkhand, West Bengal, Lakshwadeep, and Odisha have been connected to the system in the past three months, completing 100% CCTNS deployment across 28 States and eight Union Territories in the country, a senior government official said. "Police stations are registering 100% FIRs through CCTNS," the official added.

The CCTN was launched in 2009 with a budget of ₹2,000 crore. MARRI RAMU

Launched in 2009 with a budget of ₹2,000 crore, the CCTNS has become key to the implementation of the three new criminal laws rolled out on July 1.

The system has past and current crime records, including details of an accused, charge-sheeted persons, convicts, habitual offender, proclaimed offender, and others. The police can also search the database for missing persons, unidentified persons, unidentified bodies, and stolen vehicles involved in crime incidents.

The platform can generate analytical reports regarding criminal cases, property cases, and crime statistics at the police station level.

The National Crime Records Bureau has made 23 functional modifications in the existing CCTNS application for the three criminal laws – the Bharatiya Nyaya Sanhita that replaces the Indian Penal Code, 1860; the Bharatiya Sakshya Adhiniyam that replaces the Indian Evidence Act, 1872; and the Bharatiya Nagarik Suraksha Sanhita that replaces the Code of Criminal Procedure, 1898.

The changes include seeking permission of senior officers before making arrests in certain cases; providing information of arrest to relatives or friends, designated police officer and display of arrest information; serving of summons; provision to send daily diary reports to the magistrate on a fortnightly basis; forensic investigation in all cases punishable with imprisonment for more than seven years; mandatory videography of the crime scene and forensic evidence collection; biological samples to be collected on request of any police officer; police to inform progress of the investigation to the victim within 90 days; and new timelines under the new laws.

The scope of the CCTNS has been enhanced over the years to integrate the police data with other pillars of the criminal justice system namely courts, prisons, prosecution, forensics and finger prints, and accordingly a new system called the Integrated Criminal Justice System (ICJS) has been developed.

Graceful act

A striking pose: An artist performs 'Nangiarkoothu' in Thiruvananthapuram on Wednesday. The traditional solo performance by women is a mono act, where the lone artiste essays multiple roles with changes in stage position and body language. NIRMAL HARINDRAN

Second survey ship *INS Nirdeshak* inducted into Navy

The Hindu Bureau
VISAKHAPATNAM

INS Nirdeshak, the second ship of Survey Vessel (large) project, was commissioned into the Indian Navy, in a ceremony presided over by Union Minister of State for Defence Sanjay Seth at Visakhapatnam Naval Dockyard, here on Wednesday.

The ship is designed to conduct hydrographic surveys, aid in navigation, and support maritime operations.

Eastern Naval Command Flag Officer Commanding-in-Chief Vice-Admiral Rajesh Pendharkar hosted the commissioning ceremony.

Speaking on the occasion, Mr. Seth said that the Survey Vessels play a vital role in charting the oceans.

'Collecting data'

These are sophisticated niche platforms that allow for a more accurate collation of oceanic data, its precise processing and as a result, highly reliable charts that enhance maritime operations and safety. The survey ships also act as a credible maritime diplomacy tool, he said.

"The new survey ships will make us more potent also, as foreign fleets are looking towards the Indian Navy for hydrographic cooperation," the Union Minister said.

ISRO begins assembly of HLVM3 for Gaganyaan's flight

The ISRO begins assembly of HLVM3 in Sriharikota on Wednesday. ANI

The Hindu Bureau
BENGALURU

The Indian Space Research Organisation on Wednesday commenced the assembly of the Human Rated Launch Vehicle Mark-3 (HLVM3) for the Gaganyaan mission's maiden uncrewed flight.

The assembly of the HLVM3 is taking place at the Satish Dhawan Space Centre (SDSC) in Sriharikota and the uncrewed flight is expected to take place early next year from the spaceport.

"At 0845 hrs on December 18, 2024, at SDSC, the stacking of the nozzle end segment with full flex seal nozzle of the S200 motor took place, thus commencing the official launch campaign of the HLVM3-G1 / OM-1 mission," it said.

It further added that the preparation of both S200 motors will now involve assembling segments, control systems, and avionics.

"L110 and C32 stages for the HLVM3 are ready at the launch complex. The crew escape systems elements are also received at SDSC. The integration of the Crew Module is happening at VSSC and the integration of the Service Module at URSC, Bengaluru. The Orbital Module (OM) level integration and tests will take place subsequently at URSC," it added.

Project background

The Gaganyaan project envisages a demonstration of human spaceflight capability by launching a crew of three members to an orbit of 400 km for a three-day mission and bringing them back safely to Earth by landing in sea waters.

Under the programme, ISRO intends to carry out three uncrewed missions and one crewed mission.

The assembly of the HLVM3 coincides with the 10th anniversary of the LVM3-X/CARE mission, which took place on December 18, 2014.

"It was on December 18, 2014, that the Indian Coast Guard recovered the Crew Module from the turbulent seas of the Bay of Bengal, approximately 1600 km from SDSC-SHAR. On the same day, LVM3-X, in its maiden flight, had lifted a Crew Module of mass of 3775 kg (LVM3-X/CARE mission) into a suborbital altitude of 126 km from where it was controlled using thrusters to orient it for a favourable re-entry," the agency said.

Wildlife experts tag almost-blind Ganges river dolphin for the first time in India

Rahul Karmakar
GUWAHATI

A team of wildlife conservationists tagged the almost-blind Ganges river dolphin for the first time.

A healthy male river dolphin from Kulsi, a tributary of the Brahmaputra, was tagged and released under veterinary care.

An initiative of the Ministry of Environment, Forest, and Climate Change, it was executed by the Wildlife Institute of India (WII) in collaboration with the Assam Forest Department and biodiversity conservation group Aaranyak.

A wildlife team with a healthy male river dolphin that was tagged.
SPECIAL ARRANGEMENT

The tagging under Project Dolphin is expected to help understand the dolphin's seasonal and migratory patterns, range, distribution, and habitat utilisation, particularly in fragmented or disturbed river systems. Officials said the lightweight tags emit signals compatible with Argos satellite systems even with limited surfacing time and are designed to minimise interference with dolphin movement.

"The first-ever tagging of the Ganges river dolphin is a historic milestone for the species and India. This project funded by the National CAMPA Authority will deepen our understanding of conserving our national aquatic animal," Environment Minister Bhupender Yadav said.

"Tagging river dolphins will contribute to evidence-based conservation strategies," Virendra R. Tiwari, the director of WII said.

The Ganges river dolphin is unique for being nearly blind and relies on echolocation for its biological needs. India houses about 90% of the global population of the dolphin, istributed across the Ganga-Brahmaputra-Meghna and Karnaphuli river systems. However, its distribution has drastically declined over the past century. Despite its wide range, knowledge gaps remain regarding this species due to its elusive behaviour. It surfaces for only 5-30 seconds at a time.

Positive signals emerge from India-China talks

India, China take part in first meeting of Special Representatives in five years; Doval and Wang affirm outcome of LAC disengagement, discuss restarting Mansarovar yatra, border trade; Chinese Ministry of Foreign Affairs says 'six-point consensus' reached to maintain peace; MEA reiterates most of the points without referring to the 'consensus'

Suhasini Haidar
NEW DELHI

India and China "positively affirmed" the outcome of their disengagement agreement on the Line of Actual Control (LAC), as National Security Adviser Ajit Doval met with Chinese Foreign Minister Wang Yi in Beijing on Wednesday for the first boundary talks between the Special Representatives (SRs) since 2019.

During the talks, Mr. Doval and Mr. Wang said that it was important to "draw from the lessons" of the four-year-long military stand-off at the LAC, in order to maintain peace and tranquillity on the border. They also discussed other ties that were derailed due to the frictions at the boundary, providing "positive directions" for cross-border exchanges, including the resumption of the Kailash Mansarovar pilgrimage from India to Tibet, data sharing on trans-border rivers, and border trade.

A statement issued by the Chinese Ministry of Foreign Affairs said Mr. Doval and Mr. Wang held "substantive discussions" during the Special Representatives dialogue and reached a "six-point consensus", which would see efforts to maintain peace at the borders and develop bilateral relations.

While the Ministry of External Affairs did not refer to a "six-point" consensus, it reiterated most of the same points on promoting exchanges.

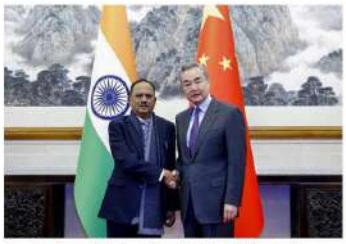
No talk of direct flights

Significantly, in the statement issued after the talks, the SRs did not refer to the resumption of direct flights and the restoration of journalist exchanges, which were discussed when Mr. Wang met External Affairs Minister S. Jaishankar in Rio de Janeiro last month.

However, after a meeting between Mr. Doval and Chinese Vice-President Han Zheng in Beijing, an official readout stressed the need to restore exchanges in "economic, cultural and trade" areas.

"This was the first meeting of the SRs since frictions had emerged in the Western Sector of the India-China border areas in 2020. The SRs positively affirmed the implementation of the latest disengagement agreement of October 2024, resulting in patrolling and grazing in relevant areas," the Ministry of External Affairs (MEA) said in a statement issued after the meeting.

"Drawing on the learnings from the events of 2020, they discussed various measures to maintain peace and tranquillity on the border and advance effective border management," the MEA statement said, "underlining the importance" of peace and tranquillity at the LAC so that issues on the border do not hold back the "normal development of bilateral relations".



One step forward: National Security Adviser Ajit Doval with Chinese Foreign Minister Wang Yi in Beijing on Wednesday. PTI

The resumption of the SRs process – started in 2003 to work on finding a satisfactory resolution to the decades-long India-China boundary dispute – marks a major step towards the resumption of diplomatic mechanisms that have been paused for the past few years. Mr. Doval last met with Mr. Wang in Delhi in December 2019, just four months before the Chinese army amassed troops and transgressed along the LAC, leading to skirmishes with the Indian Army. This eventually led to the deadly Galwan clashes, the first time there had been casualties between the two armies in more than four decades.

After the October 21 agreement signalled an agreement to disengage at the last of seven friction points along the LAC, officials said that they would need to work next on de-escalation and de-induction of troops. Mr. Doval and Mr. Wang, who had also met earlier this year in Moscow, were mandated to hold the SR meeting "at an early date" so as to "oversee the management of peace and tranquillity in border areas and to explore a fair, reasonable and mutually acceptable solution to the boundary question," the statement said. Mr. Doval also invited Mr. Wang to visit New Delhi for the next round of SR talks.

'Restore political trust'

Mr. Doval, who arrived in Beijing on Tuesday, also called on Chinese Vice-President Han Zheng. According to a readout quoted by official agencies, Mr. Han said that as "ancient civilisations and emerging global powers", India and China's ties hold global influence and strategic significance. Both sides should "restore political trust and promote collaboration in economic, trade, and cultural areas, thus ensuring stable development in their bilateral relations," he said.

According to the readout, Mr. Doval had responded, saying that the resumption of SR talks after a five-year hiatus was significant, and that India is committed "to strengthening strategic communication with China" and injecting new momentum into the relationship. The MEA, however, did not issue a readout on the NSA's talks with the Chinese Vice-President.