

## EDUDOC SERVICES: NEWSCLIPS



**FEB TO APRIL - 2023**



## **LIBRARY AND DOCUMENTATION DIVISION**

**NATIONAL INSTITUTE OF EDUCATION**

**National Council of Educational Research & Training**

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Greetings from the LDD, NCERT!

The Library and Documentation Division (LDD) of NIE, NCERT is pleased to bring out **"Press Clippings service"** for the month of **February, March & April 2023**. The service collects all important relevant & up-to-date news items, editorial comments & articles on NEP 2020 & relevant aspects of school education.

LDD provide Press clippings service digitally, users can access via this link - <https://ncert.nic.in/ncertldd/services/pressclip.html>

If you have any suggestion and query regarding this service you may email us on [library-nie@nic.in](mailto:library-nie@nic.in)

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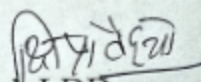
LDD, NCERT से अभिवादन!

पुस्तकालय और प्रलेखन प्रभाग, NIE, NCERT द्वारा आपके समक्ष फरवरी, मार्च और अप्रैल 2023 के महीने के लिए "प्रेस क्लिपिंग सर्विस" प्रस्तुत कि जा रही है यह सर्विस एनईपी 2020 और स्कूल शिक्षा के प्रासंगिक पहलुओं पर सभी महत्वपूर्ण प्रासंगिक और अद्यतित समाचार आइटम, संपादकीय टिप्पणियां और लेख एकत्र करती है.

LDD डिजिटल रूप से प्रेस क्लिपिंग सेवा प्रदान करता है, उपयोगकर्ता इस लिंक के माध्यम से पहुंच सकते हैं

<https://ncert.nic.in/ncertldd/services/pressclip.html>

यदि आपके पास इस सेवा के बारे में कोई सुझाव और प्रश्न हैं, तो आप हमें ईमेल कर सकते हैं - [library-nie@nic.in](mailto:library-nie@nic.in)

  
Head, LDD

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•	Booker winners to bestsellers: times litfest to host world's finest	The Times of India	04	09/02/2023	18
•	Tamil author perumal murugan's novel 'pyre' longlisted for 2023 booker prize	The Times of India	17	15/03/2023	19
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•	Veteran malayalam actor & comedian Mamukkoya dies at 77	The India express	09	27/04/2023	20
•	Ben Ferencz, last surviving nuremberg prosecutor, dies at 103	The Indian express	16	10/04/2023	20
•	The maestro who lived for music, kabir, birds, bhindi	The Times of India	01	06/04/2023	21
•	In the fitness of things: when 112-year-old marathon man showed city how it's done	The Times of India	07	24/04/2023	22
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•	South Delhi school takes the lead, introduces millets in meal for kids	The Times of India	05	05/04/2023	24
•	Oral hygiene most important for	The statesman	11	01/03/2023	25

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•	<a href="#">DoE identifies 4lakh students in govt schools to fix nutrition gap</a>	The Times of India	10	06/02/2023	26
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•	<a href="#">एक अप्रैल से पहले न शुरू करें सत्र: सीबीएसई</a>	Dainik jagran	01	19/03/2023	28
•	<a href="#">Behind bars, but no curbs on finding good education</a>	The Times of India	04	06/02/2023	29
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•	<a href="#">AICTE launches curriculum designed for B.tech electronics VLSI design and technology</a>	The statesman	09	20/02/2023	31
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## What is the open-source seeds movement?

# What is the open-source seeds movement?

What are IP rights on seeds and how are they inhibiting the freedom to innovate within the seeds sector?

Krishna Ravi Srinivas

### The story so far:

**F**armers have innovated and shared seeds without any intellectual property rights (IPR) for centuries. They also haven't sought exclusive rights over seeds and germplasm to prevent others from innovating on the seeds. However, with the emergence of the global IPR regime over plant varieties, there was a dire need to 'open-source' seeds.

### What are plant-breeders' rights and patents?

The advent of hybrid seeds, scientific plant-breeding, and some other factors conferred developers of new varieties with the so-called plant breeders' rights (PBR) and patents, particularly in the U.S. In this regime, rights-holders could demand royalty on seeds and legally enforce IPR. In some national IPR regimes, rights-holders can also restrict the unauthorised use of seeds to develop

new varieties. In 1994, the establishment of the World Trade Organization cast a global IPR regime over plant varieties. The Trade-Related IPR Agreement (TRIPS) required countries to provide at least one form of intellectual property (IP) protection. This consolidation of rights in the seeds sector raised concerns about the freedom to innovate. Unlike the Green Revolution, which was spearheaded by public-sector institutions, the genetic revolution in agriculture was led by the private sector, with seeds mostly availed as hybrids or protected by strong IPRs.

### How is IP protected in agriculture?

There are two major modes of IPR protection in agriculture – plant-breeders' rights and patents. Together, they restrict farmers' rights and the freedom to develop new varieties using germplasm from IP-protected varieties, and have thus increased the number of IP-protected plant varieties. The high prices of genetically modified seeds and IP claims triggered many

problems and issues, including the State's intervention in Bt cotton seeds in India. As public sector breeding declined and the private sector began to dominate the seed sector, the need for alternatives became keenly felt. This is when the success of open-source software inspired a solution. In 1999, plant-breeder named T.E. Michaels suggested an approach to seeds innovation based on the principles of open-source software.

### What are 'open-source seeds'?

In 2002, Boru Douthwaite and I (independently) proposed an open-source model for seeds and plant varieties and scholars and civil-society members built on it. The German NGO Agricol followed with a similar initiative in Europe. In Agricol's model, the user agrees *inter alia* to not patent seeds bought under the open-source licence. In the U.S., the open source seeds initiative opted for a pledge based model for sharing seeds.

In India, the Centre for Sustainable Agriculture (CSA), Hyderabad, developed

a model that included an agreement between CSA and the recipient of the seed/germplasm. It is trying to use this approach through three farmer producer organisations engaged in seed production. Under India's Plant Variety Protection and Farmers' Rights Act 2001, farmers can register 'farmer varieties' if they meet certain conditions, and have the right to reuse, replant, and exchange seeds. However, they can't breed and trade in varieties protected under the Act for commercial purposes.

One potential application of the open-source approach is to use it in farmer-led seed conservation and distribution systems. There are many traditional-variety conservation and sharing initiatives in India involving farmers. Many of them focus on traditional varieties that are unique to specific regions or sites and/or have specific features. The model can also be used to promote farmer-led participatory plant-breeding exercises. Traditional varieties often lack uniformity and aren't of excellent quality for seed development and breeding purposes. Open-source principles can help overcome these two challenges by facilitating testing, improvisation, and adoption.

All of these will ultimately be beneficial to India's food security and climate resilience.

Krishna Ravi Srinivas is with the Research and Information System for Developing Countries, New Delhi. Views expressed are personal.

## At G20, India will put spotlight on culture

# At G20, India will put spotlight on culture

The landmark world conference on culture, Mondiacult 2022, declared culture as a global public good, placing it at the heart of international policy and cooperation. The essence of this global paradigm shift is being strongly echoed through India's ongoing G20 presidency. Befittingly, the Culture Working Group (CWG) of India's G20 presidency postulates "Culture for LiFE" — promoting an environmentally conscious lifestyle by harnessing the potential of living heritage and cultural practices, positing culture at the forefront of development and diplomacy dialogue, acknowledging its growing contribution to global Gross Domestic Product, and celebrating cultural diversity to renew multilateral cooperation. CWG will steer the G20 discourse on four priority areas.

First, the protection and restitution of cultural property. Our tangible heritage navigates us to the latent linkages with the intangible. Unethical appropriation, armed conflicts, theft and illicit trafficking of antiquities erode collective memory, depriving communities of the right to access and share their heritage. The globalisation of markets and unregulated online trade with easier flows of capital have accelerated the illicit trafficking of antiquities. In the last eight years, 229 antiquities have been repatriated to India. CWG will initiate a dialogue for strengthening mechanisms to address the issue through the ethical lens of transitional justice and the moral obligation to correct a historical wrong.

Second, harnessing living heritage for a sustainable future. Sustainability or, more accurately, sustainable practices, have been the cornerstone of Indian culture. Ecocentric circular economy values emphasising mindful consumption and optimal utilisation of resources make India one of the least wasteful economies. Community knowledge, holistic living, and environmental management practices provide valuable insights and tools for tackling ecological challenges. Creating a repository of such practices and preserving indigenous languages as vehicles of living heritage is the need of the hour. India's CWG will galvanise the efforts of the G20 for leveraging existing initiatives and mainstreaming them in policy frameworks.

Third, the promotion of cultural and crea-

tive industries and creative economy. The cultural and creative industries and creative economies are some of the world's most rapidly growing sectors. According to the United Nations Conference on Trade and Development, global creative goods exports stand at

\$1.1 trillion. South-South trade in creative goods amounts to 40.5% of exports by developing economies. India's creative economy accounts for an overall market size of about \$36.2 billion. However, global issues such as the climate crisis and, more recently, the pandemic, continue to adversely affect the culture sector's long-term growth. A lack of a universal definition of what constitutes a creative economy and who qualifies as cultural practitioners impede evidence-based policymaking. CWG will deliberate on strengthening cultural data-collection mechanisms, enhancing business-support measures and securing the status of cultural practitioners.

Fourth, leveraging technology for the promotion and preservation of culture. Digital technologies are critical for safeguarding cultural heritage, especially during conflicts, natural disasters and other emergencies. In our wired and interconnected world, rapidly emerging technologies such as artificial intelligence, virtual and augmented reality, and robotics have revolutionised how we create, access and experience culture. As a result, initiatives by memory institutions to provide access to their collections through interactive and immersive technology interfaces have gained momentum. CWG will focus on ways to expand user-friendly digital cultural experiences and hasten the digitisation of cultural assets.

To engage with the priorities of India's CWG in depth and more meaningfully, the ministry of culture has developed a robust year-long programme of cultural projects. Select projects have been conceptualised to represent the shared heritage and diverse cultural expressions of G20 member-States and guest nations. This is India's opportunity to be the voice of the Global South for a more equitable exchange of cultural goods and services.



Govind Mohan



Lily Pandeya

Govind Mohan is secretary, and Lily Pandeya, joint secretary, ministry of culture  
The views expressed are personal

# The art of the 'Fosbury flop'

[ A REVOLUTIONARY ] HIGH JUMPER DICK FOSBURY DIES

## The art of the 'Fosbury Flop'



Dick Fosbury, the man who revamped the discipline of high jump and won an Olympic gold medal with his 'Fosbury Flop', has died. A look at how he transformed the sport.

### Richard Douglas Fosbury

#### Who was Fosbury?

He was an American high jumper who revolutionised the discipline by replacing the straddle-roll jumping style to jumping with a back-first landing at the 1968 Olympics that came to be known as the Fosbury Flop.

With his new jumping technique, he was able to win gold in the 1968 Olympics at Mexico City with a record jump of 2.24m - bettering the previous mark of 2.18m.



### What led to a new style

The introduction of foam padded high jump landing pits in the US towards the beginning of the 1960s helped Fosbury perfect his unorthodox style.

### The legacy

Although Fosbury did not make the 1972 US Olympic team and never held the high jump world record, 28 of the 40 competitors used the Fosbury Flop at the Munich Games. By 1980, 13 of the 16 Olympic finalists used the Flop. Of the 16 Olympic medalists from 1972 through 2000, 14 used the Flop as the technique became the event standard. In the modern day, the technique is considered the basic standard in the sport.

In 1993, Fosbury was elected to the US Olympic Hall of Fame.

Source: Olympics.com, The Physics of the Fosbury Flop, Stanford University

### What is the Fosbury Flop?



Comic books to mark 100th Mann ki Baat

# Comic books to mark 100th *Mann Ki Baat*

**Sreeparna Chakrabarty**

NEW DELHI

Amar Chitra Katha comic books featuring people and themes mentioned in Prime Minister Narendra Modi's *Mann Ki Baat* series, projection mapping shows in iconic heritage sites like Red Fort and Konark Sun Temple and an exhibition by well-known artists would mark the completion of 100 episodes of the Prime Minister's radio programme.

Through the monthly radio programme, Mr. Modi interacts with citizens on themes and issues of social importance. The 100th

episode of *Mann Ki Baat* will be broadcast on April 30. The first of the series of the 12 Amar Chitra Katha comic books would be released on April 30 and the rest over the next year. For the series, the comics will use people mentioned by the Prime Minister in his programme, those who have made a difference to society in everyday life.

"Free copies of the comic books would be distributed in all CBSE and Central Board schools. The publishers, however, are free to sell the books in open market," Union Culture Secretary Govind Mohan said.

## How Indian artists are using AI, AR to let creativity soar

# How Indian artists are using AI, AR to let creativity soar

Mohua.Das@timesgroup.com

Would Impressionists like Monet and Renoir have existed had it not been for the invention of the portable paint tubes that allowed them to escape the studio, take inspiration from the world outdoors and experiment with new lightfast pigments invented by industrial chemists in the 19th century? What would have become of the '60s pop art movement had Andy Warhol not discovered silkscreen printing, the process of transferring images from magazines or newspapers to canvas? Closer home, one wouldn't have known the artistic possibilities with the camera till Akbar Padamsee in 1969 recreated one of his own paintings of an abstract landscape using projected light, tinted filters, stencils and photographic slides. Misunderstood and rejected then, it started art's tryst with technology in India.

The debate over how much technology is too much technology within the fine art realm has been an ongoing one but art and tech have always made for inspiring bedfellows even as purists remained wary of machine intrusion. From painting with a stylus on a tablet to immersive augmented reality art, 3D-printed sculptures to paintings created by codes and algorithms, for adventurous artists, tech has been more than a tool.

### JENNY BHATT: TECH TONIC

For Mumbai-based pop surrealist artist Jenny Bhatt, the "web3-based metaverse" has been a new home for her art since she introduced augmented reality (AR) to her digital interactive art project 'Moksha-



Shots' about a year ago. In her latest in the series — 'Metamind: Infinite Possibility' an acrylic on canvas piece that is part of the Art of India (AoI) week-long showcase that starts in Mumbai on March 19 — Bhatt uses digital layers to bring motifs of infinity, metaverse, and the human mind to life.

"When a viewer trains their phone lens on it, parts of the piece start animating," says Bhatt, enthused by the AR technology of adding virtual elements like animation and 3D objects that can enhance her artwork's meaning. "I can innovate in a way that I can't with traditional media. It's not limited by space or location and the viewer is a participant, taking the story forward by the choices they make on their device."

### JAIDEEP MEHROTRA: DIGITAL BRUSH

A trailblazer of this hybrid artform, Jaideep Mehrotra, has been tapping the potential of blending age-old art techniques with new-age technology since the '90s. "Most of my life I'd been working with the 'goonga medium' or paintings that are essentially mute," he says. That is before an Apple Powermac replaced his easel, a digital pen his paintbrush and catalysed his move into computer-generated lithographs and video art installations, undeterred by conservatives who called it a "gimmick".

His latest is a time-lapse infinite loop video titled 'Within' that will take viewers at the AOI on a kaleidoscopic journey through vignettes of people, places and things. "It depicts the preoccupation of metropolises and similarity of lives around the globe," he says, describing the new perspectives that the digital medium affords him. "Artists should use whatever visual lan-

guage is available to them to allow the message to slide in."

Yet, some are worried by artificial intelligence (AI) tools that can convert text into immaculate images in seconds. Bhatt, despite her experiments with digital art for over two decades, feels apprehensive about the ethics surrounding AI art. "I've always been excited about what tech can do for art including creative coding that NFT artists use to generate random visual outputs. But not machine-generated AI art. That feels like a breach of another artist's copyright," she maintains.

Mehrotra, on the other hand, finds AI an "amazing new addition" that needs to be investigated, not brushed aside. "Art has no parameters. The moment you create parameters you destroy it. To celebrate art, people have to be open to different realms."

### PRATEEK ARORA: SCI-FI MEETS AI

While the jury is still out, AI has definitely altered the rules of creativity. Screenwriter Prateek Arora is one of those unlikely artists who uses AI as his muse. "I was always interested in science fiction, fantasy and horror but as a writer and creator, shows that I pitched for in that genre were seen as too experimental and risky."

Until AI happened to him six months ago and took his artistic vision beyond what he had imagined. Now, his photoreal AI creations of fantastical and alien creatures that merge Indian aesthetics with horror and sci-fi have gone viral. "I've also had interest from directors and producers from the south Asian diaspora," says Arora, who dismisses critics who deem this artform 'unoriginal'.

"No one can be the arbiter of what art is or isn't. Isn't art after all a rapid iteration of what you see around you, getting inspired and executing that with your own originality?" he stresses.

The Art of India 2023  
An initiative by  
THE TIMES OF INDIA

## AWARDS

# Indian-American C.R. Rao wins Nobel prize equivalent in statistics at the age of 102

## Indian-American C.R. Rao wins Nobel Prize equivalent in statistics at the age of 102

**Atanu Biswas**

The Indian-American statistician Calyampudi Radhakrishna Rao has been awarded the 2023 International Prize in Statistics – the equivalent of the Nobel Prize for statistics. It is awarded once every two years to an individual or team “for major achievements using statistics to advance science, technology and human welfare”.

The work of Professor Rao, 102, has influenced, in the words of the American Statistical Association, “not just statistics” but also “economics, genetics, anthropology, geology, national planning, demography, biometry and medicine”.

The citation for his new award calls him “a professor whose work more than 75 years ago continues to exert a profound influence on science”.

Professor Rao’s groundbreaking paper, “Information and accuracy attainable in the estimation of statistical parameters”, was published in 1945. It was an impressive achieve-



C.R. Rao

ment since he was only 25 at the time. He would go on to do his Ph.D. in 1946-1948 at King’s College, Cambridge University, under the supervision of Ronald Fisher, regarded as the father of modern statistics.

The 1945 paper boosted the development of modern statistics and its application in research.

### Rao score test

One of Professor Rao’s papers in 1948 offered a novel generic approach to testing hypotheses, now widely known as the “Rao score test”. This and two other tests, developed by Jerzy Neyman, E.S. Pearson and Abraham Wald, are sometimes called “the

holy trinity” of this branch of statistics.

Professor Rao also contributed to orthogonal arrays, a concept in combinatorics used to design experiments whose results are qualitatively good, as early as 1949.

A 19-year-old Rao could not secure a scholarship at Andhra University for administrative reasons. He was also rejected for a job at an Army survey unit. When he was staying in Calcutta, a chance meeting led him to enroll at the Indian Statistical Institute, where he spent the next four decades. After his retirement in 1979, he settled in the U.S.

The first half of the 20th century was the golden period of statistical theory in general, and Rao is one of the reasons for this. As the renowned statistician Erich Lehmann wrote, Rao was “the person who did the most to continue [P.C.] Mahalanobis’s work as a leader of statistics in India.”

*Atanu Biswas is Professor of statistics, Indian Statistical Institute, Kolkata.*

## Booker winners to bestsellers: times litfest to host world's finest

# Booker winners to bestsellers: Times Litfest to host world's finest

TIMES NEWS NETWORK

He describes himself, rather self-deprecatingly and disarmingly, as “failed cricketer, failed rock star and failed vegan.” And he admits in his own website that he “doesn’t know how to use semi-colons” and is “unable to spell diarrhea without assistance.”

But there are a few things that Sri Lankan author Shehan Karunatilaka can do. He can produce a stunning work of fiction — Chinaman: The Legend of Pradeep Mathew — which a 2019 Wisden panel said was the 2nd best book ever written on cricket.

And he can do even better by winning the 2022 Booker Prize with his novel, The Seven Moons of Maali Almeida. Neil MacGregor, chair of the judges, had praised the “ambition of its scope, and the hilarious audacity of its narrative techniques.”

MacGregor, a British art historian, is further quoted as saying on the Booker website, that The Seven Moons of Maali Almeida “takes the reader to ‘the world’s dark heart’ — the murderous horrors of civil war Sri Lanka. And once there, the reader also discovers the tenderness and beauty, the love and loyalty, and the pursuit of an ideal that justify every human life.”

The truth is that Shehan has done a lot of other things. He has written rock songs, screenplays and travelogues. A major star in the modern literary firmament, he is part of the Rajjigandha Times Litfest 2023 this weekend.

So is Mainpuri-born Geetanjali Shree, whose Hindi novel Ret Samadhi (2018) was translated into English by Daisy Rockwell as Tomb of Sand and won the International Booker Prize. Frank Wynne, chair of the judges had described the book as “a luminous novel of India and Partition, but one whose spellbinding



Shehan Karunatilaka



Geetanjali Shree



Bernhard Moestl

### ON RECORD: RUSHDIE, HARARI AND 2021 NOBEL WINNER GURMAH

A special feature of the 2023 Times Litfest are the exclusive video interviews recorded with renowned authors which will be played for the audience. One of them is with **Salman Rushdie**, who survived a near-fatal stabbing last August and has just come out with his latest novel, Victory City.

Israeli historian-philosopher, **Yuval Noah Harari**, will be seen in a similar avatar. Harari’s Sapiens and Homo Deus are among the most discussed books in recent decades. So will Robin Sharma, who authored the blockbuster, The Monk

and fierce compassion weaves youth and age, male and female, family and nation into a kaleidoscopic whole.”

Geetanjali hasn’t written rock songs like Shehan. But in an interview once confessed that she hums vintage melodies from Hindi films all the time.

The Times Litfest also hosts Vienna-born bestselling author and photographer Bernhard Moestl. Fascinated by Asian philosophy and culture, Moestl became a student of warrior monks in a Shaolin monastery in China. “He meticulously studied their martial arts for many years and

Who Sold His Ferrari.

Literature lovers will also relish seeing and hearing the views of Abdulrazak Gurnah in another exclusive recorded conversation.

Gurnah, who received the 2021 Nobel prize for Literature, was born in Zanzibar but, like many Arabs, was forced to leave the place in the 1960s. He settled in England and teaches literature at the University of Kent. Among other things, his novels speak about the nowhere-ness of people trapped between cultures. By The Sea, Desertion and Afterlives are three of his most memorable works.

internalised the teachings of Zen Buddhism as well as the physical and mental techniques of the famous fighters,” says an article in his website.

The result: a bunch of books that show how the Shaolin principles of mental and physical self-control can improve our lives. Two of his popular works are — Shaolin: You Don’t Have To Fight To Win and The Shaolin Principle: Do Only What You Have Decided. Translated into 13 languages, including Hindi, Marathi and Malayalam, the books have been on international best-seller lists for over 500 weeks.

The Times Litfest Delhi, presented by Rajjigandha, is being held on February 11 & 12, at Siri Fort Auditorium, August Kranti Marg. Entry is free. Guests to enter venue through gate numbers 2 and 4. Details available at [timeslitfest.com](http://timeslitfest.com)

**Rajjigandha**  
Times Litfest  
One World, Many Words

**Feb 11<sup>th</sup> - 12<sup>th</sup>**  
**Siri Fort Auditorium**  
**Visit [timeslitfest.com](http://timeslitfest.com)**

## Tamil author Perumal Murugan's novel 'pyre' longlisted for 2023 Booker prize

# Tamil author Perumal Murugan's novel 'Pyre' longlisted for 2023 Booker Prize

Tamil author Perumal Murugan's novel 'Pyre' is among 13 books from across Asia, Africa, Europe and Latin America to make it to the longlist of the International Booker Prize 2023, announced by the Booker Foundation on Tuesday.

Murugan, 56, makes it to the list with his 2016 book 'Pyre', translated from Tamil by Aniruddhan Vasudevan,

becoming the first Tamil writer to make it to the longlist.

'Pyre', tells the tale of an intercaste couple who elope, setting in motion a story of terrifying foreboding.

"I am very happy, and this is a great acceptance of my writing. 'Pyre' deals with honour killing. Honour killing is a big problem in our country. I hope more people get to know about this issue

after this recognition," the author told PTI.

"Perumal Murugan is a great anatomist of power and, in particular, of the deep, deforming rot of caste hatred and violence. With flashes of fable, his novel tells a story specific and universal: how flammable are fear and the distrust of others," Booker's prize judging panel noted. ❧

## BIOGRAPHY

# Veteran Malayalam actor & comedian Mamukkoya dies at 77

## Veteran Malayalam actor & comedian Mamukkoya dies at 77

ANANDU SURESH  
KOCHI, APRIL 26

SOON AFTER the news of Mamukkoya's death broke, Kerala Law Minister P Rajeev wrote Facebook wall: "With Mamukkoya also disappearing behind the fallen curtain, an entire generation of film personnel has bid goodbye to us. Innocent, KPAC Lalita, Kalpana, Thilakan, Nedumudi Venu, Sukumari and finally Mamukkoya..."

Rajeev's statement would have resonated with Keralites —

it is almost impossible to recall a Malayalam movie since the 1970s that did not feature one of these actors, with Mamukkoya being one of the most prominent ones.

His departure marks the end of an era when actors who primarily played supporting roles carried Malayalam cinema. The skill of such actors helped make the industry what it is today.

Born on July 5, 1946, in Kozhikode district's Kallayi, Mamukkoya worked as a labourer in a timber yard during his early days. His connection with the drama community



MAMUKKOYA  
1946-2023

helped him land his first film role in 1979, *Anayude Bhoomi* directed by Nilambur Balan.

The actor's breakthrough came three years later when director Sibi Malayil gave him a notable character in his film *Doore Doore Oru Koodu Kottam* (1986). The film, a satirical comedy-drama that critiqued the education system in Kerala during the 1980s and 1990s, won the National Film Award for Best Film on Other Social Issues. Mamukkoya's comic timing and use of Mappila dialect was praised.

Mamukkoya's career reached its pinnacle in 1987 when he portrayed the iconic conman Gafoorika in Sathyan Anthikad's *Nadodikattu*, which

also starred Mohanlal and Sreenivasan. Even today, it is nearly impossible to find a Malayali who isn't familiar with the reference "Gafoor ka dost," demonstrating the enduring popularity of the character.

Throughout his career, Mamukkoya delivered exceptional performances in a range of roles, including an MLA in action thriller *August 1* (1988), a local tea shop owner in *Pannattayidamma Thoruvu* (1988), photographer in *Vadakkunokkiyantram* (1989), a pickpocket in *Mazhavilkavadi* (1989), and a film projector operator in *Pradeshaku Varthaku* (1989).

Similar to the late veteran actor Innocent, Mamukkoya also played one of the most iconic characters in his career in Siddique-Lal's debut film *Ramji Rao Speaking*, where he played the role of Ramzalkoya. Despite being a comic character, a sudden change in tone in certain scenes made audiences realise that Mamukkoya could portray characters with emotional depth.

Many of his dialogues are still popular among Malayalis, giving him the sobriquet in social media 'king of thug dialogues'.

# Ben Ferencz, last surviving nuremberg prosecutor, dies at 103

THE HARVARD-EDUCATED LAWYER SECURED CONVICTIONS OF NUMEROUS GERMAN OFFICERS

## Ben Ferencz, last surviving Nuremberg prosecutor, dies at 103

WILL DUNHAM  
APRIL 9

Benjamin Ferencz, the last surviving prosecutor from the Nuremberg trials in Germany that brought Nazi war criminals to justice after World War Two and a longtime apostle of international criminal law, died on Friday at age 103, NBC News reported, citing his son.

Ferencz, a Harvard-educated lawyer, secured convictions of numerous German officers who led roving death squads during the war. Circumstances of his death were not immediately disclosed.

The *New York Times* reported that Ferencz died at an assisted living facility in Boynton Beach, Florida.

He was just 27 years old when he served as a prosecutor in 1947 at Nuremberg, where Nazi defendants including Hermann Goering faced a series of trials for crimes against humanity including the genocide known as the Holocaust in which six million Jewish people and millions of others were systematically killed.

Ferencz then advocated for decades for the creation of an international criminal court, a goal realized with the establishment



Ferencz was just 27 years old when he served as a prosecutor in 1947 when Nazi defendants faced trials for crimes against humanity including the Holocaust. REUTERS

of an international tribunal that sits in The Hague, Netherlands. Ferencz also was a significant donor to the US Holocaust Memorial Museum established in Washington.

At Nuremberg, Ferencz became chief prosecutor for the United States in the trial of 22 officers who led mobile paramilitary killing squads known as Einsatzgruppen that were part of the notorious Nazi SS. The squads carried out mass killings targeting Jews, gypsies and others — primarily civilians — during the war in German-occupied Europe and were responsible for more than a million deaths.

"It is with sorrow and with hope that we here disclose the deliberate slaughter of more than a million innocent and defenseless men, women, and children," Ferencz said in his opening statement at the trial.

Ferencz told the court that the accused officers methodically carried out long-range plans to exterminate ethnic, national, political and religious groups "condemned in the Nazi mind."

"Genocide — the extermination of whole categories of human beings — was a foremost instrument of the Nazi doctrine," Ferencz said.

The defendants all were convicted and 13 were given death sentences. It was Ferencz's first career case.

At age 91, he took part in the first case before the court by delivering a closing statement in the prosecution of accused Congolese warlord Thomas Lubanga Dyilo, who was convicted of war crimes.

"The reason I have continued to devote most of my life to preventing war is my awareness that the next war will make the last one look like child's play," he told the bar association in 2018. "... Law, not war" remains my slogan and my hope." REUTERS

# The maestro who lived for music, kabir, birds, bhindi

## The maestro who lived for music, Kabir, birds, bhindi

Kumar Gandharva, A Legend Of Indian Classical Music, Was Born On April 8, 1924. Events Will Be Held Round The Year To Mark His Centenary

Namita Devkayast

S ometime in the 1980s, Kumar Gandharva was invited to perform at an auditorium in Dadar, Mumbai. When he reached the venue, the organisers rudely told him to move ahead as they had to clear the way for a politician, the chief guest. His friend, who had driven him there, protested that this was the artiste himself, but they were not bothered. Without a word, and with no assistance, Kumar Gandharva picked up one tanpura, his friend picked up the other, and they climbed up two steep flights of stairs to the auditorium on the second floor. Once he was on stage, Kumar Gandharva delivered a wonderful performance. His music soared like the swan he often sang of, 'Ud Jayega Hans Akela', wrapping the audience in an ethereal cocoon. When asked later if he was upset by the organisers' behav-



**SONGS CELESTIAL:** Moving to Dewas in Madhya Pradesh after he was diagnosed with tuberculosis in the 1940s, Kumar Gandharva pursued new directions in his music, experimenting with folk elements and Kabir's nirgun poetry



As a child, he revealed an extraordinary gift: he could memorise and mimic any kind of music. With this talent, the child star was given the name Kumar Gandharva by the swamiji of the neighbouring 'math', and was sent at about age 10 to learn music in Mumbai

our, he said, "yes, of course, but the 500 who have gathered here should not suffer on that account."

Kumar Gandharva may have passed on, but his voice continues to soar, unbuffered, giving solace and pleasure to many. It is the voice that defies boundaries and breaks hierarchies to reach the space where everyone dissolves into that roar of silence. What did he mean when he sang of shunyata or emptiness? Was his music classical or folk? Why did he become the voice of the mystic poet Kabir? Who was this man?

Shivaputra Siddharamaiah Kom-

kali was born to a family of singers near a Shiva temple in a village called Sulabhavi in Belgaum, Karnataka 100 years ago. As a child, he revealed an extraordinary gift: he could memorise and mimic any kind of music. With this talent, the child star was given the name Kumar Gandharva by the swamiji of the neighbouring 'math', and was sent at about age 10 to learn music from BR Deodhar, who had started a music school in Mumbai's Opera House. The name 'Kumar' stuck, he was never known by any other.

The year India got Independence, Kumar Gandharva got married and gave what for a long time would become his last recording on All India

Radio. He had been diagnosed with tuberculosis and forbidden to sing. But for a man steeped in faith, even what seems like a dagger transformed into a magic wand. He moved to a town called Dewas in Madhya Pradesh, known for its clean, dry air and its ambient folk music.

In Dewas, the songs of the villagers and the wandering devotional or sufi singers became a constant background hum in his life. The music now played in his interior world. He braided lighter folk elements into ragas, miraculously never

compromising on the integrity of either. He befriended the mystic Kabir's nirgun poetry that was soaked in the vision of oneness about the ultimate formless reality, and peppered with lilting reminders that the great potter returns all to the same mud.

"People who knew Kumarji tell stories of how he loved vegetables and flowers, birds, books and rain - how attentive he was to things and moments," writes Linda Hess in her book 'Singing Emptiness'. "He enjoyed gardening and shopping; carried multiple shoulder-bags to the market so the fresh vegetables would not get crushed; engaged friends in long conversations about the beauties of bhindi; set a tape recorder in the garden early in the morning to catch the conversation between two birds."

When he was given permission to sing again, six years after he had been diagnosed, he was a shooting star singing a kind of music that had never before been heard. His music transcends history, geography. It even transcends music, for it hits the purest vibration that connects all.

(Kumar Gandharva's birth centenary will feature a series of performances through the year across different cities.)

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# In the fitness of things: when 112-year-old marathon man showed city how it's done

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TIMES CITY

## In the fitness of things: When 112-year-old marathon man showed city how it's done

Anuja.Jaiswal@timesgroup.com

**New Delhi:** Fauja Singh, a 112-year-old veteran of many marathons, was the main draw for selfies at the 5-km Baisakhi Super Sikh run on Sunday at Connaught Place.

The UK national's presence caused youngsters to huddle around him for clicks. Singh's sprightliness seemed infectious. In a sense, he symbolises defiance each time he shows up for a run.

Singh was in Delhi on Sunday to flag off the run organised by Sun Foundation. He walked about 700 metres to motivate young Delhiites.

"*Jad main kar sakna haan, te tussi to jaroor kar sakde ho* (when I can do it, you surely can)," the one-time farmer from Jalandhar said.

Asked about his health, he thanked god. "*Wahe guru di kirpa hai* (it is god's gift)," he said. It is important to be fit and run every day to keep all evil away, he added.

He took no medicines, Singh said. "I live a regimented life and eat healthy food



**AGE NO BAR:** People join Fauja Singh at the 5-km Baisakhi Super Sikh run on Sunday at Connaught Place



like dalia and khichdi."

Yes, he has a sweet tooth and loves the kada prasada, a whole wheat halwa, but he has it in small quantities. "I don't eat anything at night," said the man who has been nicknamed Turban Tornado.

Singh overcame several challenges to become the runner he is today. He was born with weak legs and could hardly walk long distances. He took to running after the death of his son in an accident. He

### FAUJA SINGH SAYS

**Jad main kar sakna haan, te tussi to jaroor kar sakde ho (when I can do it, you surely can)**

started jogging to overcome the grief. Later, he decided to take up running seriously.

In his 100th year, he completed a marathon in 2011.

Vikramjit Singh Sahney,

the Rajya Sabha member who is the founder of Sun Foundation, said: "Youth in India have the potential to perform outstandingly in the field of sports but they need motivation, especially the ones living in rural areas. It is indeed the duty of the government and society to channel their energy."

Sahney said the purpose of the run was to celebrate the joy of Baisakhi, while reinforcing the immense cont-

tribution of Punjabis in the freedom struggle. He said the theme of the run was One Race - Human Race.

Over 2,000 participants ran the 5-kilometre challenge, which was graced by former Indian athlete Gurbachan Singh Randhawa and former Indian cricketer Bishan Singh Bedi.

The event concluded with Punjab's signature colourful bhangra and spirited martial art gatra.

## CHILD WELFARE AND DEVELOPMENT

### ◆ CHILD HEALTH & NUTRITION

## Health first: modern kitchens to feed school kids nutritious meals

# Health first: Modern kitchens to feed school kids nutritious meals

Ridhima.Gupta  
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**New Delhi:** Delhi's women and child welfare department will open modern kitchens in all 11 districts of the capital to give children nutrition-rich food, something that many schoolchildren missed out on during the pandemic lockdown.

The meals from the new kitchens will have millets and fortified rice, a senior official said. They will be provided to children from classes 1 to 8, officials said.

The National Family Health Survey (NFHS) data shows that around 30% of children in Delhi are malnourished. The NFHS-5 (2019-21) data shows that 38.4% of children are stunted, 35.5% suffer from wasting and 21% are underweight.

Although malnutrition levels among children have reduced when compared to the NHFS-4 (2015-16) data,



Photo for representation

### COOKING UP A BRIGHTER FUTURE

child right activists and nutritionists suspect that data collected after Covid would suggest an increase in malnourishment among children.

Another factor that could adversely affect nourishment among schoolchildren is the increase in the enrolment of students in government schools in the pandemic. due to this, many children were left out of the midday meal scheme in Delhi. The Programme Approval Board, which decides the work plan and budget for the midday meal schemes annually, has noted that over 4.8 lakh children were left out of the midday meal scheme in 2021-22 in Delhi due to a shortage of food grains.

Navlendra Kumar Singh, deputy director of the wo-

men and child development department, said that during the initial outbreak of Covid, schoolchildren were deprived of proper nutrition. Given the strict lockdown, mid-day meals were stopped and for some time anganwadi workers could not reach the children.

such nutrition setbacks that children may have suffered, claimed the official. Department officials said new agencies have been brought in to set up the modern kitchens. "With the help of several NGOs, nutritionists and other stakeholders, we have charted out plans for new meals for the children. Often, we get to know that the quality of mid-day meals gets compromised and is prepared in an unhygienic manner. So, even though children get food, the nutrition levels are low. In these modern kitchens, hygiene will be a top priority. We will also introduce fortified rice and other supplements for children," Singh said.

He added the department will soon write to the government for procurement of fortified rice. Fortified rice is made as per the standards fixed by the Food Safety and Standards Authority of India (FSSAI).

"We are also planning on providing fortified milk to children which will have extra vitamins and minerals not found naturally in milk in significant amounts. We are currently in talks with multiple milk manufacturers about the cost per packet. In the coming weeks, we will finalise all components of the meals and will start setting up the kitchens," added the official.

### AN OFFICIAL SAYS

**In these modern kitchens, hygiene will be a top priority. We will also introduce fortified rice and other supplements for children**

men and child development department, said that during the initial outbreak of Covid, schoolchildren were deprived of proper nutrition. Given the strict lockdown, mid-day meals were stopped and for some time anganwadi workers could not reach the children.

The modern kitchens were an effort to make up for

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## South Delhi school takes the lead, introduces millets in meal for kids

# South Delhi school takes the lead, introduces millets in meal for kids

Shradha.Chettri@timesgroup.com

**New Delhi:** When the students of the privately run Birla Vidya Niketan in south Delhi reached school on the first day of the new academic session, they found the aloo paratha they usually got for the midday meal replaced by mixed millet paratha, rice idli by ragi idli and for a sweet dish, they got barnyard millet kheer.

For the students of nursery to Class II, the school provides midday meals and a sweet dish and from now on, millet will be part of this diet thrice a week. In the process, the school has become the first to incorporate millet in the meals for children. For the senior students too, millet items will be available in the school canteen.

On the first day of school on Monday, the menu had finger millet idli, vegetable pearl salad and amaranth millet laddoo. "The children simply loved the ragi idli that was served to them. Instead of normal flour, we used buckwheat (kuttu) flour. The finger millet salad consists of the grain that is first soaked and then boiled," said school principal Minakshi Kushwaha.



HEALTHY AND TASTY

Himanshu Gupta, director, Directorate of Education, who participated in the launch of the millet diet on Monday, applauded the school for starting the initiative.

Kushwaha said, "The UN has declared 2023 as the international year of millet. These often-ignored grains are indeed good components for meals and they have dietary benefits. For their midday meals, we give students Indian food such as lauki, matar paneer and paratha. We decided to include millet in this."

As part of the inauguration, the school provided information on different millets, showing the protein, calcium and other values included in the millet meal. "It is important to know the calorific value of the food items that we are consuming and we

wanted students to be aware of it," the principal added.

The school prepared the meal plan with the help of an expert, who happens to be a parent of a student. Purnima Thakur is assistant director at the Union ministry of women and child development and has also worked with Rajasthan government with Delhi's ICDS programme.

"School came up with the idea and I assisted in building the meal programme," said Thakur. "We will offer millet meals thrice a week to cater to the child's natural development and digestibility even though not everyone has a palate for millet. The programme meets the daily requirement of protein, calcium, minerals. The digestibility quotient is a bonus."

## Oral hygiene most important for school-going children

# Oral hygiene most important for school-going children

TARUN GOSWAMI

**D**r Moon Chattaraj, a well-known dentist and the director of AM Medical Centre proposes to start dental camps for students in different schools.

"It is mandatory for the school-going children to go for dental check-up once in a year. Most of the children do not know the proper technique of how to brush the teeth. It is important to teach the parents the proper style of brushing. It is not so important which brush you are using, but the technique should be perfect. We often fail to understand that all diseases start with dental problem and keeping the oral hygiene in order is absolutely necessary," said Dr Chattaraj.

She has already started taking up the matter with the authorities of some schools and in future not too distant when such camps would be set up. "Eyes and teeth care are essential for the school-going children," she maintained.

Dr Chattaraj said, "Children take junk food which does not provide proper nourishment and this results in problems in the teeth and eye. We request parents to reduce the intake of junk food by their children but our advice fail to yield desired results and they carry on giving junk food to their children," she said, adding, "Awareness on dental health should be carried out across the state," she remarked.

She said mouth is the indicator of any infection. "In case of chicken pox and viral infections, there are rashes inside the mouth which need to be addressed immediately. Dr Chattaraj, who received training in England and worked in Singapore with world renowned dental surgeons, said, "In the West, before any major surgery, the dental health is examined. Unfortunately it is not done here," she regretted.



In case of major road accidents where the jaw and mouth are badly affected, the dentists visit the trauma care centres and the original symmetry of teeth is brought back by installing artificial crown. "We produce crown in our chamber and after proper scanning they are installed," she said.

Cosmetic dentistry is now the in thing and actors, important people who go for regular parties, politicians, painters etc are going for cosmetic dentistry where the non-symmetric pair of teeth is corrected and this helps to improve the personality of the individual.

Soma Dey (name changed) who did cosmetic dentistry recently, said "Believe me, I could not smile because of my teeth. I had developed inferiority complex and I could watch that people were looking at my mouth because of lack of symmetry of teeth. I got information of Dr Moon and believe me now my inferiority complex is over and I can smile with confidence."

The Greek philosophers used to say "Face is the mirror of the mind" and of course a pair of good, glittering, teeth with symmetry.

Dr Chattaraj's passion is painting and she has put up many of her paintings in her chamber. "We go for painless dental surgery and those who come in the clinic, return with a smiling face," said the doctor with confidence.

## DoE identifies 4lakh students in govt schools to fix nutrition gap

# DoE identifies 4 lakh students in govt schools to fix nutrition gap

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**New Delhi:** The Directorate of Education (DoE) has identified over 4 lakh students from different Delhi government schools who are below the WHO-certified level of nutrition. To address this gap, the department has collaborated and signed a memorandum of understanding (MoU) with Ladli Foundation Trust that will help it with various interventions like mid-snack breaks, maintenance of health records and parent counselling.

The MOU was signed in the presence of DOE director Himanshu Gupta. The NGO will help the schools implement the intervention by providing over 100 interns.

The platform for social internship created by the foundation will be extended to willing students of class XI studying in the schools of DoE. The student interns will be provided with suitable ID cards upon commencement of the social internship and a certificate will be awarded to them.

In December last year, the DoE announced that it had conducted a study on the height, weight and body mass index of students. "The findings were analysed using WHO AnthroPlus software. A total of 4,08,033 students were identified in the red zone as suspected cases of malnourishment," sa-

### HEALTH COMES FIRST

**4,08,033** students in Delhi government schools identified with suspected malnutrition



These students are in **red zone** of survey conducted in November 2022



The findings were analysed using WHO AnthroPlus software, which measured



- ▶ Anthropometric proportions
- ▶ Individual assessment
- ▶ Nutritional survey

**How DoE wants to tackle this**

- ▶ Parental counselling
- ▶ Mid-snack break
- ▶ Regular health checkup



**DoE has signed an MoU with Ladli Foundation**

- ▶ It will work with 100 interns to help fulfil the intervention
- ▶ Class XI students studying in DoE schools can also come forward and enrol as interns
- ▶ Data collected will be

analysed based on the needs and feedback of participating children and their families

- ▶ Quarterly progress report will be submitted to relevant stakeholders, including Delhi government and partners

id a senior department official.

Interventions such as parental counselling sessions, mini-snack breaks, maintaining a record of the height and weight of students with low BMI records, and introducing alternative dishes with high nutritive values in midday meals are facilitated in all government schools of DoE.

Schools were asked to modify the time-table to include 10 minutes of break within 2.5 hours before the lunch break. There could be a weekly planner of health-snacks indica-

ting three choices per day.

"The collaboration with Ladli Foundation is a stepping stone towards integrated health education. It will open the door to exploring avenues to support sustainable measures to overcome malnutrition," added the official.

The foundation will also regularly collect data on the effectiveness of the intervention, including monitoring the nutritional status of participating children, tracking the uptake and utilisation of nutritional support, and gathe-

ring feedback from children, parents and school staff.

They will also analyse the data collected and use it to inform adjustments to the intervention as needed.

The department hopes that with this intervention it will facilitate proper physical and cognitive growth of school-aged children, strengthen attention span, physical activity, comprehension and growth of students requiring nutritive care, and reduce absenteeism of students in school owing to poor health conditions.

## ◆ CHILD PSYCHOLOGY

# 200 से ज्यादा बच्चों की 'चौकी में पाठशाला



सीमापुरी के ई-ब्लॉक और एक-ब्लॉक की दो पुलिस चौकी में चल रही है पाठशाला

## 200 से ज़्यादा बच्चों की 'चौकी में पाठशाला'

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- **नई दिल्ली :** छोटे बच्चों के दिलों दिमाग से पुलिस का डर निकालने के लिए सीमापुरी इलाके में पुलिस चौकी में पाठशाला चलाई जा रही है। सीमापुरी के ई-ब्लॉक और एक-ब्लॉक की दो पुलिस चौकी में इस समय 220 बच्चे पढ़ाई कर रहे हैं। जयदातर बच्चे सरकारी और प्राइवेट स्कूलों में अलग-अलग कक्षाओं में पढ़ाई कर रहे हैं। इस अगैजो पाठशाला में पढ़ रहे बच्चे अब खासरी घड़ी के प्रति इतने फ्रेडलैब हो गए हैं कि उनसे डरने की बजाय उनके सामने लड़क-लड़क की फरमाइशें रखते हैं। छोटे बच्चे आइसक्रीम खिलाने के लिए कहता है तो कोई फिजिकल पर ले जाने की हिमांठ रखता है। दिल्ली पुलिस को इस अगुती पहल से बच्चों के परिवार भी बहुत खुश हैं। इलाके के लोग इसका पूरा भेरा सीमापुरी बच्चे के एराएचओ विनय कदम को देते हैं।
- सीमापुरी ई-ब्लॉक में ईदराह के पीछे आसबास के लोगों ने अपना कनाठ इकठ्ठा किन्ध हुआ था। जब इस जगह पर स्कूल शुरू करने की बात पत्नी से लोगों ने जगह को खाली कर दिया। इसके बाद पुलिस ने इस जगह पर एक बड़ा सा कमरा तैयार करवाया। जब वात स्कूल के नामकरण की आई तो इलाके के लोगों ने ही इसका नाम चौकी में पाठशाला रखने के लिए कहा।
- सहदय डिस्ट्रिक्ट के पुलिस अधिकारियों को भी यह नाम बहुत पसंद आया। शुरुआत 10-15 बच्चों से हुई, लेकिन देखते ही देखते बच्चों की संख्या बढ़ती चली गई।

### किताबें हुई घेरी से लगवाई गई जाली

एक दिन एराएचओ घूमते हुए बच्चों के बीच पहुंचे तो बच्चों ने कहा अकाल बहुत नहीं लग रही है। कुछ ही दिनों में किताबी कानेवरान काने के राब-राब पाठशाला में छह पीले लगवा दिए गए। एचएचओ ने बताया कि पाठशाला शुरू हुए कुछ ही दिन हुए थे कि किली में पाठशाला में रची किताबें घेरी कर लीं। घेरी की घटना को रोकने के लिए चौकी को घेरीं लक से लैड के जल से कवर किया गया। सीमापुरी एच-ब्लॉक में भी चौकी में पाठशाला चलाई जा रही है। इस पाठशाला में 100 से अधिक बच्चे पढ़ते हैं। इरामें अभी बिजली कानेवरान के अलावा किताबों के लिए एक अडि बनने वाली है।

**10,000** से अधिक किताबें मिल चुकी हैं सीमापुरी से

**220** बच्चे पढ़ाई कर रहे हैं सीमापुरी के ई और एक-ब्लॉक की दो पुलिस चौकी में

किताबों और बेंच के लिए एक प्राइवेट स्कूलों से संघर्ष किया। इन स्कूलों से अभी तक 10,000 से अधिक किताबें मिल चुकी हैं। एक स्कूल ने बेंच की व्यवस्था की। कुछ बच्चों को टैब भी दिए गए हैं। काई सामाजिक संस्थाएं भी सहयोग कर रही हैं। - **विनय कदम, एराएचओ सीमापुरी बंग**



## दुनिया के मात्र 20% देशों में हैं यौन शिक्षा पर कानून

रिपोर्ट

यूनेस्को के मुताबिक 39 फीसदी देशों के पास ही यौन शिक्षा को लेकर राष्ट्रीय नीति

# दुनिया के मात्र 20% देशों में है यौन शिक्षा पर कानून

नई दिल्ली: दुनिया के मात्र 20 फीसदी देशों में ही यौन शिक्षा को लेकर जागरूक करने का कानून है जबकि 39 फीसदी देशों के पास इसे लेकर राष्ट्रीय नीति है। यह जानकारी यूनेस्को ने अपनी वैश्विक शिक्षा निगरानी रिपोर्ट में दी है। कानून कहा गया है कि प्राथमिक शिक्षा में यौन शिक्षा 68 प्रतिशत देशों में और माध्यमिक शिक्षा में 76 फीसदी देशों में अनिवार्य है। 10 में से छह में अधिक देशों में यौन और धरेलु दुर्व्यवहार तथा लैंगिक हिंसा जैसे विषय शामिल हैं।



### विश्वसनीय जानकारी मांग रहे युवा

रिपोर्ट में कहा गया है कि युवा तेजी से विश्वसनीय जानकारी की मांग कर रहे हैं। सीखने की प्रक्रिया में प्रभावी ढंग से युवाओं को शामिल करने और उनकी जरूरतों की पूरी गुंथला का जवाब देने के लिए एक संतुलित और व्यापक दृष्टिकोण की जरूरत है। रिपोर्ट में 50 देशों के प्रोफाइल मैपिंग से पता चलता है कि कई देश अपनी शिक्षा योजनाओं या विज्ञान में यौन शिक्षा के महत्व को समझते हैं लेकिन उनके विधायी और नीतिगत ढांचे में अंतर बड़ा हुआ है।

95%

देश देते हैं एचआईवी के बारे में जानकारी

95 फीसदी देश शिक्षा कार्यक्रम में मुख्य रूप से एचआईवी और अन्य एसटीआई से संबंधित मुद्दों को शामिल करते हैं। केवल 17 प्रतिशत देश यौन दिशानिर्देश, लिंग पहचान और लिंग अभिव्यक्ति के मुद्दों को शामिल करते हैं। जीव विज्ञान, शरीर रचना विज्ञान, शरीर जागरूकता, गर्भावस्था और जन्म से संबंधित मुद्दे भी आम तौर पर कवर किए जाते हैं। इसके अलावा तीन चार देशों में मानव अधिकारों से संबंधित मुद्दों को शामिल किया जाता है। तीन में से दो से अधिक देशों में प्रेम, विवाह, साझेदारी और परिवार से संबंधित मुद्दों को कवर किया जाता है।

ये तिहाई देशों में गर्भिणरोधक मुद्दे को मूल्य पाठ्यक्रम में शामिल किया गया है। विमुक्त कामुकता शिक्षा (सीएसई) कामुकता के ज्ञान, भावनात्मक, शारीरिक और सामाजिक पहलुओं के बारे में पढ़ाने और संखने की एक पाठ्यक्रम आधारित प्रक्रिया

है। इसका मकसद बच्चों और युवाओं को ज्ञान, कौशल, दृष्टिकोण और मूल्यों से सुसज्जित करना है जो उन्हें अपने स्वास्थ्य, कल्याण और सम्मान का अहसास कराने के लिए सशक्त बनाएगा। रिपोर्ट में कहा गया है कि कामुकता मानव जीवन का अभिन्न अंग

है। हालांकि यदि रिश्तों और सेक्स के बारे में युवाओं को सही वैज्ञानिक ज्ञान के साथ ठीक से विकसित नहीं किया जाता है, तो भ्रमित करने वाली जानकारी और परस्पर विरोधी संदेश बचपन से व्यस्कता में परिवर्तन को कठिन बना सकते हैं। एंजोशी

## एक अप्रैल से पहले न शुरू करें सत्र: सीबीएसई

# एक अप्रैल से पहले न शुरू करें सत्र: सीबीएसई

जागरण संवाददाता, नई दिल्ली : केंद्रीय माध्यमिक शिक्षा बोर्ड (सीबीएसई) ने बोर्ड से संबंधित देशभर के स्कूलों को एक अप्रैल से पहले शैक्षणिक सत्र 2023-24 की शुरुआत नहीं करने का निर्देश दिया है। बोर्ड के सचिव अनुराग त्रिपाठी ने कहा कि कई स्कूलों ने शैक्षणिक सत्र 2023-24 की शुरुआत बहुत जल्दी कर ली है।

बोर्ड ने स्कूलों के इस रवैये पर कहा कि वर्ष भर के पाठ्यक्रम को कम समय में पूरा करने की आदत उन छात्रों के लिए समस्या बन गई है जो स्कूलों में विषयों को गहराई से पढ़ना चाहते हैं। लेकिन स्कूलों का

- कहा-कई स्कूलों ने शैक्षणिक सत्र 2023-24 की शुरुआत बहुत जल्दी कर ली
- सत्र एक अप्रैल से 31 मार्च का ही रखें और इसका सख्ती से पालन करें



ये रवैया उन्हें चिंता में डालने वाला है। बोर्ड ने कहा कि इससे छात्रों के पास जीवन कौशल, मूल्य शिक्षा, स्वास्थ्य और शारीरिक शिक्षा, कार्य शिक्षा और सामुदायिक सेवा जैसी पाठ्येतर गतिविधियों को करने के लिए बहुत कम या बिल्कुल समय नहीं बचता है। ये गतिविधियां भी

पाठ्यक्रम जितनी ही महत्वपूर्ण हैं। बोर्ड ने सभी प्रधानाचार्यों से कहा कि वे हर वर्ष एक अप्रैल से पहले नया सत्र शुरू करने से बचें। सत्र एक अप्रैल से 31 मार्च का ही रखें और इसका सख्ती से पालन करें। कुछ संगठनों की तरफ से सीबीएसई को इस संबंध में शिकायतें मिली थीं।

नए सत्र में पाठ्यक्रम में हो सकती है कटौती

नई दिल्ली: केंद्रीय माध्यमिक शिक्षा बोर्ड (सीबीएसई) शैक्षणिक सत्र 2023-24 में अपने पाठ्यक्रम में कटौती कर सकता है। राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (एनसीईआरटी) से पढ़ाई करवाने वाले 22 राज्यों में शैक्षणिक सत्र 2023-24 के लिए नवीन से 12वीं के पाठ्यक्रम में विभिन्न विषयों से कई महत्वपूर्ण टॉपिक्स घटाए जा सकते हैं। इसमें इतिहास, भूगोल, अंग्रेजी और हिंदी सहित कई अन्य विषय रहेंगे।

● जागरण सिटी

## Behind bars, but no curbs on finding good education

# Behind bars, but no curbs on finding good education

Abhay@timesgroup.com

**New Delhi:** From modernising libraries to creating exclusive study wards to roping in specialised teachers: this is how the Delhi Prisons Department plans to enhance the quality of education in the jails as well as motivate inmates to enrol in different classes.

Data showed that, last year, 490 inmates were enrolled in various courses and 687 in sports activities in the prisons. The focus is on increasing the number of inmates involved in such initiatives. As many as 135 inmates have joined Classes X and XII while about 326 have enrolled in certificate courses, 14 in graduation courses, and seven and eight in masters and postgraduate diploma courses, respectively.

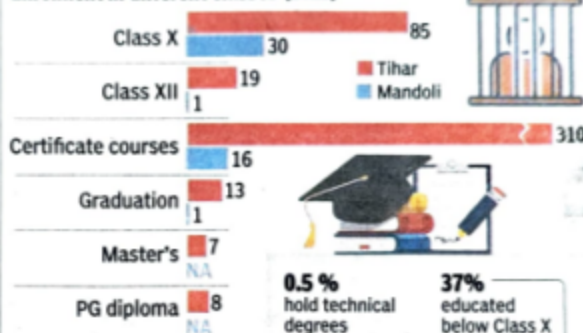
Recently, the prison authorities launched the concept of "books on wheels", which allowed the inmates to get study material in their prison barracks so that they didn't have to visit the library. "The inmates will get books on fiction, biographies, general knowledge and other topics in four languages: English, Hindi, Urdu and Punjabi," an official said. The initiative has been started in Jail Number 4 and as many as 3,554 books are part of the project.

Jail Number 4 has exclusive study wards, titled "Padho" and "Padhao". The officer said: "We first identify the inmates who want to study and, then, they are given a proper education. These inmates motivate others to join the classes too." There are plans to start more such study wards.

The prison administration has roped in specialised teachers. Currently, 577 inmates in different prisons of the city are being imparted

### PRISON STORY

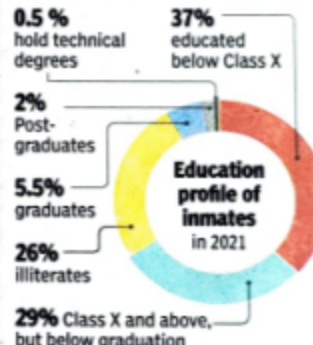
#### Enrolment in different classes (2022)



#### Other steps

> Inmates interested in pursuing higher education admitted in Ignou. Till date 10,371 inmates have enrolled

> For inmates in Class X and XII, National Institute of Open Schooling started; 2,300 enrolments till date



#### AN OFFICER SAYS

**We first identify the inmates who want to study and, then, they are given a proper education. These inmates motivate others to join the classes too**

primary level education. As many as 366 inmates are pursuing secondary level education. They are being assisted by 32 Delhi government teachers and there are plans to bring more teachers on board.

Close to 700 inmates are making use of recreational facilities in the jails. Sixteen sports teachers from Delhi government schools are providing them training in volle-

yball, badminton, cricket, football, chess and table tennis.

"The jails have computer training centres, which currently have 428 inmates enrolled. Hardware and software training is being provided to them by 25 skilled teachers from the Delhi government," the officer said.

Director general (Tihar) Sanjay Baniwal said prisoner engagement in education might help reduce security risk in prisons by relieving monotony and reducing repeat offences by promoting critical thinking skills. These activities are not only helpful in imparting education to the prisoners, but have also proved to be an important tool for stress management. "Educational activities keep them occupied and so help reduce stress levels," he said.

◆ AICTE

## AICTE set to ease norms to boost admissions in core engg courses

# AICTE set to ease norms to boost admissions in core engg courses

**Fareeha Iftikhar**

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**NEW DELHI:** To boost admissions in core engineering courses, including civil, mechanical and electronics, the All India Council of Technical Education (AICTE) will now allow students pursuing these programmes flexibility to also pursue a minor degree in any emerging area, council chairperson TG Sitharam said.

"India cannot become the viswa guru, or a global leader in technology without core engineering courses. Therefore, we have come up with some schemes this time," he said on Friday during a virtual interaction with stakeholders before finalizing the approval process for the 2023-24 academic session.

"We want to provide greater flexibility to students by throwing open all minor courses for all engineering disciplines, so that a civil engineering student can

**AICTE WILL NOW ALLOW STUDENTS PURSUING THESE COURSES THE FLEXIBILITY TO PURSUE A MINOR DEGREE IN ANY EMERGING AREA**

minor in information and technology and become job ready," Sitharam said. "Otherwise, what is happening today, even including in IITs, all these people are trying in the industry for the emerging areas. Instead of that, we thought they can earn 18 to 20 credits by pursuing a minor degree in emerging areas while pursuing their programme."

The minor degree concept was introduced by the regulator of technical education in 2020-21 to make students ready to work in industry. However, not all

minor courses are open for core engineering students. The new rules will be reflected in the AICTE's approval process handbook that is likely to be released by the end of this month.

There have been concerns that popularity of core engineering courses have been decreasing in the past few years. The AICTE in the past had asked all affiliated engineering colleges to promote these courses by interacting with industry experts, introducing compulsory internships, and providing hands-on experience.

The council will also have hold discussions with industry experts regarding the changes, the AICTE chairperson said.

"Every year, the percentage of admissions in core engineering branches were going down. But last year, the graph moved upward. We will soon put the data in the public domain," AICTE member secretary Rajive Kumar said.

## 'ASK DEPUTY CM': NITISH ON BIHAR CABINET REJIG

**PATNA:** Ask deputy chief minister, Bihar chief minister Nitish Kumar said on Saturday when asked about the possibility of a cabinet expansion, adding that allies Congress and Rashtriya Janata Dal (RJD) have been asked finalise the names.

"You people ask this question to the deputy CM," Kumar told reporters when asked about cabinet expansion and the Congress's demand for two more berths in the council of ministers. "A delegation of Congress leaders recently met me in this regard. I told them to meet the deputy CM in this connection. Let them finalise it among themselves. Whatever they decide will be considered," Kumar said.

Taking a swipe at the grand alliance, BJP spokesperson Nikhil Anand said: "JD (U) rebel Upendra Kushwaha feared that the JD(U) will merge with the RJD under 'secret deal' and lose its identity. Now it's becoming a reality." **HTC**

## AICTE launches curriculum designed for B.tech electronics VLSI design and technology

# AICTE launches curriculum designed for B. Tech Electronics VLSI Design and Technology

STATESMAN NEWS SERVICE  
KOLKATA, 19 FEBRUARY

In a bid to provide variety of employment roles featuring higher salary incentives for Indian students in the country and across the globe, the All India Council for Technical Education (AICTE) has launched a curriculum designed for B Tech Electronics VLSI Design and Technology and Diploma in IC Manufacturing yesterday.

Notably, Very Large-scale Integration (VLSI) is the process of creating an integrated circuit (IC) by combining many metal oxide silicon transistors onto a single chip and VLSI sector is a high-

**Usual starting salaries for a fresher role in VLSI Company vary from ₹ 10 lakhs per annum ~ 20 lakhs per annum depending upon the company with an average annual salary of Rs 14 lakhs per annum**

paying industry and immune to automation.

Usual starting salaries for a fresher role in VLSI Company vary from Rs 10 lakhs per annum - 20 lakhs per annum depending upon the company with an average annual salary of Rs 14 lakhs per annum. Average annual salary in Multinational companies for

beginners is 30 - 80 LPA.

According to a communication from the Ministry of Electronics and IT, the Centre's Semicon India programme (with a total outlay of 76,000 crore) is aimed at the development of semiconductor and display manufacturing ecosystem in India.

The programme provides financial support to companies investing in semiconductors, display manufacturing and design ecosystem. In line with the Semicon India programme, the Chips to Startup (C2S) programme aims to train 85,000 engineers (Bachelors, Masters and Research level combined) qualified in ESDM disciplines

over a period of 5 years. Necessary tie-ups with 82 technical education institutes have been made. IIT Hyderabad had launched B. Tech (Electronics Engineering) specialisation in IC Design and Technology last year.

AICTE, the statutory body for technical education has launched the curriculum designed for (i) B.Tech Electronics Engineering (VLSI Design & Technology) and (ii) Diploma in IC manufacturing.

The courses shall be uploaded on AICTE portal. Any number of AICTE affiliated colleges, universities, technical institutions may opt to offer these courses.

## ◆ EDUCATION BUDGET

### Learning moves away from books

# Learning Moves Away From Books

## Education Corners A Fifth Of Budget With Focus On Enhancing Skills, Specialised Subjects

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**New Delhi:** With education having always provided the heft to Aam Aadmi Party's governance in Delhi, the sector yet again cornered the biggest slice of the budget cake with Rs 16,575 crore, or 21% of the total allocations for 2023-24. The new thrust, according to minister Kailash Gahlot who holds the finance portfolio will be the establishment of 12 Schools of Applied Learning that will bring schools and industry on a collaborative partnership for the first time in the country.

In his budget speech on Wednesday, Gahlot said, "The Schools of Applied Learning will not only have

traditional subjects but also a professional industrial setup to provide adequate exposure to the students to develop their skills. These schools will be affiliated to Delhi Board of School Education. High-quality skill subjects will also be compulsorily introduced in these schools from Class IX. Every child will study three skill subjects each in classes IX and X and one each in XI and XII. The aim of this approach is that alongside traditional subjects, every child will be able to learn skills that will prepare him/her for modern era jobs."

The government also plans to increase the number of Schools of Specialised Excellence (SoSE) to 37 from the 32 currently having started with

### GAHLOT SAYS

**The Schools of Applied Learning will not only have traditional subjects, but also a professional industrial setup to provide adequate exposure to the students to develop their skills**

30 in 2021. These provide specialisation in STEM, 21st-century skills, humanities, performance and visual arts, and armed forces preparatory courses. A beaming Gahlot announced, "I am happy to share that of the 676 children in the first batch of

STEM, 263 students appeared for JEE Mains, and nearly 50%, 114 of them, qualified for JEE Advanced."

He said French, German, Japanese and Spanish were being taught as a pilot project in SoSE and based on the outcome, the government would consider rolling out foreign language courses in all schools in the coming years.

While this year the budget made no mention of or allocation for higher education, Gahlot announced that Delhi government would again provide tablets to teachers, principals and district education officers. In 2018, all teachers had been given Rs 15,000 to purchase tablets. Those tablets had become old so the government was reviv-

ing the scheme, the minister said. He also announced that 350 schools would each get 20 new computers.

With AAP now at the helm in the Delhi Municipal Corporation, Gahlot said Delhi government schools would work with the feeder (municipal) schools and anganwadis to develop foundational skills of all children, as mandated under the National Education Policy. Recalling the schemes announced in the state budget of 2022, Gahlot said 56 students from the first batch of Class XII students who undertook the Entrepreneurship Mindset Curriculum got direct admissions into undergraduate courses like BBA and BTech in seven state universities.

## Education, health to get highest allocation in budget: officials

# Education, health to get highest allocation in Budget: Officials

STAFF REPORTER ■ NEW DELHI

**E**ducation and health sector will get the highest allocation in the annual budget of the Arvind Kejriwal Government for the 2023-24 financial year, officials said on Sunday. In the 2022-23 Delhi Budget, the education sector received the highest allocation of Rs 16,278 crore, a slight decline from the previous fiscal budgetary outlay of Rs 16,377 crore.

The health was allocated Rs 9,769 crore in the 2022-23 budget while it was Rs 9,934 crore in the previous budget.

According to government officials, new tablets will be provided to all teachers, including regular, guest and contractual, vice principals and principals of Delhi government schools.

"Dr Ambedkar Schools of Specialized Excellence (SoSE) started with 20 institutes in 2021. This will be



increased to 37 in the coming financial year with a capacity of about 10,000 children," said an official.

The official said Delhi government schools will work closely with their feeder schools in the Municipal Corporation of Delhi to improve the foundational skills of children.

About ramping up health

facilities, free diagnostic tests at Mohalla Clinics will increase from 250 to 450 tests. There are plans to massively increase the number of beds in Delhi government hospitals from 14,200 to 30,000, the official said, adding "Construction of nine new Delhi government hospitals is underway while four will be inaugurated next year."

"Expansion of 15 existing hospitals, including Chacha Nehru Bai Chikitsalaya, will also be taken up in mission mode," he said.

With a boost in tax revenue, the government's budget outlay for 2023-24 may be close to Rs 80,000 crore and "the biggest" allocation for capital expenditure would be for infrastructure projects, sources said on Thursday.

The Delhi government's budget size for 2022-23 was Rs 75,800 crore and Rs 69,000 crore in the previous year.

This time, the budget will be presented on March 21 by Finance Minister Kailash Gahlot and it will be preceded by an Outcome Budget of the government.

Gahlot was given charge of the finance department after the resignation of deputy chief minister Manish Sisodia who was arrested by the CBI in connection with the Delhi excise policy scam case.

# Education in Mother Tongue

## अब अपनी मातृभाषा में भी परीक्षा दे सकेंगे विद्यार्थी

# अब अपनी मातृभाषा में भी परीक्षा दे सकेंगे विद्यार्थी

जगमग ब्यूरो, नई दिल्ली : उच्च शिक्षा हासिल कर रहे विद्यार्थियों के लिए बड़ी राहत भरी खबर है। अब वे अपनी मातृभाषा में भी परीक्षा दे सकेंगे, भले ही उनका पाठ्यक्रम अंग्रेजी भाषा में हो। असल में उच्च शिक्षा तक सभी को पहुंच बढ़ाने में जुटे विश्वविद्यालय अनुदान आयोग (यूजीसी) ने इस दिशा में एक और पहल की है।



यूजीसी ने सभी विश्वविद्यालयों और उच्च शिक्षण संस्थानों से अपने सभी विषयों की मातृभाषा या फिर स्थानीय भाषा में पढ़ाने को कहा है। साथ ही कहा है कि कोई कोर्स भले ही अंग्रेजी माध्यम का है, ब्रावजुद इसके छात्रों को उसकी परीक्षा स्थानीय भाषा में देने की अनुमति दी जाए। माना जा रहा है कि इस पहल से उच्च शिक्षा के सकल नामांकन दर (जीईआर) को बढ़ाने में मदद मिलेगी, जोकि मौजूदा समय में करीब 27 प्रतिशत है। नई राष्ट्रीय शिक्षा नीति में 2035 तक इसे 50

- उच्च शिक्षा प्राप्त कर रहे विद्यार्थियों के लिए बड़ी राहत की खबर
- पाठ्यक्रम भले ही अंग्रेजी में हो, पेपर स्थानीय भाषा में दिया जा सकेगा
- यूजीसी ने सभी विश्वविद्यालयों व उच्च शिक्षण संस्थानों को दिए निर्देश
- सभी विषयों की अध्ययन सामग्री को स्थानीय भाषा में तैयार करने को कहा

प्रतिशत तक पहुंचाने का लक्ष्य है। यूजीसी के चैयरमैन प्रोफेसर एम. जगदीश कुमार ने विश्वविद्यालयों

### यूजीसी ने विश्वविद्यालयों से यह मांगी जानकारी

- अलग-अलग विषयों की स्थानीय भाषाओं में उनके पास मौजूद अध्ययन सामग्री।
- ऐसी अध्ययन सामग्री जिसका स्थानीय भाषा में अनुवाद जरूरी है।
- संस्थान में मौजूद ऐसे शिक्षक और विशेषज्ञ जो अपने विषयों से जुड़ी सामग्री का स्थानीय भाषाओं में अनुवाद कर सकते हैं या फिर से लिख सकते हैं।

### कमजोर वर्ग के छात्रों के लिए 'पढ़ाई के साथ कमाई' योजना

पेट के अनुसार, उच्च शिक्षण संस्थान जल्द ही सामाजिक एवं आर्थिक रूप से कमजोर वर्ग के छात्रों की मदद के लिए 'पढ़ाई के साथ कमाई' योजना शुरू कर सकते हैं। यूजीसी ने इस संबंध में दिशानिर्देश जारी किए हैं। इनमें कहा गया है कि छात्रों के लिए ऐसे काम करने के लिए मानदेय घंटे के हिसाब से एकमुश्त राशि के रूप में तय होगा और यह अवधि प्रति महीने 20 दिन और प्रति सप्ताह अधिकतम 20 घंटे होगी। यूजीसी ने कहा है कि इसके तहत काम करने का अवसर छात्रों को कक्षा के बाद प्राप्त होगा। आयोग ने इस संबंध में काम करने के अवसर को लेकर कुछ सेवाएं सुवीबद्ध की हैं जिनमें शोध परियोजना में कार्य, पुस्तकालय से जुड़े कार्य, कंप्यूटर सेवा, डाटा एंट्री, प्रयोगशाला सहायक आदि शामिल हैं।

को इस संबंध में लिखे पत्र में इसे तेजी से अमल में लाने को कहा है। साथ ही इसके जुड़ी रणनीति बनाने के लिए सुझाव भी मांगे हैं। माना जा रहा है कि यूजीसी ने इसे लेकर उन सभी विश्वविद्यालयों को मदद देने

की तैयारी की है, जिनके पास विषयों की स्थानीय या फिर मातृभाषा में तैयार करने के लिए संसाधन नहीं हैं। इस दौरान यूजीसी का सबसे ज्यादा फोकस राज्यों से जुड़े विश्वविद्यालयों और कालेजों पर है, जिन्हें इसकी सबसे ज्यादा जरूरत है।

भाषाई दिक्कत के चलते काफी छात्र शिक्षा से बना लेते हैं दूरी: यूजीसी से जुड़े अधिकारियों के अनुसार, भाषाई दिक्कतों के चलते दूर-दराज या फिर ग्रामीण क्षेत्रों से संबंध रखने वाले बड़े संख्या में छात्र उच्च शिक्षा से दूरी बना लेते हैं। वैसे तो इसकी शुरुआती आठवीं कक्षा के बाद से ही दिखनी शुरू हो जाती है। हालांकि 12वीं कक्षा तक आते-आते ये काफी कम होती है। रिपोर्ट के मुताबिक 12वीं में छात्रों का जीईआर सिर्फ 57 प्रतिशत तक सिमट जाता है। यह स्थिति तब है जबकि 'प्राथमिक स्तर पर यही नामांकन दर 98 प्रतिशत के आसपास रहती है।

## Using mother tongue is fundamental to learning

### Using mother tongue is fundamental to learning

India is a multilingual country with many languages spoken in different regions. Other than the 22 languages in the eighth schedule of the Constitution and 99 languages spoken by more than 10,000 speakers, many other languages and mother tongues are spoken in smaller linguistic communities. It is an inherent quality of the Indian social system that we use and enjoy multiple languages. They keep us together. All our diversities are visible only from the outside, but in reality, we are one. We celebrate this diversity in unity.

This year's International Mother Language Day, celebrated on February 21, focused on multilingual education — a necessity to transform education. In line with Unesco's policy, we will promote the use of mother tongues, which will enhance education at all levels and develop fuller awareness of our country's rich linguistic, cultural and knowledge traditions.

We support and facilitate children's right to education in their mother tongue, as Prime Minister Narendra Modi emphasised. "After the National Education Policy came, there has been much discussion on what the language of instruction will be. Here we have to understand one scientific fact, that language is the medium of education, not entire education itself. People caught in too much bookish knowledge often fail to grasp this distinction. Whatever language the child can learn easily should be the medium of instruction," he said at a Shiksha Parv meeting.

The National Education Policy (NEP) 2020 promotes multilingualism and highlights the power of language in teaching and learning. It can accelerate efforts in ensuring lifelong equitable education for the inclusion of using the mother tongue because multilingual education based on the mother tongue should be

a key component of our education system. We emphasise the importance of encouraging mother tongues in the curriculum and the classroom. Due to a long period of colonisation, we neglected Indian languages and their rich linguistic traditions. We must decolonise our minds, get rid of our servile attitude and create a path to greater heights. NEP 2020 emphasises the universalisation of early childhood care, education, and learning in all Indian languages.

Mother tongue is the true vehicle of transmission, which is fundamental to our identities and an inseparable part of our personalities. It must never be lost, as it carries the rich cultural fabric of our existence. The potential of multilingualism to transform education from a lifelong learning perspective and in different contexts is well established. Not being able to use or access knowledge and information in one's mother tongue can limit the development of a child's personality and intellectual freedom. Therefore, we should encourage parents, caregivers, and teachers to support their children's learning in their mother tongue so that it is developed alongside other languages they learn in school. This will help learners develop academic literacy in their language and enable better comprehension of concepts and the learning of other languages.

India's multilingual character necessitates including several languages in school curriculums. Studies reveal including several languages in the school curriculum is not an additional load, and that primary learning through the mother tongue best develops a child's cognitive abilities, and facilitates the acquisition of basic literacy skills and the understanding of complex concepts. In other words, children who receive primary lessons in their mother tongue build a better educational foundation



Learning another Indian language is easier for children since all of them belong to one family called the Bharatiya Bhasha Pariwar

than those who receive education in their second language. Using only one particular language as the medium of instruction leaves many children illiterate in their mother tongue and fosters low achievement levels. Language is a significant factor behind school dropouts and stagnation in education.

Accepting the complex linguistic landscape of our country, we will implement mother-tongue-based multilingual education, focusing on proficiency in the classroom language and that of learners, and a high level of skill in teaching. Children will be exposed to different languages with a particular emphasis on the mother tongue, starting from the foundational stage. The three-language policy will continue to be implemented while considering constitutional provisions, aspirations of the people, regions and the Union, and the need to promote multilingual education and national unity. The three languages, including the mother tongues and local or regional languages, will be the choices of students, regions and states. High-quality textbooks, including

those in school subjects, will be made available in mother tongues, and all efforts will be made to ensure that mother-tongue medium education becomes aspirational.

Learning another Indian language for children is easier since all of them belong to one family called the Bharatiya Bhasha Pariwar. Learning classical languages will provide access to rich repositories of literature and Indian knowledge systems. Learning through the Indian language medium will not only make education more rooted in Bharat but also strengthen the cultural unity of India. Leveraging technology to give an impetus to mother-tongue-medium education and to promote Indian languages will be a catalyst for the realisation of Ek Bharat Shreshtha Bharat (one India, greatest India). We will not leave any stone unturned in supporting education through the mother languages of India.

Dharmendra Pradhan is a minister of education. The views expressed are personal.

## A book with student's works will celebrate Mother Language day

# A book with students' works will celebrate Mother Language Day

**Shradha.Chettri**  
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New Delhi: Several government and aided schools in the city have come together to prepare a book with poems and writings in different languages to mark International Mother Language Day, set to be celebrated on Tuesday (February 21).

As part of National Education Policy (NEP) 2020, the Directorate of Education (DoE) has asked schools to teach junior students various regional languages using the play-way method. The project's aim is to help children pick up commonly spoken phrases and sentences as well as learn about the geographical areas where the languages are spoken.

"This activity project will give students an idea about the unity of India and make them aware about the cultural heritage. The teachers of relevant languages would definitely play a vital

### DOE CIRCULAR SAYS

**This activity project will give students an idea about the unity of India and make them aware about the cultural heritage**

and crucial role," states the DoE circular sent to schools.

Several education policies in the past have stressed that learning in the mother tongue during the formative years not only helps in cognitive development, but also conceptual understanding and learning more languages. NEP 2020 has a dedicated section for this, titled 'Multilingualism and the Power of Language'.

Sudha Acharya, chairperson of National Progressive Schools' Conference, a consortium of private schools in

the city, said the book is a compilation of poems written by teachers.

"The book has been sent for processing. The poems are not just confined to the 22 scheduled languages in the Constitution. It also has poems from states like Sikkim, Arunachal Pradesh and others," said Acharya, who is the principal of ITL Public School in Dwarka.

The school, added Acharya, will also hold a language festival called 'Bhasha Sangam', which will be celebrated for a week.

Meanwhile, at Ahlcon Schools, teachers have been trained to act as facilitators for students whose language 1 (L1) and language 2 (L2) is different. "Children whose mother tongue is different are facilitated to slowly transition and learn other languages in our schools. In Delhi, mostly English and Hindi are used, so it is not much of a challenge in comparison to other states," said school director Ashok Pandey.

## ◆ EDUCATIONAL SURVEY & REPORT

### Classroom skew

# CLASSROOM SKEW

AISHE report shows that pandemic threatens to undo gender parity gains in higher education. Policymakers must take note

**T**HE COVID-19 PANDEMIC seems to have made the road to gender equality rockier than before. Reports have documented that the economic blow of the public health emergency has fallen disproportionately hard on women — men had more job security, and could negotiate higher wages, compared to women during the crisis years. Now the All India Survey of Higher Education (AISHE) for 2020-21 has revealed that crucial gains made in closing the gender gap in undergraduate programmes suffered a setback during the pandemic. In classrooms where men were already in majority — computer science, business administration, pharmacy, technology and law courses, for instance — the number of women has gone down further. And in fields of study where the gender gap had, by and large, been plugged — medicine and commerce — the reverses are significant. The gender ratio in the B.Com course is down to 2016 levels.

Cultural notions about careers appropriate for women have traditionally held back their mobility. However, the spurt in aspirations in recent years exercised a steady influence on the gender composition of classrooms. In 2014, for instance, for every 100 male students enrolled in undergraduate commerce programmes, there were 90 female students. This gap was plugged in 2019. In MBBS and B.Sc programmes, the skew was addressed a year earlier. The Covid-related setback to gender equality in college and university classrooms is in contrast to developments in school education. The ASER report, released two weeks ago, shows that exigencies of the pandemic have not diminished parents' keenness to get their daughters enrolled in schools. However, in a society where women's education still does not receive adequate importance and the burden of caring for the family falls disproportionately on them, the effect of the crisis on higher education is telling.

In the wake of the pandemic, the government was quick to respond to several welfare and equity-related issues. Relief packages under PMJDY and Pradhan Mantri Garib Kalyan Rozgar Abhiyaan — ASHA workers were brought under this package — were announced within days of the lockdown. The SVANIDHI scheme was launched for street vendors, a large percentage of whom are women. But the skew in classrooms threatens grim implications for women's empowerment, which, in turn, could have a bearing on the nutrition, health and education of future generations. The Centre, state governments and educational institutions must find ways to enable women to return to institutions of higher education. In the short term, this could mean increasing the outlay for scholarships and creating more dorms and hostels. In the long run, this should mean catalysing processes of social change that enable half of the country's population to attain its aspirations.

# Post-Covid education

## Post-Covid education

The pandemic has taught skills of flexibility, adaptability and empathy to face any eventuality. These are invaluable skills. Giving our students more opportunities to practice and develop these skills is one way of preparing them for life beyond the classroom. Teaching them to empathize with others can make the post Covid-19 situation more bearable



The post-Covid Annual Status of Education Report (ASER) 2022, released recently by Pratham, is not encouraging. Although students' enrolment increased to more than pre-pandemic levels, the learning gap widened for fundamental skills in the 3 Rs: reading, writing and arithmetic. In spite of the enthusiasm in students towards schools, their basic levels have taken a big hit with their reading and writing abilities as compared to numeracy skills worsening sharply and dropping to pre-2012 levels.

Whereas a decline was seen in the basic 3 Rs of children in Classes III and IV, the performance in basic arithmetic of those in Class VIII showed an increase over the pre-pandemic period. Also, this increase is driven by improved outcomes among girls, particularly those enrolled in the government schools where the blended learning in traditional and virtual modes was more effective. The availability of smartphones of enrolled students nearly doubled from 2018 to 2022. There seems to be a divided view of a 'new normal' in education, with some institutions transitioning back to their old system of a chalk-and-talk teaching learning process and others practicing blended learning. At a time when long-standing challenges in professions, well-being and equity were only exacerbated by the pandemic, the idea of blended learning emerged to rescue the education sector from being jeopardised. Technology did not disappoint, as the guardians of education began adopting and leveraging the concept in novel ways. However, use of the biggest questions educators looked to answer was how to implement a remote learning programme to ensure quality education. Hopefully, they did not simply address what suits them and when digital learning solutions would be used but were on content and equity. They did consider potentially gender-mainstream education in budget, affordability, IT challenges and more.

However, solutions to these issues did not come with easy answers. They realised they needed to get on board with new technology so that their smart idea of blended and remote learning could do wonders. As the pandemic began to recede, teachers shifted their focus to the back-to-school mode and how new technology would play a role in the everyday classroom. All this created a sense of cautious optimism among educators as they began to ponder over the future of education. As institutions began to reopen, they believed that at

least some areas of education would revert to pre-pandemic practices. That said, some of the practices adopted during virtual and blended learning would be there to stay. Admittedly, while crisis mitigation seems to be prudent, digital technology has the potential to systematically reshape the teaching-learning process but only if our educators can understand how they can fit this into effective pedagogy. In spite of the efforts made by our educators, students, in general, did not take full advantage of the technological tools in learning during the previous few years. In fact, the tools were not used effectively by the teachers as well who had not been properly trained to integrate them.

In the new normal, teachers should have transformed how they teach online, especially since online tools and resources present lots of affordances that both teachers and students could take advantage of. They were required to design effective synchronous and asynchronous learning activities that would enable sustained engagement and self-regulation.

Blended learning came to be known as the new normal in the education sector. This might be described as an instructional approach that integrates traditional classroom methods of face-to-face interaction and online digital methods. In some of the developed countries, blended learning has already become an established educational model to cope with the impact of the pandemic and the aftermath. Blended learning requires an amount of traditional classroom modality. Combining the social distance group work approach, peer instruction might be modified or reduced. Though machine learning or artificial intelligence (AI), adaptive programmes have been developed that cater for the individual needs of students. AI tutors could be used in teaching subjects like mathematics and could be applied in all levels of technology. AI could be used in schools to enhance personalised learning among students, especially those with special needs.

Virtual Reality technology is already the catchword in the technology world, with which students can learn via interacting with a 3D world. In introducing experiential learning in self-education through VR, Google has been

a byword. Educational resources can be accessed from any part of the world, thanks to cloud computing technology. Virtual resources such as written lessons, audio lessons, video assignments etc. can be stored on an institution's cloud terminal. Students can access the resources from the comfort of their homes as also classrooms and complete their assignments. Textbook contents can be expressed through 3D models. In higher education, 3D printing is used by system designers to develop prototypes to be used in the development of final systems. The implementation of technical innovations in the education sector has been accelerated by the widespread access to the Internet. Self-learning modules (SLM) with the alternative learning delivery modalities to be offered for various types of learners may also be provided.

It is interesting to see that during the pandemic, parents became teachers and started understanding the online learning activities that educational institutions created for their wards.

A new setup is being tried, for which parents were not at all ready. In the new normal there could be a stronger home and school partnership. For that, schools can create opportunities that teach parents how to navigate the online learning environment and guide their wards at home. Sustainable external partnering with local government agencies and non-government organisations that can help in enabling a responsive educational continuity programme may be explored.

Indeed, the pandemic has taught skills of flexibility, adaptability and empathy to face any eventuality. These are invaluable skills. Giving our students more opportunities to practice and develop these skills is one way of preparing them for life beyond the classroom. Teaching them to empathize with others can make the post Covid-19 situation more bearable. The right to high quality education may always be upheld by providing multiple pathways to learning.

The assessments used and the extent of parental involvement allowed to ensure students learn will depend on the sincerity of efforts to adjust to the new normal.

Assessment and grading

should be reviewed so that they continue to be relevant to students. Giving students continuous feedback can help them reflect on their strengths and find ways to improve. Different instructional evaluation practices have been adopted as a response to Covid-19 which may continue to be a part of the new normal education. Many schools issued guidelines changing many aspects of evaluation components of the curriculum.

In the asynchronous form, teachers and students were required to work together at an arranged time through an online application like Zoom. It can also be achieved through the phone. In the asynchronous form, the teachers and learners do not need to interact online in a live manner.

Many schools have decided to change their assessment scales from quantitative to qualitative. The pandemic continuously reshaped instructional evaluation, so online assessment and grading systems are inevitable.

With the new sessions in progress, online teaching and learning could be made more regular. We should see more classes being conducted through web video conferencing. Institutions might use a learning management system, such as Google Classroom, Moodle, Blackboard Learn and Canvas to enable students to complete assignments, deliver presentations, take assessments, and receive feedback from teachers.

A rise in Open Education Resources (OER) as an inexpensive alternative to traditional textbooks might be more useful. A wide range of content and tools to help implement OER Curricula, Future Learning, Merit II, Open Stax CNS might be offered by many sites. Blended learning approaches might be commonly used; many institutions might start combining blended learning with a flipped classroom approach. In a flipped classroom, the typical classroom lecture and homework elements are reversed.

Considering that the education system is to continue operating in remote or blended environments, a reliance on EdTech is a sure way of online courses that are especially tailored to the needs of the workforce today. Improving access to premium education.

Ensuring that the tools, which have been made simple to operate and to which students have equitable access, will be critical to support the education ecosystem effectively.



Dr. G. Srinivas

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◆ ENVIRONMENTAL EDUCATION

**Starting young: 106 schools certified green for best practices, 13 of them from Delhi**

*Starting young: 106 schools certified green for best practices, 13 of them from Delhi*

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New Delhi: Buying electric vehicles, recycling and using AC water in laboratories, installing float valves and spill-proof taps, and imposing a ban on packaged food are some of the best practices adopted by schools in their bid to go green. On Tuesday, 106 such schools from across the country were awarded the green tag by Centre for Science and Environment and almost all of them have adopted basic environment-friendly steps like building composting pits, rainwater harvesting and using solar energy.

In the annual Green School Programme award, Himachal Pradesh received the best state award. Out the 700 schools that took part in the green audit, 114 were from HP. Sharing the state's concept of 'Waste Cafe, a government official said, "It is a government scheme under which each school has a waste cafe. Students are encouraged to get their plastic waste and dump them at a corner in the

**ROAD TO BECOMING A GREEN SCHOOL**

school or in the canteen. For one kg of plastic waste, we pay Rs 75 or the equivalent decided by schools. The waste is used for making bitumen and 70km of road has already been built using it." A HP government school in Chamba assigns three plants to each student,

and they take care of it. From Delhi, 24 schools took part and 13 of them received the green tag. East Point School, Vasundhara Enclave and Sachdeva Global School, Dwarka won an award for maintaining the green tag and implementing a green and

sustainable policy for the past five years. East Point School uses no petrol and diesel, its lighting is 100% LED, and it does waste segregation at source and on-site paper recycling. "We also have vertical gardens in our classrooms and teachers encourage us to not use

**Almost all the schools have adopted basic eco-friendly steps like building composting pits, rainwater harvesting and using solar energy**

plastic and to become green warriors," said a student. Sachdeva Global School has totally banned plastic. Its 55% area is green and it also has a kitchen and herbal garden.

A school in National Capital Region, Cambridge School at Indirapuram, recycles the waste water of ACs and uses it in laboratories. Shiv Nadar School at Noida grows its own vegetables, and has banned packaged and synthetic food.

Many participant schools use sustainable and non-polluting modes of transport, with some even having electric vehicles. MM Public School in Delhi has developed a solar grass cutter, with solar panels fitted on top of it.

## ◆ EXPERIMENTAL LEARNING

# The joy of experiential learning

# The joy of experiential learning

**Phad Se Padh**, through new-age learning, allows students to explore art-integrated programmes for better understanding of subjects



**Sanya Verma**  
www.bharatsepadh.com

**T**ill last August, Sanya Verma, a Class VIII student of Bal Bharati School in Delhi's Pitampura, had not heard about Phad art, which has its origins in Bhubaneswar district, Rajasthan. The rainbow-coloured palette of the 600-year-old traditional folk art attracted the young teenager, an artist herself, when she attended workshops to learn the patterns and strokes from traditional Phad painters. Today, Sanya is committed to learning and painting more of Phad to express herself better.

For about a year now, students like Sanya from about two dozen schools across the country have chosen to learn and use the traditional folk art work to comprehend their school lessons outside the classroom.

"Art is a powerful teaching tool," says Kartik Gogoi, who initiated art-integrated learning for students to help them develop curiosity about their curriculum and also learn about age-old art forms that exist in the country.

Kartik helms Rooftop, a community-driven art

experiences marketplace app, which makes traditional Indian art forms accessible to all.

The Phad Se Padh (Study with Phad) initiative was launched in association with the Maharaja Sewai Man Singh II Museum Trust. Given Phad's story-telling format, Kartik felt it would be a handy module to engage children in learning their school syllabus better, especially after two years of online coaching during the



**Art helps to hone the importance of creativity while enhancing knowledge about the subject**



pandemic. Through the art file School students enjoy history lessons outside classroom. SPECIAL ARRANGEMENT

He says, convincing schools about the utility of the programme was not easy and coordinating with teachers and students was also a challenge in the beginning. But what started in a Jaipur school gradually found acceptance in more schools across Delhi, the NCR, Mumbai and Rajasthan over the last one year.

Sanya, who volunteered to join the programme, now feels art should be incorporated in the school syllabus permanently. "We chose the Civil Disobedience Movement to explain through Phad. We realised that art is a fantastic

medium to learn; the colourful paintings depicted our language of understanding powerfully," she says.

Feedback is now encouraging Kartik to take the Phad Se Padh programme to 350 CBSE schools over the next 10 years.

"Art gives insights into society and my objective is to bring a new perspective to learning in school," he says. Teachers and students willing to try alternate styles of teaching and learning are taught the elements and intricacies of Phad painting by nine master painters from Bhubaneswar, arranged by Rooftop.

The students are free to choose any chapter from any subject and put it across through the medium of Phad. "It helps them hone the importance of creativity while enhancing knowledge about the subject," says Kartik, who also wishes to see more subjects and different concepts from the daily curriculum integrated with art.

### Varied stories

The paintings made by different sets of students in different schools were based on themes such as water conservation, instruments of Swaraj, stories of Akbar-Birbal, Kabir ke doha, Netaji Subhas Bose, medieval history of India, life of Ashoka, history of textiles, evolution of money, Gandhi's salt satyagraha and so on. Kartik says the initiative aligns with the New Education Policy 2020 and helps students learn better in school.

Cultural awareness and expressing with imagination and clarity in understanding are integral to a child's development, says Deepri Jain, art teacher at Sarwan Public School Gurugram. Over a period of six months she coordinated with the school's social science department and helped the students to figure out stories and concepts from the school textbooks. Her team of 60 students from classes IX to XII, chose Waterman of India, Rajendra Singh of Tarun Bharat Sangh, as the theme of their Phad painting measuring 24 feet X five feet.

"The children were encouraged to do deep research on the subject and it led to a content explosion," she says. Students had to visualise and question the story and design it like a show. The mood board hub divided the story into parts for easy dissemination of information such as the root cause for water scarcity and its fall out as village women had to walk long distances daily to fetch water; they got dehydrated and had to spend money on treatment. To avoid this, johars were built and rainwater collected.

"We had a lot of creative freedom and turned in a series of interesting stories from our Freedom Struggle, just the way our grandmothers used to tell us stories in our childhood," says Vikashi Agarwal, studying in Adarsh Shiksha Niketan, Delhi. "I have learnt how to make boring chapters from text books fun to learn with paintings that are interactive."

## ◆ GIRL EDUCATION

# In Assam, Beti padhao

# In Assam, Beti Padhao

The state government should use education and a mass campaign, rather than coercive criminal law, to deal with problem of child marriages



FAIZAN MUSTAFA

KHUSHBOO, A YOUNG widow who had lost her husband to Covid-19 was married in 2012 while below the age of 18. On the arrest of her father in Assam, she has allegedly committed suicide. As many as 650 million women in the world today, were married as children. About a third of them were married before the age of 15. In India, which has the dubious distinction of being home to the most number of child brides, UN estimates suggest that 1.5 million girls get married before they turn 18. About 16 per cent of girls in the age group of 15-19 are married at present. According to the 2011 census, 44 per cent of women in Assam were married before the age of 18. The figures for Rajasthan, Bihar and Madhya Pradesh were 41 per cent, 46 per cent and 43 per cent, respectively. In last five years, Karnataka saw an increase of 300 per cent in child marriages.

Assam Chief Minister Himanta Biswa Sarma's decision to prioritise addressing this problem is well-meaning. Child marriages affect the economy negatively and do not allow us to come out of the vicious cycle of inter-generational poverty. Child marriage deprives women of education and life skills. Early pregnancies adversely affect the physical and mental health of young mothers. The question is: Are mass arrests and indiscriminate use of criminal sanctions, that the Assam government has resorted to, the solution?

More than 4,000 FIRs have been filed and close to 2,500 people have been arrested in Assam in the past four days. Sarma has asserted that the crackdown will continue till the 2026 state elections. The links between the police and arrests as a solution to the age-old social problem aren't quite clear. More importantly, different theories of punishment have not succeeded anywhere in the world.

Modern international laws and conventions — the UN Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages (1962), the UN Convention on the Elimination of All Forms of Discrimination against Women (1979) and the Beijing Declaration (1995) — do mandate countries to stipulate a minimum legal age for marriage. But child marriages continue to have religious sanction in large parts of India.

Hindu and Muslim Personal Laws do not explicitly prohibit child marriage. The Manusmriti says that if a father fails to marry off his daughter within three years of her attaining puberty, she can find a spouse on her own. According to Medhhatithi, one of the earliest commentators on the Manusmriti, eight years is the right age for a girl to be given in marriage. The Rig Veda mentions garbhodhan — literally, attaining the wealth of the womb. It is the first of the 16 samskaras a Hindu is expected to perform. The Greek traveller Megasthenes (350-290 BC) has written that he was told that the women of the Pandion kingdom bear children at six years of age. About seven centuries later Al Biruni wrote child marriages were rampant in India.

The Muslim clergy too considered child marriages to be valid, though such children



C.R. Sankumar

have the option to nullify their marriage. The colonial state should be credited for reforming marriage laws. The Age of Consent Acts of 1861 and 1891 brought an reform in conjugal rights. The 1861 Act laid down 10 years as the minimum age for sexual intercourse. The Hindu intelligentsia opposed raising this age to 12 on the grounds that it violated norms related to garbhodhan.

The death of 10-year-old Phulmoni Dasi in 1890 created public pressure to reform the Age of Consent Law. Phulmoni's husband, Hari Mohan Maiti, was acquitted of charges of murder as she was just above the age of 10. Forty-four women doctors compiled a long list of child wives who had met the same fate as Phulmoni. The 1891 Act raised the age of consent for sexual intercourse to 12.

Four years before this, the Rukmabai case gave new impetus to the campaign of social reformers like M G Ranade and Behramji Merwanji Malabari. Rukmabai had refused to go to her husband. She was married at the age of 11. Her husband Dadaji Bhikaji had filed a petition for the restitution of his conjugal rights. He was supported by conservative Hindus including Bal Gangadhar Tilak.

When the Age of Consent Act was amended in 1891, the conservatives criticised it as interference in Hindu society. Tilak's newspapers *Marathi* and *Kaavi* were at the forefront of this campaign. Justice Romesh Chandra Mitter, former judge of the Calcutta High Court, opposed it as it was interfering in the Hindu religion, contrary to Queen Victoria's proclamation of 1858. Rukmabai was probably the original Shah Bano, who stood up for her rights.

These laws, however, had limited impact. In 1927, Rai Sahib Har Bilas Sarila introduced the Child Marriage Restraint Bill in the Legislative Council of India and sought a ban on marriages of children below the age of 12. The legislation was passed in 1929 — it raised the age of marriage to 14 for girls and 18 for boys. After Independence, the marriageable

The Assam government should use education and a mass campaign to educate parents, rather than a coercive criminal law, to deal with the problem of child marriages. In the period between 2000-2010, the growth of women's education, government investment in adolescent girls and public messaging have brought down the percentage of child marriages appreciably — from 47 per cent to 30 per cent. If in Assam, child marriages are more prevalent amongst Muslims, educating Muslim girls should be given the highest priority.

age for girls was raised to 15 in 1949 and 18 in 1978. The Prohibition of Child Marriage Act, 2006, stipulates imprisonment of two years or a fine which can go up to Rs 1 lakh, or both.

In several cases — *P Venkataswamy* (1977), *Rubindra* (1986), *G Saravanan* (2017) — high courts have ruled that child marriages are neither void nor voidable but valid. In 2021, the Punjab and Haryana High Court held a Muslim girl's marriage after attaining puberty as valid. The Supreme Court has recently agreed to hear this issue. On January 11, 2023, the Karnataka High Court refused to hold a marriage with a minor girl as void, under the Hindu Marriage Act, 1955. In the Hadiya case (2018), the Supreme Court mentioned attainment of puberty, and not 18 years, as the minimum age of marriage, as one of the conditions for a valid Muslim marriage.

In its 205th Report (2008), the Law Commission has rightly suggested that poverty, indebtedness and dowry are the main reasons that poor families marry off their daughters at an early age.

The Assam government should use education and a mass campaign to educate parents, rather than a coercive criminal law, to deal with the problem of child marriages. In the period between 2000-2010, the growth of women's education, government investment in adolescent girls and public messaging have brought down the percentage of child marriages appreciably — from 47 per cent to 30 per cent.

If in Assam, child marriages are more prevalent amongst Muslims, educating Muslim girls should be given the highest priority. Let the energetic CM of this state recognise the complex nature of this social problem which no criminal law can really tackle. Let him implement Prime Minister Narendra Modi's visionary and practical solution of Beti Bachao, Beti Padhao.

The writer is a constitutional law expert. Views are personal.

## PhD degrees of pvt varsities under lens

# PhD degrees of pvt varsities under lens

Gaurav Bisht

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**SHIMLA:** Doctorates awarded by 16 private universities in Himachal Pradesh are being investigated for irregularities by the state's private education regulator, officials said on Saturday.

The Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPERC) has confiscated the records of all PhD degrees awarded by these private universities since 2009 after complaints surfaced of awarding the doctorates without following guidelines set by the University Grants Commission, India's higher education regulator.

"An inquiry committee has inspected the universities. Now the documents are being scrutinized," HPPERC chairman Atul Kaushik said. "The violation of rules will not be tolerated, and if any university is found flouting

### THE HIMACHAL COMMISSION HAS CONFISCATED RECORDS OF ALL PHD DEGREES AWARDED BY THESE PRIVATE UNIVERSITIES SINCE 2009

the norms, strict action shall be taken."

The development comes after some private universities in Rajasthan were accused of awarding degrees in violation of norms.

In Haryana, cases of Rajasthan-based universities awarding PhD degree fraudulently had also come to light last year.

Some universities were reportedly not adhering to the time period fix for awarding the

doctorates, which typically stipulates a minimum period of three years that can stretch to six years.

Necessary formalities were also not being completed and PhD degrees were being awarded in seven to eight years, according to complaints received by the state's watchdog.

"There have been complaints where the PhD scholars had to change the PhD guide three to five times during the course, while in some of the cases PhD degrees were awarded to the students who couldn't even complete them in the stipulated period," Kaushik said.

The commission has constituted a three-member panel comprising senior faculty, which will look into the violations. "We are doing all this to maintain the standard of education," said Kaushik.

There are 17 private universities in Himachal Pradesh.

besides three government universities.

Earlier in 2022, a special investigating team comprising officials from the Income Tax department, Enforcement Directorate, Himachal police and Crime Investigation Department unearthed evidence in an education scam of Solan-based private university, Manav Bharti University, which allegedly sold more than 45,000 fake degrees.

"The probe had revealed that each degree related to technical subjects was sold to students within and outside Himachal Pradesh for ₹1 lakh to ₹3 lakh," Kaushik said.



**READ:** MBU's diploma course students stare at uncertain future

## 20z varsities to set up campuses in Guj: Govt

{ IN GIFT CITY } EDUCATION SECTOR BOOST

# 2 Oz varsities to set up campuses in Guj: Govt

**HT Correspondent**

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**NEW DELHI:** Two Australian universities will soon set up campuses at Gujarat International Finance Tec-City (GIFT City), Union education minister Dharmendra Pradhan said on Wednesday, adding that the development will add a "glorious chapter" in the bilateral relations of the two countries.

The two varsities – Wollongong University and Deakin University – will sign an agreement to this regard during Australian Prime Minister Anthony Albanese's maiden visit to India next week, he added.

Pradhan was addressing an event at Sri Venkateswara College in the national capital when he made the announcement. He was accompanied by Australian education minister Jason Clare, who is on a five-day educational visit to India.

"Two Australian universities will be establishing campuses in the GIFT City in Gujarat. We want to partner with Australia with accessibility, affordability and quality of education for youngsters," Pradhan said.

The formalities will be completed on the sidelines of the

**WOLLONGONG UNIVERSITY AND DEAKIN VARSITY WILL SIGN A DEAL DURING AUS PM ALBANESE'S VISIT TO NEW DELHI NEXT WEEK**

Australian Prime Minister's visit to India next week, he added.

GIFT City is an emerging global financial and IT services hub, a first-of-its-kind in India, designed to be on or above par with globally benchmarked business districts.

At least 25 prestigious Indian universities have some kind of engagement with their counterparts in Australia, Pradhan said, adding, "next week, another glorious chapter will be added to our journey as two prestigious Australian universities are coming to India."

"Australia will be an important partner of India during its journey of becoming a developed country by 2047," the minister said.

Clare, who also addressed the gathering, said former cricketer

Adam Gilchrist, the global brand ambassador of Wollongong University, will help in setting up the varsity campus in India.

He said that Australia and India on Thursday will sign an agreement to come up with a mechanism for mutual recognition of qualifications that will allow students to access education in both countries.

"It means that an Indian student can be sure that the degree that they obtain from an Australian university will be recognised if they want to continue further education here in India...." Clare said.

"This is just the start. It is part of a two-step process. First, there is a mechanism to recognise qualification degrees. The second is to work together with professions on mutual recognition agreements so that Australian and Indian graduates will be able to practice professionally in either country..." he added.

The Australian minister also said that 10 new memorandums of understanding (MoUs) will be signed for educational tie-ups next week.

Later in the day, the two ministers visited and interacted with students at Kendriya Vidyalaya No-2 in Delhi Cantonment.

## Growth of Indian languages receives budgetary impetus

# Growth of Indian languages receives budgetary impetus

Fareeha Iftikhar

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**NEW DELHI:** In a push to promote indigenous languages and Indian Knowledge Systems (IKS) among the youth, finance minister Nirmala Sitharaman in the Union Budget 2023-24 set aside ₹300.7 crore for national institutions for the promotion of Indian languages. The amount is an increase of 20% from 2022-23, and doubles the fund for the IKS scheme.

The Narendra Modi government has taken several steps to promote regional languages in educational institutions, including the introduction of technical and professional courses in these languages.

According to the Budget document, grants to institutes for promotion of Indian languages have increased to ₹300.7 crore in 2023-24 from ₹250 crore in 2022-23 and nearly 70% more than ₹176.5 crore in 2021-22.

These institutions include Central Sanskrit University, Kendriya Hindi Sansthan, National Council for Promotion of Urdu Language, National Council for Promotion of Sindhi Language, Central Institute of Classical Tamil, and National Initiative for



The Union Budget 2023-24 has set aside ₹300.7 crore for national institutions for the promotion of Indian languages. HT ARCHIVE

Quality Higher Education in Indian Languages.

For the Central Institute of Indian Languages, Mysore, which works for the promotion of all Indian languages including Kannada, Telugu, Malayalam and Odia, the fund allocation has increased to ₹53.61 crore in 2023-24 from ₹43.50 crore in the revised estimate in 2022-23.

The allocation for the IKS scheme has also increased to ₹20 crore from ₹10 crore (budget estimate) in 2022-23. Under the scheme, the elements of knowledge from ancient India and its contributions to modern India are being incorporated in the curriculum at both the school

and university levels.

In 2020, the government established an IKS division as an innovation cell at the All India Council for Technical Education (AICTE) to promote interdisciplinary research on aspects of indigenous knowledge.

University Grants Commission (UGC) chairperson M Jagadeh Kumar said the Budget allocation has been done in line with the National Education Policy (NEP) 2020 which lays emphasis on imparting education in Indian languages and promoting the IKS among the youth.

"UGC has formed an apex committee to work with Indian authors to prepare textbooks at

undergraduate and postgraduate levels in different Indian languages and disciplines. These books will be available in digital format and can be made accessible to the students on the national digital library announced in the budget," he said. "Besides, the budget allocates ₹300 crore to some institutes for promoting Indian languages, which is 20% higher than last year's allocation. It will further supplement our efforts in promoting Indian languages."

Kumar said that additional allocation to IKS will also boost the government's efforts of integrating the ancient Indian knowledge into our regular curricula. "For implementation of IKS, resource materials are required, and we need trained teachers to teach the Indian knowledge system," he said. "Recently, UGC has issued guidelines for training teachers in IKS. UGC will scale up its efforts in the coming months."

Besides, for the directorate of Hindi, the allocation has increased to ₹39.47 crore in 2023-24 from ₹36 crore in the current fiscal. The directorate, which has four regional centres, works with the objective of propagation and development of Hindi as a link language.

## Cabinet approves setting up of 157 govt nursing colleges in next 2 years

# Cabinet approves setting up of 157 govt nursing colleges in next 2 years

**ANONNA DUTT**  
NEW DELHI, APRIL 26

THE UNION cabinet Wednesday approved the setting up of 157 nursing colleges at the same locations as medical colleges that have been established since 2014 — a move aimed at filling up nursing vacancies and ironing out disparities in distribution of nursing colleges in the country.

The colleges will come up over the next two years with the Centre putting in Rs 1,570 crore (Rs 10 crore for each college), which states can add to. Finance minister Nirmala Sitharaman had announced the creation of the new nursing colleges while laying out the current year's budget.

With 100 seats per college, the move will add 15,700 BSc nursing seats across the country. The highest number of colleges will be in Uttar Pradesh (27), Rajasthan (23), and Madhya Pradesh (14).

There are currently 1.18 lakh BSc nursing seats in the country, said Union Health Minister Mansukh Mandaviya while announcing the cabinet decision.

A committee headed by the Union Health Secretary at the Centre and the Principal Secretary of health or medical education in the state will monitor the progress in their construction, expected to be completed over the next two years.

Mandaviya said: "There is an increase in demand for BSc nursing with new medical colleges and hospitals being set up by the government. The private sector is also setting up hospital chains that focus on medical value tourism where there is a need for BSc nurses. Apart from that, there is also a need for BSc nursing across the world. The move will fulfil the nursing needs of the country and the world."

The minister added that this will also address the disparity in availability of nurses across states. Mandaviya said: "States like Kerala, Andhra Pradesh, Karnataka, and Tamil Nadu in the south have 40% of the country's nursing colleges at present. And, there are 13 states that have no nursing colleges at all."

The minister said Bihar has only two government nursing colleges and ten private ones.

The state will get eight new nursing colleges under the scheme. "Similarly, Jharkhand has one government and 20 private nursing colleges. Now, the state will get five more. Currently, UP has 10 government nursing colleges, Rajasthan 11, and MP also 11," he said.

The distribution of the nursing colleges is based on the number of new medical colleges that have been opened in the state since 2014. The Centre will provide Rs 10 crore for setting up of each of the colleges, "and the states can add to this," Mandaviya said.

In addition to demand within the country, the minister said there is a global demand for Indian nurses. Currently, there are 26,000 Indian nurses working in the UK, 20,000 in the Gulf countries, 16,000 in the US, 12,000 in Australia and 5,000 in Canada.

With the government looking to promote India as a healthcare destination, discussions on mobility of healthcare workers across countries was one of the focus points at the ongoing international conference Advantage Healthcare-India.

## Medical devices policy approved, to help sector grow to \$50 bn in 5 years

**ANONNA DUTT**  
NEW DELHI, APRIL 26

THE UNION Cabinet on Wednesday approved the medical device policy to promote industry in a "holistic manner" from the current size of \$11 billion to \$50 billion over the next five years.

With the policy set to facilitate an enabling ecosystem for manufacturing and innovation, a streamlined regulatory framework and skill building in line with industry requirements, it aims to increase India's share in the global market from the current 1.5% to 12% over the next 25 years.

The policy also plans to create a single window approval process for medical device manufacturers.

"Medical device manufacturing is a sunrise sector, but we import around 75% of medical devices at present. The Department

of Biotechnology is already working on research in the field, the Health Ministry on regulations, the Pharmaceutical Department on developing medical technology parks, and the Skill Development Ministry on training needed," Union Health Minister Mansukh Mandaviya said. He said setting up of four medical device parks was approved last year in Himachal Pradesh, Madhya Pradesh, Tamil Nadu and Uttar Pradesh.

A production-linked incentive was also announced for 26 medical devices, with 19 already starting manufacturing, he said.

The scheme has committed an investment of ₹1,206 crore, of which investment of ₹714 crore has already been achieved. It aims to increase domestic manufacturing of high-end medical devices such as MRI, CT scan, mammogram, C-Arm, and X ray tubes.

## University of Melbourne to offer dual degree with 3 Indian universities

# University of Melbourne to offer dual degree with 3 Indian univs

TIMES NEWS NETWORK

**New Delhi:** The second oldest Australian university, University of Melbourne, is partnering with University of Madras, Savitribai Phule Pune University, and Gandhi Institute of Technology and Management, Hyderabad to offer a new Bachelor of Science dual degree. This was informed by the university on Thursday, where it stated that Indian students will be able to complete their degree at home and abroad, spending the first two years in India, followed by two years on campus in Melbourne.

Once they successfully complete their studies, Indian students will be awarded a Bachelor of Science from the University of Melbourne, and they have the option for their local institution to award the degree. In addition, Indian students can study up to six masters subjects in their final

## Pradhan, US secy talk to bolster edu ties

**U**nion minister of education and skill development Dharmendra Pradhan held discussions on Thursday with US secretary of commerce, Gina Raimondo, on forging stronger linkages between India and the US in the skilling sector. The deliberations centred on creating lifelong learning opportunities of a large scale and deepening collaborations in 3S – skilling, startups and SMEs. Both the leaders agreed to strengthen institutional mechanisms for making the Indian skill ecosystem. “Skills and competencies have become more important than degrees in today’s times. The minister informed that both discussed ways to create lifelong learning opportunities of a large scale and deepen our collaborations in 3S – skilling, startups and SMEs,” said the ministry statement. TNN

year so they can fast-track a master’s degree from a suite of disciplines including science, engineering, public health and data science.

Duncan Maskell, vice-chancellor, University of Melbourne, announced the dual degree collaboration in Mumbai while travelling with the PM of Australia’s Trade Delegation to India. Maskell said the new dual degree is the logical next step of the Bachelor

of Science, which was co-designed and quality assured by the University of Melbourne, and is now offered by seven institutions across the country.

“With demand for our existing programmes continuing to grow, we’re pleased to be working together with prestigious local universities to be part of the internationalisation of education in India and at home in Australia,” said Maskell.

# Why universities rankings are in trouble from India to US

## Why Univ Rankings Are In Trouble From India To US

### Education is too multi-faceted, all accreditations end up depending on too much subjectivity

SS Mantha and Ashok Thakur



The reputation of a university is built over several decades. Can rankings really justify the effort that takes a university to reach where it is? Last November, several institutions such as the law schools of UC Berkeley, Harvard and Yale joined in rejecting the US News & World Report annual rankings, saying these were harmful to attracting prospective students. Later 13 medical schools joined the boycott, including the top ranked Harvard Medical School.

Back in 1995, when Reed College, one of the top 10 liberal arts colleges in the US, refused to participate in the US News & World Report annual survey, questioning the methodology and usefulness of college rankings, the trigger was a 1994 report by WSJ about institutions flagrantly manipulating data to move up in the rankings in various popular college guides.

By now a new concern has been added, that it is not possible to come up with a single number that characterises university performance. The executive chair of US News & World Report, however, says that the elite schools don't want to be held accountable by an independent third party.

Recently India's National Assessment and Accreditation Council's processes have come in for a lot of criticism and several articles have red-flagged its credibility. The concerns have been very similar to those aired by US universities in the past. Are the red flags justified?

One can also keep debating whether the measurement must be qualitative or quantitative. Whereas NIRF is 100% quantitative, NAAC is almost 70% quantitative and the remaining qualitative. Both approaches have their plusses and minuses. A qualitative approach is time-consuming, its results cannot be verified, it's labour-intensive, and most importantly, it's not statistically representative. On the

other hand, in quantitative methodologies, there is a false focus on numbers and these are prone to being gamed by institutes after a while.

There is also a debate as to whether a university should be programme accredited or institution accredited. With an education system as large as ours, programme accreditation can be enormously time-consuming. On the other hand, a university accreditation tends to camouflage the inconsistencies within departments.

Admittedly the red flags must be addressed adequately. However, the limitations of a measurement system or its vastness or the disparities within it cannot be unfairly cited to bring down the credibility of an agency.

At least 20 global ranking agencies in the world measure quality on various parameters. The Quacquarelli Symonds World University Rankings have been published annually since 2004. In 2009, they even launched the QS Asian University Rankings in partnership with the *Chosun Ilbo* newspaper in Korea, ostensibly to protect the Asian interests. Another prominent one is THE World University Rankings, out since 2011.

Whereas the THE-WUR is based on 13 carefully calibrated indicators that measure an institution's performance across teaching (30%), research (30%), research citation (30%) international outlook (7.5%) and knowledge transfer/industry income (2.5%), QS bases its ranking on parameters such as academic reputation (40%), employer reputation (10%), faculty student ratio (20%), citation per faculty (20%) and international faculty and student ratio (5% each).

As for NAAC, it assigns a weightage of 15% for curricular aspects, 20% for teaching learning and evaluation, 25% for research, innovation and extension

and 40% each for infrastructure and learning resources, student support and progression, governance, leadership and management and institutional values and best practices. NIRF ranking is based on six parameters such as research and professional practice, graduation outcomes, outreach and inclusivity.

This quick glance indicates the complexity of the evaluation processes and the subjectivity involved.

Why are there so many accreditation and ranking methodologies and agencies? The answer is simple. Education is multi-faceted. It cannot be bound in simple metrics that are the same across disciplines. Simply put, ranking or accreditation is not agnostic.

The diversity in the Indian education system is large.

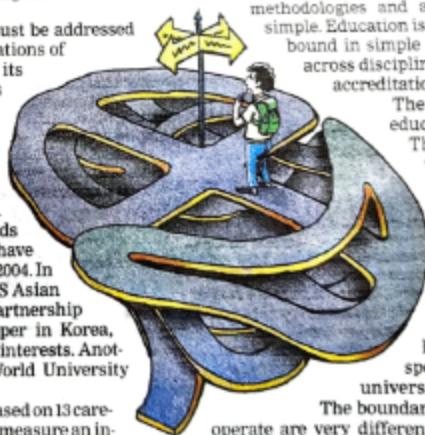
There are 2/3/4/5-year institutions that offer degrees/diplomas/certifications.

There are technology vs social sciences and life sciences institutions, multi-disciplinary vs single discipline, private vs public, research-based, innovation-based, language-based and even special purpose institutions/universities.

The boundary conditions in which they operate are very different. They cannot be grouped under the same parameters for a quality check. That being the story, agencies like NAAC can only do so much and nothing beyond. Probably it is time to junk all the ranking and accreditation processes and adopt quality assurance as the default.

Why cannot an institution or a university be held for renegeing on their promises? Rather than pull down our agencies, maybe it is time to check the return on investment of our institutions/universities.

Mantha is former chairman, AICTE, and Thakur former education secretary, GoI



## NCTE launches 4-year integrated teacher education programme

# NCTE launches 4-year integrated teacher education programme

STATESMAN NEWS SERVICE  
NEW DELHI, 4 MARCH

The National Council for Teacher Education (NCTE) has launched the Integrated Teacher Education Programme (ITEP) in 57 Teacher Education Institutions (TEIs) throughout the country from the academic session 2023-24.

*This is a flagship programme of NCTE under the NEP 2020. The ITEP is a 4 year dual-major holistic undergraduate degree offering B.A. B.Ed. / B.Sc. B. Ed. and B.Com. B.Ed. This course will prepare teachers for the four stages of the new school structure i.e. Foundational, Preparatory, Middle and Secondary (5+3+3+4).*

The programme is being offered in pilot mode initially in reputed central/state

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**This integrated course will benefit students since they will save one year by finishing the course in four years rather than the customary five years required by the present B.Ed. plan.**

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government universities/institutions. It will be available for all students who choose teaching as a profession after secondary, by choice.

This integrated course will benefit students since they will save one year by finishing the course in four years rather than the customary five years required by the present B.Ed. plan.

Admission for the same will be carried out by the National Testing Agency (NTA)

through the National Common Entrance Test (NCET).

The ITEP will not only impart cutting-edge pedagogy but will also establish a foundation in early childhood care and education (ECCE), foundational literacy and numeracy (FLN), inclusive education and an understanding of India and its values/ethos/art/traditions, among others.

The course will contribute substantially to the revitalization of the whole teacher education sector.

The prospective teachers passing out of this course through a multi-disciplinary environment, grounded in Indian values and traditions will be instilled with the needs of 21st-century global standards and, hence, will be the harbingers in shaping the future of New India.

## Rs.44,094.62 cr for higher education, 100 labs, more resources for IITS, UGC and CU

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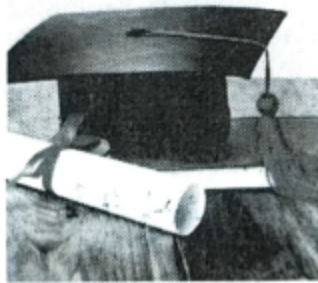
# ₹44,094.62 cr for higher education, 100 labs, more resources for IITs, UGC and CU

### AGENCIES

NEW DELHI, 1 FEBRUARY

The Education Ministry has been allocated the highest ever Rs 112899.47 crore in the budget. Due to this rise the budgetary allocation for higher education has also gone up at Rs 44,094.62 crore compared to Rs 40,828.35 crore in 2022-23.

One hundred labs for developing apps using 5G services will be set up in HEIs, to realize a new range of opportunities, business models and employment potential. The labs will cover among others, apps like Smart Classrooms, Precision Farming, Intelligent Transport Systems and Healthcare. The government has been attempting to transform engineering education



by introducing courses in emerging sectors and making the approach multidisciplinary, not only in IITs, NITs and IISERs but in engineering institutions across the country.

These 100 labs will provide a fillip to employment, startups, and businesses and promote innovation and entrepreneurship in young engineers. Recognizing the pioneering role of the IITs in

research excellence in the country, the Finance Minister announced that a research and development grant for indigenous production of Lab Grown Diamond seeds and machines will be given to one of the IITs for 5 years. This will ensure an industry-led research and innovation effort, with a direct impact on exports, employment generation and India's share in the world trade in this sector.

According to the Ministry of Education in order to implement the NEP 2020 in the true spirit, the best institutions and universities of the country, under the central government, have been given an additional Rs 4235.74 crore, which is an increase of 12.8 per cent over their allocation last year.

In 2023-24, the grant for the UGC has been increased by 9.37 per cent -- an increase of Rs 459 crore. The grants to Central Universities have been increased by 17.66 per cent, deemed universities by 27 per cent, support to IITs has been increased by 14 per cent, and to NITs by 10.5 per cent as compared to 2022-23. Also IISc, Bangalore's grant has been increased by 15 per cent.

In 2023-24, for the Prime Minister Research Fellowship (PMRF) an amount of Rs 400 crore has been provided as compared to Rs 200 crore in 2022-23 -- that is a 100 per cent increase. The ministry of education said that three Centres of Excellence will be set up in educational institutions to "Make AI in India and Make AI work for India".

## ◆ INCLUSIVE EDUCATION

### Can & able! kids with special needs game for more

# Can & able! Kids with special needs game for more

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**New Delhi:** Yuvraj, a Class XI student in a government school in west Delhi, has a hearing impairment that has affected his learning in school, but in discus, shotput and the 200 m sprint, he has proved to be second to none.

Yuvraj's mother saw her son perform and win when for the first time the DoE held a para-sports event for children with special needs in Delhi's government schools.

The para-sports were held in Delhi from March 17-23.

Many like Yuvraj who won will now perform in the state-level games in April. Around 1,400 children are expected to participate in the state-level meet.

Speaking to TOI, Yuvraj's mother, said: "It is such a great thing that our children with disability are getting a chance to showcase their talent. He is extremely interested in playing and maybe sports can only help him achieve something in life."



**OVERCOMING HURDLES:** After shining at the district level, these kids from Delhi government schools will take part in a state-level para-athletic event to be held soon

#### A MOTHER SAYS

**My son is extremely interested in playing and maybe sports can only help him achieve something in life**

Yuvraj, a 17-year-old student at the Government Co-ed Sarvodaya Vidyalaya, Hiran Kudna, also plays cricket. His mother is a homemaker and his father Yogesh is a home guard.

Approximately 2,126 children with special needs participated in the district-level meets.

Nine types of sports—four indoor games and five outdoor—were included this time for boys and girls. They were divided into sub-junior (under 14 years), junior (under 17 years) and senior (under 19 years). There were also categories according to levels of disability: Level I (up to 70% disability) and level II (above 70%).

During the district-level matches, even those students with visual impairment ran races with assistance.

Another Class IX student at the Government Co-ed Senior Secondary School at Sector 6 in R K Puram won a 200-metre race from the south-west A district. She is hearing and speech impaired.

Her mother, Bhimwati, said: "Sports ka bahut shaukh hai usey (she has a lot of interest in sports). She hasn't practised much also but still (she won). We have realised she is good. We, as parents, cannot be with her always so if sports will help her become independent, we are happy to encourage them. It has happened in the school for the first time and such events should happen more often."

Aastha Choudhary, with locomotor disability, won the game of carrom from the east district.

Her special education teacher Shivangi Mahajan said: "We are only able to help them play such sports sometimes, but it is wonderful how our kids are also good in their games."

### DoE to take over seven schools for differently-abled

# DoE to take over seven schools for differently-abled

Shradha.Chettri@timesgroup.com

**New Delhi:** The Directorate of Education will now run the seven special schools meant for differently abled students in the city. These schools were earlier under the social welfare department. The DoE has formed a committee that will visit these institutes and identify the scope for improvement and upgrade.

The move follows an order of the Delhi High Court in March 2023 on a petition filed by the National Federation of the Blind in 2018 over the poor condition of these schools. The federation, in its petition, had alleged that the Government Senior Secondary School for Blind Boys at Kingsway Camp in north Delhi was in a di-

lapitated condition.

"Earlier, when these schools were started, education was thought of as a part of social welfare. However, under the Right to Education Act, 2009, it is now a matter of right. Moreover, the social welfare department did not have the means to run these schools. Therefore, the court directed the education department to take over," a senior education department official said.

The seven schools include Govt Nursery Primary School for Deaf, Mayur Vihar; School for Mentally Retarded Children (SMRC), Mayur Vihar phase I; Government Senior Secondary School for Blind Boys (GSSSBB), Kingsway Camp; Government Middle School For The Deaf (GMSD), Sector-4 Rohini; Lady Noyce

#### The move follows an order of the Delhi High Court in March 2023 on a petition over the poor condition of these schools

Nursery Primary School For The Deaf (GLNNPSD), Nehru Vihar; Government Lady Noyce Sr Sec School for the Deaf (GLNSSSD); and Delhi Gate and Government Senior Secondary School For The Deaf (GSSD), Kalkaji.

On April 12, lieutenant governor VK Saxena gave his approval for the takeover of these schools and directed that education be provided to these children in line with provisions made in the RTE Act, 2009, the Rights of Persons with Disabilities Act, 2016, and the National Education Po-

licy, 2020. However, the hostels in these schools will be looked after by the social department itself.

The deputy district education officers have been directed to form an inspection team, headed by the DDE of each zone and comprising a principal, a representative from the inclusive education branch and two sets of teachers.

The official said: "Since 2018, the infrastructure at these schools has improved, but there is still a lot that needs to be done. Our focus will now be to upgrade the schools, recruit teachers and run the institutes like any regular school. Within a week, all teams will submit a report to the inclusive education officer of DoE, who will then decide on the future course of action."

डरने के बजाय मैथ्स में मजा ले बच्चे ... पढ़ाई का ऐसा पैटर्न चाहती हैं सरकार

## डरने के बजाय मैथ्स में मजा ले बच्चे... पढ़ाई का ऐसा पैटर्न चाहती है सरकार

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■ नई दिल्ली : स्कूली शिक्षा के लिए तैयार किए गए नैशनल करिकुलम फ्रेमवर्क (NCF) ड्राफ्ट में गणित की पढ़ाई में बदलावों को लेकर कई अहम सुझाव दिए गए हैं। जिन छात्रों की गणित विषय में रुचि नहीं होती या फिर जो छात्र गणित से डरते हैं, उनकी सोच में बदलाव लाने के लिए गणित को कला, खेल और भाषा के साथ जोड़ने की सिफारिश की गई है। इस प्रयोग से स्कूली छात्रों के लिए इस विषय को अधिक रचनात्मक बनाने की बात कही गई है। राष्ट्रीय शिक्षा नीति 2020 में कहा गया है कि गणित और गणितीय सोच देश के भविष्य के लिए बहुत अहम है। ऐसे में गणित की शिक्षा में जरूरी बदलाव किए जाने की जरूरत है। शिक्षकों को भी गणित पढ़ाने के तरीके में नए प्रयोगों को महत्व देना होगा। साथ ही गणित विषय में प्रैक्टिकल और प्रोजेक्ट वर्क को भी अहमियत मिलेगी। गणित में

लिखित परीक्षा को 80 प्रतिशत और प्रैक्टिकल परीक्षा को 20 प्रतिशत वेटेज दिए जाने की सिफारिश की गई है। नैशनल करिकुलम फ्रेमवर्क में कहा गया है कि बच्चों को शुरुआती कक्षाओं से ही रोचक तरीके से गणित पढ़ाया जाना चाहिए। गणित को कला के साथ जोड़ा जा सकता है, जैसे रंगोली पैटर्न के जरिए बच्चे को काफी कुछ सिखाया जा सकता है। रंगोली बनाने में गणित का कैसे प्रयोग किया जाता है, इसके बारे में बच्चों को बताया जा सकता है। पेंटिंग में कलर पैटर्न की जानकारी भी बच्चों को दी जाए। इसी तरह से गणित को खेल से जोड़ा जा सकता है।  
**गणित में प्रोजेक्ट वर्क क्यों नहीं :** NCF कहता है कि मूल्यांकन के तरीके में भी बदलाव करना होगा। जिस तरह से दूसरे विषयों में प्रैक्टिकल या प्रोजेक्ट वर्क का प्रावधान है, उसी तरह से गणित में भी प्रोजेक्ट वर्क होना चाहिए। छात्रों को तरह-तरह के प्रोजेक्ट करने को दिए जा सकते हैं, जिसमें गणित का प्रयोग हो।

**NEET-UG में आवेदन  
का 13 तक है मौका**

■ विस, नई दिल्ली : नैशनल एलिजिबिलिटी कम एंट्रेंस टेस्ट (NEET-UG) 2023 के लिए ऑनलाइन आवेदन प्रक्रिया एक बार फिर से शुरू की गई है। नैशनल टेस्टिंग एजेंसी (एनटीए) के मुताबिक देश के सबसे बड़े एंट्रेंस टेस्ट के लिए ऑनलाइन आवेदन करने का छात्रों को एक और मौका दिया गया है और 13 अप्रैल रात 11.30 बजे तक आवेदन किया जा सकता है। 13 अप्रैल को रात 11.59 मिनट तक ऑनलाइन फीस जमा करवाई जा सकती है। इस परीक्षा के लिए आवेदन प्रक्रिया 6 अप्रैल को खत्म हो गई थी और 10 अप्रैल तक छात्रों को फॉर्म में करेक्शन का मौका दिया गया था। एनटीए अधिकारियों का कहना है कि छात्रों की ओर से यह मांग की गई कि आवेदन प्रक्रिया को फिर से शुरू किया जाए क्योंकि बहुत से छात्र आवेदन पूरा नहीं कर पाए हैं।

## A new classroom

# A NEW CLASSROOM

Expert panel's proposal to remove borders between arts, science and commerce is welcome. Next step is to empower the teacher

**A**N EXPERT PANEL appointed by the Centre has suggested a long overdue restructuring of the school education system. Last week, the committee released a "pre-draft" of the National Curriculum Framework (NCF) for public feedback on recommendations, which include giving senior secondary students the freedom to pursue a mix of arts, commerce and science subjects. This flexibility is in accordance with the multidisciplinary approach underlined in NEP 2020. The NCF's proposal to assess the students' capabilities in Classes 10 to 12 through examinations over four years — and not one board exam every year — also fits in with the NEP's vision of "holistic education". The changes will have an enhanced role for "well-designed" textbooks. Implicit in the NCF approach is also a greater role for the teacher.

It is increasingly becoming evident that the rigid boundaries between arts, science and commerce do not provide the child the foundational knowledge to deal with the more pressing challenges of today. Combating climate change and other environmental crises, for instance, require an understanding of politics, economics, sociology as well as disciplines that deal with natural phenomena. Business studies are not purely about what happens in the realm of commerce. Understanding of human behaviour plays an important role in shaping economic models. The significance of humanities in the Fourth Industrial Revolution has been underlined by several research papers. That's why NEP "envision[s] a complete overhaul and re-energising of the higher education system", including "moving towards a more multidisciplinary undergraduate education". The new NCF approach could provide the groundwork for such a change at the school-level. It recognises that the current system encourages rote learning and does very little to develop critical skills. It rightly points out that a large number of students have developed a "fear" of mathematics and current methods of assessment have created a perception that mathematics is about "mechanical computation". It, therefore, recommends a shift to play, activity, discovery and discussion-based learning at the primary school level.

In the coming weeks and months, the panel will hold several rounds of discussion on the "pre-draft". An urgent task should be to ensure that the reforms are applied in an equitable manner. According to the education ministry's data, more than a lakh government schools in the country have just one teacher. Saddled with a number of responsibilities, the instructor may not be able to make learning a creative exercise, as the NEP and NCF demand. The NEP is alive to these concerns. The document's section on empowering the teacher should not escape the planners' attention while they lay the framework for reforms in school education.

## Atishi launches video series on Govt's happiness curriculum

# Atishi launches video series on Govt's Happiness Curriculum

STAFF REPORTER ■ NEW DELHI

Education Minister Atishi on Sunday launched a 36-episode video series on the Delhi government's Happiness Curriculum and said it will enable educators across the world help their students learn to live a happy and purposeful life.

Through this initiative, people will learn to serve humanity in the truest sense, she said.

The Happiness Curriculum was launched in 2018 with a vision to strengthen the foundation of happiness and well-being of students through a 35-minute class conducted every day from kindergarten to Class 8 across 1,030 government schools in the national capital.

Development of self-awareness, expression, empathy and understanding of relationships are the key objectives



of the curriculum.

"The video series is available with subtitles which will help the Delhi government spread the philosophy of the Happiness Curriculum to a larger public. This is a very significant initiative through which we can bring positive changes in our lives," Atishi said.

The series by the Delhi government's Education Department is an initiative to share the "purpose of life" and the role of education in achieving that purpose, she said. ))

## ◆ NEET-JEE EXAM

# 'Rationalised' science math syllabi leave JEE NEET aspirants with missing links

SPECIAL REPORT ON INDIA'S FUTURE STEM CAPACITY

## 'Rationalised' Science, Math Syllabi Leave JEE, NEET Aspirants With MISSING LINKS

State boards need to be considered... It has been discussed at Joint Admission Board level & it is felt sudden changes cannot be brought in JEE. We usually give 2 years so students already preparing are not impacted: An IIT Director

Amithabh Vittal@imr@gmail.com

**R**ationalisation of NEET syllabus which began last year, when some chapters have been removed, is turning into a big challenge for students appearing for competitive exams where the old syllabus is followed. It takes a lot of time for students to get used to the new syllabus, especially since India's schooling system is known to send revised syllabi into schools in a piecemeal manner.

### TRIMMED SYLLABUS

The Physics syllabus no longer covers the class of motion in a straight line, the Sources of Energy chapter and periodic classification of elements. Class 11 has dropped topics such as motion, digestion and absorption in biology; five chapters — from third motion to Environmental Chemistry — in Chemistry and Geometrical and Polar Solids in the chapter on Crystalline and Amorphous Solids in Chemistry.

In Class 12 Biology, chapters from reproduction in organisms to environmental issues and biotechnology have been omitted. Chemistry has no chapters dropped — The Solid State, Polymers, Surface Chemistry, P block elements, and Chemistry in everyday life. The rationalised Physics syllabus has removed the Electrostatics chapter from India's pending entry in the national curriculum framework.

The chapter on motion has been dropped — Law of Restitution (JEE), Alpha Decay, Beta Decay, Gamma Decay and Nuclear Reactions — have been omitted. Earth's magnetism and ferrimagnetism are among the sections cut off in the Magnetism chapter in Mathematics. Inverse trigonometric functions, relations and functions, matrices, application of derivatives — have been dropped. In Mathematics, well-known mathematicians involved with the development of math textbooks for the 2005 National Curriculum Framework, say of the higher secondary level, entire chapters on complex numbers, mathematical induction and mathematical reasoning are gone, as also a half of the chapter on sets, probability, statistics, sequences and series, matrices, applications of derivatives. At the middle school level, sections of algebra chapters have been taken out, leaving little room for making sense of algebra," he said in an email response to ET.

**WIDENING MISMATCH**  
The immediate concern for school system students, teachers and parents is the mismatch between the rationalised syllabus and the syllabi followed by JEE, NEET.



**OFFICIAL INVOLVED IN JAB AND NATIONAL TESTING AGENCY CONSULTATIONS SAID SEVERAL BOARDS NEED TO BE CONSIDERED**



used for JEE, NEET and aptitude test for IITs, IIS, etc. While JEE and NEET Advanced have so far gone largely by NEET/JEE syllabus, the "rationalisation" is yet to find its way into the entrance exams system. The problem is there and it is seen for JEE, NEET, etc. While JEE and NEET Advanced have so far gone largely by NEET/JEE syllabus, the "rationalisation" is yet to find its way into the entrance exams system. The problem is there and it is seen for JEE, NEET, etc. While JEE and NEET Advanced have so far gone largely by NEET/JEE syllabus, the "rationalisation" is yet to find its way into the entrance exams system.

Most state school boards have not yet rationalised their syllabus. Some are in the process of doing so. It was decided not to change the JEE syllabus yet, it may be considered later to revise school boards make the curricular changes," he said. So, the only option for students following the rationalised syllabus — all CBSE schools and a few state boards — is to sit for only questions from the rationalised syllabus in the choice-based questions. This puts such students at a disadvantage.

**EXCUS AFTER CLASS 10**  
Several schools are reporting an influx of students after class 10. Most of them had not attended school — where attendance is not followed — as a school with a teaching staff of 100 students from class 11 suddenly would transfer outside teachers. Several of them were students who have been out of school for a year or more. They joined a nearby school which had a class 10 and JEE and NEET coaching centre. The coaching centre is also bringing students to their own coaching centre.

**Immediate concern for PCMB students, teachers, parents is the mismatch between the rationalised syllabus and the syllabus followed for JEE, NEET & aptitude test for IISERs, IISc**

Students getting prepared or "shorted" from some topics are getting prepared. The impact of this will be seen in the JEE Advanced and NEET. The rationalised syllabus is followed for JEE, NEET & aptitude test for IISERs, IISc.

The National Curriculum Framework for School Education is a subject cannot be seen in isolation. A topic covered in Chemistry may have been covered in Biology or Physics. Several Science teachers are saying so. Such a "holistic" view of knowledge. Also, if so much information is omitted, at what stage will children be taught these important concepts? NCERT chairperson G. K. Viswanathan told ET, "We, at NCERT, have taken it up with all stakeholders but no corrective measures have been taken. This has to be addressed and we have repeatedly mentioned it should be addressed."

Students, who are part of the team that formulated the 2005 National Curriculum Framework, told ET that when it comes to substantial reduction, there is a choice between a few large cuts and many minor cuts. "CBSE/NCERT has chosen the latter option, but it is unclear whether they seriously considered the other options. In Mathematics, removing an entire topic like Integrating would be preferable than piecemeal reduction," he observed.

The school management that the reduction was in response to a real need (pedagogical constraints) but said that rather than articulating options with teachers since then, even after a year and a half of talking this up, it is still in the process of being worked out, "a rather haphazard way of doing it up. Children are only checking the minimum school attendance as the bulk of teaching and studying has shifted to coaching centres. This has increased parents' financial burden," a parent of a Class 12 student told ET.

Rajya Bhargava, founder and chairperson of coaching institute, Career Launcher, conceded that the impact of rationalisation will end up affecting a "mismatch" via a "content over-saturation." Some of the content chapters or topics between the main and advanced such as inverse trigonometric functions or integration, when removed, will enhance the mismatch," he said in response to ET queries. That explains why a Class 12 student has opted to increase coaching time this year.

"I have started cutting down school days and increased the frequency of coaching classes — from workshop to four times a week. I would not be able to make it if I didn't do so. The coaching centre will teach me the entire syllabus as required for JEE Advanced," shared ET. It is what about those who have no access to coaching? It is not only on school teaching.

**DROPPING DOWN OF PCMB**  
Several schools are reporting an influx of students after class 10. Most of them had not attended school — where attendance is not followed — as a school with a teaching staff of 100 students from class 11 suddenly would transfer outside teachers. Several of them were students who have been out of school for a year or more. They joined a nearby school which had a class 10 and JEE and NEET coaching centre. The coaching centre is also bringing students to their own coaching centre.

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**'WHEN STRUCTURE IS MUTILATED, MOTIVATION IS SACRIFICED. THE BURDEN OF IN-COMPREHENSION INCREASES ON CHILDREN'**

to address this new 'greater gap'. "After discussing the science and Mathematics teachers, we decided at our school that we will continue to teach the entire rationalised syllabus to prevent a learning gap. This is not to just modify the content but to ensure coherence in overall learning," a school principal told ET. "When it comes to motivation and motivation is sacrificed, the burden of in-comprehension increases on children. When coupled with poor performance anxiety, there is a danger of reducing motivation to a level of 'learn to pass' or 'learn to survive'." She says that.

## ◆ NATIONAL EDUCATIONAL POLICY (NEP)

### Minding their language: 86% of teachers in north India want multilingual classrooms

# Minding their language: 86% of teachers in north India want multilingual classrooms

Shradha.Chettri@timesgroup.com

**New Delhi:** Nearly 86% of teachers in northern India want classrooms to be multilingual, a survey by Macmillan Education India has revealed. The report findings and recommendations were released on Monday.

Multilingualism is a key focus of the National Education Policy (NEP) 2020, which has a significant portion highlighting its importance as a way of ensuring retention and preventing dropout.

A total of 923 teachers in the 18-50 age bracket were surveyed in both rural and urban parts across the country. Of this, 75% were women and 25% men. The survey, in the form of an online questionnaire comprising close-and open-ended questions, was held to gauge the perspective of ESL (English

as second language) teachers.

The study also asked teachers questions on their understanding of the term 'multilingualism'. While 57.2% of the teachers said that 'multilingualism' means encouraging the use of multiple languages, around 30% said it meant including regional languages along with English in the curriculum and 10% said the term referred to using home languages in an English classroom.

The survey also showcased the possible outcomes of allowing students to use their home language while learning English in the classroom. Around 73% said they felt more confident about learning another language and 22.9% said they valued their culture more.

Teachers also shared that teaching poetry in multiple languages helped them explain idioms and figurative ex-

pressions better. Not only this, it helped them explain math problems and science subjects well too.

Deepti Gupta, professor of English at Panjab University, while addressing a panel discussion after the report's release, said, "Our teachers need a unique kind of persuasion to use as many languages and motivate learners to communicate. The literature from Indian languages needs to be incorporated and dispel any notions of hierarchy."

Acknowledging the social demand for English-medium education, Rama Meghanathan, professor of English at National Council for Educational Research and Training (NCERT), said, "Over the years, the entire concept of mother-tongue education has been lost, so the answer now is multilingualism. For this, each region needs sepa-

rate planning and implementation."

He added that the medium of instruction currently used in schools has reduced to 30 from 67.

The report also recommends that home/regional languages need to be welcomed by English language teachers in classrooms. It also urges creating provisions for and focus on training teachers to integrate multilingual methods when preparing, organising and structuring lessons so that languages are switched at particular points of lesson delivery.

Ashok Pandey, director, Ahlcon Group of Schools, said, "Making classrooms multilingual should not be the only intention. We must assure it works in the classroom. To flourish, it has to come at the action level to ensure diversity of language and inclusion."

# बिना बैग के भी स्कूल आए छात्र, प्रोजेक्ट पर दे ध्यान

## NCrF में टीचिंग का स्वरूप बदलने की सिफारिश

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■ नई दिल्ली: स्कूली और उच्च शिक्षा में आने वाले समय में बड़े बदलाव देखने को मिलेंगे। नैशनल क्रेडिट फ्रेमवर्क (NCrF) में क्लासरूम टीचिंग का स्वरूप भी बदलने की सिफारिश की गई है। क्लास में किताबों के साथ-साथ अब एक्सट्रा करिकुलर एक्टिविटीज को भी बढ़ावा देने की बात कही है और इसको क्रेडिट सिस्टम के दायरे में लाया गया है। नई शिक्षा नीति 2020 में इस बात को खास ध्यान रखा गया है कि छात्रों को नए-नए तरीकों से पढ़ाया जाए और उन पर बस्ते का बोझ भी कम किया जाए।

इसी कड़ी में अब क्रेडिट फ्रेमवर्क भी कहता है कि शिक्षा संस्थानों को नो बैग डे का विकल्प भी चुनना चाहिए। शिक्षा संस्थान अपने हिसाब से हफ्ते, 15 दिन में कोई ऐसा दिन तय कर दें, जिस दिन छात्र बैग लेकर न आए। उस दिन छात्रों को फ्रील्ड विजिट करवाई जाए, क्लास प्रोजेक्ट दिए जा सकते हैं और छात्र आपस में मिलकर प्रोजेक्ट करें। उस एक दिन उन्हें किताबें ले जाने की जरूरत नहीं होगी। उस दिन को व्यावहारिक और अनुभववात्मक चीजें सीखने के लिए रखा जाए। नैशनल क्रेडिट फ्रेमवर्क में कहा गया है कि पढ़ाई की प्रक्रिया में क्लासरूम लर्निंग, टीचिंग, प्रैक्टिकल लैब वर्क, इन्वैशन लैब, क्लास प्रोजेक्ट, असाइनमेंट, ट्यूटोरियल, स्पोर्ट्स एंड गेम्स, योगा, फिजिकल एक्टिविटीज, परफॉर्मिंग आर्ट, म्यूजिक, सोशल वर्क, एनसीसी जैसे प्रावधान भी होंगे। इस



### क्रेडिट से जुड़ेंगे बच्चे

■ नीती देश में ऐसे हजारों बच्चे हैं, जिन्होंने स्कूल या शिक्षा संस्थान से औपचारिक शिक्षा हासिल नहीं की है। उनके पास ऐसा सर्टिफिकेट नहीं है, जिसके आधार पर वे स्कूल-कॉलेज में दाखिला ले सकें लेकिन क्रेडिट फ्रेमवर्क में यह प्रावधान है कि ऐसे बच्चों ने जहां से भी सीखा है, उनके अनुभव को वेटेज मिलेगी, क्रेडिट मिलेगा। उसका असेसमेंट कर पढ़ाई की मुख्यधारा में शामिल किया जाएगा।

प्रक्रिया में 'Bag less days' को भी शामिल किया जाना चाहिए। वहीं यह भी कहा गया है कि संस्थानों को विभिन्न आयोजनों पर भी ध्यान देना होगा। त्योहारों को मनाया जाए और छात्रों को हर त्योहार के महत्व के बारे में बताया जाए। नई शिक्षा नीति में मूल्य आधारित शिक्षा पर जोर दिया गया है। शिक्षा संस्थानों में वैल्यू एजुकेशन क्लास हों। सेल्फ डिफेंस क्लास जरूरी है। वहीं जो छात्र ओलंपियाड या दूसरे इवेंट में शामिल होते हैं, उनको अलग से क्रेडिट मिलेंगे।

## बिना बैग के भी स्कूल आए छात्र, प्रोजेक्ट पर दे ध्यान

## Desh ki nayi shiksha niti yuvao ko sadi k liye taiyar karegi: Modi

### نئی قومی تعلیمی پالیسی نوجوانوں کو نئی صدی کیلئے تیار کرے گی: مودی

نئی دہلی (ہو این آئی) وزیر اعظم نریندر مودی نے پیر کو کہا کہ نئی قومی تعلیمی

پالیسی ملک کے نوجوانوں کو نئی صدی کے لیے تیار کرتی ہے۔ آج یہاں ایک ویڈیو پیغام کے ذریعے اتر اکتھنڈ روزگار سے خطاب کرتے ہوئے مودی نے کہا کہ یہ دن ان لوگوں کے لیے ایک نئی شروعات کا نشان ہے جنہوں نے اپنے تقرری لیٹر وصول کیے ہیں اور یہ نہ صرف زندگی بدلنے والا موقع ہے، بلکہ ایک مکمل تبدیلی بھی ہے۔ انہوں نے مرکز اور



اتر اکتھنڈ حکومت کی مسلسل کوششوں کا ذکر کرتے ہوئے کہا کہ "ہر نوجوان کو آگے بڑھنے کے لیے صبح ذریعہ تک رسائی حاصل کرتے ہوئے اس کی دلچسپی کی بنیاد پر نئے مواقع ملنے ہیں۔ سرکاری خدمات میں بھرتی مہم بھی اسی سمت میں ایک قدم ہے۔ انہوں نے کہا کہ اسی طرح کی بھرتی مہم پر سے ملک میں نئی نئی سہولتوں اور مراکز کے ذریعے ان نظام علاقوں میں بڑے پیمانے پر عمل رہی ہے۔ گزشتہ چند سالوں میں ملک کے اعلیٰ نوجوانوں کو مرکزی حکومت کی جانب سے تقرری کا سامنا ہونے لگا ہے۔ انہوں نے کہا کہ

"مجھے شوق ہے کہ آج اتر اکتھنڈ اس کا حصہ بن رہا ہے۔ مرکزی حکومت کی یہ مسلسل کوشش ہے کہ یہاں کے نوجوان اپنے

گاہکوں واپس جائیں۔ پہاڑی علاقوں میں روزگار اور خود روزگار کے نئے مواقع پیدا ہونے کا ذکر کرتے ہوئے وزیر اعظم نے کہا کہ نئی سڑکیں اور ریل لائنیں بچھانے سے نہ صرف رابطے بڑھ رہے ہیں بلکہ روزگار کے بہت سے مواقع بھی پیدا ہو رہے ہیں۔ دور دراز کے علاقوں کو سڑک، ریل اور انٹرنیٹ کے ذریعے جوڑنے کے نتیجے میں اتر اکتھنڈ میں

سیاحت کا شعبہ پھیل رہا ہے اور سیاحت کے نقشے پر نئے سیاحتی مقامات آ رہے ہیں۔ اتر اکتھنڈ کے نوجوان اب بڑے سفر کرنے کے بجائے اپنے گھروں کو جانے کے قابل ہو گئے ہیں۔ انہوں نے زور دے کر کہا کہ مدراؤ جتنا سیاحت کے شعبے میں روزگار اور خود روزگار کے مواقع بڑھانے میں اہم رول ادا کر رہی ہے۔ ملک بھر میں اب تک 38 کروڑ مدراؤن دیے جا چکے ہیں اور تقریباً 18 کروڑ نوجوان مہنگی پارکارو پارکی بنے ہیں۔ انہوں نے کہا کہ ایس سی، ایس ٹی اور او بی سی سے تعلق رکھنے والی خواتین اور نوجوانوں کا حصہ سب سے زیادہ ہے۔

## ◆ SCHOOL SAFETY

### MCD issues 30 directives to improve security at schools

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# MCD issues 30 directives to improve security at schools

Paras Singh

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**NEW DELHI:** Nearly two weeks after a 10-year-old girl was allegedly lured out of a Municipal Corporation of Delhi school by a peon and gang-raped by him and at least three others, the education department of the civic body has issued a series of directions to improve the security of the 15,25 municipal primary schools under its jurisdiction.

The 30-point directions include the bolting of the school's main gate during classes, a visitor's register, fixing times for teachers to leave the school premises, keeping a record of vehicles dropping children to the school, and ensuring that children are not sent to the toilet alone.

The education department has also directed that no street vendors should be allowed to operate near schools.

"All the staff members should be present in their premises 15 minutes before the official hours and they should leave 15 minutes after the school closure. A record of everyone entering the school premises must be kept, and during the lunch break, one teacher should be deputed to monitor the children," the order issued by the additional director (education) on March 24 said.

**Making our schools safe**

- School main door to be bolted during operational hours
- Students to not be sent to toilet complex alone
- All rooms not in use to be locked
- No street vendors to be allowed to operate near the schools
- Records of vehicles that drop/pick up students to be maintained

**VULNERABLE POINTS**

- No security guards
- Only 199 schools have CCTV cameras

Proposal to hire guards, install CCTV cameras to be brought in next House meet

**1,535** primary schools operated by MCD

**1,185** locations

**874,000** children enrolled

"It must be ensured that no student leaves the premises with anyone without the consent of the parents," the order said.

The order also includes guidelines on general safety, the repair of school premises, and the use of mobiles by teachers.

An MCD official said that school inspectors and senior officials from the education department will be undertaking

random inspections of schools to ensure that the directions are being implemented on the ground.

The moves come after the Delhi Police on March 23 announced that it had arrested Ajay Kumar, a peon at an MCD school in east Delhi for allegedly sedating, abducting and raping the 10-year-old girl with three yet-to-be identified accomplices.

The girl, a class 5 student, was assaulted on March 14, officials said, describing her condition as "severely traumatised".

Mayor Shelly Oberoi on March 25 said that the civic body will also undertake a sensitisation programme for school employees to prevent the recurrence of such an incident.

"The incident of rape with an MCD student is sad and strict action is being taken. We have taken reports on the matter from zonal employees and they have been directed to provide all possible help to the family. We are committed to improving the security of the schools under MCD. Soon, we will sensitise the employees to prevent any recurrence of such incidents in future," she said.

In May 2019, the Delhi Commission for Protection of Child Rights (DCPCR) had highlighted that the Capital's corporation-run schools do not have guards, and had issued a show cause notice to the three erstwhile civic bodies, calling the lack of security guards "a matter of serious concern".

The MCD has in the past cited a lack of funds or unavailability of sanctioned posts for guards as the reason behind the lack of security measures at their schools.

HT had on May 7, 2022 and last week, on March 24, reported

that two out of three MCD schools lack CCTVs.

Vibha Singh, the principal of a municipal school and senior vice-president of the Municipal Teachers' Association, said many of these steps are already in place, while others are impractical.

"School principals are already taking most of these precautions. Teachers are being asked to not use mobile phones, but the attendance is taken using mobiles. A few of these guidelines are impractical. The main focus of the administration should be to ensure that security guards are deployed, attendants are provided to schools, and CCTV cameras are installed so that teachers can look after the premises from their offices. These are systemic issues being faced by the corporation schools," she said.

Educationist Meeta Sengupta said there is an urgent need to introduce the buddy system in schools, where students are taught to keep track of each other to increase overall safety. "A practice that is being adopted in a lot of schools is where children are asked to be in groups of three, and if any of the three is missing for more than five minutes, then the other two inform a teacher," she said. She also called for active monitoring of CCTV footage.

## MCD issues norms to make its schools safer for students

# MCD issues norms to make its schools safer for students

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**New Delhi:** The Municipal Corporation of Delhi (MCD) recently issued guidelines for school principals and teachers for the safety of students following incidents of assault in primary schools.

The guidelines bar the entry of relatives or friends of female sanitation staff and require the school to prepare a list of van drivers and rickshaw pullers who drop and pick up children every day.

They require an early arrival of teachers, keeping unused areas locked and giving responsibility to one teacher every day for supervising kids during breaks.

"The education department is ensuring 100% implementation of these guidelines and based on the requirement, we will conduct random inspections," a senior MCD official said.

The guidelines say that no teacher can leave a class during school hours and if he/she does, the headmaster/principal will be held responsible. "The staff member should come at least 15 minutes before the beginning of school and leave 15 minutes after school closing time," the guidelines have specified.

"In case he/she is going for leave, proper correspondence should be done through mail in advance with the person concerned," it says.

### A SENIOR OFFICIAL SAYS

**The education department is ensuring 100% implementation of these guidelines and based on the requirement, we will conduct random inspections in schools**

The MCD wants schools to record the entry and exit timing of visitors, wants schools to fix a visiting hour for parents and says students must wear identity cards. No child is allowed to leave school with a visitor unless there is permission from the parents.

The principals should have details of vehicles/drivers coming to deliver midday meals and under no circumstances should the drivers be allowed entry into the school. "We have categorically asked the principals and teachers to regularly tell children during prayer meetings to not meet unknown people; not go to secluded places on the premises, and not sit alone in classrooms," the guidelines said.

Schools have been asked to get boundary walls repaired.

Teachers' associations have expressed displeasure and said the civic body should issue such orders after discussing the problems with teachers.

## ◆ SCHOOL

# समावेशी शिक्षा के लिए अपग्रेड होंगे सरकारी स्कूल

## समावेशी शिक्षा के लिए अपग्रेड होंगे सरकारी स्कूल

रीतिका मिश्रा • नई दिल्ली

राजधानी के सरकारी स्कूलों में समावेशी शिक्षा को बढ़ावा देने और दिव्यांग छात्रों को स्कूलों में पहुंच बढ़ाने, बुनियादी संरचना को उनके अनुरूप करने के लिए स्कूलों को अपग्रेड किया जाएगा। शिक्षा निदेशालय इन स्कूलों का वैश्विक स्तर पर आकलन करने के लिए विश्व स्वास्थ्य संगठन (डब्ल्यूएचओ) से भी सहयोग लेगा। निदेशालय के मुताबिक वैश्विक स्तर पर समावेशी शिक्षा को लेकर दिल्ली के स्कूल कई क्षेत्रों में बहुत अच्छा कर रहे हैं और कई क्षेत्रों में अभी काम करने की जरूरत है। इसी की समीक्षा करने, आपसी सहयोग के साथ सीखने और छात्रों के पुनर्वास के विभिन्न पहलुओं को मजबूत करने में तकनीकी सहायता देने के लिए डब्ल्यूएचओ इन स्कूलों को सहयोग करेगा।

**पायलट प्रोजेक्ट के तौर पर चयनित होंगे 50 स्कूल** निदेशालय के समावेशी शिक्षा विभाग के एक अधिकारी ने बताया कि

18,280 दिव्यांग विद्यार्थी राजधानी के सभी सरकारी स्कूलों में है पंजीकृत

डब्ल्यूएचओ की ओर से पहले 50 स्कूल चयनित किए जाएंगे। जहां पर दिव्यांग छात्रों के विशिष्ट कार्यात्मक डोमेन पर विशेष ध्यान दिया जाएगा और उनके लिए अन्य जरूरी एकीकृत सुविधाएं होंगी। इसमें इंडक्शन लूप सिस्टम, डिस्पले क्लोस्ट कैप्शन, सांकेतिक भाषा दुभाषिण, आवाज प्रौद्योगिकी। क्वी, बधिर बच्चों के लिए बधिर दृष्टिहीन दुभाषिण और संचारक, वीडियो संचार उपकरण होगा। जो भी कामियां हैं उन्हें पूरा करने के लिए एक रोड मैप बनाकर कामियों को पाटा जाएगा। वर्तमान में 1043 सरकारी स्कूल हैं, जिनमें से 750 स्कूलों में में कम से कम एक दिव्यांग बच्चा जरूर पंजीकृत है। ऐसे में इन बच्चों की स्कूलों में सामान्य पहुंच के लिए सभी स्कूलों को बाधा मुक्त बनाया जाना चाहिए। दिव्यांग छात्रों के लिए

तकनीकी सहायता के लिए विश्व स्वास्थ्य संगठन स्कूलों को करेगा सहयोग

पर्याप्त शिक्षा और उनका विकास सुनिश्चित करने के लिए स्कूलों को दिव्यांगता के विशिष्ट डोमेन पर ध्यान केंद्रित करने के साथ-साथ कुछ सुविधाओं को अपग्रेड करने की आवश्यकता है। निदेशालय ने 50 ऐसे स्कूल चयनित किए हैं जिन्हें विशिष्ट कार्यात्मक डोमेन से संबंधित दिव्यांगता व उससे संबंधित आवश्यकताओं को प्रभावी ढंग से पूरा करने के लिए एकीकृत शैक्षिक सुविधा के साथ अपग्रेड किया जा सकता है। शिक्षकों और अभिभावकों द्वारा व्यक्तिगत देखभाल योजनाएं (आइसीपी) तैयार की जाएंगी। जो कि छात्रों की प्रगति की निगरानी करने के लिए आधार रेखा के रूप में काम करेंगी। आइसीपी को तैयार करने के लिए 30 विशेष शिक्षकों और चिकित्सकों को प्रशिक्षित किया जाएगा।

**ये होंगे प्रस्तावित कार्य**

- विशेष एक्सेस आडिट टीम की नियुक्ति और प्रशिक्षण।
- स्कूलों में छात्रों की पहुंच बढ़ाना। स्कूल के पास की सड़क, मुख्य द्वार (पैदल यात्री और वाहन), कक्षाएं, पुस्तकालय, संसाधन कक्ष, गतिविधि क्षेत्र, खेल का मैदान, पेयजल सुविधा, शौचालय, प्रधानाध्यापक कक्ष, स्टाफ कक्ष, मध्याह्न भोजन, रास्ता खोजने के संकेत, फर्श, स्पर्श पेवर्स, आपातकालीन निकासी प्रक्रिया, आपदा जोखिम कम करने के उपाय का आडिट होगा।
- कक्षाओं और अन्य शैक्षणिक स्थानों में दिए गए उचित आवास का आकलन होगा।
- आपात स्थिति में इन बच्चों की सहायता के लिए शिक्षण और गैर-शिक्षण कर्मचारियों की तैयारियों का आकलन।
- विशेष शिक्षा शिक्षकों को दिया जाएगा प्रशिक्षण।

# डिजिटल लाइब्रेरी से जुड़ेंगे सभी स्कूल - कॉलेज

**घोषणा :** बिना रुकावट पढ़ाई के लिए हर विषय की किताबों तक छात्रों की पहुंच आसान होगी

# डिजिटल लाइब्रेरी से जुड़ेंगे सभी स्कूल-कॉलेज

## शिक्षा

नई दिल्ली, विशेष संवाददाता। वित्त मंत्री निर्मल सीतारामण ने बुधवार को बजट में नेशनल डिजिटल लाइब्रेरी की घोषणा की। सभी स्कूल और कॉलेजों को डिजिटल लाइब्रेरी से जोड़ा जाएगा। इससे डिजिटल रूप से हर विषय की किताबों तक विद्यार्थियों की पहुंच होगी। किताबों और पुस्तकालयों को बनाने या किसी भी कारण स्कूल बंद होने पर छात्र बिना रुकावट पढ़ाई कर सकेंगे। डिजिटल लाइब्रेरी में स्थानीय और अंतर्राष्ट्रीय भाषा में किताबें उपलब्ध होंगी। उच्च, कक्षा या पाठ्यक्रम के हिसाब से किताबें उपलब्ध होंगी। इसका सबसे अधिक फायदा ग्रामीण क्षेत्रों के विद्यार्थियों को मिलेगा।

**क्या है डिजिटल लाइब्रेरी:** डिजिटल लाइब्रेरी एक ऑनलाइन पाठ-पुस्तकालय है। इसमें किताबों के डिजिटल वर्जन मौजूद होंगे। इसे कहीं से भी एक्सेस किया जा सकता है। इंटरनेट आधारित किताबों को उपकरण से एक्सेस किया जा सकता है। मोबाइल फोन से भी इसका उपयोग कर सकते हैं।

**5जी सेवाओं के लिए ऐप विकसित करेंगे:** केन्द्र सरकार 5जी सेवाओं के लिए ऐप विकसित करने के लिए सीपी ईजीनियरिंग संस्थानों में 100 प्रयोगशालाएं स्थापित करेगी। वित्त मंत्री निर्मल सीतारामण ने कहा, यह ऐप नए अवसरों, व्यापार मॉडल और रोजगार की संभावनाओं को बढ़ावा देगा। स्मार्ट क्लासरूम, परिवहन प्रणाली, स्वास्थ्य देखभाल में इनका इस्तेमाल होगा।

**ई-सर्जिंग :** डिजिटल डॉटका ई-सर्जिंग के लिए सरकार ने 420 करोड़ रुपये आवंटित किए हैं। यहाँ, अनुसंधान और नवाचार के लिए कुल व्यय बजट 210.61 करोड़ रुपये है। खासतौर पर मल्टी डिस्सिप्लिनरी टेक्नोलॉजी शिक्षा में सुधार की 100 करोड़ रुपये मिलें हैं।



**08**

हजार 622 करोड़ रुपये की वित्तीय वर्ष से अधिक रहा शिक्षा बजट

**100**

लाइब्रेरी ईजीनियरिंग संस्थानों में 5जी सेवाओं पर आधारित होगी

**15**

हजार करोड़ रुपये खर्च करके अतिविधियों के लिए विशेष स्कूल खुलेंगे

**157**

नए नर्सिंग कॉलेज खोलें जिनकी घोषणा वित्त मंत्री ने बजट में की है

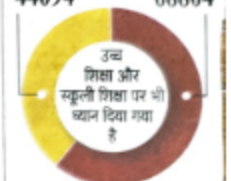
**शिक्षा को पिछले वर्ष के मुकाबले ज्यादा बजट**

वर्ष	बजट (करोड़ रुपये)
2023-24	112899
2022-23	104277



**इस साल शिक्षा बजट में किस मद में कितनी राशि**

उच्च शिक्षा	स्कूली शिक्षा
44094	68804



नोट - सभी आंकड़े करोड़ रुपये में हैं।

- 38 हजार शिक्षकों और कर्मचारियों की भर्ती 740 एकलव्य स्कूलों में होगी। इसका लाभ छात्रों को भी मिलेगा
- 47 लाख युवाओं को राष्ट्रीय प्रशिक्षण योजना का लाभ तीन साल में
- 30 स्किल ड्रिडवा नेशनल सेंटर खोलें जहाँ युवाओं को अंतरराष्ट्रीय अवसरों के लिए कोशल प्रदान करने के लिए

**'एआई' के लिए तीन संस्थान स्थापित किए जाएंगे**

- देश में अर्टिफिशियल इंटेलिजेंस के लिए तीन संस्थान बनेंगे। कृषि, स्वास्थ्य, शहरी विकास के लिए यहां अर्टिफिशियल इंटेलिजेंस पर काम होगा।
- प्रधानमंत्री कोशल विकास योजना 4.0 की शुरुआत अगले तीन वर्षों में होगी। इससे उद्योग केंद्रित बजट प्रोग्राम रीब्रैंडिंग और कॉडिंग आदि शुरू किए जाएंगे
- युनिवर्सिटी डिजिटल इंडिया प्लेटफॉर्म की स्थापना से कोशल विकास में तेजी आएगी
- बजट में अतिविधियों के विशेष स्कूल तैयार करने का निर्णय लिया गया है
- निर्यात सेक्टरों और सरकारी कर्मियों में कोशल विकास के लिए ऑनलाइन ट्रेनिंग प्रोग्राम
- शिक्षकों को प्रशिक्षण देने के लिए अगले साल तक आधुनिक टीचर्स ट्रेनिंग सेंटर खोलें जाएंगे

## शिक्षा विभागों के आवंटन में 8 फीसदी की बढ़ोतरी

स्कूल शिक्षा विभाग के बजट में करीब आठ फीसदी की बढ़ोतरी हुई। विभाग से संबंधित केंद्रीय योजनाओं के लिए 364.1 करोड़ दिए गए हैं। स्वायत्त निकायों का व्यय 14,391 करोड़ रुपये है। केंद्रीय विद्यालय संगठन के लिए 8,363 करोड़, नवोदय विद्यालय समिति के लिए 5,486.50 करोड़ रुपये और एनसीईआरटी को 518.50 करोड़ दिए गए हैं। स्कूली शिक्षा बजट का एक बड़ा हिस्सा समग्र शिक्षा के लिए है। सरकार ने देश की इस सबसे बड़ी स्कूली शिक्षा योजना के लिए 37,453 करोड़ दिए हैं। प्रधानमंत्री घोषणा शक्ति मिशन (पीएम घोषणा) के तहत 11,600 करोड़ खर्च होंगे। वहीं, उच्च शिक्षा विभाग के बजट में 7.9% का इजाजत हुआ है।

## विशेषज्ञ की राय

प्रोफेसर लीला शर्मा, पूर्व वेयरहेड, एनआईओएस



## शिक्षा का बजट सकारात्मक

बजट में शिक्षा पर जो आवंटन दिया गया है, उससे शिक्षा जगत खुश है। बजट में सबसे अच्छी बात है कि इसमें कोशल और प्रशिक्षण पर जोर दिया गया है। देश भर में स्किल सेंटर खुलेंगे। यह उन बच्चों को फायदा पहुंचाएगा जो किसी न किसी प्रकार से पिछड़ गए हैं, जो गांव में हैं या जिनको अभी तक सुविधाएं नहीं मिल पाई थीं। शिक्षक प्रशिक्षण और शोध वह दो ऐसे क्षेत्र थे, जिनकी चर्चा हमेशा होती थी परंतु उस

पर कभी काम नहीं होता था। इस बजट में इन क्षेत्रों पर ध्यान दिया गया है। शिक्षकों के प्रशिक्षण पर जो बजट दिया गया है, वह सराहनीय है क्योंकि जब अच्छे शिक्षक होंगे तभी तो अच्छे बच्चे निकलेंगे। हम शिक्षा पर जो भी आवंटन करते थे उसका लाभ बच्चों को नहीं मिल पाता था क्योंकि शिक्षकों को दशा दीक नहीं थी। अब शिक्षकों को गुणवत्ता बढ़ेगी और बच्चों को पढ़ाई और हुनर भी बेहतरीन होगा।

# The opportunity, and politics, of Eklayva schools in tribal areas

## The opportunity, and politics, of Eklayva schools in tribal areas

Debaraj Mohanty

www.thehindu.com

**KEONJHAR:** In the dense foothills of Malkanincha in Keonjhar, the exterior of the Eklayva Model Residential School (EMRS) needs a coat of paint. Its pastel pink walls are peeling in the corners, and some of the brown steel windowpanes are rusting. The courtyard in front of the main building is overgrown with grass, and in the toilets, there are buckets of phend to keep the stench away. Physics teacher Rajesh Pradhan is aware of the need for maintenance but he has more important things on his mind.

It's early February, and there are two weeks to go for the CBSE Class 12 board examinations, and he feverishly draws and scribbles on a digital board, with 60 tribal students in attendance. The CBSE exam started on February 5.

The students are laserizing in rapid attention, following the lesson on a smart-board installed over academic session ago. It is white, and Pradhan draws, writes, and shows illustrations powered by HDMI, broadcast. "The interactive smart-board has helped me explain ideas visually. I don't struggle to answer their questions anymore and can use the internet to show videos of difficult concepts. It has completely changed the way I teach," he says.

The school in Ranki village began functioning in 2001, under the EMRS scheme started by the Atal Bihari Vajpayee-led NDA government in 1997-98. Every morning, 416 boys and girls, from classes 6 to 12, wake up in their hostels, and arrive at the main school building to attend classes inside the 20-acre campus from 9:30am to 4pm. Importantly for students who would have otherwise had to walk to government schools, or decrepit state-run hostels, or

perhaps pay for a private education, everything is free. "Once they are admitted to school, there is no charge for books, clothes, or tuition. There is nothing they have to buy till they graduate in Class 12. And because it is free, and the standard of education and facilities are higher, many tribal children from the area want to get enrolled in our school," said Santia Kumari Pattnayak, principal of the Eklayva school at Ranki.

Data from the 2011 Census shows the literacy rate for tribals in India was 59%, higher than the 47% recorded in 2001, but far lower than the national average of 79%. The Tribal Development Report 2022, released by Bharat Rural Livelihood Foundation, a body under the ministry of rural development, said that 46.7% of tribal children drop-out of school before they finish Class 8, which rises to 52.4% by the time students reach Class 10.

It is perhaps this that explains the government's push for the Eklayva schools in the Union Budget presented under the ministry of finance minister Nirmala Sitharaman on February 1. Immediately after the Budget announcement, HT travelled to an EMRS school in tribal Keonjhar to understand the state of these schools, why they help address core problems, and the politics that underpin this decision.

**The government push**  
In her speech, Sitharaman said that over the next three years, 38,800 teachers and support staff will be recruited for 740 Eklayva schools, serving 384,000 students. Budget estimates showed that while 42,000 crore was allocated for the project in 2022-23 and 2023-24, this has close to tripled with 75,943 crore allocated in

2023-2024.

The website of the Union ministry of tribal affairs says Eklayva schools aim at providing quality middle- and high-school level education to tribal students in remote areas. Under the scheme, every block in the country with more than a 50% tribal population and at least 20,000 tribal people was to have an Eklayva Model Residential School by 2022. According to the 2011 Census, there are 694 blocks, talukas or sub-districts that meet this criteria.

Data published by the ministry shows that these targets have not been met. The Centre has so far sanctioned 690 Eklayva schools, of which 400 are functioning and the rest are under construction. These 400 schools have 113,000 students, of which 56,037 are boys and 57,888 girls. In Odisha, there are 32 Eklayva schools of a total 104 sanctioned, enrolling to 8,495 students.

At the national level, these schools are run under the National Education Society for Tribal Students, an autonomous organisation under the ministry of tribal affairs, while at the state level they are run through autonomous societies. In Odisha, the Odisha Model Tribal Educational Society, a registered society supported by the SCST development department approves monthly expenditure of these schools, reviews campus development, and evaluates staff performance.

**A day at school**  
At the Eklayva Model Residential School at Ranki, located 20km away from state capital Bhubaneswar and 5km from the Keonjhar district headquarters, the day begins early. The hostels have two kinds of rooms — one that has four beds for those studying in



The Eklayva school in Keonjhar district's Ranki village began functioning in 2001.

Class 12, and 24-bed dormitories for the other classes. Students arrive from these rooms at 6am, and within an hour are at the host-mess where they have a breakfast of upma, puffed rice, or idli with chutney curries. They each have a drink where they then have time to study, or attend remedial lessons. Formal classes in the main school building begin at 9:30am and go on till 4:30pm with an hour-long lunch break every classroom is equipped with a smart board.

Once classes finish at 4:30pm, students play football, basketball or volleyball in the school grounds, and return to their hostel rooms by 6pm. Then there are scheduled hours for homework, and those that have academic questions can visit their teachers that live on campus. "Eklayva schools are fundamentally better than government schools in tribal areas because students have constant access to teachers who live on campus," says social science teacher Bharat Debnath.

Contrast the EMRS Ranki with the Sandargarhi Sarapanarajupani Upper Primary School, 30km away, where assistant teacher Bh-

agat Mohanty is frustrated with the lack of the most basic of facilities, a blackboard, and coloured chalk. "A blackboard is an essential for primary education. But as we are not provided one, I write on the walls for students. But we are forced to bring our own coloured chalk because it is difficult to identify letters on a white wall by the government supplied white chalk," Mohanty says.

Rajya Munia, a Class 6 student who resides at the EMRS, but is from the remote village of Adhobhiguda, 4km away, says that he would likely have dropped out after Class 5 if the school had not existed. Munia is a first-generation learner, both his parents are illiterate daily wage labourers. "I studied in an Ashram school (managed by the state SCST department) till Class 5. But it was not worth continuing there. I struggle with CBSE here (the other school was affiliated to the state board, whose curriculum is considered easier), but the facilities make me want to study. The school even has remedial classes during the holidays if I need it."

Bharathi Bhushan Maradi, director of Bhushan Model Centre for Action Research and People's Development, says the Eklayva schools have shifted the conversation from volume to quality. Earlier tribal education seemed to only mean raising the enrolment rate. But in the 20 years I have worked in the field, the schools have raised quality of education in the tribal areas of Odisha, Chhattisgarh and Jharkhand." Professor AB Ota, who led a Union tribal affairs ministry survey in 2015 called the "Impact of EMRS schools in enhancing educational attainment of scheduled tribe children in Odisha, Madhya Pradesh, Maharashtra, Gujarat and Jharkhand" and that the qualitative difference was clear. "Though no other study has been done in last 8 years, I can say that tribal students in these schools perform better academically and the pedagogy has improved." The survey, however, flagged that in some EMRS schools, students were found complaining of water scarcity, cleanliness of toilets, improper drainage, and the lack of indoor sports.

### Education challenge in tribal India

Of the 1.3 billion people in minority Keonjhar, 45.4% are tribals (2016 census) with a literacy rate of 64%, lower than the state average 73.45%. Data from the Odisha school education programme authority shows that in 2017-18, only 8% of people in the district had an education beyond class 10.

Alpha Set for instance, a Santal tribal, finished her class 10 examinations from a local Odisha school in 2020. But once Covid struck, her parents, both daily wage labourers who earn Rs 2,000 a month, had no money to fund her education. The options before her were to enrol in a government-run higher secondary school or a privately run school in option one, her parents would

have had to pay for books and her school uniform, and in option two, fund her education. Say, now in row 13, dropped out, and works as an assistant at a ready-made cloth shop in Ranki, earning Rs 2,500 a month. "My only dream was to become a teacher. Now that will never happen," she says.

Tukaram Murmu, from the same village, says he is unsure if he can fund his daughter Bhuvan's education once she finishes Class 12 from a private higher secondary school. "The closest government degree college is at least 30 kilometres away, and I don't think I can comfortably let her cycle that distance every day."

Murmu attempted to get his daughter admission into the EMRS school in Ranki, but was told they were full to the brim. The guidelines of the scheme state that each class cannot have more than 60 students with a maximum capacity of 460. "I wish there was a higher capacity," Murmu says.

Madhya Pradesh-based tribal affairs expert Vikram Acharya points to another problem, that of contractual teachers. "Though the scheme started more than two decades ago, teachers have not been hired on a permanent basis like Jawahar Nandaya Vidyapeeth," says Acharya. The principal, Santia Pattnayak, is a contractual teacher, like the 18 others that are part of the teaching staff. "In the Kendraya Vidyalyaya in Keonjhar next to our school, teachers get double the salary we do. Four contractual teachers have left my school for better opportunities. So now we have to manage with guest teachers in Chemistry, English, Sanskrit and IT," she says.

**Political push**  
The budgetary announcement on Eklayva schools came at a time when the BJP is making a contractual push to increase its base

hold in India's tribal areas ahead of a raft of assembly elections in 2023 and the Lok Sabha polls in 2024. Among the states that go to the polls in 2023 are Tripura (polling got over last week), Nagaland, Meghalaya, Madhya Pradesh, Chhattisgarh and Jharkhand, all of which have significant tribal populations. In Odisha, which goes to both assembly and Lok Sabha polls in 2024, 34 of the 47 seats, and five of the 21 Lok Sabha seats are reserved for tribals. The BJP holds only 11 of these assembly seats, and two of the parliamentary seats.

Bhuvan Murmu, a BJP MLA from Saraspakura in Mayurbhanj, says that if pushed aggressively and sincerely, the Eklayva school scheme could consolidate the party's popularity electorally. Like everyone else, the tribals are now also aspirational. They want qualitative education for their children and therefore Eklayva schools need to come up quickly in all the blocks where they have been proposed. Maiting Droupati Murmu, President, has already helped bring tribals closer to the BJP. This can be the next substantive push," he said.

Opposition leaders, however, say that these moves should not be politicised. "There should not be any politics on the development of education as far as tribals are concerned. If the Centre is taking steps to get more teachers for Eklayva schools, we welcome it," says Prasanna Acharya, former IJMP.

Political science professor Gyanu Ranjan Swain says the push by the Narendra Modi government will generate some good will, but warns that benefits may not be immediate. "The move will help but if this is in the next poll cycle is difficult to predict. They could see some gains in next 4-5 years if all schools are completed and defunct schools closed."



PICK OF THE DAY

6 साल की उम्र से पहले क्लास-1 में नहीं मिलेंगे बच्चे को एडमिशन!

# 6 साल की उम्र से पहले क्लास-1 में नहीं मिलेगा बच्चे को एडमिशन!

एजुकेशन स्ट्रक्चर में बदलाव पर मांगे शिक्षा निदेशालय ने सुझाव

■ विशेष संवाददाता, नई दिल्ली

राष्ट्रीय शिक्षा नीति (एनईपी) के तहत 3 से 8 साल के उम्र के बच्चों के एजुकेशन स्ट्रक्चर में बदलाव आ रहा है और दिल्ली शिक्षा निदेशालय ने भी इसे अपनाने के लिए तैयारी शुरू कर दी है। इसके लिए शिक्षा निदेशालय ने सभी हितकारकों से 20 अप्रैल तक सुझाव (schoolbranchnep@gmail.com) मांगे हैं। नए सिस्टम के तहत क्लास 1 से पहले तीन क्लासों होंगी, जबकि अभी नर्सरी और केजी होती है। फाउंडेशनल स्टेज के नए ढांचे के साथ अब क्लास 1 से पहले एक और क्लास जुड़ रहा है। अभी 3 और इससे ऊपर की उम्र में बच्चा नर्सरी में दाखिला लेता है और केजी में उसकी उम्र 4+ होती है और क्लास 1 में 5+साल का बच्चा दाखिला लेता है मगर नए सिस्टम के साथ बच्चा 3 की उम्र से पढ़ाई शुरू



NEP के साथ दिल्ली के स्कूलों में भी आएगी क्लास 1 से पहले तीन क्लास

करेगा, क्लास 1 से पहले तीन साल की पढ़ाई करेगा और फिर क्लास 1 में 6+ की उम्र में दाखिला लेगा।

शिक्षा निदेशालय की ओर से कहा गया है कि वो इस नए स्ट्रक्चर को अपनाने का इरादा रखता है। नए स्ट्रक्चर के साथ नया करिकुलम और अतिरिक्त इंफ्रास्ट्रक्चर की भी जरूरत

होगी। पढ़ाने के नए तरीके, पढ़ने-सिखाने के नई सामग्री की जरूरत भी होगी, जिसके लिए टीचर्स, अभिभावक, स्टूडेंट्स, प्रबंधक समितियों, शिक्षा संस्थाओं, स्कूल असोसिएशन, पेशेवर लोगों, सब्जेक्ट विशेषज्ञों, शोधकर्ताओं और आम जनता से सुझाव मांगे हैं।

हाल ही में सेंट्रल बोर्ड ऑफ सेकेंडरी एजुकेशन (सीबीएसई) ने 'नैशनल करिकुलम फ्रेमवर्क फाउंडेशनल स्टेज 2022' को लागू किया है, जो कि बच्चों की शुरुआती शिक्षा का नया डिजाइन है। इसे नैशनल काउंसिल ऑफ एजुकेशनल रिसर्च एंड ट्रेनिंग (एनसीईआरटी) ने एनईपी के तहत तैयार किया।

राष्ट्रीय शिक्षा नीति के तहत प्री प्राइमरी के लिए 3 साल का स्ट्रक्चर तय किया है। प्री स्कूल में बच्चों के लिए कोई किताबें नहीं होंगी, उन्हें कहानियों, खिलौनों, एक्टिविटी के जरिए सिखाया जाएगा एनईपी में यह उम्र सीमा बहुत अहम मानी गई है, क्योंकि यह सीखने का महत्वपूर्ण पड़ाव है।

# Govt plans cadre to set board question papers for parity in assessment

## Govt plans cadre to set Board question papers for parity in assessment

SOURAV ROY BARMAN  
NEW DELHI, APRIL 4

THE GOVERNMENT plans to form in each state a cadre of dedicated professionals, who will be drawn from the existing pool of teachers in schools and academics engaged with the SCERTs (State Council of Educational Research and Training), to set question papers of board exams and develop standard marking schemes to bring "equivalence" in assessment.

According to the proposal under consideration, the cadre will play an important role in addressing the differences in assessment, which results in disparities in scores of board exams, among various state boards and the CBSE. It will mark a departure from the prevailing model of using only teachers with some years of experience for the purpose.

One of the objectives of the move, said an official, is to ensure "inter-rater reliability".

"In simple words, we want to stamp out possibilities where two students write similar types of answers to a question and yet score vastly different marks. It happens mostly because some teachers are strict while others are lenient while checking answer sheets and thus award different scores even for answers with no major differences," said Indrani Bhaduri, Professor and Head, PARAKH, NCERT.

The newly set-up body PARAKH (Performance Assessment, Review and Analysis of Knowledge for Holistic Development), is under the administrative control of NCERT.

"The plan is to have a dedicated cadre in every state for setting question papers and developing the standard rubric for marking. The rubric will define which types of answers merit a certain score. The cadre will be trained for this purpose of developing higher order thinking skills questions, as opposed to the current model where teachers with some years of experience are thought to be ready to set question papers. Setting question paper is a skill which needs training to develop," Bhaduri said.

Just like the NCERT at the national level, the SCERTs, which come under the state governments, are engaged in developing curricula, manuals for teachers and evaluation and assessment at the school education level.

A senior Education Ministry official said that in many states, the existing model has led to a sit-

**EXPLAINED**

# E

Focus on parity

PARITY IN assessment is among the areas taken up by the newly set-up body PARAKH, which is under the administrative control of NCERT. UK-based non-profit Educational Testing Services (ETS), known for holding tests such as TOEFL and GRE, has been picked as the consultant to assist PARAKH.

uation where question papers are set by referring to the papers set over the previous five years. "As a result, the same sets of questions get repeated every few years, encouraging the coaching industry and guide books," said the official.

An offshoot of the National Education Policy (NEP) 2020, PARAKH's main role will be "establishing comparative measures and equivalence" among school examination boards and promoting collaboration among them, according to the NCERT. It is expected to help tackle the problem of students of some state boards being at a disadvantage during college admissions as compared to their peers in CBSE schools.

To gradually prepare the educational system for the proposed changes, the questionnaires in NCERT textbooks at the end of every chapter will also be designed accordingly based on the new National Curriculum Framework (NCF) currently being drafted. The NCERT plans to introduce new books, based on the NCF, across grades from the academic session 2024-25, added the official.

Currently, PARAKH is holding regional workshops to analyse question papers of different boards. These such meetings have so far taken place at Ajmer (for state boards in northern and western regions), Mysore (southern zone) and Jammu and Kashmir (eastern and Northeastern region boards).

"So far, PARAKH has tried to analyse the differences in the question papers and marking schemes. For instance, it is checking what percentage of questions framed under a particular board tests rote learning and what percentage of questions are application based. The idea is to have more of the latter and reduce dependency on rote learning," the official said.

**Study: 90% parents feel govt doing good job at its schools**

# Study: 90% parents feel govt doing good job at its schools

TIMES NEWS NETWORK

**New Delhi:** Nearly 90% of parents of students of Delhi government schools are optimistic about their children's future, a study by Adam Smith Business School, University of Glasgow, has revealed.

The interim findings, part of an impact study of parental engagement initiatives in Delhi government schools, were shared with deputy chief minister Manish Sisodia on Monday. The study, conducted in collaboration with researchers from Tilburg University and King's College London, had a sample size of 2,886 parents. There are about 18 lakh students in Delhi government schools.

The study focused on the satisfaction index, perception of public education services, awareness, parental engagement at home as well as parental mobilisation at the individual and collective level.

According to the findings, 90.5% of parents said Delhi

government schools were doing a good job and 90.7% felt the teachers were taking care of the students. Almost 90% of the parents surveyed said the head teachers took their responsibilities very seriously.

"Nearly 80% of parents are satisfied with the quality of teachers and school management while 87% stated that the performance of teachers was exceptional. Most confirmed attending the parent-teacher meeting as frequently as once a quarter," Delhi government said in a statement.

As far as quality of infrastructure is concerned, 91% of parents said they were satisfied with the availability of water in schools and 94.4% said the cleanliness level met their expectations.

"While 92% of parents said their children are getting quality material to study, 96.8% feel satisfied with the quality of classrooms," said



the statement.

Sisodia said parental engagement plays a critical role in children's education and holistic development and Delhi government schools have been emphasising regularly on it through innovative programmes like school management committees, mega PTM and parents' samvaad.

"Under chief minister Arvind Kejriwal's leadership, our education team is working relentlessly to increase such opportunities in schools," he said.

He added, "Studies by top global universities on Delhi's education model gives us an opportunity to assess ourselves and come up with more innovative strategies to create a conducive learning environment for children in government schools."

Earlier, Harvard University had studied Delhi government's school management committee model.

## There cannot be a school without a playground: SC

### *There cannot be a school without a playground: SC*

STATESMAN NEWS SERVICE  
NEW DELHI, 6 MARCH

The Supreme Court has said that a playground is integral to school, there cannot be a school without a playground and the students studying in schools located in rural areas too are entitled to a good environment.

Setting aside May 12, 2016, order and October 21, 2015, order in review petition, a bench of Justice M.R. Shah and Justice B.V. Nagarathna in an order pronounced on March 3, 2023, said, "There cannot be any school without a playground. Even the students who study in such a school (located in rural surroundings) are entitled to a good environment."

The court noted that out of nearly 5918 square meters of panchayat land earmarked for the school and the playgrounds, a little over 2630 square meter of land was encroached by unauthorised settlers.

Setting aside the High Court order, the apex court held that the direction to



legalise the unauthorised occupation and possession on the land, which is earmarked for school premises/playground is unsustainable.

Taking a dim view of the High Court order, the Supreme Court said that the "High Court has committed a very serious error in directing to legalise the unauthorised occupation and possession made by the original writ petitioners on payment of market price. Even the other directions issued by the High Court are not capable of being

implemented, namely, to segregate the vacant land from the residential house and which can be separated and utilised for earmarked purpose, i.e., school premises."

Stating that the segregation of the vacant land for the purposes of school premises from the one encroached upon area is not possible, the Supreme Court noted that some area is under unauthorised construction while some is under vegetation.

Pointing out that it was not possible to segregate the

vacant land from the land under unauthorised construction/occupation and vegetation, the court said that there is no other panchayati land or other land that is available and can be used for school premises/playground.

The adjacent land, the court noted, belongs to some private persons and they are not ready to part with their land to be used as school premises/playground.

Having quashed and set aside the High Court order and directions issued by it, the court gave 12 months' time to the unauthorised occupant to vacate the land earmarked for the school and its playground.

The court further directed "if within one year from today, they do not vacate the lands in question, the appropriate authority is directed to remove their unauthorised and illegal occupation and possession."

The Supreme court order came on an appeal by Haryana government as the land and the village in question are in Yumnagar district of Haryana.

## ◆ SKILL DEVELOPMENT EDUCATION

स्टूडेंट एड्वाइज़री बोर्ड से बच्चे में लिडरशिप स्कूल बढ़ेंगी: आतिशी

# स्टूडेंट एड्वाइज़री बोर्ड से बच्चों में लीडरशिप स्किल बढ़ेगी: आतिशी



सर्वाेदय विद्यालय, नानकपुरा में शिक्षा मंत्री ने स्टूडेंट्स से बातचीत की

■ विस, नई दिल्ली: दिल्ली के सरकारी स्कूलों में गठित किए गए स्टूडेंट एड्वाइज़री बोर्ड से जुड़े छात्रों से बुधवार को शिक्षा मंत्री आतिशी ने मुलाकात की। सरकारी स्कूलों में स्टूडेंट्स के बीच लीडरशिप स्किल को बढ़ाने के लिए स्टूडेंट एड्वाइज़री बोर्ड की शुरुआत की गई थी। पायलट फेज में इसे 20 स्कूलों में शुरू किया गया था, जिसके अच्छे नतीजे देखने को मिले। पायलट फेज की सफलता के बाद बुधवार को सर्वाेदय विद्यालय (को-एड), मोती बाग-II, नानकपुरा में आयोजित एक कार्यक्रम में शिक्षा मंत्री ने इन स्टूडेंट्स से चर्चा की। पायलट फेज की सफलता के बाद शिक्षा निदेशालय अब इस परियोजना को दिल्ली सरकार के अन्य स्कूलों में भी शुरू करने की योजना बना रहा है।

स्टूडेंट्स के साथ बातचीत करते हुए

शिक्षा मंत्री आतिशी ने कहा कि इस तरह के बोर्ड पहले प्राइवेट स्कूलों में ही देखे जाते थे। दिल्ली सरकार के स्कूलों में ऐसे स्टूडेंट एड्वाइज़री बोर्ड की कल्पना शायद ही किसी ने की होगी, लेकिन हर स्टूडेंट को विश्वस्तरीय शिक्षा देने और सीखने के सर्वोत्तम अवसर देने के

शिक्षा मंत्री ने बोर्ड से जुड़े स्टूडेंट्स से की मुलाकात

विजन के साथ दिल्ली सरकार के स्कूलों में भी यह संभव हो पाया है। छात्र सलाहकार बोर्डों के माध्यम से, हमारा उद्देश्य छात्रों की लीडरशिप स्किल को बढ़ाने के लिए एक मंच तैयार करना है। उन्होंने कहा कि बोर्ड ने छात्रों को जिम्मेदारी, सामाजिक मुद्दों के प्रति संवेदनशीलता और टीम मैनेजमेंट जैसी जरूरी स्किल्स डिवेलप करने का मौका दिया है, जो भविष्य में उनके आगे बढ़ने के लिए बेहद फायदेमंद साबित होगा। इससे स्कूल की गतिविधियों में स्टूडेंट्स की भागीदारी भी बढ़ी है।

## ◆ TEACHER RECRUITMENTS

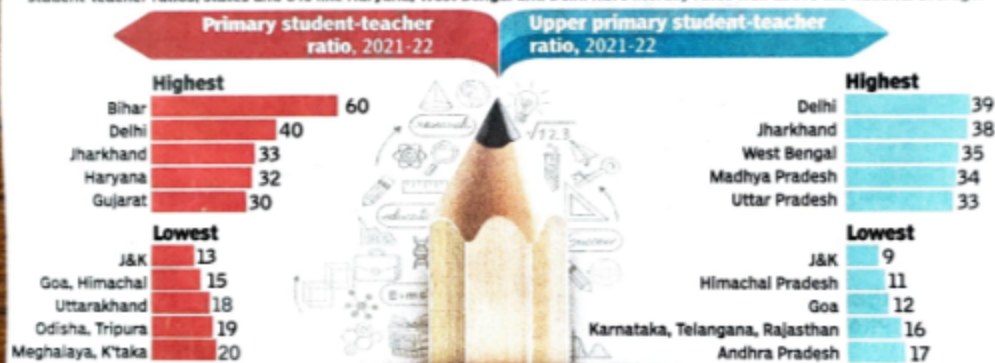
India has nearly 1.2L schools with just one teacher each

# India has nearly 1.2L schools with just one teacher each

In the 2023-24 Union Budget, the Centre allocated Rs 1.13 lakh crore for the education sector, raising the projected expenditure on school and higher education by around 8.3% compared with 2022-23. But recent answers to questions in Parliament show that there's still plenty of room to raise the standards of education in India. Indicators like student-teacher ratios and the number of one-teacher schools point to a serious shortage of trained personnel. And despite a push to digitise education, most schools don't have access to the internet.

### In Bihar, 1 Teacher For Every 60 Primary School Students

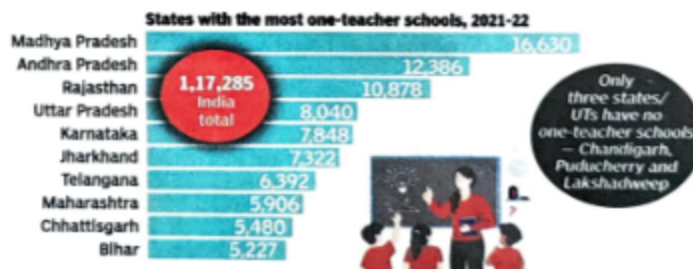
Among those with the worst student-teacher ratios are states with the largest populations or highest population density. UP and Bihar, among the worst for student-teacher ratios, are not only the most populous states in the country but also among the poorest. Conversely, states with smaller populations are among those with the best student-teacher ratios. But despite poor student-teacher ratios, states and UTs like Haryana, West Bengal and Delhi have literacy rates well above the national average.



The national average is 28 for primary and 24 for upper primary schools, significantly better than the required student-teacher ratios of 30 and 35, respectively, under the Right to Education Act. Note: Northeastern states not included. Among UTs, only Delhi and J&K included.

### More Than 16,000 One-Teacher Schools in Madhya Pradesh Alone

Almost 8% of India's schools have only one teacher. Some of the most populous states also have the most one-teacher schools. Madhya Pradesh, for instance, has a primary student-teacher ratio of 25 — better than the level mandated by the RTE Act — but it also has the most one-teacher schools. Among the larger states, Kerala has the fewest one-teacher schools at 310.



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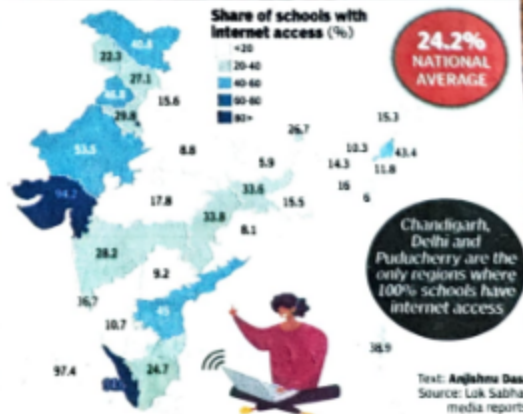


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### Less Than A Fourth Of Schools Have Internet Access

Despite the push to digitise education, fewer than one in four schools in India have internet access. Finance minister Nirmala Sitharaman announced the National Digital Library programme in this year's Union Budget and the National Digital University programme last year to improve learning outcomes and make up for pandemic-related learning losses. But in 29 states and UTs, less than half the schools have internet access, which will likely make the implementation of such digital programmes difficult.



Text: Anjishnu Das; Source: Lok Sabha, media reports

## 16K Teachers' post vacant in govt schools: DoE to HC

# 16k Teachers' Posts Vacant In Govt Schools: DoE To HC

### Maximum Number Of Vacancies For Trained Graduate Teachers

TIMES NEWS NETWORK

**New Delhi:** Over 16,000 teaching positions are vacant in different Delhi government schools. Directorate of Education (DoE) recently informed Delhi High Court in an affidavit. As on March 1, 16,546 posts were vacant against the sanctioned strength of 53,933 and these positions were being filled by guest teachers for now, it added.

The maximum number of vacancies — 10,956 — is for trained graduate teachers, who teach up to Class X. However, no subject-wise breakup was given. In the trained postgraduate teacher category, 638 posts are vacant.

The DoE response is related to a contempt petition filed by Social Jurist, which alleges that the government is not taking the issue of filling vacancies seriously. "Justice Manmeet Pritam Singh Aroha has directed DoE and Municipal Corporation of Delhi to positively file affidavits within four weeks on va-

## UNFILLED POSITIONS

Post	Sanctioned	Filled	Vacant
Trained graduate teacher	34,107	23,151	10,956
Assistant primary teacher	4,061	2,982	1,079
Special education teacher	1,757	806	951
Postgraduate teacher	4,857	4,219	638
Drawing teacher	1,315	743	572
Yoga teacher	1,315	743	496
Physical education teacher	2,239	1,776	463
Computer teacher	2,036	1,660	376
Domestic science	790	422	368
Librarian	1,009	697	312
Music teacher	339	157	182
Assistant nursery teacher	925	772	153

Source: Directorate of Education (DoE)

cancy positions and the steps taken to fill up the same. Delhi Subordinate Services Selection Board (DSSSB) is also directed to file an affidavit stating the requisitions received by it from MCD and DoE, and the status thereof," said Ashok Agarwal of Social Jurist. The next date of hearing is May 23.

At least 1,079 positions for

assistant primary teachers are vacant while 153 posts for nursery assistants are also to be filled up. For special education teachers (SET), 951 positions are vacant against the sanctioned strength of 1,757. Among the positions for drawing, yoga and physical education teachers, the maximum vacancies are for drawing tea-

## Times View

Government schools are expected to offer quality education for all. Shortage of thousands of teachers is likely to affect the quality of education being dispensed in them. The posts must be filled following a transparent selection procedure and without sacrificing due diligence.

chers at 572, followed by yoga teachers at 496.

According to a DoE official, the process for filling the positions are on and requisitions are being sent to DSSSB, the recruiting agency for Delhi government.

"If the affidavits are not filed within four weeks, the respondents shall pay costs of Rs 25,000 to the petitioner. The new session will start from April 1, 2023 and the object of the 2001 high court order to have zero vacancies on the commencement of the session is elusive," said Agarwal.

## Delhi LG approves filling up of teaching, non-teaching staff of government-aided schools through DSSSB

# Delhi LG approves filling up of teaching, non-teaching staff of government-aided schools through DSSSB

### SNS & AGENCIES

NEW DELHI, 6 FEBRUARY

Delhi Lt Governor V.K. Saxena has approved the filling up of teaching and non-teaching staff of government-aided schools through DSSSB as is being done in the case of Delhi government schools.

"However, since this would require amendment in the Delhi School Education Rules (DSER), 1973 and the Delhi School Education Act (DSEA), 1973 that governs such provisions, the LG has directed the government (Education Department) to follow the laid down procedure in this regard," said a statement from Raj Niwas.

"To ensure that the autonomy of such schools and their Selection Committees, tasked with the responsibility



of making such recruitments is maintained, it has been decided that against every vacancy to be filled, the Selection Committees of the government-aided schools will be provided with the panel of three names by the

DSSSB for them to make a choice," the LG office said.

In case of government schools, the DSSSB selects and provides one candidate against each vacancy.

There are about 8,300 sanctioned posts in 207 gov-

ernment-aided schools against which recruitments are done from time to time. While the DSER, 1973 provides for a Selection Committee, with the nominee of the Director of Education, for such recruitments, the rules

"However, since this would require amendment in the Delhi School Education Rules (DSER), 1973 and the Delhi School Education Act (DSEA), 1973 that governs such provisions, the LG has directed the government (Education Department) to follow the laid down procedure in this regard," said a statement from Raj Niwas.

are silent about the procedure to be adopted by these Selection Committees for selection of teachers and clerical staff.

The said provisions shall be optional for government-aided minority schools.

## ◆ TEACHERS TRAINING

### Govt's reply sought on rules for teachers foreign training

# Govt's reply sought on rules for teachers' foreign training

HT Correspondent

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**NEW DELHI:** The Delhi high court on Tuesday sought responses from the lieutenant governor (LG) and the AAP government on a plea seeking guidelines on sending teachers abroad for training programmes, and alleging lack of basic infrastructure and shortage of principals in government schools.

The bench comprising chief justice Satish Chandra Sharma

and justice Subramonium Prasad issued a notice to the LG, the Delhi government, and State Council of Educational Research and Training, seeking a reply within six weeks.

The public interest litigation (PIL) was filed by a group of teachers who alleged that training programmes are "leisure trips and only for teachers who are blue-eyed candidates, selected without any criteria".

The PIL sought a comprehensive policy, keeping in mind the cost-benefit analysis, rather

than an arbitrary decision to send the teachers abroad.

The petition referred to the recent decision by the Delhi government to send some teachers to Finland for training. The plea also claimed government schools are in a dilapidated state with broken benches and poor infrastructure.

It also alleged that Delhi schools are facing acute shortage of manpower, saying only 154 of the total 950 sanctioned posts for principals have been filled.

### Schools turn co-ed, teachers attend gender classes

## Schools turn co-ed, teachers attend gender classes

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**New Delhi:** Veena Saijwal has been heading a co-ed school at Ambedkar Nagar in south Delhi for the past four months. Till then, she had taught at an all-girl school at Saket. The new role has been challenging — ensuring that the boys in senior classes behave well, attend classes, and do not indulge in indiscipline, said Saijwal.

To help teachers and principals like Saijwal at 33 schools that were turned into co-

ed institutes recently after merger of all-boy and -girl schools, the education department, in collaboration with UN Women, apprised around 200 teachers on various nuances of gender issues and sensitised them about gender equality in a two-day event at State Council for Educational Research and Training on February 21-22.

"In free time, I go and sit in classes with senior students and build personal connections with them. I regularly make rounds of the toilet to ensure that there is no unruly behaviour. During the training, we were told about the

#### A PRINCIPAL SAYS

**These students have always been around people of the same sex. So, they do not know how to behave with students from the opposite gender**

importance of personal counselling," said Saijwal.

Another principal, who did not want to be named, added, "These students have always been around people of the same sex. So, they do not

know how to behave with students from the opposite gender. It is a challenge in senior classes." In the merged schools, both boys and girls are now sitting together till Class VIII.

The UN Women India deputy representative, Kanta Singh, emphasised on organising small interactions on gender equality at the ground level. "It will bring huge change to reflect on how classes are being conducted and shaping young minds. We need to change the outlook on differentiating between men and women. Teachers are change-

makers, playing a vital role in changing perception towards gender equality. It's a continuous process," said Singh.

Directorate of education director Himanshu Gupta said all stakeholders, including parents, should be counselled. "Schools should focus on organising livestreaming sessions on pioneering women, which will facilitate change of perception towards gender equality," said Gupta. He also suggested visits by officials of UN women to a few merged schools for an impact study to identify further scope of improvement.

## ◆ UNIVERSITY GRANT COMMISSION (UGC)

पढ़ाई बीच में छोड़ने वाले लौट सकेंगे शिक्षा की मुख्यधारा में

# पढ़ाई बीच में छोड़ने वाले लौट सकेंगे शिक्षा की मुख्यधारा में

## UGC ने जारी किया नैशनल क्रेडिट फ्रेमवर्क

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■ नई दिल्ली : स्कूल से लेकर उच्च शिक्षा तक के सफर में अगर किन्हीं कारणों से पढ़ाई बीच में छूट जाती है तो अब नई शिक्षा नीति में उस छात्र का मेन स्ट्रीम एजुकेशन में लौटना बहुत आसान हो जाएगा। शिक्षा मंत्रालय की उच्च स्तरीय समिति ने नैशनल क्रेडिट फ्रेमवर्क (NCrF) को अंतिम रूप दे दिया है और यूजीसी ने इसे जारी कर दिया है। यूजीसी ने सभी शिक्षण संस्थानों से कहा है कि क्रेडिट फ्रेमवर्क को लागू करने के लिए सभी जरूरी कदम उठाए जाएं।

फ्रेमवर्क में हर स्तर पर क्रेडिट फॉर्म्युला तय किया गया है। मल्टिपल एंट्री और मल्टिपल एग्जिट का प्रावधान किया गया है। पढ़ाई के साथ-साथ अगर आपने स्पॉट्स, गेम्स, साइंस-टेक्नॉलजी, सोशल वर्क, परफॉर्मिंग आर्ट, फाइन आर्ट, साहित्य, भारतीय ज्ञान परंपरा जैसे विषयों में भी कोई उपलब्धि हासिल की है तो इसके क्रेडिट भी दिए जाने की सिफारिश की गई है। सेशन 2023-24 से ही यह फ्रेमवर्क लागू हो जाएगा और शिक्षण संस्थान इसके दायरे में नियमों को लागू करेंगे। केंद्र सरकार का उद्देश्य है कि दो शिक्षण संस्थानों, शिक्षा बोर्डों, विश्वविद्यालयों के बीच ऐसा तालमेल हो कि छात्रों को एक जगह से दूसरी जगह शिफ्ट करने में कोई दिक्कत न हो, इसी को ध्यान में रखते हुए यह फ्रेमवर्क लाया गया है।

क्रेडिट फ्रेमवर्क में कहा गया है कि भारतीय ज्ञान परंपरा, वेद-पुराण, ज्योतिष शास्त्र, संगीत, शिल्प कला, मीमांसा, धर्मशास्त्र, भारतीय दवा प्रणाली आयुर्वेद, धर्मशास्त्र जैसे आयामों को भी 'क्रेडिट' प्रणाली के दायरे में लाया जा



### स्कूली छात्रों के पास भी होगा मौका

स्कूलों में पढ़ने वाले छात्र भी अपनी पढ़ाई के साथ-साथ खेलकूद, एक्स्ट्रा करिकुलर एक्टिविटीज के लिए क्रेडिट जुटा सकेंगे। साथ ही पढ़ाई बीच में छोड़ने वाले छात्र आसानी से शिक्षा से जुड़ सकेंगे। स्कूलों में कौशल आधारित शिक्षा को बढ़ावा मिलेगा और इंडस्ट्री के साथ मिलकर स्कूली स्टूडेंट्स के लिए भी कोर्सेज तैयार किए जा सकेंगे। अकैडमिक बैंक ऑफ क्रेडिट में उनको मिलने वाले क्रेडिट जमा होते रहेंगे। सरकार ने 18 नवंबर 2021 को व्यवसायिक

सकता है। विभिन्न क्षेत्रों में राष्ट्रीय और अंतरराष्ट्रीय स्तर पर उपलब्धि हासिल करने वालों को क्रेडिट देने का प्रावधान किया गया है। इसमें भारतीय ज्ञान परंपरा में 18 प्रमुख विद्याओं और 64 कलाओं, कला कौशल का उल्लेख किया गया है।

एवं सामान्य शिक्षा क्षेत्रों के लिए राष्ट्रीय क्रेडिट फ्रेमवर्क तैयार करने के लिए एक उच्च स्तरीय समिति गठित करने को मंजूरी दी थी। स्कूली शिक्षा के लिए क्रेडिट 4 स्तर तक है, जबकि उच्च शिक्षा के लिए स्तर 4.5 से 8 पॉइंट तक है। एनसीआरएफ ने स्कूली शिक्षा के लिए चार स्तर तय किए हैं। 12वीं कक्षा पास करने वाले छात्र क्रेडिट स्तर 4 पर होंगे। उच्च शिक्षा के लिए यह स्तर 4.5 से 8 तक है। अकैडमिक बैंक में क्रेडिट जुड़ते जाएंगे।

विभिन्न क्षेत्रों में उत्कृष्टता हासिल करने वालों को क्रेडिट दिए जाएंगे। अनुमान के मुताबिक अभी देश में 12वीं कक्षा के स्तर पर ड्रॉपआउट (बीच में स्कूल छोड़ना) 25% है। इसका मतलब यह है कि 73% युवा उच्च शिक्षा के दायरे में नहीं आते हैं।



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ग्राजुएशन लेवल से ही पर्यावरण शिक्षा पर ज़ोर देने की कवायद

# ग्रेजुएशन लेवल से ही पर्यावरण शिक्षा पर ज़ोर देने की कवायद

UGC ने ड्राफ्ट गाइडलाइंस और फ्रेम वर्क तैयार किए

■ विशेष संवाददाता, नई दिल्ली

राष्ट्रीय शिक्षा नीति-2020 के तहत अब ग्रेजुएशन लेवल पर पर्यावरण शिक्षा को करिकुलम का अहम हिस्सा बनाने की तैयारी की गई है। विश्वविद्यालय अनुदान आयोग (UGC) ने पर्यावरण शिक्षा के लिए ड्राफ्ट गाइडलाइंस और करिकुलम फ्रेम वर्क जारी किया है। इस पर 22 फरवरी तक सुझाव मांगे गए हैं। ड्राफ्ट नियमों पर छात्र, शिक्षक और विशेषज्ञ अपनी राय दे सकते हैं। UGC की ओर से सभी सुझावों को देखा जाएगा और उसके आधार पर

**शिक्षकों और विशेषज्ञों से 22 फरवरी तक सुझाव मांगे**

ड्राफ्ट में जरूरी बदलाव भी किए जा सकते

हैं। उसके बाद फाइनल नियम जारी किए जाएंगे। इसके बाद सभी यूनिवर्सिटीज और शिक्षण संस्थानों में ग्रेजुएशन लेवल पर पर्यावरण शिक्षा का यह कोर्स लागू किया जाएगा। UGC के

अध्यक्ष प्रो. एम. जगदीश कुमार का कहना है कि राष्ट्रीय शिक्षा नीति के तहत पर्यावरण शिक्षा को ग्रेजुएशन लेवल पर पढ़ाई का अहम हिस्सा बनाया जा रहा है। प्रदूषण, जलवायु परिवर्तन, इको सिस्टम से लेकर प्राकृतिक संसाधनों को बचाने की दिशा में काम किया जाएगा।

## Allow students to write exams in local languages: UGC to varsities

# Allow students to write exams in local languages: UGC to varsities

**PRESS TRUST OF INDIA**

NEW DELHI, APRIL 19

THE UNIVERSITY Grants Commission (UGC) has asked universities to allow students to write exams in local languages even if the course is offered in English medium, while arranging evaluators and encouraging the translation of textbooks, according to UGC chairman M Jagadesh Kumar.

The Commission has also asked the universities to promote the use of local language in teaching and learning processes.

"Promotion and regular use of Indian languages in education is a crucial area of focus in the

new National Education Policy (NEP). It emphasises the importance of teaching and instruction in the mother tongue and local languages," Kumar said. "It also lays thrust on the need to optimise communication in all Indian languages for better cognitive attainment and the development of a holistic personality of the learners."

Noting that the academic ecosystem continues to be English medium-centric, the UGC chief said once the teaching, learning and assessment are done in local languages, student engagement will gradually increase, leading to an increase in the success rate.

"The Commission has re-

quested the universities that students be allowed to write the answers in local languages in examinations even if the programme is offered in English medium, and promote translation of original writing in local languages and use local language in the teaching-learning process at universities," he said.

Asked how students writing in local languages will be evaluated, he said, "This will be possible if evaluators also know the local language and the university can make the effort to find evaluators who know (that). The idea is to let students write the answers in a language that will provide them the opportunity to express easily."

## Muslim university aur jamia millia ko CUET par partibandh lagana ke liye UGC ka adesh jaruri

### CUET کی پابندی ضروری، مسلم یونیورسٹی اور جامعہ ملیہ کو UGC کا حکم

نئی دہلی (ایجنسیاں)

یونیورسٹی گرانٹس کمیشن نے علی گڑھ مسلم یونیورسٹی اور جامعہ ملیہ اسلامیہ کو

خط لکھ کر کہا ہے کہ تمام مرکزی یونیورسٹیوں کو انڈر گریجویٹ داخلوں کے لیے کامن یونیورسٹی انٹرنس ٹیسٹ (سی یو ای ٹی) کرانا ہی ہوگا۔ واضح رہے کہ اسے ایم یو اور جامعہ ملیہ اسلامیہ کو اقلیت کا درجہ حاصل ہے۔ تعلیمی میدان میں یہ بڑی تبدیلی جولائی 2022 سے شروع ہوئی ہے۔ ملک کی کچھ مرکزی یونیورسٹیاں اور ریاستی یونیورسٹیاں



سے کوئی خاص ہدایت نہیں ملی ہے، اس لیے وہ گزشتہ سال کی طرح ہی داخلہ لے گی۔ یونیورسٹی کا کہنا ہے کہ وہ صرف منتخب پروگراموں کے لیے سی یو ای ٹی نمبرات تسلیم کرے گی۔ جبکہ یو جی سی نے کہا ہے کہ اس نے تمام یونیورسٹیوں اور اعلیٰ تعلیمی اداروں کو ایڈوائزری جاری کی ہے اور انہیں سی یو ای ٹی کو پوری طرح ماننے کی دعوت دی ہے۔ اس کے تحت امیدوار ایک ہی داخلہ امتحان کے ذریعہ تمام تعلیمی اداروں کے داخلہ امتحان میں شرکت کر سکیں گے۔ اس کی نمبرات کی بنیاد پر انہیں ہر جگہ

داخلہ کے لیے منتخب کیا جائے گا۔ کچھ دنوں پہلے جامعہ ملیہ اسلامیہ یونیورسٹی نے کہا ہے کہ یو جی اور پی جی کورسز میں داخلے کے لیے کامن یونیورسٹی انٹری ٹیسٹ (سی یو ای ٹی) کو نافذ کرنے کا کوئی منصوبہ نہیں ہے۔ اگلے تعلیمی سیشن کے لیے بروقت داخلہ کو یقینی بنانے کے لیے یونیورسٹی اپنا داخلہ امتحان منعقد کرے گی۔ ایسے میں اب طلبہ کو داخلے کے لیے جامعہ کا انٹری ٹیسٹ دینا ہوگا۔

اس کے تحت انڈر گریجویٹ کورسز میں داخلہ لے رہی ہیں۔ 2022 میں 14 لاکھ طلبہ نے کامن یونیورسٹی کے داخلہ ٹیسٹ (سی یو ای ٹی) کے لیے رجسٹریشن کروایا تھا۔ اس امتحان کے تحت 44 مرکزی یونیورسٹیوں اور 86 یونیورسٹیوں میں داخلے کیلئے امیدواروں کا انتخاب کیا گیا۔ یہ امتحان ٹیسٹ یو جی کے بعد ملک کا سب سے بڑا امتحان بن گیا۔ سی یو ای ٹی پر اسے ایم یو نے کہا کہ اسے کمیشن

## HISTROY

# Understanding the mughals: there are lessons to be learnt from every king



The Humayun's tomb. GETTY IMAGES

## Understanding the Mughals: there are lessons to be learnt from every king

Historians have profiled the layered reigns of the Mughal kings, from Humayun to Akbar to Aurangzeb, who were men of action, aesthetes and dreamers, and contributed to the idea of the subcontinent

Ziya Us Salam

**T**he National Council of Educational Research and Training has decided to drop certain chapters on the Mughal Empire from the CBSE Class 12 history textbooks. They include 'Kings and Chronicles: the Mughal Courts (c. 16th and 17th centuries)' from the book Themes of Indian History-Part II. This move is said to be an attempt at "syllabus rationalisation" to avoid "overlapping" and "irrelevant" portions.

Why do the Mughals need to be studied? The glory of the Mughal Age has been neatly summed up by Ebbu Koch in her recent book, *The Planetary King: Humayun Padshah Inventor and Visionary on the Mughal Throne* where she writes, "The Mughal dynasty was perhaps one of the most glamorous and charismatic in the history of mankind. It was a driving concern of the first six padshahs to construct their image for posterity and to be remembered as great rulers." Even in the 20th century there were voices that praised the Mughal emperors in the manner of court eulogists.

**Reading the 'Baburnama'**  
It all began with Zahiruddin Babur. His eye for detail and his fine observation are on display in *Baburnama* translated by Dilip Hiro. Recalling the Battle of Panipat with Ibrahim Lodi, Babur writes, "20 April (8 Rajab) News came at dawn that the enemy was advancing in fighting

array. We at once donned armour, armed and mounted... Our right wing was led by Humayun... Ibrahim was thought to have fled... It was the Afternoon Prayer when Ali Khalifa Barla's brother-in-law, who had found Ibrahim Lodi's body in a heap of the dead, brought in his head. That day we appointed Humayun to ride fast and light to Agra..." It was in Agra that Humayun was to lay his hands on the Kohinoor which he offered to Babur soon after, an offer Babur graciously declined.

The reign of Humayun which commenced in 1530 was in turn followed by one of the most vibrant periods in Indian history under Jalahuddin Akbar. The emperor laid emphasis on culture and inter-religion mingling like none other. As Audrey Truschke writes in *Culture of Encounters: Sanskrit at the Mughal Court*, "In the 1580s, Emperor Akbar ordered the translation of the Sankarir Mahabharata into Persian. The newly minted Mughal epic, called the *Razmnamah* (Book of War), would prove a seminal work... The Mughals took up the Mahabharata as part of the larger translation movement that Akbar had inaugurated in the 1570s... As a prince Jahangir commissioned a Persian *Wagoshidra*, (Vashista's Treatise on Yoga), a philosophical work."

**Akbar's middle ground**  
There was a reason why Akbar got the Mahabharata translated.

Quoting Abul Fazi, noted author Iza Mukhoty explains in *Akbar: The Great*

Mughal, "He decided to translate the authentic books of different groups into another language, so that both groups could have the pleasure of benefiting from the perfect knowledge, thus forgetting their enmity and hostility and seeking divine truth." This move of Akbar was in consonance with his idea behind setting up Ibadat Khana. As noted by author Maninagarika Sharma in his book *Allahu Akbar: Understanding the Great Mughal in Today's India*, "When Akbar returned to Fatehpur Sikri in 1575 from the conquest of Bengal, he carried with him a favourable impression of something that the late Sultan Sulaiman Karrani of Bengal used to do. That, coupled with his own inner churning, was manifested in a building that housed the first nursery of what is today called secularism in India. It was the Ibadat Khana... The Ibadat Khana became a unique experiment in improving the theological discourse. It was a bid to end conflicts among rival religions by creating a middle ground."

The Ibadat Khana was constructed around the room of Shaikh Abdullah Niyat Sirhindi, a disciple of Shaikh Salim Chishti who later became a devotee of Lord Shiva. "That this journey of the Ibadat Khana began from the room of a Sufi who became a follower of Shiva makes it a very interesting beginning," Sharma writes. The place became a meeting point for not only Islamic scholars but also Brahmins, Christians, Jains, Zoroastrians, Jews and scholars of other religious denominations for a free

and frank exchange of views. Unsurprisingly, the *Baburnama*, *Rajatarangini* and other works were also translated during this period.

**Rulers and myths**  
Then there was Shah Jahan, the man who built the Taj Mahal and the *Lal Quila* from where the Prime Minister addresses the nation. He was followed by Aurangzeb. He defies easy summarisation. As Truschke writes in *Aurangzeb: The Man and The Myth*, "He was a man of studied contrasts... Aurangzeb was preoccupied with order - even fretting over the safety of the roads but found no alternative to imprisoning his father. He also served music and even fell in love with the musician Hirabai... Aurangzeb was an enigmatic king." If Akbar has lessons for today's politics, so does Aurangzeb, albeit for entirely different reasons.

To quote Koch, art historian Stuart Welch, who taught Indian art at Harvard, once said, "What would our lives be without those fascinating Mughals?" She mentions the globe-trotter and interculturalist Count Herman Keyserling, who was in India in 1901-12, hailing the Mughals as the "greatest rulers brought forth by mankind... they were men of action, refined diplomats, experienced judges of the human psyche and at the same time aesthetes and dreamers." For this and many other reasons, students should not be deprived of reading up on the Mughals in the subcontinent.

# A host to meetings among freedom fighters in city - marwari library

IN CHANDNI CHOWK

## A host to meetings among freedom fighters in city — Marwari Library

VIJAYESH KUMTAMALLA  
NEW DELHI, APRIL 16

INAUGURATED OVER A century ago by freedom fighter Bhatnagar Gonia, the Marwari Library in Chandni Chowk has had a rugged view of the city's independence movement. In visitors register still bears records of visits and messages from the country's freedom fighters such as Mahatma Gandhi and V.K. Rajwade Pandit, among others. Situated opposite Gurdwara Sri Gurbakhsh, the facade of the library is marked by an arched

door, which opens to several steps in a passage leading up to the main reading area. The two-storey building used to have a Victorian exterior with white columns but has now been revamped into a modern-day library with separate sections — one for contemporary readers and the other to house its valuable collection of books. "The library has opened its doors to all sections of people to pop, visit and study here," said a reader who has been visiting the library for the past 12 years. "People from the Marwari community started the library in April 1915. This was a major

meeting point for freedom fighters," said Raj Kumar Tulsigam, general secretary of the library. Tulsigam further said, "We have about 35,000 books. We also have handwritten manuscripts in the library. We have a register bearing comments and signatures of great leaders along with the dates of their visit, dating back to 1915." Tulsigam (67), who is from Rajasthan, has been associated with the library for about 30 years now. "I have my own textile business opposite the library. I am attached to various organisations of the Marwari community and the library is one of



The library was inaugurated in April 1915. *Ishty Jha/Rediff*

them," he said. According to Tulsigam, the Marwari Charitable Trust took

on the expenses of the library after the Partition. "The second floor of the li-

brary is a storage room where we keep all old books. We also have a three-month stock of newspapers for readers to access

clippings. An air-conditioned section was added a few years ago, to create a comfortable space for students to visit and study," said Tulsigam. The library is open to readers from 9 am to 7 pm at an annual charge of Rs 500. The library's founder,

Gonia, was a Marwari merchant motivated by Gandhian ideals. He later joined the Indian National Congress.

As per the Ministry of Culture's website, Gonia served as "the forefront of Hindi dissemination, women empowerment and the freedom movement". On Gonia's invitation, eminent leaders like Mahatma Gandhi, Bal Gangadhar Tilak and Madan Mohan Malaviya visited

the library on November 27, 1917. The space served as the venue for Congress meetings multiple times, the website said. According to the ministry's website, during the Quit India Movement, the Marwari Public Library was the "starting point of the Jhansi 'parades'". Now, the library is a "treasure trove for scholars seeking prized sources in Hindi from the early 1900s". In his book 'History and Development of Libraries of India', Raj Kumar Bhatnagar said "Delhi was agog with trade and commerce. Marwars formed an important segment in that."



PIN CODE 110001

# Oasis of calm in busy chandni chowk - century old hardayal library

SET UP AS PART OF A READING ROOM FOR THE BRITISH

## Oasis of calm in busy Chandni Chowk — century-old Hardayal library

VIJAYESH KUMTAMALLA  
NEW DELHI, APRIL 16

SITUATED IN Old Delhi, right next to Konark police station, the Hardayal Municipal Heritage Public Library is an oasis of calm in the bustling Chandni Chowk. One of the oldest libraries of the city, the century-old building is home to more than 1 lakh books. Named after a freedom fighter, the library, which came into existence in 1882, was originally called the Institute Library and was set up as part of a reading room for the British within the

Lal Bahadur Shastri Institute, presently the town hall, in Chandni Chowk. In contrast, the library now bears photographs of freedom fighters who fought the British, on its walls, and is open to all. A sprawling, flat-roofed structure supported by ornate pillars with arched windows and arches filled with old and dusty books, the library stacks of old-world charm. According to the website of the Union Ministry of Culture, the library is among few in the world with a collection of the oldest, rare black-printed books. The library got most of its collection from Englishmen who

came to India bearing a lot of books, which kept their company during their sea journeys that lasted several months. In 1902, the library was shifted to its present building in Kashi Nath and renamed Delhi Public Library. Following the assassination attempt on Lord Hardinge on December 23, 1912, the library was shifted to its current building and named after the viceroy. During the viceroy's tenure, historian Swarna Liddle wrote in her book 'Chandni Chowk: The Mughal City of Delhi: The Viceroy and his wife were riding on elephants as part of a grand proces-



Following the assassination attempt on Lord Hardinge in 1912, the library shifted to its current building. *Shivraj Saha*

sion when a bomb was thrown at them by a group of revolutionaries. The perpetrators were apprehended and executed." The attack received condemnation from a number of people in Delhi, who also came forward to subscribe to a fund to offer rewards on the perpetrators. "Eventually, the government decided to bear the full expense of the reward, and the fund was instead

used to finance Lady Hardinge Medical College and Hospital, and towards a new building for Municipal Library, which was also subsequently named after Hardinge," according to excerpts from the book. Eventually, after independence, the library's name was changed to Hardayal Library after Lal Hardayal, an Indian nationalist revolutionary who had publicly denounced the bomb attack.

Mohammed Rafi, a carpenter who has been working on the premises for 22 years, said the library was managed a few years ago when the walls were whitewashed, and electrical wiring and air-conditioning fixed. "Despite being more than one and a half century old, the library continues to attract people of all age groups. One such person is Anil Anand (35). The library has a huge collection of old and rare books. It is a symbol of how time looked before independence. The digital era has taken over the old-school way of reading books but still enjoy coming here," he said.



PIN CODE 110001

# Meet Nagas leading bid overseas to bring home ancestral remains

## Meet Nagas leading bid overseas to bring home ancestral remains

DIPIKA AGARWALA  
BANGALURU, APRIL 10

ON SEPTEMBER 14, 2020, the Pitt Rivers Museum in England's Oxford made a landmark announcement. In a post-pandemic world of its collection, the museum — one of the best-known in the world for anthropology, ethnography and archaeology — would use its collection of "human remains" and other "inestimable" exhibits of display. These items, sourced during the expansion of the British Empire, played into stereotypical thinking about cultures across the globe as "savage" or "primitive" said the museum's director, Laura Van Broekhoven. It was time for them to be removed, and possibly repatriated to their rightful homes. In another continent, Nagas researcher and anthropologist Dolly Kikon read the news with a sense of urgency. Hours later, Kikon, a

Lorha Naga from Dimapur, and now a professor in the University of Melbourne, was drafting an email to Broekhoven. She cut to the chase: Could the ancestral Naga human remains, displayed in the museum for more than 100 years, be returned to her people back home? The rest is likely to become history. Kikon's request has spawned a community-led initiative among the Nagas to bring their ancestral remains home. It is the first such effort to repatriate ancestral human remains of an indigenous community in India, possibly even South Asia. The museum has a rich collection of 500,000 items acquired over more than 130 years of British imperialism. Part of it is the largest collection (at least 6,500 objects) of Naga material remains in the world. These include items of everyday life such as clothes, agricultural tools, archery and weapons, tankery, ceramics, but



The Pitt Rivers Museum, UK, has at least 6,500 Naga objects. *Pitt Rivers Museum*

also human ancestral remains (skulls and bones), majority of which were collected by two colonial administrators, John Henry Hutton and James Philip Mills in the early 1900s. Since 2017, the museum has been engaged in an "ethical re-

view" of their permanent displays, with a bid to "decolonise" their collections. The decision to take off human remains was part of this objective. For Kikon, the announcement hit home. As a tribal anthropologist, she says, it has always been

"disturbing" to see Naga objects being displayed as "exotic and primitive" in museums across the world. "For more than 100 years, museums across Europe have displayed Naga objects... They were taken away as souvenirs and artifacts under duress during colonial expeditions," she says. That is what led her to reach out to Broekhoven in 2020, who wrote back in two days. The museum director says her "heart rejoiced" when Kikon reached out to her. "With the museum's complicated colonial history, it was important for us not to shy away from difficult conversations," said Broekhoven in an email to The Indian Express. The museum is now actively reaching out to descendants of communities to find the most appropriate way to care for these complex items. In December 2020, Broekhoven made a trip to Nagaland to meet with the stakeholders. "A lot of people might think about the removal

of certain objects as a loss, but what we are trying to show is that we aren't losing anything but creating space for more expansive stories. That is at the heart of decolonisation," she said. Following the email, the museum reached out to the Forum for Naga Reconciliation (FNRC), a collective which, since 2008, has been a key facilitator in the Indo-Naga peace process — to begin the conversation on repatriation. Now, the collective is the chief facilitator of the process. The FNRC, in collaboration with Kikon and Arkansas Longkome, another Naga anthropologist, based in Edinburgh, formed a Naga research team called "Recover Restore and Decolonise" (RRaD) in 2020. In the past two years, the RRaD team comprising Nagas from all walks of life have been conducting interviews, holding community-facing meetings, and generating public awareness about the initiative as a voluntary basis. It is

only the first step before they claim a case to make an official bid to the University of Oxford (under which the museum falls), which is now the legal owner of the remains, says Kikon. "Our first step was to lay the truth on the ground, and go back to our Naga people, and ask them what they felt about this," she says. Most Nagas, they found, had no idea about this. Reverend Ellen Jarmir, a Dimapur-based professor and a psychotherapist, now part of the initiative, says she was "surprised" when she was going through the excel sheet of the places the human remains were sourced from. "I saw a familiar name — Wakhing. It was the village I was born in, and that is when it hit me. These are the remains of my ancestors... my blood... based up in a museum in some part of the world," she says. "How were they taken away? Don't they deserve a proper burial? Suddenly, I felt a huge sense of responsibility."

## Emissions study to give clues on road pollution

# Emissions study to give clues on road pollution

Jasjeev Gandhick

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**NEW DELHI:** Dehi and Gurugram are, for the first time, carrying out remotesensing tests of vehicles to gather on-the-spot emission data, officials said, indicating that the exercise is expected to be completed by the end of the month.

Officials associated with the pilot project said over 65,000 vehicles have been tested so far with data being gathered from 10 locations in Dehi and Gurugram. Another five locations will soon be equipped with emission-analysing devices.

The pilot project has been on since January, and is being executed by the International Council on Clean Transportation (ICCT), which aims to gather data from around 100,000 vehicles in order to assess which vehicle types were more polluting and whether pollution under control (PUC) norms were being met or not.

The study is being carried out by ICCT in collaboration with the Delhi transport

### THE STUDY AIMS TO ASSESS WHICH VEHICLE TYPES ARE MORE POLLUTING AND WHETHER POLLUTION NORMS ARE BEING MET OR NOT

department, the Gurugram administration, and the National Highways Authority of India (NHAI), which will further analyse this data for possible policy-level changes.

Preliminary findings of the study are likely to be released from April onwards, said officials.

Amit Bhatt, managing director (India), International Council on Clean Transportation, said, "The data will indicate if PUC norms are being met and whether they need to be made more stringent."

Remote sensing makes use of emission analysers which are installed at the ground-level, often at the level of the exhaust, while devices can also

be installed vertically above at spots such as toll plazas.

The technology uses infrared and ultraviolet beams to capture data on gases and pollutants, which are later compared to emission standards and PUC norms.

The study is monitoring pollutants including nitrogen oxide (NO), nitrogen dioxide (NO<sub>2</sub>), hydrocarbons, carbon monoxide (CO) and particulate matter (PM), with similar studies already carried out by ICCT in London, Brussels, Jakarta, Paris, Warsaw and Mexico City between 2017 and 2022.

Ashish Kundra, principal secretary and commissioner of Transport, Delhi, said once the pilot is complete, the data will help compare on-road emission data against idling emissions at PUC centres.

Gurugram deputy commissioner Nishant Kumar Yadav said only when emissions from vehicles in real-time are known can mitigation efforts be planned.

"This [pilot project] will help us plan better on the mitigation front."

# Growth of Indian languages receives budgetary impetus

## Growth of Indian languages receives budgetary impetus

Fareeha Iftikhar

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**NEW DELHI:** In a push to promote indigenous languages and Indian Knowledge Systems (IKS) among the youth, finance minister Nirmala Sitharaman in the Union Budget 2023-24 set aside ₹300.7 crore for national institutions for the promotion of Indian languages. The amount is an increase of 20% from 2022-23, and doubles the fund for the IKS scheme.

The Narendra Modi government has taken several steps to promote regional languages in educational institutions, including the introduction of technical and professional courses in these languages.

According to the Budget document, grants to institutes for promotion of Indian languages have increased to ₹300.7 crore in 2023-24 from ₹250 crore in 2022-23 and nearly 70% more than ₹176.5 crore in 2021-22.

These institutions include Central Sanskrit University, Kendriya Hindi Sansthan, National Council for Promotion of Urdu Language, National Council for Promotion of Sindhi Language, Central Institute of Classical Tamil, and National Initiative for



**The Union Budget 2023-24 has set aside ₹300.7 crore for national institutions for the promotion of Indian languages.** HT ARCHIVE

Quality Higher Education in Indian Languages.

For the Central Institute of Indian Languages, Mysore, which works for the promotion of all Indian languages including Kannada, Telugu, Malayalam and Odia, the fund allocation has increased to ₹53.61 crore in 2023-24 from ₹43.50 crore in the revised estimate in 2022-23.

The allocation for the IKS scheme has also increased to ₹20 crore from ₹10 crore (budget estimate) in 2022-23. Under the scheme, the elements of knowledge from ancient India and its contributions to modern India are being incorporated in the curriculum at both the school

and university levels.

In 2020, the government established an IKS division as an innovation cell at the All India Council for Technical Education (AICTE) to promote interdisciplinary research on aspects of indigenous knowledge.

University Grants Commission (UGC) chairperson M Jagadeesh Kumar said the Budget allocation has been done in line with the National Education Policy (NEP) 2020 which lays emphasis on imparting education in Indian languages and promoting the IKS among the youth.

"UGC has formed an apex committee to work with Indian authors to prepare textbooks at

undergraduate and postgraduate levels in different Indian languages and disciplines. These books will be available in digital format and can be made accessible to the students on the national digital library announced in the budget," he said. "Besides, the budget allocates ₹300 crore to some institutes for promoting Indian languages, which is 20% higher than last year's allocation. It will further supplement our efforts in promoting Indian languages."

Kumar said that additional allocation to IKS will also boost the government's efforts of integrating the ancient Indian knowledge into our regular curricula. "For implementation of IKS, resource materials are required, and we need trained teachers to teach the Indian knowledge system," he said. "Recently, UGC has issued guidelines for training teachers in IKS. UGC will scale up its efforts in the coming months."

Besides, for the directorate of Hindi, the allocation has increased to ₹39.47 crore in 2023-24 from ₹36 crore in the current fiscal. The directorate, which has four regional centres, works with the objective of propagation and development of Hindi as a link language.

## India's public exam system needs reform

# India's public exam system needs reform

Most Indian exams today focus on measuring routine cognitive skills which are responsible for the kind of questions prone to leaks and copying. Four steps can be taken to address this

Every exam season brings a torrent of news of exam glitches, paper leaks and promises of strict action to prevent such occurrences in the future. Yet, even by those standards, the past few months have been blighted by a string of controversies. Last month, Uttarakhand enacted a law that provided for a minimum of 10 years imprisonment for anyone caught cheating in state recruitment exams. A few days later, the Gujarat assembly unanimously passed a bill aiming at curbing paper leaks by proposing 10 years imprisonment and ₹1 crore fine for those convicted. On the same day, papers for Rajasthan's Teacher Eligibility Test were leaked on the first day of the exam though internet services were already suspended to prevent such an eventuality. And the last week has seen a political controversy engulf Assam over the repeated leaks of Class 10 exam papers.

While tough, punitive measures may be short-term necessities, the real solution to these problems is a

reform in our exams. This will not only reduce copying and leaks, but also allow us to test relevant skills needed by candidates in the coming years.

Research shows that from the 1970s, the share of non-routine interpersonal and analytical skills in job market requirements has increased dramatically at the cost of routine cognitive and manual skills. We see this in the virtual disappearance of roles such as the traditional office secretary or stenographer and the human bank teller — which epitomise repetitive manual or cognitive tasks. The rise of Artificial Intelligence (AI) tools reinforces that job market entrants will need to compete on a higher skill level. Yet, most Indian exams today tend to focus on measuring routine cognitive skills — which are responsible for the kind of questions prone to leaks and copying.

Four independent but interconnected steps can be taken to address this.

First, switch to computer-based exams, which hold many advantages, such as allowing candidates to get different papers, making copying more difficult. Leaks also become less of an issue as the total pool of questions is much larger and the printing and transporting steps are reduced significantly or eliminated. Further, modern statistical techniques allow comparative performance to be measured accurately and virtually immediately

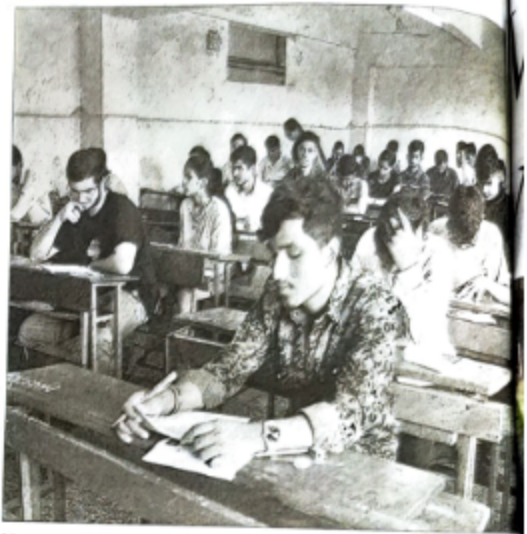
even across different papers. Such exams allow candidates to be given tasks (for example, plotting a point on a graph or map or changing a word in a passage) that test higher skills that can still be computer corrected. It should be noted that many of the largest and most prestigious Indian exams are already conducted on computers. While there will be an increased cost of infrastructure in terms of providing computers for test-taking, this will be offset by savings in printing, transportation and security of papers and even the cost of leaks (which almost invariably lead to retests).



Sridhar Rajagopalan

ter.

Third, use more questions that require answers with understanding and are simply not a test of memory. Even if computers or open-book exams are not used, the questions should test for skills based on understanding and application and not merely recall, as is the case today. When questions are modified this way, the process of arriving at answers is no longer a mechanical one (even though the question may



Many countries have discovered that the quality of the examinations determines the quality of human capital available. It is time we treated this with the greatest importance

SACHIN KUMAR/HIPHOTO

still be an objective or multiple-choice one). Many such questions will use an unfamiliar context, which requires candidates to understand the context and then answer the question. The best exams already do this both nationally and internationally. Such questions cannot be googled, and it is found that they cannot be answered easily even by a system such as GPT-4 (though it is catching up).

Four, run public education campaigns on examinations. One of the lowest-hanging fruits to improve the exam process is a national and state public education campaign on various aspects of examinations. Exam reform is often opposed as candidates or their family members see change as unfamiliar and disadvantageous. Part of the campaign will explain what these new types of tests or questions entail and why they are better. Concepts such as relative grading, percentiles and scaled scores — if not systematically explained — tend to be

similarly opposed, including sometimes by the courts. Finally, these campaigns could provide tips to candidates on how best to develop skills — not only to score well in the exam — but also related to their jobs. In the absence of such campaigns, candidates are either unaware of possible changes, or get schooled in a version of facts from tuition and coaching classes that may have a stake in perpetuating the status quo.

Many countries have discovered that the quality of the examinations — whether for recruitment or at the end of academic courses — determines the quality of human capital available. It is time we treated this with the greatest importance and saw the widespread instances of copying and leaks as symptoms of an ailing system where change is long overdue.

Sridhar Rajagopalan is co-founder of Educational Initiatives Pvt Ltd  
The views expressed are personal

# India is a science-tech leader in the making

## India is a science-tech leader in the making

Critical and emerging technologies are reshaping the future. This message was repeated in New Delhi recently as India hosted the G20 and Quad foreign ministers' meetings, and the well-known geopolitical conference, The Raisina Dialogue. The foreign delegations were in India to deepen collaboration with the country on foreign policy, trade, defence, national security and education.

Amid this hustle from foreign partners, it is science and technology (S&T) that offers India an enormous opportunity to supercharge its domestic development and to contribute to the rest of the world. Moreover, its growing reputation as a trusted technology partner, a descriptor that starkly differentiates India's value proposition from its less-trusted neighbour to the north, China, could see India challenging China and the United States (US) as a global S&T powerhouse.

In a world-first study, the Australian Strategic Policy Institute (ASPI) revealed that China has established a stunning lead in high-impact research across the majority of critical and emerging technology domains, such as defence, space, robotics, energy and environment, biotechnology, artificial intelligence (AI), advanced materials and critical quantum technology. China leads globally in 37 of the 44 technologies ASPI is tracking through its new data-rich project, The Critical Technology Tracker. The tracker allows the public to compare countries and groupings (such as Quad and AUKUS) while also showing the flow of global talent to reveal where "brain gains" and "brain drains" are happening.

The US leads in the remaining seven technologies, including high-performance computing, quantum computing and vaccines, and ranks second in most of the 37 technologies that China leads.

What might get lost in many international headlines is that India is often placed third, along with the United Kingdom, followed by a grouping of countries that includes South Korea, Japan and Germany. India claims a space in the top five countries in 29 of the 44 critical technologies and is second in the world in smart materials, high-specification machine processes and biofuels.

Our new research project shows India has competitive advantages across a range of critical technology areas, including biofuels, advanced aircraft engines (including hyper-sonics), drones, vaccines, semiconductor chip design, cybersecurity, critical minerals extraction and processing, advanced data analytics, advanced radio-frequency communications (including 5G and 6G) and more. Across this list, India is ranked among the top five countries by the proportion of high-impact research output and is often ranked second or third in the world.

Many Indian universities stand out. In advanced data analytics, for example, India has three leading players in the top 20: The Thapar Institute of Engineering and Technology, the National Institutes of Technology (India) and the Indian Institutes of Technology (IITs). The IITs are also a dominant player in AI, ranking among the top 20 institutions

in seven of the 10 AI technologies covered in the ASPI project.

India needs to enhance, retain and regain more of its talent pool to leap into the top tier with China and the US. Again, the ASPI project is informative, quantifying the enormous contribution of STEM talent India offers the world.

Opportunities for students to gain experience and knowledge offshore, including at some of the world's leading educational institutions in Australia, the US and Europe, are valuable to India and its partners. Many governments have long realised the value of Indian talent in a competitive global labour market, particularly in the wake of Covid-19. But it will be important for India to also translate these partnerships into retaining and enhancing its talent at home — to drive forward 6G, AI, critical minerals extraction and processing and crucial energy technologies.

In addition to developing Indian talent, such opportunities support the foundation of trusted technology partnerships. The ASPI report highlights the growing importance of such collaboration. Unfortunately, the current trajectory is in China's favour. So it's vital that democracies work more together to ensure we don't face a future in which one or two countries dominate new and emerging industries.

Each of us will need trusted, nurtured partnerships on which we can rely to provide us with the goods and materials to power our economies through secure supply chains. The recent experiences of Covid-19 and Russia's war on Ukraine, set against the background of rising strategic competition that has produced instances of Chinese economic coercion — including against Australia — have underscored the indispensability of trusted relationships.

As the world's largest democracy, a top-five economy, an Indo-Pacific strategic shaper and a rising technology superpower, India will be central to this cooperation. It can drive practical outcomes from Quad and play a powerful role in setting international technology standards, especially in areas where it excels, such as AI, computing and energy technologies. A natural starting point is our recommendation for a streamlined technology visa programme to enable STEM talent to study and work among Quad countries. India should also look to build stronger partnerships with other countries in the Indo-Pacific, including South Korea and Taiwan.

Critical technologies will play a pivotal role in shaping the future of the Indo-Pacific, and, as we enter into a new era of strategic competition, India is the key player which can support a more stable region through shaping technology standards, building linkages with trusted partners and leveraging its strengths as an emerging science and tech superpower.



Danielle Cave



Jamie Gaida



Baani Grewal

Danielle Cave, Jamie Gaida and Baani Grewal are with The Australian Strategic Policy Institute, a defence and strategic policy think tank based in Canberra. The views expressed are personal.



# टेस्ट में आसमान से धरती पर स्पेस शटल जैसी लैंडिंग सफल एक रॉकेट का बार-बार होगा इस्तेमाल, ISRO को शुरुआती कामयाबी टेस्ट में आसमान से धरती पर स्पेस शटल जैसी लैंडिंग सफल

■ पीटीआई, बेंगलुरु

इंडियन स्पेस रिसर्च ऑर्गेनाइजेशन (ISRO) ने रीयूजेबल लॉन्च वीकल ऑटोनोमस लैंडिंग मिशन (RLV LEX) का रविवार को सफलतापूर्वक टेस्ट किया। यह स्पेस शटल जैसी धरती खुद-ब-खुद लैंडिंग का टेस्ट था। इसरो ने बताया कि यह टेस्ट कर्नाटक के चित्रदुर्ग के एरोनॉटिकल टेस्ट रेंज (ATR) में किया गया। यह एक शुरुआती टेस्ट था। रीयूजेबल लॉन्च वीकल सैटलाइट भेजने के बाद वापस धरती पर लैंड आया। अब तक लॉन्च वीकल आसमान में जाने के बाद नष्ट हो जाते थे।

कर्नाटक के चित्रदुर्ग में मौजूद रेंज में यह टेस्ट किया गया

प्रधानमंत्री नरेंद्र मोदी ने इस सफलता पर इसरो की सराहना की और कहा कि यह रीयूजेबल लॉन्च वीकल के उद्देश्य को साकार करने के लिए एक कदम और करीब ले जाती है। एक बयान में कहा गया है, 'इसके साथ ही ISRO ने स्पेस वीकल की ऑटोनोमस लैंडिंग में सफलता हासिल कर ली। LEX के साथ ही रीयूजेबल लॉन्च वीकल के क्षेत्र में भारत अपने लक्ष्य के एक और कदम करीब पहुंच गया।' दुनिया में पहली बार एक 'विंग बॉडी' को एक हेलिकॉप्टर की मदद से 4.5 किलोमीटर की ऊंचाई पर ले जाया गया और रनवे पर ऑटोनोमस लैंडिंग के लिए छोड़ा गया। इंडियन एयरफोर्स के चिनुक हेलिकॉप्टर के जरिए, RLV ने भारतीय समानान्तर सुबह सात बजकर 10 मिनट पर (औसत समुद्र तल से) 4.5 किलोमीटर की ऊंचाई तक उड़ान भरी। तय मापदंडों तक पहुंचने के बाद मिशन प्रबंधन कंप्यूटर की कमान के आधार पर RLV को बीच हवा में 4.6 किलोमीटर की क्षैतिज दूरी से छोड़ा गया। स्थिति, वेग, ऊंचाई आदि समेत 10 मापदंडों पर नजर रखी गई और इनके पूरा होने पर RLV को छोड़ा गया।



स्पेस वीकल की ऑटोनोमस लैंडिंग में सफलता मिली - ISRO

■ RLV LEX को भारतीय वायुसेना के चिनुक हेलिकॉप्टर से लाया गया

■ वीकल को 4.5 Km की ऊंचाई पर ले जाकर लैंडिंग के लिए छोड़ा गया

■ कुछ देर बाद उसने लैंडिंग गियर के साथ खुद ही ATR में लैंड किया

लॉन्चिंग के आधे घंटे बाद खुद लैंडिंग

सुबह 7:10 बजे RLV LEX ने उड़ान भरी और आधे घंटे बाद यानी 7:40 बजे टेस्ट रेंज एयर स्ट्रिप पर उतर गया। इसे 4.5 किलोमीटर की ऊंचाई पर ले जाया गया और 4.6 किलोमीटर की रेंज पर छोड़ा गया। इसके कुछ देर बाद RLV लैंडिंग गियर के साथ खुद ही एयर स्ट्रिप पर लैंड हुआ।

किफायती होगी लॉन्चिंग

ISRO की ओर से बयान में कहा गया है, 'RLV LEX के लिए विकसित समकालीन टेक्नॉलजी के अनुकूल ढलना ISRO के अन्य लॉन्च वीकल को भी अधिक किफायती बनाता है।' इसरो ने इससे पहले मई 2016 में हाइपरसोनिक उड़ान प्रयोग मिरान के तहत RLV-TD वीकल की पुनः प्रवेश की क्षमता का सफल परीक्षण किया था, जो रीयूजेबल लॉन्च वीकल विकसित

करने की दिशा में महत्वपूर्ण उपलब्धि है। ISRO के अलावा, एयरफोर्स और दूसरे कई संगठनों ने इस टेस्ट में अहम योगदान दिया। एयरफोर्स टीम ने प्रोजेक्ट टीम के साथ काम किया रीलीज की स्थितियों को पूरा करने के लिए कई सॉफ्टवेयर आयोजित कीं। अंतरिक्ष विभाग के सचिव और ISRO के चेयरमैन एस. सोमनाथ उन लोगों में शामिल थे, जो इस टेस्ट के गवाह बने।

Centre to reconsider 'safe harbour' clause in IT law

# Centre to reconsider 'safe harbour' clause in IT law

New Digital India Act will be a comprehensive overhaul of the country's cyberlaws; many rounds of consultations will be held before it is introduced in Parliament, says Rajeev Chandrasekhar

**Aroon Deep**  
NEW DELHI

**T**he Union government on Thursday formally outlined the Digital India Act, 2023, which is a broad overhaul of the Information Technology Act, 2000. Minister of State for Electronics and Information Technology Rajeev Chandrasekhar announced the changes in a presentation in Bengaluru.

Multiple rounds of consultations will be held before the new Act is brought to Parliament, he said.

The government is re-considering a key aspect of cyberspace – 'safe harbour', which is the principle that the so-called 'intermediaries' on the Internet are not responsible for what third parties post on their website. This is the



Fundamental speech rights cannot be violated by any platform,

but there is certainly a case that can be made that weaponisation of disinformation is not the same as free speech, and that needs to be addressed

**RAJEEV CHANDRASEKHAR**  
MoS for Electronics and Information Technology



principle that allows social media platforms to avoid liability for posts made by users.

Safe harbour has been reined in in recent years by regulations such as the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, which require platforms to take down posts when ordered to do so by the government, or when required by law.

From the 2000s onward, Mr. Chandrasekhar said, platforms for which safe harbour was applied as a concept "have now morphed into multiple types of participants and platforms on the Internet, functionally very different from each other, and requiring different types of guardrails and regulatory requirements."

Mr. Chandrasekhar also signalled that social media

platforms' own moderation policies may now take a backseat to constitutional protections for freedom of expression.

"Fundamental speech rights cannot be violated by any platform," the Minister said, "but there is certainly a case that can be made that weaponisation of disinformation is not the same as free speech, and that needs to be addressed."

An October 2022 amendment to the IT Rules, 2021 says that platforms must respect users' free speech rights. Three Grievance Appellate Committees have now been established to take up content complaints by social media users.

**CONTINUED ON**  
» PAGE 14

**PSLV-C55 mission: ISRO to carry out in-orbit scientific experiments using spent PS4**

# PSLV-C55 mission: ISRO to carry out in-orbit scientific experiments using spent PS4

**The Hindu Bureau**  
BENGALURU

The Indian Space Research Organisation (ISRO), which is scheduled to launch the Polar Satellite Launch Vehicle C55 (PSLV-C55) mission on April 22, will carry out in-orbit scientific experiments by using the spent PS4 (fourth and final stage of PSLV) as an orbital platform. The PSLV-C55 will have Singapore's TeLEOS-2 as primary satellite and Lumelite-4 as a co-passenger satellite.

The PSLV-C55 mission has the PSLV Orbital Experimental Module (POEM), where the spent PS4 of the launch vehicle would be utilised as an orbital platform to carry out scientific



The PSLV Orbital Experimental Module (POEM) is part of the PSLV-C55 mission.

experiments through non-separating payloads.

This is the third time that PS4 will be used after satellite separation as a platform for experiments. According to the space agency, the POEM has seven experimental non-sep-

arable payloads. The PSLV-C55 mission is a dedicated commercial mission. The TeLEOS-2 and Lumelite-4 satellites are intended to be launched into an eastward low inclination orbit.

The ISRO said that the TeLEOS-2 satellite is developed under a partnership between DSTA (representing the Government of Singapore) and ST Engineering. Once deployed and operational, it will be used to support the satellite imagery requirements of various agencies within the Government of Singapore.

The TeLEOS-2 will be able to provide all-weather day and night coverage, and be capable of imaging at 1m full-polarimetric resolution.

# Centre to reconsider 'safe harbour' clause

## From Page One

### Centre to reconsider 'safe harbour' clause

Since the appellate committee portal's launch on March 1, 17 appeals have already been filed, according to the website's dashboard.

A slew of such digital legislation is now likely to be subsumed into the Digital India Act, the Minister indicated. He highlighted other aspects that the Digital India Act would cover, such as Artificial Intelligence (AI), deepfakes, cybercrime, competition issues among Internet platforms, and data protection. The government put out a draft Digital Personal Data Protection Bill last year, and Mr. Chandrasekhar said that it would be one of the four prongs of the Digital India Act, with the National Data Governance Policy and amendments to the Indian Penal Code (IPC) being others, along with rules formulated under the Digital India Act.

Mr. Chandrasekhar said the new law would seek to address "new complex forms of user harms" that have emerged in the years since the IT Act's enactment, such as catfishing, doxxing, trolling, and phishing.

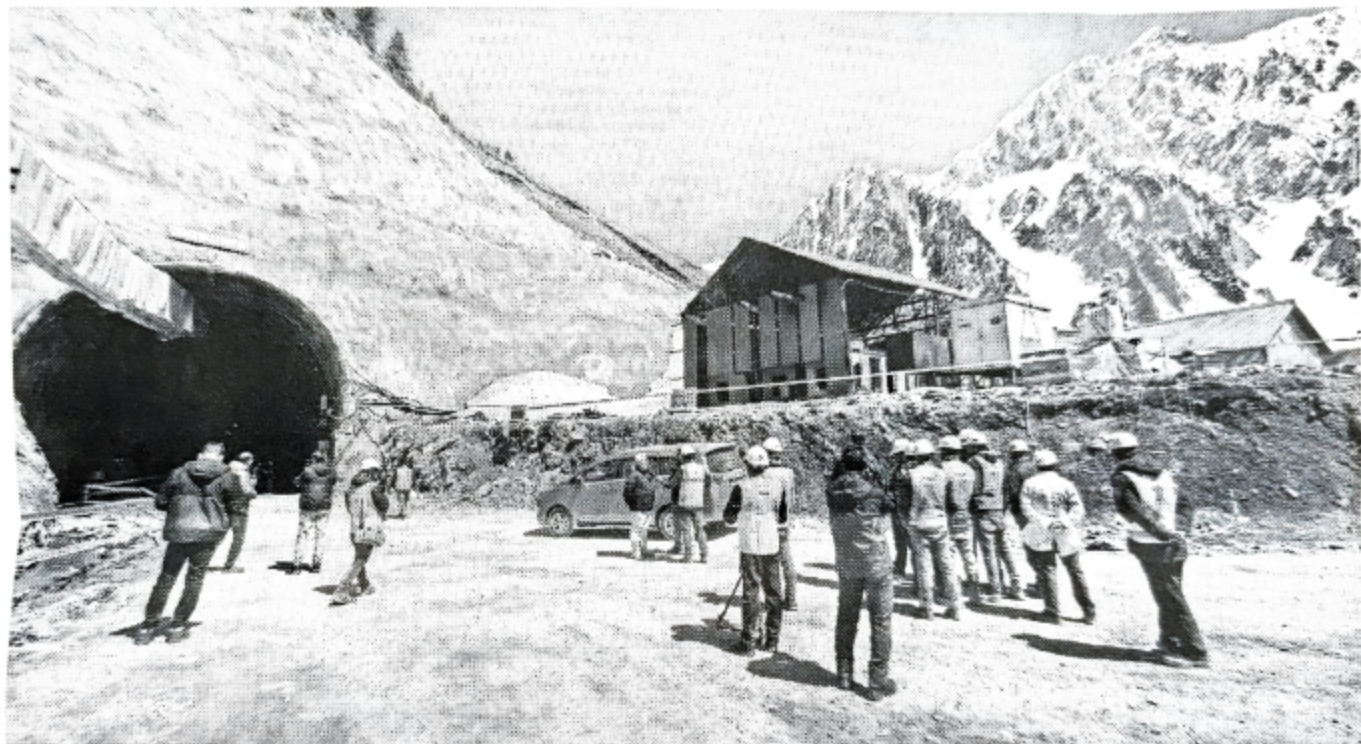
A new "adjudicatory mechanism" for criminal and civil offences committed online would come into place, Mr. Chandrasekhar said. An amendment to the Companies Act, 2002 may also be required, he said in his presentation.

#### Extensive consultation

The government will hold multiple rounds of consultations with the public and industry stakeholders to arrive first at the principles for this Act, and subsequently to iron out a draft that will be put out by the Ministry, Mr. Chandrasekhar said, pointing out that "the Internet and the tech ecosystem in general has evolved significantly since 2000, when the IT Act first came into being."

The Minister declined to provide a timeline for when the draft would be introduced in Parliament. "We want to make sure that [the Bill] is extensively discussed, that anybody who has any misgivings" or with inputs would be consulted, he said. "We will criss-cross the country and do this consultation. If it takes another five months, so be it," he added.

## Zojila tunnel may be ready by dec 2026



## ZOJILA TUNNEL MAY BE READY BY DEC 2026

Construction work underway at Asia's longest bi-directional Zojila Tunnel at Baltal area, in Ganderbal on Sunday. A total of 6-km work on the 14.2-km Zojila Tunnel at a height of 11,575 feet above the sea level is underway and according to project managers, the tunnel would be completed by December 2026. Zojila Tunnel, along with another Z-Morh Tunnel in Sonamarg area of Ganderbal, which would be inaugurated by Union Minister Nitin Gadkari on April 10, would make the strategic Srinagar-Leh National Highway, connecting Kashmir region to Ladakh region, an all-weather road. *PTI*

# What LIGO-India will do

EXPLAINED SCIENCE

# What LIGO-India will do

LIGO-India will be the Indian node in the global network of labs to detect and study gravitational waves. LIGO is a historic milestone — India has never built a cutting-edge scientific facility of this scale on its soil, and it can have huge spin-off benefits for the country's science and technology sector



AMITABH SINHA

THE GOVERNMENT has given the final go-ahead to India's Laser Interferometer Gravitational-Wave Observatory — or LIGO — project, clearing the way for the construction of the country's biggest scientific facility that will join the ongoing global project to probe the universe by detecting and studying gravitational waves.

LIGO is an international network of laboratories that detect the ripples in spacetime produced by the movements of large celestial objects like stars and black holes. The plans were first formulated in Albert Einstein's General Theory of Relativity that equates mass and energy with the curvature of spacetime.

LIGO India will be located in Hingoli district of Maharashtra, about 430 km east of Mumbai, and is set to begin construction in 2020. India's role is to build and operate the detector, while the rest of the world's LIGO sites will be used to detect gravitational waves.

Newton's law of gravitation Almost everyone would be familiar with Newton's law of gravitation. The English mathematician Isaac Newton (1643-1727) had postulated that the force that makes any object fall to the ground is the one that makes heavenly bodies go round in their orbits.

Newton proposed that this was due to the fact that every celestial body exerted an attractive force on every other body in the universe. The value of the attractive force was directly proportional to the masses of the bodies and inversely proportional to the square of the distance between them.

For three days two scientists, this notion of force was under scrutiny. It could explain the motion of all celestial objects, and the orbits of planets. However, it was not clear how this force could be measured. The theory of gravitation is an integral part of elementary school education even today, and its results are used in many modern-day scientific investigations with a measure of accuracy.

Deficiencies in Newton's law It is ironic notwithstanding the theory satisfied three concepts of major importance, one of which was evident even during Newton's time. Newton himself acknowledged in his later publications, that the mathematical description of motion in 1687, and his subsequent work were flawed. The theory did not explain the reasons for the existence of the attractive force between any two bodies. Why should every piece of matter feel attracted to every other piece?

The second problem became apparent much later, at the start of the 20th century, in a competing theory of gravitation, the General Theory of Relativity. Special Relativity, published in 1905, established that nothing could travel faster than the speed of light. But according to Newton's law, the attractive force would travel faster than the speed of light. This was a contradiction.

General Theory of Relativity Ten years later, in 1915, Einstein altered our understanding of gravitation with his

## Interferometer

THESE ARE scientific investigation tools that generate wave-like patterns that can be measured and analysed. Interferometers were conceived in the mid-19th century by physicist Thomas Young. In the 1960s, the configuration of the interferometer used by American physicist Albert Michelson and Robert Morley was identified as a natural fit for the demands of gravitational wave detection. The Michelson-Morley experiment was designed to measure the speed of light travelling along two perpendicular arms. It was designed to detect any change in the speed of light in a particular direction as a result of Earth's motion through the ether. The Michelson-Morley experiment was a failure, and it led to the development of Special Relativity.

Configuration Interferometers consist of a variety of shapes and sizes. They have complex geometries of light beams that are split into two paths. The beams recombine to form a pattern of light and dark fringes. A Michelson laser interferometer consists of a laser, a beam splitter, a series of mirrors, and a photodetector that reads the interference pattern.

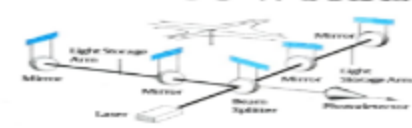
General Theory of Relativity He had already proposed that Special Relativity, the space and time were not independent entities but had to be seen together as spacetime. The General Relativity, which was essentially a new theory of gravitation, Einstein took a huge leap change.

He proposed that spacetime was not just a static background in which objects happened to exist. It was a dynamic entity that could be stretched and compressed. It was like a soft fabric that responds to a heavy weight placed on it, and it is constantly in motion. The curvature of spacetime is what we perceive as gravity. The curvature of spacetime is what we perceive as gravity. The curvature of spacetime is what we perceive as gravity.

Gravitational waves General Relativity also predicts that vibrating objects would generate gravitational waves in spacetime. Just like a moving boat produces ripples in water, because these are transverse waves, they travel at the speed of light. They have the effect of causing a temporary displacement of the space in which they exist. Since the spacetime itself elongates or contracts in the direction of the gravitational wave, anything lying in that space-time is affected through the same expansion or contraction.

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## HOW LIGO WORKS



A basic schematic of LIGO's interferometer, with an incoming gravitational wave depicted as arriving from directly above the detector. Source: Caltech/MIT LIGOlab

When two beams of laser light merge, they form a single beam. The intensity of the light depends on how well aligned the light waves are when they merge. This results in a full range of brightness from dark to bright. The beams are split into two paths by a beam splitter. The beams are reflected back and forth by mirrors. The beams are recombined and the resulting intensity is measured by a photodetector.

Gravitational waves THESE CAUSE space itself to stretch and compress in a perpendicular direction. In

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# With successful test, ISRO closer to an Indian reusable launch vehicle

EXPLAINED SCIENCE, TECHNOLOGY, & CLIMATE CHANGE

# With successful test, ISRO closer to an Indian reusable launch vehicle



JOHNSON TA

ON SUNDAY the Indian Space Research Organisation (ISRO) conducted a successful test of a reusable launch vehicle (RLV) at the Aeronautical Test Range (ATR) in Chitradurga, Karnataka. The Reusable Launch Vehicle Autonomous Landing Mission (RLV-LEX) test was the first of its kind. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle.

RLV-LEX test The RLV-LEX test was a successful demonstration of an RLV in 2016. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle.

an autonomous landing at the ATR range at 7:40 am IST. With that, ISRO successfully achieved the autonomous landing of a space vehicle, the space agency said.

Tech demonstration ISRO's RLV-LEX looks like an aircraft — with a fuselage, nose cap, delta delta wings, and two vertical tails. The RLV-LEX will be used to develop technologies like hypersonic flight (HEX), autonomous landing (ALX), return flight (RF), and autonomous navigation (ANX).

ISRO, DRDO and the Air Force successfully conducted the RLV-LEX test from Aeronautical Test Range, Chitradurga, Karnataka, on April 2, 2016. The RLV-LEX test was a successful demonstration of an RLV in 2016. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle.

In 2010 and 2016 ISRO announced the trial of an RLV in 2010, but the mission was put off due to technical reasons. Another trial was held in 2015, but the plan was again grounded.

autonomous navigation, guidance and control, reusable thermal protection system, and re-entry mission management (re-entry) successfully validated, ISRO said at the time.

Second experiment In Sunday's test, a Chetak helicopter of the Indian Air Force lifted the RLV-LEX to a height of 4.5 km before releasing it as a command from the Mission Management Computer. The RLV then carried out an autonomous landing "under the most conditions of a space re-entry vehicle's landing — high speed, unattended, precise landing from the same return path — as if the vehicle arrived from space," ISRO said.

RLV-LEX test The RLV-LEX test was a successful demonstration of an RLV in 2016. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle. The test was successful, and it marked a significant milestone in ISRO's quest for a reusable launch vehicle.

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autonomous, high speed (150 km per hour) landing. With LEX, the dream of an Indian Reusable Launch Vehicle arrives one step closer to reality," ISRO said.

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AI to help track, Maintain upkeep of 16 key stretches

# AI To Help Track, Maintain Upkeep Of 16 Key Stretches

PWD Aims To Ensure Timely Action In Streetscaping Project

Siddhanta Mishra  
@timesgroup.com

**New Delhi:** From checking thefts to monitoring late staff to alerting about broken footpaths, a model based on artificial intelligence (AI) is set to help the Public Works Department (PWD) keep watch over 41km of 16 road stretches, currently being revamped in the first phase of the streetscaping project.

"A dashboard will be created to give hourly reports if there are any changes to the existing road infrastructure. It will also provide us tasks required to be done," said an official.

"The need for AI was felt because there have been many instances in the past where a road was broken or there is water leakage, but as reports reached senior officers late, action was taken only after two-three days. AI will eliminate this delay and we will be able to take prompt action," he added.

If successful, the pilot project could be expanded to the second phase, he said.

According to officials of the streetscaping division, the AI model, combined with CCTV footage and physical logbooks of security guards and other workers, will give real-time reports of damages to roads and footpaths, discolouring of pavements and theft of items like decorative lights or steel sculptures.

AI will also monitor the working of staff hired by PWD to look after the roads. Uniforms of security guards, gardeners and labourers would be geo-tagged to allow PWD to keep an eye on their movements

## KEEPING AN EYE

### AI to report

- > Discoloured speed breakers, potholes, waterlogging, cracks and other damage to roads
- > Condition of roads, patchwork repair
- > Condition of manholes, drain covers, saucer drains, etc
- > Missing hedge lines, horticulture defects
- > Road paint markings

### Facilities planned under streetscaping

- Development of green area
- Sitting area
- Cycling tracks
- LED lights

Sandstone artwork

Public utility centres

### Stretches in focus

Stretches in focus	Length (km)
Ring Road (Mayapuri to Moti Bagh)	8.6
Road No. 41 and 41A (Netaji Subhash Place)	5.8
Road No. 43 (Britannia Chowk to Outer Ring Road)	5.2
Shivdaspur Marg	4.5
Vikas Marg	3.1
Ring Road (From Moolchand junction to Ashram Chowk)	2.6
Narwana Road	2.3
Ring Road (Shantivan to Rajghat)	1
NH-10, Delhi-Bombay Road	1
Road No. 59 (Wazirabad Road)	1
Lodhi Road	1
Road No. 51	1
Aurobindo Marg	1
KN Katju Marg	1
Road No. 58	1
Nelson Mandela Road	1



Estimated cost of work for first phase  
**₹133.9 crore**



and detect lapses, if any.

Under the streetscaping project, PWD invested in exotic horticulture work along the central verges and roadsides. Expensive decorative lights and benches have also been installed, along with mild-steel sculptures. The department had observed thefts and encroachment on the roads, following which it deployed security guards on each stretch.

During this year's budget speech, finance minister Kailash Gahlot had claimed that building on the government's success under the streetscaping pilot project, Delhi's roads will present nothing less than

international standards by the end of the next financial year.

PWD is looking to hire an agency for 10 years to maintain the roads and keep them clean and beautiful. It is likely the AI model will be used to monitor the agency's work and give reports to department officials.

Private entities will get to authenticate Aadhaar

# Private entities will get to authenticate Aadhaar

## 'Govt Plans New Rules To Boost Ease Of Living'

TIMES NEWS NETWORK

**New Delhi:** The IT ministry has proposed new rules that would enable private entities to use Aadhaar authentication to enable ease of living and help in better access to services for citizens.

At present, it is only government ministries and departments that are allowed to undertake Aadhaar authentication under the Aadhaar Authentication for Good Governance (Social Welfare, Innovation, Knowledge) Rules, 2020 in the interest of good governance, preventing leakage of public funds and enablement of innovation and the spread of knowledge.

"Now, it is proposed that any entity other than a government ministry or de-



partment that desires to use Aadhaar authentication for the purpose of promoting ease of living and enabling better access to services, or usage of digital platforms to ensure good governance, or preventing dissipation of social welfare benefits, or enabling innovation and spread of knowledge, shall prepare a proposal giving justifica-

tion as to how the authentication sought is for one of the said purposes and in the interest of state," an official statement said.

It also proposed that such an entity should submit its proposal to the ministry or department concerned at the Centre or the state level.

"If the ministry/department is of the opinion that the proposal submitted fulfils such a purpose and is in the interest of the state, it will forward the proposal along with its recommendation to the IT Ministry," the statement said.

The proposed amendment has been posted on the ministry's website and comments are being invited from the public as well as stakeholders on the issue.

## 'India's Doing it right

# 'India's Doing It Right'

Microsoft cofounder & Bill & Melinda Gates Foundation co-chair says local innovations in tackling climate change and health are worth emulating elsewhere

### Bill Gates



More than two decades ago, I set out to give the vast majority of my resources back to society. My goal from the beginning was to help reduce the awful inequities I saw around the world.

### The twin problems

When I started this work, my biggest focus was global health, because it's the worst inequity in the world and it's a solvable problem. That's still the case today. But as time went on – and as the disastrous consequences of a warming world became more evident – it became clear that you can't improve life for the world's poorest without also tackling climate change.

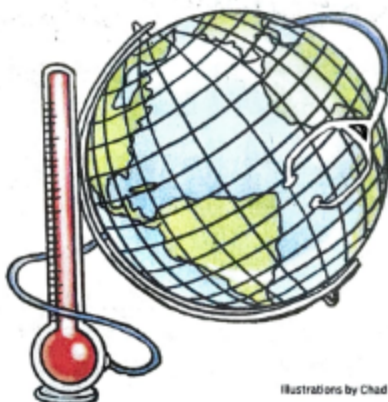
Climate change and global health are inextricably linked. Hotter temperatures will make poverty reduction harder by increasing food insecurity and the prevalence of infectious diseases and diverting resources away from those who need them the most. It's a vicious cycle. The poorer a community is, the more vulnerable it is to climate change. And the more impacted a community is by extreme weather events, the more entrenched in poverty it becomes. To break the cycle, we need to make progress on both problems at the same time.

I'm stubborn in my belief that with the right innovations and delivery channels to get them to the vulnerable, we're capable of making progress on lots of big problems at once – even at a time when the world faces multiple crises. There is no better proof than the remarkable progress that India has accomplished.

### India's innovative approach

Consider the field of next-generation chickpea plants currently growing at the Indian Agricultural Research Institute, or IARI, in Pusa.

- Chickpeas are a staple crop in India. They provide an important source of income for many smallholder farmers, and families across the country rely on them for nutrition.
- But the chickpea harvest is threatened by climate change. Higher temperatures could reduce yields by as much as 70%, putting lives and livelihoods at risk.
- So, the Gates Foundation joined hands with India's



Illustrations by Chad Crowe

public sector and CGIAR institutions to support the work of researchers at IARI.

- They found a new solution: Chickpea varieties that have more than 10% higher yields and are more drought-resistant.
- One variety is already available to farmers, and others are currently in development at the institute.

● As a result, India is better prepared to keep feeding its people and supporting its farmers even in a warming world. It's no exaggeration to say that India's agricultural future is growing right now in a field in Pusa.

India as a whole gives me hope for the future. It's about to become the world's most populous country – which means you can't solve most problems there without solving them at scale. And yet, India has proven it can tackle big challenges. The country eradicated polio, lowered HIV transmission, reduced poverty, cut infant mortality, and increased access to sanitation and financial services.

How did they do it? India has developed a world-leading approach to innovation that ensures solutions reach those who need them. When the rotavirus

vaccine – which prevents the virus that causes many fatal cases of diarrhea – was too expensive to reach every child, India decided to make the vaccine themselves. They worked with experts and funders (including the Gates Foundation) to build factories and create large-scale delivery channels to distribute the vaccines. By 2021, 83% of one-year-olds had been inoculated against rotavirus – and these low-cost vaccines are now being used in other countries around the world.

### A model for the world

There is no question today's challenges will test the limits of that ingenuity and cooperation. India is on the frontlines of climate change. But the progress it has made on health will make its people more resilient and provide helpful insights for how to tackle other major challenges. And the pace of its development, its skill in rolling out large-scale programmes, and its people's innovative expertise mean that India can be a key part of making progress on today's biggest challenges.

I'm going to India next week to see firsthand the work being done by innovators and entrepreneurs.

- Some are working on breakthroughs that will help us mitigate the effects of climate change, like the work being done by Breakthrough Energy Fellow Vidyut Mohan and his team to turn waste into biofuels and fertilisers in remote agricultural communities.
- Others are finding new ways to help people adapt to a warmer world, such as IARI's efforts to create more drought-tolerant crops.

I'm looking forward to seeing the progress that's already underway by both the Gates Foundation's and Breakthrough Energy's amazing partners.

- Like every other country on the planet, India has limited resources. But it has shown us how the world can still make progress in spite of that constraint.
  - By collaborating and trying novel approaches, the public, private and philanthropic sectors can turn limited resources into big pools of funding and knowledge that lead to progress.
- If we work together, I believe we can fight climate change and improve global health at the same time.

Gates is also the founder of Breakthrough Energy



## The GeM in what govt buys

# The GeM In What Govt Buys

Commerce & Industry minister argues a transition to Govt's online platform for procurement led to savings by departments & transparency and fair competition for vendors

Piyush Goyal



The Government e Marketplace (GeM) crossed a historic milestone at the end of 2022-23. Govt and state governments, official agencies, public sector undertakings and cooperatives purchased goods and services worth more than Rs 2 lakh crore (\$24 billion) through more than five million online transactions in a single financial year—a testimony to PM Narendra Modi's commitment to inclusive development, transparency, efficiency and corruption-free governance.

GeM is truly a gem that has replaced the obsolete Directorate General of Supplies & Disposals (DGS&D). Befittingly, Vanijya Bhawan, the new office building of the commerce and industry ministry, has been built on the land once occupied by DGS&D.

At the foundation stone laying ceremony of the building, Modi rightly observed: "Now this more than 100 years old organisation has been closed and it has been replaced by a body based on digital technology - Government e Marketplace. GeM has completely revolutionised the way the government procures the goods required by it."

### Seven spectacular years of GeM

GeM has grown spectacularly since it was set up in August 2016. The total value of transactions on the portal almost doubled in 2022-23 to Rs 2.01 lakh crore from Rs 1.07 lakh crore in the previous fiscal. The trailblazing journey began with business worth Rs 422 crore in 2016-17.

The portal was launched to align public procurement of goods and services with Modi's mission of 'Minimum Government and Maximum Governance' and his strategy of using technology to make government systems honest, effective and accessible to all.

GeM's transparent practices such as competitive bidding have helped government departments and undertakings save about Rs 40,000 crore of taxpayer's money. Such initiatives have helped the



Modi government in substantially raising welfare expenditure without compromising on fiscal health.

### Transformation from manual to digital

In this context, GeM's significance goes far beyond its phenomenal growth in financial terms, which itself would make any e-commerce major jealous. The new system replaces age-old manual processes that were riddled with inefficiencies and corruption. Government procurement used to be opaque, time-consuming, cumbersome and prone to corruption and cartelisation.

- Only a privileged few could break through huge entry barriers.
- Buyers had no choice but to purchase sub-standard goods at high, non-negotiable rates from the privileged, often unscrupulous suppliers.
- Potential sellers had to run from pillar to post, completely at the mercy of the facilitating agency, to get empanelled, and then to get timely payments.

In contrast, there is hardly any human interface in vendor registration, order placement and payment processing thro-

**The paperless, cashless and faceless GeM gives buyers the freedom to buy goods and services directly from unlimited sellers at competitive rates. This new, competitive system has transformed public procurement and given MSMEs and small businessmen access to sought-after government orders. Hard data and insightful third-party analyses testify GeM's success**

ugh the technology-driven platform. At every step, SMS and e-mail notifications are sent to the buyer, the head of her/his organisation, paying authorities and sellers.

The paperless, cashless and faceless GeM gives buyers the freedom to buy

goods and services directly from unlimited sellers at competitive rate. This new, competitive system has transformed public procurement and given MSMEs and small businessmen access to sought-after government orders.

### Independent research validates GeM

Hard data and insightful third-party analyses testify GeM's success. An independent study conducted by the World Bank and IIM Lucknow estimated an average 10% savings from the median price. The World Bank noted that with the addition of every new bidder, savings increased by 0.55%.

A study by Boston Consulting Group (BCG) showed that annual cost savings in 2021-22 were in the range of 8%-11%. Modi appropriately summed up GeM's objective as "Minimum Price and Maximum Ease, Efficiency and Transparency".

The portal is home to:

- More than 11,500 product categories.
- Over 3.2 million listed products.
- It has over 290 service categories with more than 2.8 lakh service offerings.

GeM is catering to diverse procurement needs of more than 67,000 government buyer organisations, which have together saved about Rs 40,000 crore. It gives equal opportunity to all buyers and sellers.

About 60% of orders by value from states have gone to micro and small enterprises. States have also placed orders worth Rs 1,109 crore on startups, demonstrating the ease of access for the relatively underprivileged business people, including those in far-flung areas.

Given the scale and complexities involved in realigning the old, deeply entrenched procurement processes, this is one of the largest change-management exercises globally.

The portal's transformational success bodes well for the entire economy because the 'gem' is magnifying efficiency and integrity during the 'Amrit Kaal' as India marches to become a developed country by 2047 under the decisive and visionary leadership of Modi.

## PM: Project tiger's success shows no conflict between economy & ecology

# PM: Project Tiger's success shows no conflict between economy & ecology

TRIBUNE NEWS SERVICE

NEW DELHI, APRIL 9

Terming the 50 years of Project Tiger a landmark achievement, Prime Minister Narendra Modi on Sunday said protecting nature had been a part of the Indian culture.

"India does not believe in conflict between ecology and economy and gives equal importance to the coexistence of both," said PM Modi, who was in Mysuru to launch the International Big Cat Alliance (IBCA) to mark the 50 years of Project Tiger.

Citing data that showed the tiger population in India stood at 3,167 in 2022, PM Modi said, "The tiger numbers that we have reached show that this family of ours is growing. This is a moment of pride." According to the

### Modi unveils initiative for protecting big cats



Prime Minister Narendra Modi with 'The Elephant Whisperers' couple Bomman and Bellie at the Mudumalai Tiger Reserve on Sunday. PTI



#### NUMBERS UP

2022 CENSUS	CENSUS	TIGERS
<b>3,167</b>	2014	2,226
<b>2,967</b>	2010	1,706
	2006	1,411

#### 53 TIGER RESERVES NOW

**Launched** Project Tiger in 1973  
**Expanded** from nine reserves to 53  
**Area up** from 18,278 to 75,796 sq km  
 This is 2.3% of India's land area

data, the tiger population was 1,411 in 2006, 1,706 in 2010, 2,226 in 2014, 2,967 in 2018 and 3,167 in 2022.

"The project's success is not only a moment of pride for India, but also for the entire world. The protection

of wildlife is a universal issue. The International Big Cat Alliance is our endeavour

CONTINUED ON PAGE 9

# एनसीईआरटी ने हटाए आरएसएस पर प्रतिबंध से जुड़े अंश

## एनसीईआरटी ने हटाए आरएसएस पर प्रतिबंध से जुड़े अंश

नई दिल्ली, प्रे: राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (एनसीईआरटी) ने 12वीं कक्षा की राजनीति शास्त्र की पाठ्यपुस्तक से उन अंशों को हटा दिया है, जिसमें महात्मा गांधी की हत्या के बाद राष्ट्रीय स्वयंसेवक संघ (आरएसएस) पर कुछ समय के लिए लगाए गए प्रतिबंध के बारे में जानकारी थी। महात्मा गांधी की हत्या से संबंधित कुछ अन्य विवादित अंश भी हटाए गए हैं।

एनसीईआरटी के निदेशक दिनेश सकलानी के अनुसार, विशेषज्ञ समिति ने महात्मा गांधी पर कुछ अंशों को हटाने की सिफारिश की थी। 11वीं कक्षा की समाजशास्त्र की पाठ्यपुस्तक से गुजरते अंशों से संबंधित अंश भी हटाए गए हैं। एनसीईआरटी ने कहा है कि

- 12वीं कक्षा की राजनीति शास्त्र की पाठ्यपुस्तक से विवादित तथ्यों को हटाया गया
- महात्मा गांधी की हत्या के बाद कुछ समय के लिए संघ पर लगाया गया था प्रतिबंध

पाठ्यक्रम को युक्तिसंगत बनाने और कुछ अंशों के अप्रसंगिक होने के आधार पर पिछले वर्ष जून में गुजरात दंगों, मुगल दरबार, आपातकाल, सातपुद्ध, नक्सल आंदोलन जैसे कुछ अंशों को पाठ्यपुस्तक से हटा दिया गया था। वर्ष 1948 में महात्मा गांधी की हत्या के बाद के संदर्भ में अंश, 'महात्मा गांधी की हत्या से देश में सांप्रदायिक राजनीति पर प्रभाव पड़ा' को भी पाठ्यपुस्तक से हटा दिया गया है।

राजस्थान 9

### पाठ्यक्रम में बदलाव सतत प्रक्रिया: प्रो. सकलानी

जयराज ब्यूरो, नई दिल्ली : कोरोना काल खंड के दौरान छात्रों को अवसाद से बचाने के लिए न सिर्फ 12 वीं के इतिहास व राजनीति शास्त्र के कुछ पाठों को हटाया गया है, बल्कि गणित व विज्ञान जैसे विषयों के पाठ्यक्रम में भी 30 से 40 प्रतिशत की कटौती की गई थी। पहले भी कई बार पाठ्यक्रम में बदलाव हुए हैं। वर्ष 2004-05 में तो पांच करोड़ किताबें छपने के बाद हटा दी गई थीं।

एनसीईआरटी के निदेशक प्रोफेसर दिनेश कुमार सकलानी ने कहा कि पाठ्यक्रम में बदलाव सतत प्रक्रिया है। कोरोना काल में छात्र तनाव में थे, इसलिए पहली प्राथमिकता उनका बोझ कम करने की थी। कमेटी ने 30

से 40 प्रतिशत पाठ्यक्रम से उन अंशों को हटाया जो या तो दोहराव वाले थे या जिनके हटाने से कोई विशेष अंतर नहीं पड़ना था। इसे किसी खास नजरिये से देखना पूरी तरह गलत है। महात्मा गांधी से जुड़े अंश को हटाने के सवाल पर उन्होंने कहा कि पाठ्यक्रम में गांधीजी को पर्याप्त जगह दी गई है। कुछ अंशों को हटाने से गांधीजी की विचारधारा खत्म नहीं होती है। मुगल काल को हटाने के आरोपों को उन्होंने पूरी तरह से गलत बताया और कहा कि अभी 12वीं के पाठ्यक्रम में मुगल काल के दो पाठ थे। एक में सिर्फ राजाओं का गुणगान था, जबकि दूसरे में उनके कार्यों की जानकारी थी।

### पेज एक का शेष

#### पाठ्यक्रम में बदलाव सतत...

कमेटी ने राजाओं के गुणगान वाले पाठ को हटाने का सिफारिश की, जिसके बाद यह फैसला लिया गया। सकलानी ने कहा कि स्कूली शिक्षा के सभी स्तर के पाठ्यक्रम तैयार करने के लिए कमेटीयों का जल्द ही गठन पूरा हो जाएगा। नए पाठ्यक्रम में विषयवस्तु को लेकर अभी से कुछ कहना मुश्किल है, क्योंकि यह फैसला शिक्षाविद और कमेटी करेगी। हो सकता है कि कोरोना के चलते जो पाठ अभी हटाए गए हैं, वह भी आने वाले नए पाठ्यक्रम में शामिल हो सकता है। बता दें कि सकलानी इतिहास के ही प्रोफेसर हैं। प्रे: के अनुसार, पाठ्यपुस्तक से महात्मा गांधी की हत्या से जुड़े कुछ अंशों को बिना द्वाड़े अधिसूचना जारी



किए हटाने पर उठे विवाद को लेकर सकलानी ने कहा कि हो सकता है कि अनजाने में चूक के कारण इसकी घोषणा नहीं की गई। बदलावों के बारे में एक दो दिनों में अधिसूचना जारी कर दी जाएगी। सकलानी ने कहा, पाठ्यक्रम को युक्तिसंगत बनाने की कवायद पिछले वर्ष की गई और इस वर्ष कुछ नया नहीं हुआ है। एनसीईआरटी का मानना है कि नए शोधों के आने के

बाद विषय वस्तु को अपडेट किया जाता है। इसका फैसला शिक्षाविद करते हैं। किसी भी राजनीतिक दल के विचार का एनसीईआरटी से कोई लेना-देना नहीं है। नया पाठ्यक्रम अगले साल तक यानी वर्ष 2024-25 तक आ जाएगा। नाथूराम गोडसे की जाति का संदर्भ दिया गया था, मिला रही थीं शिकायतें: 12वीं कक्षा की इतिहास की किताब में नाथूराम गोडसे को महात्मा गांधी की हत्या करने वाले 'पुणे के ब्राह्मण' के रूप में संदर्भित किया गया था। इसे अब हटा दिया गया है। एनसीईआरटी के अनुसार लंबे समय से सीबीएसई और कई राज्य शिक्षा बोर्डों से किताबों में गोडसे की जाति उल्लिखित किए जाने को लेकर शिकायतें मिल रही थीं। इसमें कहा गया था कि स्कूल की पाठ्यपुस्तकों में किसी की जाति का अनावश्यक रूप से उल्लेख नहीं किया जाना चाहिए।

एनसीईआरटी के जादुई पिटारा का 'खेल' या एससीईआरटी हुआ 'फेल'

# एनसीईआरटी के जादुई पिटारा का 'खेल' या एससीईआरटी हुआ 'फेल'

रीतिका मिश्रा • नई दिल्ली

नई शिक्षा नीति 2020 के तहत केंद्र सरकार ने राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (एनसीईआरटी) की ओर से प्री-स्कूल यानी बाल वाटिका के बच्चों को खेल-खेल में सिखाने के लिए तैयार की गई 'जादुई पिटारा' किट 20 फरवरी को लांच की गई। किट के माध्यम से गतिविधि केंद्रित शिक्षण पर जोर दिया गया। इसमें खिलौने, पहेलियां, कठपुतली, कहानी-कविता पोस्टर, फ्लैश कार्ड, कहानी कार्ड, प्लेबुक, एक्टिविटी बुक, वर्क शीट और शिक्षकों व प्रशिक्षकों के लिए हैंडबुक हैं। ऐसी ही एक खेल किट राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद (एससीईआरटी) एक साल पहले ही लांच कर चुका है। और उसके जरिये प्री-प्राइमरी के बच्चे पढ़ रहे हैं। ऐसे में एक और खेल किट जारी किया जाने का मतलब समझ नहीं आ रहा है। अब बच्चों को दोनों खेल किटों से पढ़ना होगा।

एससीईआरटी के अधिकारियों

दोनों ही किट एक-दूसरे की पूरक : दुआ

दल्लूपुरा स्थित सर्वोदय कन्या विद्यालय की प्राइमरी इंचार्ज अर्चना दुआ ने बताया कि एससीईआरटी की खेल पिटारा किट में कहानियों, पोस्टर और पिक्शनरी के माध्यम से सिखाने पर जोर है। इससे उनके नैतिक मूल्यों का विकास हुआ है। वहीं, एनसीईआरटी की किट में कठपुतलियां, खिलौने, और पहेलियां शामिल की गई हैं। उनके मुताबिक ये बच्चों की कल्पनाओं का विकास करने में मदद करेगी। उन्होंने कहा कि दोनों ही किट एक दूसरे की पूरक हैं और बच्चों के सर्वांगीण विकास में मदद करेगी।

बच्चों की पढ़ाई में बढ़ेगी रुचि : तोमर

विवेक विहार स्थित गवर्नमेंट सर्वोदय बाल विद्यालय की प्राइमरी इंचार्ज पूनम तोमर ने कहा कि एससीईआरटी की किट में बहुत ही रोचक कहानियां होती हैं। इससे बच्चे पहले से बेहतर परिणाम दे रहे हैं, लेकिन एनसीईआरटी की किट में कठपुतली, खिलौने के शामिल होने से बच्चे शिक्षा में और ज्यादा रुचि लेंगे। उनकी कल्पनाएं बेहतर तरीके से बाहर आएंगी। जिन बातों को वे कक्षा में कहानी सुनकर बोल नहीं पाते वे खिलौनों, कठपुतली और पहेलियों के माध्यम से बेहतर जाहिर हो पाएंगी।

के मुताबिक, सभी स्कूलों को खेल पिटारा की दो-दो किट भी भेजी गई हैं। खेल में 18 चीजें शामिल हैं जिनके माध्यम से छात्रों को पढ़ाया जा रहा है। किट को लेकर शिक्षा निदेशालय के वरिष्ठ अधिकारी

ने कहा कि इसे बाल-केंद्रित और अभिनव-सीखने (इनोवेटिव-लर्निंग) के अनुभव के रूप में परिकल्पित किया गया है। ये तीन से आठ वर्ष की आयु के छात्रों के बीच वैचारिक समझ को मजबूत करेगी।

## इतिहास की पाठ्यपुस्तकों पर खिचतान

# इतिहास की पाठ्यपुस्तकों पर खिचतान

हर समाज का इतिहास के साथ प्रेम और घृणा का एक अनेखा संबंध होता है, चाहे वह भारतीय समाज हो या पश्चिमी समाज। इतिहास का जो पक्ष आपके अनुरूप होता है, उससे आपको प्रेम होता है और जो आपके अनुरूप नहीं होता, वह आपको नापसंद होता है। यही कारण है कि सब इतिहास को वर्तमान के संदर्भ में ढालना चाहते हैं। इतिहास को ज्यों का त्यों समझने और उसको अपनाने के लिए जिस नैतिक सामर्थ्य की आवश्यकता होती है, वह कम समाजों में ही विद्यमान है। ब्रिटिश अब जाकर औपनिवेशिक शासन की कुछ घटनाओं के लिए खेद जता रहे हैं, मगर औपनिवेशिक शासन गलत था, इसे वे अब भी मानने को तैयार नहीं हैं। इसलिए इतिहास एक विषयपरक दृष्टिकोण है, जिस पर अलग-अलग वर्गों का पक्ष अलग हो सकता है।

राष्ट्रीय शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद (एनसीईआरटी) की कक्षा 10 एवं 12 की इतिहास की पाठ्यपुस्तकों में हाल में हुए कुछ बदलावों को इसी संदर्भ में देखना चाहिए। निःसंदेह एक पक्ष इन बदलावों को गलत और ऐतिहासिक तथ्यों से विमुख बता रहा है, मगर वास्तविकता यह है कि दोनों पक्षों को सुविधाजनक इतिहास ही चाहिए, जो वर्तमान के विमर्श के अनुरूप हो। पाठ्यपुस्तकों में क्या पढ़ाया जाए और क्या न पढ़ाया जाए, इसकी चर्चा लगातार होती रही है, क्योंकि स्कूल की पाठ्यपुस्तकें ही वह माध्यम हैं, जिनके द्वारा सुविधाजनक विमर्श को आगे बढ़ाया जा सकता है। विवाद तब होता है, जब एक विमर्श आपके लिए सुविधाजनक होता है और दूसरे वर्ग के लिए असुविधाजनक। वर्तमान में इतिहास की पाठ्यपुस्तकों में किए गए कुछ बदलावों से संबंधित विवाद को भी उसी संदर्भ में देखना चाहिए, जब एक वर्ग का सुविधाजनक दृष्टिकोण दूसरे वर्ग के विमर्श के अनुरूप नहीं होता है। देखा जाए तो इस प्रकार का विवाद पहली बार नहीं हुआ है। भारत के शैक्षणिक इतिहास में इस प्रकार के विवाद पहले भी होते रहे हैं। 2005 में एक पक्ष ने दावा किया कि 2000 में तत्कालीन सरकार द्वारा एनसीईआरटी की इतिहास की किताबों में किए गए बदलावों से स्कूली पाठ्यक्रम दूषित हो गया था, जिसे अब शुद्ध किया जा रहा है। वर्तमान की काट-छांट से जो पक्ष नाराज है, वही 2005 में स्कूली



डॉ. रामानंद

जहां विश्व में सरकारें अपने पाठ्यक्रम सुधार रही हैं, वहीं देश में इस पर विवाद हो रहा है कि किस पक्ष का तथ्य सही है?



पाठ्यक्रम में होना चाहिए समायुक्त परिवर्तन • फ़ाइल पाठ्यचर्या को शुद्ध कर रहा था। इसलिए मौजूद बदलाव (काट-छांट) कोई ऐसी पहली घटना नहीं है। पाठ्यपुस्तकों पर लगातार इतिहास के एकपक्षीय चित्रण, शासक और दिल्ली केंद्रित होने के आरोप लगते रहे हैं। पाठ्यपुस्तकों से सदैव अपेक्षा रही है कि वे जनजातियों के इतिहास और भारत राष्ट्र के निर्माण की प्रक्रिया में उनके योगदान पर उनकी संख्या के अनुरूप स्थान देंगी, मगर छोटा नागपुर और पूर्वोत्तर की जनसंख्या को इतिहास की पाठ्यपुस्तकों में उनकी आबादी के अनुरूप प्रतिनिधित्व नहीं मिल पाया।

एनसीईआरटी की जिन पुस्तकों को लेकर विवाद हो रहा है, वे वर्ष 2005 से अभी तक बदली नहीं गई हैं, उनमें केवल कुछ काट-छांट करके काम चलाया जा रहा है। किसी भी देश के लिए यह दुर्भाग्य का विषय है कि उसके विद्यार्थियों को 18 वर्षों से वही पुस्तकें पढ़ाई जा रही हैं, जबकि समाज, राष्ट्र और वैश्विक स्तर पर अनेक बदलाव हो चुके हैं। वर्तमान में एनसीईआरटी की पुस्तकों को लेकर विवाद इसलिए गैरजरूरी हो जाता है, क्योंकि यह यथास्थिति को बनाए रखने की वकालत

करता है और किसी भी बदलाव का विरोध करता है। यह मानने में कोई दुविधा नहीं है कि भारतीय इतिहास लेखन की परंपरा में एक पक्ष सदैव हावी रहा है और उसका विश्वास रहा है कि उसके द्वारा प्रस्तुत किया गया तथ्य ही अंतिम है। वर्तमान प्रकरण में भी यही दृष्टिकोण दिखाई पड़ता है, जब वह कुछ तथ्यों को पाठ्यपुस्तकों से इसलिए हटाने का विरोध करता है, क्योंकि उसे लगता है कि उसके बिना छात्रों में इतिहास बोध नहीं हो सकता।

विश्व भर की शिक्षा व्यवस्थाएं अपने-अपने देश के पाठ्यक्रम को समझ और तार्किक दृष्टिकोण पर आधारित बनाना चाह रही हैं, वहीं हमारे देश में विवाद इस बात पर हो रहा है कि किस पक्ष का तथ्य सही है? यहां असुविधाजनक तथ्य को वृत्तान्त की सहायता से सदैव छुपाने का प्रयास रहता है। इतिहास को न केवल तथ्यों से समझा जा सकता है और न केवल वृत्तान्तों से। इसलिए यह आवश्यक है कि दोनों का उचित मात्रा में समावेश हो, मगर हमारे देश में इतिहास लेखन की शैली में तथ्य और वृत्तान्त का विभाजन काफी बारीक है। इस विषय के पुनरावलोकन की आवश्यकता है। जहां पूरे विश्व की शैक्षणिक व्यवस्थाएं अपने स्वरूप को बदल रही हैं और छात्रों को तथ्यों से भरने के बजाय उन्हें इतिहास आधारित दृष्टिकोण से युक्त करने पर जोर दे रही हैं, जिससे छात्रों में इतिहास के प्रति एक वस्तुनिष्ठ दृष्टिकोण विकसित हो सके। आज के तकनीकी दौर में इतिहास बोध होने पर छात्र स्वयं ही ऐतिहासिक तथ्यों की पड़ताल कर सकता है।

किसी देश की शिक्षा व्यवस्था के लिए आवश्यक है कि वह अपने छात्रों को तथ्य आधारित, वस्तुनिष्ठ पाठ्य सामग्री उपलब्ध कराए, क्योंकि यही छात्र भविष्य के विमर्श को न केवल आगे बढ़ाते हैं, अपितु नए विमर्श की शुरुआत भी करते हैं। इसलिए यह आवश्यक है कि इतिहास में एकपक्षीय दृष्टिकोण से आगे बढ़कर चिंतन और तार्किक पाठ्यक्रम का विकास किया जाए। एनसीईआरटी से अपेक्षा है कि वह वर्तमान विवाद से अप्रभावित रहते हुए छात्रों के ऐतिहासिक दृष्टिकोण के विकास से संबंधित पाठ्यक्रम का विकास करेगी, न कि तथ्यों के चयन में छात्रों को उलझाएगी।

(लेखक सेक्टर फार रिसर्व एंड गवर्नंस के निदेशक हैं।)

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## अपनी भाषा में शिक्षा का पूरा होता सपना

# अपनी भाषा में शिक्षा का पूरा होता सपना

**भा**रतीय भाषाओं में पढ़ने-लिखने वालों के लिए विश्वविद्यालय अनुदान आयोग (यूजीसी) ने एक और सौगात दी है। उसने सभी विश्वविद्यालयों और उच्च शिक्षण संस्थानों से स्थानीय भाषाओं में शिक्षा उपलब्ध कराने को कहा है। विद्यार्थियों को यह सहूलियत भी दी गई है कि भले ही वे अंग्रेजी माध्यम में पढ़ते रहे हों, लेकिन चाहें तो परीक्षा अपनी मातृभाषा में दे सकते हैं। 1916 में बनारस हिंदू विश्वविद्यालय के एक समारोह में महात्मा गांधी ने अपनी भाषाओं में पढ़ाने पर जोर दिया था। उन्होंने छात्रों से अपील की थी कि यदि उनकी अपनी भाषा में पढ़ाई नहीं होती तो वे इसके लिए आंदोलन करें। राममनोहर लोहिया भी लगातार अपनी भाषाओं के लिए संघर्षरत रहे। उनका तो यह भी मानना था कि अंग्रेजी ही प्रष्टाचार की जननी है, क्योंकि जब जनता को समझ में हो नहीं आता कि क्या लिखा गया है, कोर्ट-कचहरी में क्या बहस हो रही है तो उसे गुमराह करना आसान हो जाता है। शिक्षाविद् दौलत सिंह कोटारी ने 1966 में शिक्षा आयोग के चेयरमैन के रूप में सिफारिश की थी कि न केवल स्कूली शिक्षा, बल्कि उच्च शिक्षा भी अपनी भाषाओं में दी जाए और सभी के लिए समान शिक्षा हो, लेकिन इस बीच यह सपना इतना कमजोर होता गया कि कई निजी स्कूलों में हिंदी बोलना भी अपराध घोषित कर दिया गया। अफसोस की बात तो यह है कि स्वतंत्रता और अभिव्यक्ति की आजादी की दुहाई देने वाले बुद्धिजीवी टुकुर-टुकुर देखते रहे।

प्रत्येक स्वाभिमान देश का आत्मा कभी न कभी जगता है। शायद भाषा के मामले में अब समय आ गया है। पिछले कुछ वर्षों में ऐसे अनेक कदम उठाए गए हैं, जिनसे गांव के गरीब घरों के छात्र भी अपनी भाषा के बूते आगे बढ़ सकते हैं। प्रतिभा सिर्फ अंग्रेजी वालों में ही नहीं होती। कोटारी आयोग ने 1979 में इसी स्थापना से सिविल सेवा परीक्षाओं में भारतीय भाषाओं की शुरुआत कराई। हालांकि इस दिशा में जितनी उम्मीद थी, उतनी प्रगति तो नहीं हुई, लेकिन प्रयास जारी हैं। हाल में अर्धसैनिक बलों में भर्ती के लिए केंद्र सरकार ने कर्मचारी चयन आयोग से 13 भारतीय भाषाओं में भर्ती परीक्षा कराने को कहा है। कर्मचारी चयन आयोग द्वारा बैंकिंग और रेलवे में अंग्रेजी के साथ-



प्रेमपाल शर्मा

**शिक्षा के माध्यम के रूप में अंग्रेजी पर जोर के कारण ही देश में शिक्षा का स्तर लगातार गिरता गया है**



मातृभाषा में पढ़ाई से बेहतर होगा शिक्षा का स्तर • एण्ड्रू साथ हिंदी और दूसरी भाषाओं में भर्ती परीक्षा कराने की शुरुआत कई वर्ष पहले हो चुकी है। न केवल सामान्य नौकरियों की परीक्षाएं, बल्कि मेडिकल और इंजीनियरिंग की प्रवेश परीक्षाओं में भी भारतीय भाषाएं लगातार आगे बढ़ रही हैं। मेडिकल की नीट परीक्षा छह भाषाओं से शुरू होकर अब 13 भाषाओं में हो रही है।

कोर्ट-कचहरी में भी भारतीय भाषाओं के कुछ कदम पड़े हैं। दो महीने पहले मुख्य न्यायाधीश डीवाई चंद्रचूड़ द्वारा सुप्रीम कोर्ट के महत्वपूर्ण निर्णयों को भारतीय भाषाओं में उपलब्ध कराने का फैसला इसका प्रमाण है। इससे उच्च न्यायालय भी अपने-अपने राज्यों की भाषाओं में निर्णय देने के लिए प्रोत्साहित हुए हैं। हाल में केरल हाई कोर्ट ने पहली बार अपना निर्णय मलयालम भाषा में लिखा। इसी तरह उत्तर भारत की निचली अदालतों से हिंदी में निर्णय की खबरें उल्हास जगाती हैं, लेकिन 'दिल्ली अभी भी दूर' है। इसका कारण शिक्षा में भारतीय भाषाओं विशेषकर हिंदी भाषी राज्यों में हिंदी के प्रति उपेक्षा का भाव है। इसे रोकना होगा। लगभग पूरे दक्षिण भारत में उनकी प्रादेशिक भाषाएं दसवीं तक अनिवार्य हैं। लगभग 80 प्रतिशत बच्चे 12वीं कक्षा में भी चाहे वे विज्ञान ही क्यों न पढ़ रहे

हों, अंग्रेजी के साथ-साथ एक प्रादेशिक भाषा जैसे- कन्नड़, मलयालम, तमिल, तेलुगु, मराठी पढ़ते हैं, मगर उत्तर भारत में स्थिति निराशाजनक है। दिल्ली के कई निजी स्कूलों में 12वीं में तो हिंदी पढ़ाई ही नहीं जाती। नौवीं और दसवीं में भी अंग्रेजी के साथ दूसरी भाषा के रूप में जर्मन, फ्रेंच और जापानी को प्रोत्साहित किया जा रहा है। यहां तक कि उदारवाद का झंडा फहराते जेएनयू, जामिया और दिल्ली विश्वविद्यालय जैसे नामी संस्थानों में भी हिंदी और भारतीय भाषाएं लगभग नदारद हैं। दिल्ली में बेंटी सरकारें क्यों इस ओर आंखें मूंदे बैठी हैं? अंग्रेजी और विदेशी भाषाओं को पढ़ाने के कारण ही शिक्षा निजी क्षेत्र में एक धंधा बनती जा रही है।

आजकल दिल्ली और पंजाब की सरकारों में अपने शिक्षकों को फिनलैंड भेजने की होड़ मची है। फिनलैंड की शिक्षा का सबसे महत्वपूर्ण पक्ष है अपनी भाषा में शिक्षा। क्या दिल्ली सरकार इसे शुरू भी कर पाई है? फिनलैंड की शिक्षा का एक और महत्वपूर्ण पक्ष है योग्य शिक्षकों की भर्ती। इस दौरान उन्हें मनोविज्ञान, बाल विज्ञान और विषय ज्ञान से जुड़ी कई परीक्षाओं से गुजरना होता है। हमारे देश में शिक्षकों की भर्ती के तरीके से हम सब वाकिफ हैं। बंगाल इसका ताजा उदाहरण है। जाहिर है केवल विदेश में चंद लोगों को भेजने से शिक्षा का स्तर नहीं सुधर सकता। विदेशी विश्वविद्यालयों की शुरुआत कहीं अंग्रेजी की दौड़ को और तेज न कर दे इसलिए सरकार और समाज, दोनों को सचेत रहने की जरूरत है। इन्होंने सब कारणों से देश में शिक्षा का स्तर लगातार गिरता गया है। बच्चों में रचनात्मकता और ज्ञान के प्रति नवोन्मेष भी समाप्त हो रहा है। महात्मा गांधी ने कहा था कि विदेशी भाषा का दबाव छात्रों को 'स्टूट तोता' बना देता है। इससे उनकी रचनात्मकता बाहर नहीं आ पाती। इसलिए यूजीसी के केवल आदेश से काम नहीं चलेगा। केंद्र सरकार को इसके कार्यान्वयन के लिए भी एक निष्पक्षीय संस्था बनानी होगी। यहां किसी भाषा को लादने का प्रश्न नहीं है, बल्कि शिक्षा, शोध, प्रशासन और न्यायालय में भारतीय भाषाओं में उस लोक का हक दिलवाना है, जिसे हम लोकतंत्र कहते हैं।

(लेखक शिक्षाविद् एवं पूर्व प्रशासक हैं।  
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## राष्ट्रीय प्रतिभा खोज परीक्षा की फिर से होगी शुरुआत

### राष्ट्रीय प्रतिभा खोज परीक्षा की फिर से होगी शुरुआत

जागरण ब्यूरो, नई दिल्ली: स्कूल छात्रों के बीच लोकप्रिय राष्ट्रीय प्रतिभा खोज परीक्षा ( एनटीएसई) फिर से शुरू होगी। लगातार मांगों को देखते हुए केंद्रीय शिक्षा मंत्रालय ने फिर से इसे शुरू करने की ऐलान किया है। साथ ही बताया है कि इसे लेकर नई गाइडलाइन तैयार करने का काम किया जा रहा है। इस परीक्षा

को पिछले साल ही मंत्रालय ने एक निर्धारित अवधि के पूरा होने के बाद बंद कर दी थी। इस परीक्षा में सभी राज्यों और संघ शासित प्रदेशों के छात्र हिस्सा लेते थे। इसका एक कोटा भी तय था। मंत्रालय से जुड़े अधिकारियों के मुताबिक नए प्रस्ताव में एनटीएसई के दायरे को बढ़ाया भी सकता है।

#### बिना पाठ्यक्रम के एनईपी के तहत कैसे आई नई किताबें

जागरण ब्यूरो, नई दिल्ली: नई राष्ट्रीय शिक्षा नीति (एनईपी) के तहत स्कूलों के लिए नया पाठ्यक्रम तैयार करने का काम चल ही रहा है, लेकिन इस बीच कई प्रकाशकों ने स्कूलों के लिए एनईपी के तहत नई किताबें बाजार में उतार दी हैं।

जो ज्यादा कीमत में बेंचो भी जा रही हैं। इसकी शिकायत मिलने के बाद शिक्षा मंत्रालय सक्रिय हो गया है। उसने एनसीईआरटी को इस मामले की जांच करने और ऐसे प्रकाशकों के खिलाफ कार्रवाई करने के निर्देश दिए हैं।

‘मौलाना आज़ाद से जुड़े उल्लेख 2013 में हटे थे’

## ‘मौलाना आजाद से जुड़े उल्लेख 2013 में हटे थे’

नई दिल्ली, एजेन्सी। एनसीईआरटी ने कहा कि 11वीं कक्षा की पाठ्यपुस्तक में देश के प्रथम शिक्षा मंत्री और स्वतंत्रता सेनानी मौलाना अबुल कलाम आजाद का उल्लेख वर्ष 2013 में हटाया गया था। इसे पिछले वर्ष शुरू की गई पाठ्यपुस्तकों के युक्तिकरण पहल से जोड़कर नहीं देखा जाना चाहिए।

परिषद ने कहा, पाठ्यपुस्तक के पिछले संस्करण को देखने से यह बात सामने आई कि वर्ष 2014-15 के बाद से उस पैरा में मौलाना आजाद का नाम नहीं था। प्रकाशन विभाग के रिकॉर्ड के अनुसार सत्र 2014-15 के लिए पाठ्यपुस्तक प्रिंटिंग के उद्देश्य से

#### ■ एनसीईआरटी ने 11वीं कक्षा की पुस्तक को लेकर दी जानकारी

अक्टूबर 2013 में अंतिम रूप दिया गया। इसे पाठ्यपुस्तकों के युक्तिकरण की वर्तमान पहल से जोड़कर नहीं देखा जाना चाहिए। पाठ्यपुस्तकों को अद्यतन करने, सूचना में सुधार सहित उसे फिर से छापना नियमित कार्य है।

पुस्तकों से बिना अधिसूचना के कुछ संदर्भों व विषयों को हटाने के बाद विवाद उत्पन्न हो गया है। विपक्ष ने भाजपा पर इतिहास से छेड़छाड़ करने का आरोप लगाया है।

# NCERT consulted 25 experts, 16 teachers for changes in books

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## NCERT consulted 25 experts, 16 teachers for changes in books

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**NEW DELHI:** The National Council for Educational Research and Training (NCERT) consulted as many as 25 external experts, and 16 CBSE teachers for the recent "rationalisation" of its textbooks, an exercise that led to the deletion of references to the 2002 Gujarat riots, Mahatma Gandhi's assassination, and some Mughal rulers.

According to written response submitted by the Union ministry of education in Parliament on July 18, 2022, the consultations were with experts in seven subjects, including history, political science, economics, geography, commerce and business studies, sociology, and psychology.

In June last year, the NCERT rationalised the syllabi of Classes

### AMONG THE CHANGES WAS THE REMOVAL OF ALL REFERENCES TO 2002 GUJ RIOTS, COLD WAR, AND MUGHAL COURTS

6 to 12 to reduce the burden on students. Among the changes was the removal of all references to the 2002 Gujarat riots, the Cold War, and Mughal courts, and the industrial revolution.

Some Dalit writers were also dropped from a Class 7 textbook.

HT couldn't ascertain whether all the changes made were suggested by the experts or whether all the changes recommended by the experts were made.

In the case of History, the five experts who were consulted are Umesh Kadam, professor of history at the Jawaharlal Nehru University and a member secretary at the Indian Council for Historical Research (ICHR); Dr Archana Verma, an associate professor (history) at Delhi University's (DU) Hindu College; Shruti Mishra, who heads the department of history at Delhi Public School RK Puram; and two Delhi-based Kendriya Vidyalaya teachers Krishna Ranjan and Sunil Kumar.

In the case of sociology, three rounds of consultation were held with four external experts: Manju Bhatt, a former professor with the Department of Education in social science, NCERT; Achala Pritam Tondon, an associate professor at DU's Hindu College; Seema Baner-

jee who teaches sociology at Delhi's Laxman Public School and Abha Seth, who also teaches the same subject at the DAV Public School at Vasant Kunj.

Four experts in political science were consulted for revisions in the domain. They included Vanthangpui Khobung, who is an assistant professor of political science at the NCERT's Regional Institute of Education in Bhopal; Maneesha Pandey who teaches political science at Hindu College; and school teachers Kavita Jain and Sunita Kathuria.

The ministry said in case of psychology, one round of consultation happened with three experts—Neelam Srivastava, who teaches at Vasant Valley School; Gurjeet Kaur from DAV Public School, Vasant Kunj; and Shalini Prasad from DPS Vasant Kunj.

सिलेबस का बोझ घटाना था, इसलिए चैप्टर हटाए

# सिलेबस का बोझ घटाना था, इसलिए चैप्टर हटाए

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■ नई दिल्ली : 12वीं कक्षा के इतिहास समेत कई विषयों की पाठ्यपुस्तकों में बदलाव कर राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (NCERT) ने कुछ चैप्टर हटाए हैं, जिन पर विवाद हो गया है। इस पर एनसीईआरटी के निदेशक प्रो. दिनेश प्रसाद सकलानी ने एनबीटी से बात करते हुए कहा कि कोविड के बाद पूरे देश से यह मांग उठ रही थी कि हर विषय के कंटेंट को कम किया जाना चाहिए। महामारी में बच्चों की पढ़ाई का नुकसान हुआ था। लोग इसे मुद्दा क्यों बना रहे हैं, यह समझ से परे है। एक्सपर्ट कमिटी ने ऐसे विषयों को हटाया है, जो बच्चों ने पहले कहीं न कहीं पढ़े हैं।

उन्होंने कहा कि केवल मुगल इतिहास की ही बात क्यों की जा रही है, गणित, विज्ञान, भूगोल समेत सभी विषयों में कंटेंट कम किया गया है। अभी भी छात्र मुगलों के बारे में पढ़ रहे हैं। कक्षा 7 में भी चैप्टर है और कक्षा 12 में भी है। एनसीईआरटी बिना किसी दबाव के काम करती है। राष्ट्रीय शिक्षा नीति के तहत अब 2024 के लिए नई किताबें बनाने का सिलसिला शुरू हो रहा है और नैशनल करिकुलम फ्रेमवर्क के आधार पर पहले सिलेबस तैयार होगा और फिर नई किताबें आएंगी।



NCERT के सिलेबस से चैप्टर हटाए जाने से उपजे विवाद पर बोले निदेशक प्रो. दिनेश प्रसाद सकलानी

## '12वीं में अब भी मुगलों पर चैप्टर'

प्रो. सकलानी ने कहा कि 12वीं में अभी भी मुगलों के बारे में एक चैप्टर पढ़ाया जा रहा है, जिसमें उनकी नीतियों और उनके द्वारा किए गए कामों के बारे में पढ़ाया जा रहा है। किताबों से मुगल काल को हटाया नहीं गया है। एक्सपर्ट कमिटी ने छठी से 12वीं तक की पुस्तकों को देखा था और सिफारिश की थी कि उन चैप्टर को हटाया जाए, जिनको हटाने से छात्र की नॉलेज में कोई कमी नहीं आएगी। 12वीं की किताब में मुगलों के बारे में एक चैप्टर अभी पढ़ाया जा रहा है, जिसमें उनकी पॉलिसी, उनके सामाजिक व कृषि क्षेत्र में योगदान का जिक्र है।



## सुधार के लिए साल में दो बार बोर्ड एग्जाम की सिफ़ारिश

### सुधार के लिए साल में दो बार बोर्ड एग्जाम की सिफ़ारिश

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■ नई दिल्ली: बोर्ड परीक्षा को लेकर छात्रों की टेंशन को कम करने की दिशा में स्कूली शिक्षा के असेसमेंट प्रोसेस में बड़े बदलाव हो सकते हैं। राष्ट्रीय पाठ्यक्रम की रूपरेखा तैयार करने के लिए नैशनल स्टीयरिंग कमिटी ने साल में दो बार बोर्ड परीक्षाएं आयोजित करने की सिफ़ारिश की है। सरकार को सौंपे गए ड्राफ्ट में परीक्षा को लेकर छात्रों पर बढ़ रहे दबाव को कम करने के लिए कई सुझाव दिए गए हैं। अगर कमिटी की सिफ़ारिश पर मुहर लगती है तो छात्रों को किसी भी अकादमिक साल के दौरान दो बार बोर्ड परीक्षा देने की अनुमति दी जाएगी। एक मुख्य परीक्षा और अगर छात्र इंफ़ॉर्मेट के लिए दूसरी बार परीक्षा देना चाहे तो उसे यह मौका मिले। इस प्रक्रिया का मकसद छात्रों को बोर्ड परीक्षा के तनाव से मुक्ति दिलाना है ताकि उसे यह पता रहे कि



अगर एक परीक्षा में अच्छा नहीं कर पाया तो दूसरा मौका भी मौजूद रहेगा।

कमिटी की सिफ़ारिश मंजूर होने पर बोर्ड परीक्षाओं की संरचना में भी बदलाव आएगा। नई शिक्षा नीति में छात्रों को दो बार बोर्ड परीक्षा देने का मिलेगा मौका मिल सकता है। नई नीति में 10वीं और 12वीं की बोर्ड परीक्षाओं को आसान बनाया जाएगा। परीक्षा का खाका इस तरह से तैयार होगा कि छात्रों को रटने की जरूरत न पड़े और मुख्य रूप से उनकी क्षमताओं एवं योग्यताओं का मूल्यांकन किया जा सके।

### CUET स्कोर से डबल डिग्री कोर्स में भी एडमिशन

■ विस, नई दिल्ली: ग्रेजुएशन कोर्सेज में दाखिले के लिए होने वाले कॉमन यूनिवर्सिटी एंट्रेंस टेस्ट (CUET) स्कोर के आधार पर BA, B.Com, BSc के ही कोर्सेज में दाखिले नहीं होंगे, बल्कि यूनिवर्सिटीज के पास डबल डिग्री कोर्स में भी इसी स्कोर के



आधार पर एडमिशन देने का विकल्प रहेगा। विश्वविद्यालय अनुदान आयोग (UGC) के अध्यक्ष प्रो. एम. जगदीश कुमार का कहना है कि दूसरे इंटीग्रेटेड कोर्सेज जैसे BBA-LLB, BA-LLB, BSc- MSc, BA- MA में भी CUET स्कोर के आधार पर एडमिशन हो सकता है। कई यूनिवर्सिटीज इस स्कोर के आधार पर पांच साल के इंटीग्रेटेड कोर्सेज में एडमिशन दे रही हैं। उन्होंने बताया कि कई यूनिवर्सिटीज में B.Tech कोर्सेज में भी CUET स्कोर का इस्तेमाल किया जाता है। एडमिशन में इस स्कोर को भी देखा जाता है।

NCERT: 12 वी में विभाजन, मुगल दरबार का इतिहास नहीं पढ़ सकेंगे

# NCERT: 12वीं में विभाजन, मुगल दरबार का इतिहास नहीं पढ़ सकेंगे

■ एनबीटी ब्यूरो, प्रयागराज

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (NCERT) ने नए अकादमिक सेशन 2023-24 के लिए अपनी कुछ किताबों के कोर्स में बदलाव किया है। बड़ा बदलाव इतिहास की किताबों में किया गया है। इसके तहत भारतीय इतिहास के 12वीं के कोर्स के दूसरे भाग में यूनिट 5 'शासक और इतिहासकार' पाठ जिसके अंतर्गत मुगल शासकों और उनके दरबार के बारे में पढ़ाया जाता था, उसे अब नहीं पढ़ाया जाएगा।

इसी के साथ इतिहास के भाग तीन में यूनिट 3 'औपनिवेशिक शहर' और यूनिट 5 'विभाजन को समझना' भी हटा दिया गया है, जिससे यूपी बोर्ड के साथ ही केंद्रीय माध्यमिक शिक्षा बोर्ड (CBSE) के छात्र भी अब इन पाठों को नहीं पढ़ेंगे। यूपी बोर्ड के सचिव दिव्य कांत शुक्ल ने बताया कि संशोधित पाठ्यक्रम के अनुसार NCERT की किताबें बाजार में उपलब्ध हैं। इनका लिंक बोर्ड की वेबसाइट पर



11वीं की किताब से इस्लाम का उदय, औद्योगिक क्रांति को भी हटाया

भी उपलब्ध है। यह भी बताया कि बोर्ड ने कोरोना के दौरान पाठ्यक्रम में की गई कटौती को वापस ले लिया है। 'शासक और इतिहासकार' में मुगल दरबार के तहत विद्यार्थियों को अकबरनामा, बादशाहनामा, मुगल शासक और उनका साम्राज्य, पांडुलिपियों की रचना, आदर्श राज्य, राजधानियाँ और दरबार, शाही परिवार, मुगल अभिजात्य वर्ग, धर्म पर प्रश्न उठाना जैसे विषय पढ़ाए जाते थे, जिन्हें अब हटा दिया गया है। इसी तरह 'औपनिवेशिक शहर' और 'विभाजन को समझना' टॉपिक भी किताब से हटा दिया गया है। इसके तहत औपनिवेशिक शहरों

पॉलिटिकल साइंस से कोल्ड वॉर का चैप्टर हटा

■ 12वीं की राजनीतिक विज्ञान की किताब समकालीन विश्व राजनीति से समकालीन विश्व में अमेरिकी वर्चस्व और शीत युद्ध का चैप्टर भी हटा दिया गया है। वहीं, स्वतंत्र भारत में राजनीति की किताब से जन आंदोलनों का उदय और एक दल के प्रभुत्व का दौर भी हटाया गया है। इसमें कांग्रेस के प्रभुत्व की प्रकृति, सोशलिस्ट पार्टी, कम्युनिस्ट पार्टी आफ इंडिया, भारतीय जन संघ आदि के विषय में पढ़ाया जाता था। यह बदलाव राष्ट्रीय शिक्षा नीति 2020 के तहत किए गए हैं। सरकार ने इन बदलावों के लिए पहले ही संकेत दे दिए थे।

और विभाजन किस तरह हुआ इसके विषय में पढ़ाया जाता था। इतिहास में ही 11वीं की किताब से इस्लाम का उदय, संस्कृतियों में टकराव और औद्योगिक क्रांति को भी हटा दिया गया है।

# NCERT की किताबों में बदलाव के खिलाफ 250 इतिहासकार एकजुट

## NCERT की किताबों में बदलाव के खिलाफ 250 इतिहासकार एकजुट

■ इतिहासकारों ने कहा, किताबों से चैप्टर हटाना विभाजनकारी और पक्षपातपूर्ण रवैया।

■ NCERT ने कहा, बदलाव विरोध सभ से एक्सपोर्ट की सलाह पर किए गए हैं।

बटौलम्पूर, नई दिल्ली

NCERT की किताबों में चर्चा चैप्टर को हटाने पर 250 इतिहासकारों ने विरोध जताया है। इतिहासकारों ने कहा है कि पुस्तक की किताबों से अक्सर चर्चा हटाने विभाजनकारी और पक्षपातपूर्ण रवैया है। इतिहासकारों ने इस फैसले को कमा लेने की गंभीरता को भी जताया है।

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (NCERT) ने हाल में चर्चा किताबों में कुछ अंशों को हटा दिया है। कक्षा 6 से 12वीं तक की इतिहास, भूगोल, संस्कृत और विज्ञान किताबों में कैंसिल करवाए गए हैं। इनमें मुगल दरबार, 2002 के भूकंपल दंगे, इमारतों, नक्सल आंदोलन और सभ्यता के लड़ाई जैसे चैप्टरों के अंश हटाए गए हैं।



अप्रैल 12वीं की किताब में मुगल और 11वीं की किताब में उन्नीसवीं शताब्दी के अंश हटाए गए हैं।

उपरोक्त चर्चा के रूप में किया गया है। किताबों को खरीद लेने की गंभीरता पर विचार करने में देर लेना चाहिए, जल्दी से, मुद्रण शुरू करें, अपूर्णता, इतरता इत्यादि, चीजों को पूर्ण प्रसार अर्थात् पुस्तक, लेखक नहीं देना और उचित सिद्ध और सिद्धांत है। इनका कहना है कि इन अक्षरों को हटाने सरकार के पक्षपातपूर्ण अंशों को दिखाता है। यह निर्णय भारतीय उपमहाद्वीप के संविधान व लोकतंत्र के खिलाफ है। इसे रद्द किया जाना चाहिए।

विश्वविद्यालय स्तर के शिक्षकों के संघान के निदेशिका टोल्स प्रद पर कहना है कि अगर 'परिष्कार प्रक्रिया' को बरतते रहेंगे, तो किताबों और शिक्षक-छात्रों के पक्ष में खूबों हटाने हटाए से हो सकते हैं, जो हमारे भारतीय संविधान के रूप में प्रस्तावित है।

### संस्था ने कहा, किसी को खुश या नाराज करना मकसद नहीं

NCERT का कहना है कि स्कूलों की किताबों में किया गया बदलाव किसी को खुश या फिर नाराज करने के लिए उद्योग के नहीं किया गया है। NCERT के चीफ प्रिंसीपल प्रमोद सकलानी ने कहा कि यह बदलाव विरोध रूप से एक्सपोर्ट एडवोकेट के अर्थ पर किए गए हैं। उनका कहना है कि NCERT अब राष्ट्रीय शिक्षा नीति के अन्तर्गत पर चर्चा करवाए के लिए नई पुस्तक लेने से जरा रहा है।

परिष्कारण स्तर पर नई पुस्तकें बनाने का उद्देश्य न तो पूरा ही हो चुका है। यह बदलाव केवल इतिहास की किताब में नहीं किया गया, इन किताबों में से कुछ समस्त कक्षा की गई है, जबकि परीक्षा के दौरान छात्रों का बोझ कम हो सके और उन्हें कम गवर्नरी का उभार देना पड़े। बदलाव किताबें छात्र चर्चिका, चर्चक, बरतनाएँ पर संस्था पर आधारित नहीं है, बल्कि इसमें मातृभाषा, विज्ञान और गणित सभी कुछ शामिल हैं।

# NCERT की किताब से गांधी व संघ हटे थोड़ा-थोड़ा

## NCERT की किताब से गांधी व संघ हटे थोड़ा-थोड़ा

नई दिल्ली (भाषा)। राष्ट्रीय शिक्षा अनुसंधान एवं प्रशिक्षण परिषद (एनसीईआरटी) की नए शैक्षणिक सत्र के लिए 12वीं कक्षा की राजनीतिक विज्ञान की पाठ्यपुस्तक में 'महात्मा गांधी की नीति का देश में साम्प्रदायिक स्थिति पर प्रभाव, गांधी की हिन्दू-मुस्लिम एकता की अवधारणा ने हिन्दू-मुस्लिम संघर्ष को ठीकसाब, और राष्ट्रीय स्वयंसेवक संघ (आरएसएस) जैसे संगठनों पर कुछ समय के लिए प्रतिबंध स्वीकृत करके पदच्युत नहीं है। एनसीईआरटी ने हालाँकि यह दावा किया है कि इस वर्ष पाठ्यक्रम में कोई काट-छांट नहीं की गई है और पाठ्यक्रम की मित्रले वर्ष जून में पुनर्संशोधित बनाया गया था। पिछले वर्ष पाठ्यक्रम को पुनर्संशोधित बनाने और कुछ अंशों के अप्रसंगिक होने के

- पाठ्यपुस्तक को युक्तिसंगत बनाने के नोट में महात्मा गांधी के अंश के बारे में कोई उल्लेख नहीं है
- एनसीईआरटी का दावा, इस वर्ष पाठ्यक्रम में कोई काट-छांट नहीं, इसको पिछले वर्ष युक्तिसंगत बनाया गया था



आधार पर एनसीईआरटी ने गुजरात दंगों, मुगल दरबार, आपातकाल, शीत युद्ध, नक्सल आंदोलन आदि के कुछ अंशों को 'पाठ्यपुस्तक से हटा दिया था। पाठ्यपुस्तक को युक्तिसंगत बनाने के नोट में महात्मा गांधी के अंश के बारे में कोई उल्लेख नहीं है। एनसीईआरटी की 12वीं कक्षा की

सामाजिक विज्ञान की पाठ्यपुस्तक 'स्वतंत्र भारत में राजनीति भाग-2 में वर्ष 2002 के गुजरात दंगों के अंश नहीं हैं, हालाँकि 1984 के सिख दंगों का उल्लेख है। इस पुस्तक में श्रेणीय आकाशवाणी खंड में पंजाब के संदर्भ में 31 अक्टूबर, 1984 को तत्कालीन प्रधानमंत्री इंदिरा गांधी की हत्या के बाद देश के कई हिस्सों में सिख समुदाय के

### सभी प्रक्रियाओं का पालन किया : एनसीईआरटी

एनसीईआरटी के निदेशक दिनेश सकलानी ने कहा, "पाठ्यक्रम को युक्तिसंगत बनाने की कवायद पिछले वर्ष की गई और इस वर्ष जो कुछ हुआ है, वह नया नहीं है।" उन्होंने हालाँकि बिना धोखा के युक्तिसंगत बनाने की कवायद के परिणामस्वरूप हटाए गए अंशों के बारे में कोई टिप्पणी नहीं की। सकलानी ने कहा कि युक्तिसंगत बनाने की प्रक्रिया में सभी जरूरी प्रक्रियाओं का पालन किया गया, जिसमें कई चारों में से कई अंशों को कम किया गया। एनसीईआरटी के प्रमुख ने कहा कि इसे नियंत्रित करके नहीं देखा जाना चाहिए और पाठ्यपुस्तक में किए गए बदलावों के बारे में एक-दो दिनों में अधिसूचना जारी कर दी जाएगी। शिक्षा मंत्रालय के एक अधिकारी ने नाम जाहिर नहीं करने की शर्त पर बताया कि राष्ट्रीय शिक्षा नीति के तहत नए पाठ्यक्रम बनाने पर अब भी काम चल रहा है और नई पाठ्यपुस्तकें अकादमिक सत्र 2024 से पेश की जाएगी।

विरुद्ध भड़की हिंसा का उल्लेख किया गया है। इसमें कहा गया है कि शिक्षा को सबसे जल्द साथ ही हिंसा करने वाले लोगों को कारगर तरीके से दंड भी नहीं दिया गया।

2013 mein pathyapustak se maulana azad ka jikr hata diya gaya tha

## مولانا آزاد کا ذکر 2013 میں ہٹا تھا نصابی کتاب سے

نصابی کتاب کے سابقہ ایڈیشن کو دیکھنے پر ہوا انکشاف □ امسال کوئی کاٹ چھانٹ نہیں کی گئی: NCERT

کونسل نے کہا کہ این سی ای آر ٹی کی نصابی کتابوں کو دوبارہ پرنٹ کرنا معمول کا کام ہے، جس میں جانکاریوں کو اپ ڈیٹ کرنا اور بہتر بنانا شامل ہے۔ این سی ای آر ٹی کی کلاس 11 ویں کی پبلیکیشن سائنس کی نصابی کتاب کے پہلے باب کی اوپر کی سطر پر بھی جائے گی۔ عام طور پر جواہر لعل نہرو، راجندر پرساد، سردار پٹیل یا بی آر امبیڈکر ان کمیشنوں کی صدارت کی تھی۔



نئی دہلی، (پس ٹی آئی)

نیشنل کونسل آف ایجوکیشن ریسرچ اینڈ ٹریننگ نے کہا ہے کہ ملک کے پہلے وزیر تعلیم اور مجاہد آزادی مولانا ابوالکلام آزاد کا ذکر این سی ای آر ٹی کی کلاس 11 ویں کی نصابی کتاب میں سال 2013 میں ہٹا دیا گیا تھا اور اسے گزشتہ سال شروع کی گئی نصابی کتابوں کی ریشن لائزیشن پہلے سے جوڑ کر نہیں دیکھا جانا چاہئے۔ واضح رہے کہ این سی ای آر ٹی کی نصابی کتابوں سے بغیر اطلاع کے کچھ

نئے تعلیمی سیشن کیلئے نیشنل کونسل آف ایجوکیشن ریسرچ اینڈ ٹریننگ کی نصابی کتاب 'ملک کی فرقہ وارانہ صورتحال پر مہاتما گاندھی کی موت کا اثر، ہندو مسلم اتحاد کے گاندھی کے تصور نے ہندو بنیاد پرستوں کو اکسایا، اور راشٹریہ سویم

اقتباسات اور عنوانات کو ہٹائے جانے ▶ این سی ای آر ٹی کی نصابی کتابوں سے بغیر اطلاع کے کچھ اقتباسات اور عنوانات کو ہٹائے جانے کے بعد تنازع کھڑا ہو گیا۔ اپوزیشن جماعتوں نے حکمراں بی جے پی پر تاریخ کے ساتھ چھیڑ چھاڑ کرنے کا الزام لگایا جانے کے بعد تنازع کھڑا ہو گیا ہے۔

سیوک سنگھ (آر ایس ایس) جیسی تنظیموں پر کچھ وقت کیلئے پابندیوں سمیت بہت سے متن نہیں ہیں۔ حالانکہ، این سی ای آر ٹی نے دعویٰ کیا ہے کہ اس سال نصاب میں کوئی کاٹ چھانٹ نہیں کی گئی ہے اور نصاب کو گزشتہ سال جون میں معقول بنایا گیا تھا۔ گزشتہ سال نصاب کی معقولیت اور کچھ حصوں کے غیر متعلقہ ہونے کی بنیاد پر این سی ای آر ٹی نے گجرات فسادات، مغل دربار، امیر جنسی، سرد جنگ، نسل تحریک وغیرہ کے کچھ حصوں کو نصابی کتاب سے ہٹا دیا تھا۔ این سی ای آر ٹی کے سربراہ ونیش سکھانی نے کہا کہ یہ نادانستہ غلطی ہو سکتی ہے کہ گزشتہ سال نصابی کتب کو معقول بنانے کے عمل میں کچھ اقتباسات کو حذف کرنے کا اعلان نہیں کیا گیا تھا۔

ہے۔ کانگریس کے سینئر لیڈر ششی تھرورنے کہا کہ غلط وجوہات کی بنا پر لوگوں کا ذکر مٹانا ملک کی متنوع جمہوریت اور اس کی شاندار تاریخ کے ساتھ سراسر ناانصافی ہے۔

اپنے بیان میں، این سی ای آر ٹی نے کہا کہ نصابی کتب کے سابقہ ایڈیشن کو دیکھنے سے پتہ چلا کہ سال 2014-15 کے بعد سے اس پیراگراف میں مولانا آزاد کا نام نہیں تھا۔ جلی کیشنز ڈویژن کے ریکارڈز کے مطابق، سیشن 2014-15 کے لیے نصابی کتاب کو پرچنگ کیلئے اکتوبر 2013 میں حتمی شکل دی گئی تھی۔ اس کو نصابی کتب کی معقولیت کے موجودہ اقدام سے نہیں جوڑا جانا چاہیے۔

## Darwin must stay in India school textbooks

# Darwin must stay in Indian school textbooks

In 2018, the then Union Minister of Human Resource Development, Satyapal Singh, called Darwin's theory of evolution "scientifically wrong" and asked that it be removed from Indian school and college curricula. The next year, the Vice-Chancellor of Andhra University, Nageswara Rao Gollapalli, made a claim at the 106th Indian Science Congress, that the "theory of Dashavatara" explains evolution better than Darwin's theory.

Both instances spurred sufficient controversy. However, little did we know that Mr. Singh's statement also demonstrated clairvoyance.

The National Council of Educational Research and Training (NCERT) dropped Darwin's theory from the examination syllabus for Class 9 and 10 students in the academic year 2021-22. In a development this year, the NCERT has now dropped the entire section on evolution from its Class 10 textbooks.

### Need for Darwin's theory, teaching change

Scientists and educators across the country are understandably disappointed. As one of the most firmly established theories in science, Darwin's theory not only explains the origin of human beings (and all other forms of life in the world), but also rescues this explanation from the belief that an 'intelligent designer' (read: god) built them the way they are and put them in their place. Depriving students of this information, especially those who do not take up biology after Class 10 is, as dissenting scientists and educators have pointed out, "dangerous".

Our approach to teaching Darwin's theory has been, largely, to tell students a story of a lone Englishman (sometimes two Englishmen, if one were to throw Alfred Russel Wallace into the mix) swimming against the tide of his times. And while Darwin must stay in our textbooks, this is where our teaching of his theory must change.

Darwin's theory is based on the fossils he collected and the wildlife he observed on his five-year trip (1831-36) on the *HMS Beagle* – a fact that is routinely taught. Something that is not taught, however, is that right before Darwin set out on his journey, the captain of the ship handed



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Rather than erasing the 'theory of evolution' from textbooks, which is short-sighted from the point of a well-rounded education, the way Darwin's theory is taught needs to change

him a copy of geologist Charles Lyell's *Principles of Geology*.

Lyell, having studied glaciers, volcanoes and fossils, proposed the concept of "gradual geological change": that geological phenomena and objects today result from minute changes accumulating over a period of time, much like how random mutations that confer advantage to certain organisms accumulate over time, giving rise to their present-day species. Darwin himself acknowledged the strong influence of Lyell's theories on his work.

Biologist Ruth Hubbard, the first woman to hold a tenured professorship position at Harvard University's biology department, wrote in 1979: "By the time Darwin came along, it was clear to many people that the earth and its creatures had histories." As an example, Hubbard talks of Jean-Baptiste Lamarck, the French naturalist who proposed his own theory of evolution before Darwin. Flawed as it was, it also portrayed evolution as a process that included accumulation of changes over time and did not involve an 'intelligent designer'.

### Other influences

The other important aspect that biology classrooms ignore is the impact that social beliefs of his times had on how Darwin looked at the natural world. Philosopher Bertrand Russell has written about how Darwin's theory was "essentially an extension to the animal and vegetable world of laissez-faire economics". The term, conceived by economist Adam Smith and developed by Thomas Malthus, referred to self-interest and free competition in the marketplace. Malthus also propounded a theory of population in 1798, where he claimed that humans compete for limited resources until a catastrophic event leads to a decline in their population.

Darwin was greatly influenced – as he has acknowledged in his autobiography – by Malthus' ideas of competition in an environment with limited resources. Thus, only those living beings survive that carry variations that give them an edge over others – a phenomenon that Darwin

termed "natural selection".

Finally, another grave omission in the teaching of the theory of evolution is the consequent use of his theory – both by others and Darwin himself.

For instance, Herbert Spencer's idea of "survival of the fittest", proposed in 1864, coalesced eventually into a philosophy called "social Darwinism", which is well known to have fuelled eugenics in the late 19th century. In his later book, *The Descent of Man, and Selection in Relation to Sex*, Darwin claimed that men have evolved to be naturally more intelligent since they have had to continuously use their "mental faculties" to hunt for food, and to defend "their females" and offspring.

Notably, here Darwin seems to invoke the same Lamarckian theory of use and disuse, which his theory of natural selection had disproven in the Origin.

### A reminder about the world of science

But, why must students and teachers in school concern themselves with these aspects of Darwin's theory? The reason is that these examples carry crucial insights about science in both the historical and contemporary world: it is rarely the story of a lone man, and it is shaped by the social and cultural beliefs of its times (think about how the Second World War was crucial to several scientific inventions and discoveries, which includes the atom bomb), to which it also actively contributes.

Most importantly, however, these examples remind us that science is a messy affair (like all human endeavours) that requires caution alongside curiosity, creativity and imagination. If the strength of science lies in its ability to stand the test of critical inquiry, then science classrooms must inculcate the embracing of critique, sometimes at the risk of confronting its own troubled history.

The teaching of Darwin's theory offers possibilities of this confrontation without underplaying its strengths. Thus, while Darwin must remain in our textbooks, how we teach him must change.

## Students to get new textbooks from NCERT after a gap of nearly 20 years

# Students to get new textbooks from NCERT after a gap of nearly 20 years

Education Ministry officials say the books, based on the NEP 2020, will include attention to the play-way method of teaching, as well as develop problem-solving abilities and improve the social and emotional capacities of children

**Maitri Porecha**  
NEW DELHI

**A**fter nearly two decades, school students at all levels will learn from updated textbooks to be introduced in the academic year 2024-25, top officials in the Education Ministry have said. This is in keeping with the National Education Policy, 2020 and the National Curriculum Framework (NCF) released in August 2022.

"Developing textbooks according to the NCF in a year's time is a tall task, but we are up to the challenge," a top official said.

On Monday, Education Minister Dharmendra Pradhan convened the National Steering Committee meeting to streamline the next steps under the NCF agenda. Currently, the government has released the NCF for pre-school to Class 2, for children aged bet-



The NCF, in its guidelines, has emphasised that students' learning should be planned keeping in mind Indian roots.

ween three and eight. The framework for other classes is yet to be rolled out.

Correspondingly, textbooks based on the NCF for Class 1 and 2 will be released by March-end.

The new National Council of Educational Research and Training (NCERT) textbooks will be developed in 22 languages, in conso-

nance with the NEP 2020 perspective of imparting multilingual education. Mr. Pradhan said the NCERT had developed material to feed into the play-way teaching method: the *Jadui Pitaara* (magic box) would be made available to every school in the form of open education resources.

The officials said that of

the 14.8 lakh schools in India, 28,000 are Central Board of Secondary Education (CBSE), nearly 2,000 Indian Certificate of Secondary Education (ICSE), and 345 International Baccalaureate (IB) schools. The rest are State Board schools.

Private publishers, including the Oxford University Press (OUP), have already published "NEP 2020 and NCF 2022 aligned" books for preschool and Class 1 and 2.

### The 'panchaadi' way

The NCF, in its guidelines, has emphasised that students' learning should be planned keeping in mind Indian roots and has proposed a five-step learning process, or *panchaadi*, for children at the preschool or foundational level.

*Panchaadi* comprises *aditi* (introduction of a topic), *bodh* (conceptual un-

derstanding), *abhyas* (practice), *prayog* (application) and *prasar* (expansion).

"We have adopted this system while designing textbooks for preschoolers. It steers away from rote learning," Sumanta Datta, Managing Director, OUP India, said.

However, Ministry officials feel that private publishers have jumped the gun with the claim that their Class 1 and 2 textbooks are aligned to the NCF 2022.

"How can private publishers release books before NCERT has published their textbooks according to the new NCF guidelines," the official asked.

Through the NCF, the Ministry aims to help students develop their cognitive and critical thinking skills, which involve problem-solving in real-life situations.

## Among key deletions on Gandhi's assassination in NCERT Class 12 texts are these lines:

**AMONG KEY DELETIONS ON GANDHI'S ASSASSINATION IN NCERT CLASS 12 TEXTS ARE THESE LINES:**

~~Gandhi's pursuit of Hindu-Muslim unity provoked Hindu extremists... RSS was banned for some time~~

References to Gujarat riots purged from social science books for Classes 6-12

**RITIKA CHOPRA**  
NEW DELHI, APRIL 4

■ He (Gandhi) was particularly disliked by those who wanted Hindus to take revenge or who wanted India to become a country for the Hindus, just as Pakistan was for Muslims...  
■ His steadfast pursuit of Hindu-Muslim unity provoked Hindu extremists so much that they made several attempts to assassinate Gandhi...  
■ Gandhi's death had an almost

magical effect on the communal situation in the country... The Government of India cracked down on organisations that were spreading communal hatred. Organisations like the Rashtriya Swayamsevak Sangh were banned for some time...

THESE SENTENCES that have been taught to Class 12 students for more than 15 years as part of their Political Science curriculum now stand deleted from NCERT textbooks.

So does the reference to

Gandhi's actions were however not liked by all. Extremists in both the communities blamed him for their conditions. He was particularly disliked by those who wanted Hindus to take revenge or who wanted India to become a country for the Hindus, just as Pakistan was for Muslims. They accused Gandhi of acting in the interests of the Muslims and Pakistan. Gandhi thought that these people were misguided. He was convinced that any attempt to make India into a country only for the Hindus would destroy India. His steadfast pursuit of Hindu-Muslim unity provoked Hindu extremists so much that they made several attempts to assassinate Gandhi. Despite this he refused to accept armed protection and continued to meet everyone during his prayer meetings. Finally, on 30 January 1948, one such extremist, Nathuram Vinayak Godse, walked up to Gandhi during his evening prayer in Delhi and fired three bullets at him, killing him instantly. Thus ended a life long struggle for truth, non-violence, justice and tolerance.

Gandhi's death had an almost magical effect on the communal situation in the country. Passion-related anger and violence suddenly subsided. The Government of India cracked down on organisations that were spreading communal hatred. Organisations like the Rashtriya Swayamsevak Sangh were banned for some time. Communal politics began to lose its appeal.



Deleted lines from the Class 12 Political Science book, *Politics in India Since Independence*

Gandhi's assassin Nathuram Godse as "a Brahmin from Pune" and "the editor of an extremist Hindu newspaper who had denounced Gandhi as 'an appeaser of Muslims'" from a Class 12 History textbook.

Significantly, the above deletions did not figure in the "list of rationalised content" officially released by the National Council of Educational Research and Training (NCERT) in June last year.

CONTINUED ON PAGE 2

**HIT DELETE:**  
**FROM MUGHALS**  
**TO EMERGENCY**  
PAGE 7

## Opp, non-BJP states slam Gandhi killing deletions from NCERT textbooks

# Opp, non-BJP states slam Gandhi killing deletions from NCERT textbooks

**EXPRESS NEWS SERVICE**  
NEW DELHI, APRIL 5

CUTTING ACROSS party lines, Opposition leaders and education ministers in non-BJP states, criticised key deletions in NCERT textbooks — including passages on Mahatma Gandhi, his assassin Nathuram Godse, and the 1948 ban on RSS — as reported by *The Indian Express* on Wednesday.

While the state education ministers of Rajasthan, West Bengal and Kerala firmly op-

posed the deletions, their counterparts in Andhra Pradesh, Telangana, Tamil Nadu and Odisha said the NCERT's changes would undergo thorough scrutiny, before they decide on adopting or discarding them.

The NCERT, an autonomous body under the Ministry of Education, has maintained that the deletions are part of the textbook rationalisation exercise it had undertaken in the wake of the Covid-19 pandemic.

"This rewriting of history has been an ongoing endeavour

CONTINUED ON PAGE 2

## On NCF panel table: class 12 boards twice a year, no science-arts walls

# On NCF panel table: Class 12 boards twice a year, no science-arts walls

Draft almost ready, will be uploaded soon for feedback

**SOURAV ROY BARMAN  
& RITIKA CHOPRA**  
NEW DELHI, APRIL 5

AN EXPERT panel appointed by the Union government for preparing the new National Curriculum Framework (NCF) is likely to recommend board examinations twice a year and a semester system for Class 12, and the freedom for students to pursue a mix of science and humanities to reduce the rigid boundaries separating arts, commerce and science in classes 11 and 12

across school boards.

Once the recommendations, being drafted by a 12-member steering committee under former chairperson of ISRO K Kasturirangan, are adopted, the structure of classes 9 and 10 will also undergo a major change, with students expected to clear eight papers. Currently, students across most boards, including CBSE, have to pass at least five subjects in Class 10. For Class 10 students, the committee is likely to suggest an annual system.

Holding board exams twice a year for Class 12 will enable

students to appear in courses they have completed and feel ready for. The system will also gradually move towards facilitating "on demand" exams as suggested in the new National Education Policy (NEP) 2020, according to a person familiar with the ongoing discussions.

The draft NCF document, sources said, is almost ready and will be uploaded for public feedback soon. The NCF was last revised in 2005 under the Congress-led UPA government.

Based on the new NCF,  
CONTINUED ON PAGE 2

## • On NCF panel table: Class 12 boards twice a year, no science-arts walls

changes will also be brought about in textbooks, starting with the ones issued by the NCERT and taught in schools affiliated to the CBSE. It will also restructure various other aspects of the classroom, including choice of subjects, pattern of teaching, and assessment based on the NEP 2020 framework.

Currently, in Class 12, CBSE students appear for the board exam in at least five subjects and a maximum of six and there is little scope for them to pursue multidisciplinary education. In other words, a student who has picked a combination of Physics, Mathematics and Chemistry

cannot simultaneously study History or Political Science. But under the proposed system, that will be possible as the NEP envisages "no hard separation" among arts, humanities, and sciences, said a source.

The steering committee of the NCF is likely to propose that students complete 16 "choice-based courses" during Classes 11-12. "So, in theory, the student will have the freedom to pursue Physics, History and Mathematics, if she wants," said a source, who did not wish to be identified.

The Indian Express has learnt that the committee has identi-

fied eight curricular areas – Humanities, Science, Social Science, Maths and Computing, Vocational Education, Sports and inter-disciplinary areas – under which a basket of subjects will be on offer in Class 12. For instance, under Humanities, a school can offer Language, Literature and Philosophy as subjects. Physics, Chemistry and Mathematics will be offered under the Science curricular area, and History, Geography, Political Science, Psychology, Economics and Sociology under Humanities.

A student will have to study 16 choice-based courses spread

across at least three curricular areas (out of eight). So, in practice, a student can opt to complete 16 choice-based courses across Humanities, Maths and Computing, and Science. "What is being suggested is possible in theory, yes. But one will have to see whether this can be implemented given the current realities of how students enter higher education. If universities continue to stick to the science-commerce-arts segregation, then multidisciplinary in school education will not work. In fact, students will not exercise that choice at all," said a committee member.

# Key deletions in NCERT texts

## • Key deletions in NCERT texts

However, the above sentences and references are missing from the new textbooks, with rationalised content that hit the market recently, a scrutiny of the reprinted books by The Indian Express has revealed.

Last year, NCERT had rationalised textbooks for all subjects to reduce curricular load further to help students make a "speedy recovery" in learning, which has been hit by covid-19 disruptions. The changes were announced via a booklet that was uploaded on the Council's official website and also formally shared with all schools. The textbooks (with rationalised content) were not reprinted last year due to shortage of time. The new books, however, have now hit the market and are available for the new academic year 2023-24.

When asked why changes pertaining to Mahatma Gandhi's assassination did not make it to NCERT's official document released in June 2022, but directly introduced in the reprinted textbooks, NCERT director DS Saklani insisted "there is nothing new" this time. "Rationalisation happened last year. We have not done anything new this time," he told The Indian Express. His colleague and head of NCERT's Central Institute of Educational Technology, AP Behra said, "It is possible some bits may have been left out of the table due to oversight but no new changes have been made this year. This all happened last year."

Consider some of the most glaring changes introduced in the reprinted textbooks this year that were missing from NCERT's "list of rationalised content" released in June 2022:

■ The third and last reference to the Gujarat riots in NCERT textbooks has been dropped from the Class 11 Sociology textbook titled 'Understanding Society'. NCERT has deleted a paragraph that talks about how class, religion and ethnicities often lead to segregation of residential areas and it then cites the communal violence in Gujarat in 2002 to illustrate how communal violence furthers ghettoisation.

The deleted paragraph reads: "Where and how people will live in cities is a question that is also filtered through socio-cultural identities. Residential areas in cities all over the world are almost always segregated by class, and often also by race, ethnicity, religion and other such variables. Tensions between such identities both cause these segregation patterns and are also a consequence. For example, in India, communal tensions between religious communities, most commonly Hindus and Muslims, results in the conversion of mixed neighbourhoods into single-community ones. This in turn gives a specific spatial pattern to communal violence whenever it erupts, which again furthers the 'ghettoisation' process. This has happened in many cities in India, most recently in Gujarat following the riots of 2002."

With the removal of the above paragraph, all NCERT social science textbooks for Classes 10 to 12 have been purged of all references to the Gujarat riots.

The Council had officially announced deletion of two references to the Gujarat riots from the last chapter of the Class 12 political science textbook titled 'Politics

in India since Independence and the Class 12 sociology textbook 'Indian Society' in its 'list of rationalised content' released in June last year.

■ In the first chapter of the Class 12 Political Science textbook 'Politics in India since Independence', NCERT has removed sentences on how Hindu extremists particularly disliked Mahatma Gandhi and had made several attempts to assassinate him. This was mentioned under the subheading 'Mahatma Gandhi's sacrifice'.

"He (Gandhi) was particularly disliked by those who wanted India to take revenge or who wanted India to become a country for the Hindus, just as Pakistan was for Muslims. They accused Gandhi of acting in the interests of the Muslims and Pakistan. Gandhi thought that these people were misguided. He was convinced that any attempt to make India into a country only for the Hindus would destroy India. His steadfast pursuit of Hindu-Muslim unity provoked Hindu extremists so much that they made several attempts to assassinate Gandhi," the deleted passage reads.

NCERT has also dropped the reference to the government's ban on the Rashtriya Swayamsevak Sangh following Gandhi's assassination.

The deleted sentences read, "Gandhi's death had an almost magical effect on the communal situation in the country. Partition-related anger and violence suddenly subsided. The Government of India cracked down on organisations that were spreading communal hatred. Organisations like the Rashtriya Swayamsevak Sangh were banned for some time. Communal politics began to lose its appeal."

However, the remaining content under the subheading 'Mahatma Gandhi's sacrifice' mentions Gandhi's visit to Kolkata on August 15, 1947, which was torn by Hindu-Muslim riots at that time and his subsequent efforts to persuade Hindus and Muslims to give up violence. It also briefly describes his assassination.

"Finally, on 30 January 1948, one such extremist, Nathuram Vinayak Godse, walked up to Gandhi during his evening prayer in Delhi and fired three bullets at him, killing him instantly."

■ In the Class 12 History textbook titled 'Themes in Indian History Part III', the Council has dropped a "brahmin" reference to Godse and that he was "the editor of an extremist Hindu newspaper".

The paragraph pertaining to Gandhi's assassination in the chapter titled 'Mahatma Gandhi and the Nationalist Movement' earlier read: "At his daily prayer meeting on the evening of 30 January, Gandhi was shot dead by a young man. The assassin who surrendered afterwards, was a Brahmin from Pune named Nathuram Godse, the editor of an extremist Hindu newspaper who had denounced Gandhi as 'an appeaser of Muslims'."

The revised paragraph now reads: "At his daily prayer meeting on the evening of 30 January, Gandhi was shot dead by a young man. The assassin, who surrendered afterwards, was Nathuram Godse."

# NCERT textbook deletions

## NCERT textbook deletions

with the RSS-BJP. This is not the first time that this has happened. I recall that even in the first and second NDA governments in 1998-99, this particular project was being unveiled. But the only thing I would like to say is that you can distort history but you cannot erase it. The truth has a way of manifesting itself. Ultimately, history bears testimony to the fact that those who have tried to rewrite history have actually been consigned to the dustbin of history," Congress MP Manish Tewari said, responding to a question at a press conference.

Sharing a screenshot of *The Indian Express* report, Congress general secretary in-charge (communications) Jairam Ramesh tweeted: "Whitewashing with a vengeance".

Rajya Sabha MPs Kapil Sibal and Manoj Kumar Jha also took to Twitter to criticise the deletions. Sibal tweeted that the deletions are "consistent with Modi's Bharat - Modern Indian history should start from 2014". RJD MP Manoj Kumar Jha, who also teaches at Delhi University, retweeted a post on the subject, adding, "They don't understand that such 'memory erasures' cannot erase history."

Responding to Sibal's tweet, Union Minister of State for Agriculture & Farmers' Welfare Shobha Karandlaje posted that the "BJP is only correcting your wrongdoings" as "facts that threatened Congress never made it to textbooks", listing "barbarism of Mughals", "era of Emergency", "genocide of Kashmir Pandits & Sikhs" and "corruption of Congress".

In Congress-ruled Rajasthan, Education Minister B D Kalla said: "There should be no distortion of history. Mahatma Gandhi is the father of our nation. The facts surrounding his death should be presented as they are, and not after tampering. For some of the classes in Rajasthan schools, NCERT textbooks are used. We will examine the new books and take a decision on what to do next."

Bratya Basu, his counterpart from West Bengal, said the TMC government in the state was

against any "revision" of history. "In my opinion, deleting someone's activities or some events which actually happened in the past, is basically an aberration from the true spirit to tell the real story in the form of history. We are against any revisionism in history," he said.

Odisha's School and Mass Education Minister Samir Ranjan Dash said he has asked the State Council of Educational Research and Training to examine the changes made in the NCERT textbooks. Like in most states, SCERT prepares the curriculum for schools under the Odisha government. The BJD government in Odisha has also constituted a task force to study the changes made, and to recommend necessary changes to be made in NCERT curriculum, Dash said.

Kerala Education Minister and CPI(M) leader V Sivankutty said the state would not accept the central government's attempt to present history "in a distorted manner". "Preparation of the textbook with a narrow-minded political approach cannot be justified academically," said the minister.

The education ministers of Telangana (BRS) and Andhra Pradesh (YSR-CP), P Sabita Reddy and Botsa Satyanaryana respectively, said their state boards would "scrutinise the changes" first and then decide whether these are to be incorporated in the curriculum. "While the state board uses NCERT textbooks, it has the option to decide whether changes suggested by the council are to be incorporated or not," said Satyanaryana.

In Bihar, Finance Minister Vijay Kumar Chowdhary said, "We are against any tampering of history."

In a tweet, CPI general secretary D Raja said the NCERT was behaving like the "National Council for Eradication of Rationality & Truth". Stating that nobody can "twist the truth" these days, DMK MP Kanimozhi said "students will be told the truth at any cost". Malwinder Singh Kang, chief spokesperson of the AAP's Punjab unit, said the move was aimed at misleading future generations. (WITHENSINPUTS)

## In NCERT textbook prune: Mughal era, Delhi sultanate, Emergency impact and 2002 riots

# In NCERT textbook prune: Mughal era, Delhi Sultanate, Emergency impact and 2002 riots

RITIKA CHOPRA  
NEW DELHI, APRIL 4

AS STUDENTS from Classes 6 to 12 return to school this week for the new academic session, they will find new social science textbooks on their desks with the most sweeping changes since the NDA government took charge in 2014.

From purging all references to the 2002 Gujarat riots, pruning content on the Mughal era and the caste system, and dropping chapters on protests and social movements, these changes are the result of a 'rationalisation' exercise undertaken by the National Council of Educational Research and Training (NCERT) last year, aimed at reducing the curriculum load to help students make a 'speedy recovery' from learning setbacks suffered during Covid.

The *Indian Express* had first reported these changes in a three-part series carried from June 18 to 20 last year.

Although the NCERT had released a comprehensive list of all tweaks and deletions in the textbooks last year, it could not introduce these changes as the academic session had started.

Reprinted books with rationalised content hit the market only recently, just in time for the 2023-24 academic year.

Some of the key changes carried out in the textbooks:

■ Content on the Mughal era and Muslim rulers of India has suffered deep cuts. Several pages on the Delhi Sultanate, ruled by many dynasties including the Mamluks, Tughlaqs, Khaljis and Lodis, and the Mughal empire have been removed from the Class 7 history textbook *Our Past – II*.

■ The chapter *The Mughal Empire* in the Class 7 textbook, too, has suffered cuts, including a two-page table detailing milestones and achievements of Mughal emperors such as Humayun, Shah Jahan, Babur, Akbar, Jahangir and Aurangzeb.

■ In the Class 12 history textbook, the chapter *Kings and Chronicles: The Mughal Courts* (Themes in Indian History – Part II) has been deleted. The chapter dealt with Mughal-era manuscripts like *Akbar Nama* and *Badshah Nama* and how these chronicle the history of Mughals through battles, hunting expeditions, building constructions and court scenes.

■ In the Class 7 history textbook

*Our Past – II*, a reference in the second chapter to Mahmud Ghazni of Afghanistan, who invaded the subcontinent and raided Somnath temple, has been tweaked. First, the title "Sultan" has been dropped from his name. Second, the sentence "he raided the subcontinent almost every year" has been revised to "he raided the subcontinent 17 times (1000-1025 CE) with a religious motive".

■ Passages that dealt with Emergency's draconian impact have been pruned. For instance, the chapter on Emergency in Class 12 political science textbook *Politics in India Since Independence* has been reduced by five pages. The deleted content in the chapter titled *The Crisis of Democratic Order* pertains to controversies surrounding the decision to impose Emergency and the abuse of power and malpractices committed by the Indira Gandhi government during that time. It lists excesses such as the arrest of political workers, restrictions on the media, torture and custodial deaths and forced sterilisations.

■ Three chapters detailing protests that turned into social movements in contemporary

India have been dropped from political science textbooks across Classes 6 to 12. For instance, a chapter on the "rise of popular movements" has been dropped from the Class 12 textbook *Politics in India Since Independence*.

■ The section on varnas in the Class 6 history textbook (*Our Past – I*) is reduced by half. Sentences on the hereditary nature of varnas, classification of people as untouchables and rejection of the varna system have been removed from the chapter *Kingdom, Kings and an Early Republic*.

■ All references to 2002 Gujarat riots have been dropped from all NCERT social science textbooks. For instance, two pages on the riots in the last chapter of the current Class 12 political science textbook titled *Politics in India Since Independence* have been deleted. The first page carries a paragraph on the chronology of events – the train full of karsevaks set on fire followed by violence against Muslims – and refers to the National Human Rights Commission's criticism of the Gujarat government for failing to control the violence. The deleted passage states: "Instances, like in Gujarat, alert us to the dangers involved in

using religious sentiments for political purposes. This poses a threat to democratic politics."

The second page (now deleted) carries a collage of three newspaper reports along with an excerpt of NHRC's observation from its Annual Report of 2001-2002 on the Gujarat government's handling of the riots. Former PM Atal Bihari Vajpayee's famous "raj dharma" remark in this section has also been removed. "My one message to the CM is that he should follow 'raj dharma'. A ruler should not make any discrimination between his subjects on the basis of caste, creed and religion," Vajpayee had said at a press conference in Ahmedabad in March 2002 with Narendra Modi, the then Gujarat CM, sitting by his side.

This is the third textbook review since 2014. The first one took place in 2017, in which the NCERT made 1,334 changes, including additions, corrections and data updates, in 182 textbooks. The second review was initiated in 2019 at the then Education Minister Prakash Javadekar's behest to reduce the burden on students.

## NCERT: Need not notify minor deletions from textbooks

# NCERT: Need not notify minor deletions from textbooks

**EXPRESS NEWS SERVICE**  
NEW DELHI, APRIL 16

DAYS AFTER *The Indian Express* reported that certain sentences on Mahatma Gandhi, his assassin Nathuram Godse, the role of Hindu extremists and the 2002 Gujarat riots had been deleted from school textbooks, the NCERT has said "minor" changes need not be notified as they are "regular" in nature.

In a statement uploaded on its website, the council said the deleted portions did not figure in the official list of deletions announced last year as "minor deletions" are not notified to avoid "any confusion at the level of teachers and student".

"Details of rationalisation for each book was also uploaded on

the website along with textbook in PDF form while the rationalized textbooks were in printing. However, it may be noted that reprinting of textbooks taking care of suggestions of stakeholders is a regular process which takes place every year," the statement added.

In June 2022, the NCERT made public a list of changes and deletions in the reprinted textbooks that came into the market recently. However, many deletions, including the ones on Mahatma Gandhi, were not notified.

The NCERT statement said, "In view of avoiding any confusion at the level of teachers and students, minor deletion or addition if any, are not notified. In the context of rationalisation exercise also some minor deletions (a sentence or a word or a phrase, etc.) were done, which were not included in the

details of the notification of the rationalisation, as this was under the regular process of reprinting of textbooks."

The council added that it "firmly stands on its version that nothing has been removed or deleted after rationalisation undertaken in academic session 2022-2023". The factors cited by the NCERT behind the deletions include content which are "overlapping", "not relevant or outdated in the present context", "difficult", "easily accessible to children and can be learned through self-learning or peer-learning".

Apart from its in-house experts, the NCERT had brought in 25 external experts, drawn from the faculty of Delhi University, ICHR, Kendriya Vidyalayas and private schools, for carrying out the rationalisation. But deletions have

been questioned by Opposition, as well as noted scholars.

The deletions by the NCERT include lines such as "He (Gandhi) was particularly disliked by those who wanted Hindus to take revenge or who wanted India to become a country for the Hindus, just as Pakistan was for Muslims".

The line was a part of the class 12 political science textbook.

"His (Gandhi) steadfast pursuit of Hindu-Muslim unity provoked Hindu extremists so much that they made several attempts to assassinate Gandhiji... Gandhiji's death had an almost magical effect on the communal situation in the country... The government cracked down on organisations that were spreading communal hatred. Organisations like RSS were banned for some time..." are among lines which stand deleted.

## Group poses as NCERT book wholesalers to sell fake material, cons retailers of lakhs

# Group poses as NCERT book wholesalers to sell fake material, cons retailers of lakhs

**EXPRESS NEWS SERVICE**  
NEW DELHI, APRIL 23

THE DELHI Police Crime Branch has registered a case against a group of people for allegedly cheating book retailers and sellers across the country by posing as NCERT book wholesalers and selling fake copies of textbooks.

No arrest has been made yet. Police said they have received two complaints so far. One of them, a Namakkal-based bookseller, approached the Delhi Police and alleged he was cheated of more

than Rs 25 lakh by the accused.

Explaining the modus operandi, police said the accused, who operate from Rohini, place ads on educational websites and offer huge discounts on expensive books to lure their targets.

One of the complainants alleged he visited a site and found a bookseller in Delhi. He even came to Delhi and placed an order by scanning the QR code, which was forged by the accused along with the order details. While the order was made for Rs 20-21 lakh, the books

never arrived.

"I have been purchasing and selling books since 2012. When the books didn't arrive, I called the seller in Delhi. First, he ignored my calls and then sent duplicate/fake copies of NCERT books. None of them were printed books, only photocopies. I again approached them and threatened to file a complaint. They sent me back Rs 4 lakh and blocked me..." alleged the complainant.

Police said a case of cheating, criminal breach of trust and criminal conspiracy has been

registered against the accused.

A senior police officer said, "The accused have been selling fake and duplicate books for a long time. They are now cheating people from across states by pushing online ads on various sites and/or distributing fake books at marketplaces. We have received a few complaints from vendors and sellers who lost money worth lakhs of rupees."

The QR code, dispatch bills and other shop details given by the accused are all fake. Police said the cheated money was diverted to different accounts.

# Textbooks for the times



## Textbooks for the times

NCERT's rationalisation exercise was based on feedback from teachers

SRIDHAR SRIVASTAVA, GOURI SRIVASTAVA, SEEMA SHUKLA OJHA, RANJANA ARORA

THE RECENT DEBATE on the rationalisation of the content of textbooks, developed by the NCERT around 17 years ago, specifically in history and political science, has led us to take a critical look at the objectives of the curriculum, and its constantly evolving nature. A curriculum is not just about the experiences it intends for the learner; it must also factor in content alignment, learning activities, assessment, physical environments and ways of thinking and practising. Many theorists also underline the importance of the socio-epistemic context in which the curriculum is put to use. Moreover, in times of digital learning and the availability of a variety of teaching and learning materials, it is important to use materials beyond textbooks.

During the Covid-19 pandemic, the NCERT undertook several initiatives to help students cope with stress and anxiety and facilitate learning. These included online sessions on subject-based learning, the Alternative Academic Calendar and Sahyog sessions. Students have learned many more skills that schools are not able to teach. However, studies have revealed that learning gaps have developed and various stakeholders, including the Parliament Standing Committee, have raised concerns about the curriculum load. The National Education Policy, 2020, endorsed the need for reducing content and increasing flexibility in school curricula and textbooks. The NCERT took a step towards rationalising textbooks across stages and subject areas to compensate for time loss and facilitate the speedy recovery

in students' learning curves. In the rationalisation exercise, NCERT faculty members and experts took the following into account:

One, the overlapping of content amongst different subjects in the same class. Two, similar content in the lower or higher class in the same subject. Three, difficulty levels. Four, content that is easily accessible to children and does not require much intervention from the teachers — it can be learned through self-learning or peer learning. Five, content that is not relevant in the present context.

NCERT rationalised textbooks across subjects using this criterion. This exercise took place in 2020-2021 and the details were made public for the benefit of schools in 2022-23. Schools accepted these changes and modified their curricula and assessment policies. Students also expressed satisfaction. After the books were released in the market for the year 2023-24, the content that was rationalised drew media attention, especially the portrayal of the Mughals in history textbooks and the coverage of Mahatma Gandhi in history and political science textbooks.

NCERT took care of the connection among concepts/themes and no learning outcome was missed. Allegations about deleting the Mughal period are wrong. Those who hold this view need to go through all textbooks from Classes 6-12 to ensure that whatever is removed or rationalised has been included — either in the same subject in different classes or in a different subject in the same class. For instance, content about Mahatma Gandhi finds adequate space in the history textbook,

even if some aspects have been removed from the political science textbook. Given the multidisciplinary focus as per the NEP 2020, teachers are expected to deal with themes while taking care of their connections in other subject areas.

It is worth noting that the Class XII History textbook, "Themes in Indian History Part-II", has another theme on the Mughals, 'Peasant, Zamindars and the State, Agrarian Society and the Mughal Empire (16th and 17th centuries)'. This chapter covers important facets related to the society and economy of the medieval period. Additionally, the theme rationalised in this textbook, "Kings and Chroniclers: The Mughal Courts (c. 16th and 17th centuries)", and the one that was retained covers the Mughal period based on sources of history such as the *Ain-i-Akbari*, *Baburnama*, and various travel accounts. The Class XI textbook, "Themes in World History", also makes a reference to the Mughal ruler Babur. Timeline III in the same book refers to Babur, Akbar, and the construction of the Taj Mahal as well. Mughal rule is also covered in the History textbook for Class VII, "Our Past-II", under the themes of "Introduction: Tracing Changes Through a Thousand Years", "The Mughals (16th to 17th Century)", and "The 18th Century Political Formations".

During the analysis of content, it was observed that some statements were not presented as historical facts but as interpretations. For example, the mention of Nathuram Godse's caste in the Class XII History textbook, "Themes in Indian History Part III", was

deemed inappropriate by the expert committee. Some statements were rephrased using the same criteria. However, minute details were not included in the rationalisation list to avoid cluttering. Moreover, the Class VIII History textbook had statements on Godse without mentioning his caste.

Regarding the dropping of content in political science, experts suggested that the major portion of the box item with a heading "Mahatma Gandhi's Sacrifice" mentioned in the Class XII textbook "Politics in India Since Independence", was sufficient in depicting Gandhi's significant contribution. The section "Controversies regarding Emergency" was dropped from the same textbook. The committee considered the developments related to the imposition of the Emergency, retained in the reprinted version, sufficient to give students the basic knowledge about the crisis of democratic order and abuse of power.

The NCERT took feedback from teachers from KVS and other schools and CBSE practitioners on the rationalised content across subject areas. The Ministry of Education has uploaded a pre-draft of NCF for School Education on the website. This will provide the roadmap for new-generation syllabi and textbooks. Suggestions from the public and media have been sought. The weblink for NCF-SE is <https://ncf.ncert.gov.in/webadmn/assets/b27f04eb-65af-467f-af12-105275251546>

The writers are part of the NCERT's textbook team

# Changes the NCF 2023 draft proposes in the school education system

## Changes the NCF 2023 draft proposes in the school education system

SOURAV ROY BARMAN  
NEW DELHI, APRIL 9

THE SCHOOL education system in India may undergo a major restructuring, with an expert committee appointed by the Union government recommending broad modifications twice a year, a semester system for Class 12, and the freedom to students to pursue a mix of science, humanities, and commerce subjects.

On Thursday, the Ministry of Education released the pre-draft of the National Curriculum Framework (NCF) for school education for feedback from the public. Following this exercise, the draft will be finalised after further discussions involving the national steering committee, led by former IRO chairperson K Kasturirangan.

### What is the NCF?

The NCF, which was last revised in 2005, is a key document based on which school textbooks are prepared. So the current set of NCERT textbooks, having the changes made over the last few years, are all based on the NCF 2005. The latest round of revisions in the NCF has been underway since September 2021.

Besides Dr Kasturirangan, the 12-member steering committee includes Fields Medal recipient Manjul Bhargava, the author of *The Last River: On The Trail of Saraswati*, Michel Danino, Jami Millia Islamia University Vice-Chancellor Najma Akhtar, and Central Tribal University of Andhra Pradesh Vice-Chancellor TV Kartman.

### What are the proposed changes?

Among the most significant recom-

mendations in the draft NCF are those on the choice of subjects and exams in Classes 9-12. Over two years, in Classes 9 and 10, students will study 16 courses categorised under eight curricular areas. The suggested curricular areas are Humanities (including languages), Mathematics & Computing, Vocational Education, Physical Education, Arts, Social Science, Science, and Inter-disciplinary Areas. Students will have to clear eight board exams, each of which will assess their grasp of the courses they learnt in Classes 9 and 10.

Under the current system, there are no links of the kind between Classes 9 and 10, and students under most boards have to pass at least five subjects to clear Class 10. The committee has recommended

more changes at the level of Classes 11 and 12, including the introduction of a semester system in Class 12. In terms of subjects, students can pick 16 courses of their choice from eight curricular areas.

Currently, in Class 12, CBSE students appear for the board exam in at least five, and

at least six, subjects, and there is little scope for them to pursue multidisciplinary education. But under the proposed system, that will be possible as the National Education Policy (NEP), 2020 envisages "no hard separation" among arts, humanities, and sciences.

### And what about younger students?

At the foundational level, for children aged 3-8 enrolled in grades between pre-

school and Class 2, a play-based pedagogical approach has been suggested. The draft says textbooks are to be used from Class 3, and that most of the content should comprise toys, puzzles, and manipulatives.

For Classes 3, 4, and 5, children are to be introduced to textbooks on languages and mathematics, while also retaining the activity and discovery-based approach. In the middle stage (Classes 6, 7, 8), national as well as social sciences will be introduced.

### What are the proposed changes in specific subjects?

The NCF pre-draft does not have much about specific changes in textbooks, instead it has observations and suggestions. For instance, it says that stressing on a lone piece of evidence instead of exposing children to multiple contrasting pieces of evidence throws

up a "topical or inadequate picture" of a topic in social science textbooks. On maths, it says that many students have developed a "real fear" of the subject. The solution, the committee says, is a shift towards play, activity, discovery and discussion-based learning.

### When will the changes come into effect?

The government recently announced that textbooks based on the revised NCF will be taught in schools starting from the 2024-25 session. But a specific timeline on the implementation of the changes in exams, assessment and subject design has not been made available yet.

Feedback can be given on the email address [ncf@ncert.nic.in](mailto:ncf@ncert.nic.in)

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## Engage, do not delete



USHA SUBRAMANIAN

# Engage, do not delete

By critically reviewing aspects of history, we can stimulate fresh discussion

SHYLOCK, THE MONEYLENDER in Shakespeare's *The Merchant of Venice*, has fascinated audiences and readers ever since the play debuted in England, in 1605. In Elizabethan society, the Jewish Shylock began life as a crafty and ruthless villain who demanded his "pound of flesh" from his Christian borrowers. Over time, however, his character took on new dimensions as historical events challenged dominant social and political perspectives.

After the Holocaust, in which the Nazis killed around six million Jews, critics and readers began viewing Shylock as a symbol of the wandering Jew, a victim rather than a villain. Critics also radically reinterpreted his most famous speech, in Act III. In the speech, Shylock asks, "Hath not a Jew eyes? Hath not a Jew hands, organs, dimensions, senses, affections, passions; fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter also and summer as a Christian is? If you prick us, do we not bleed? If you tickle us, do we not laugh? If you poison us, do we not die? And if you wrong us, shall we not revenge?"

Instead of viewing this speech as a call for retribution, people saw it as giving voice to the voiceless and the persecuted, and as underlining the basic humanity that binds us all. Such re-readings, which enhance or

challenge previous interpretations in the face of historical developments, are precisely what imbue literature with vitality and immediacy. This constant churn infuses old works with excitement and energy. But a churn arising from a divisive political agenda can bring forth only poison.

Such an example is the National Council for Education, Research and Training clandestinely deleting sections of various textbooks, including chapters on the history of Mughal courts. Responding to a flood of criticism, the NCERT first called the deletions an oversight and then dismissed them as insignificant, saying that it wanted to lighten students' burden. But its explanation is far from convincing, revealing that the move was political rather than pedagogical. NCERT has done what the current regime believes will make it popular with a section of the population.

By critically and rigorously reviewing aspects of history, we can stimulate fresh discussion, but simply wishing them away is both absurd and juvenile. English literature, which I have taught for four decades, offers several examples of how texts continue to be read even though the way readers and critics respond to them, their characters, and their writers keeps changing.

Take Shakespeare. He might enjoy a reputation of being the greatest English dramatist of all time, but that has not deterred crit-

ics, and some quacks, from raising questions about his very existence, from attributing his writings to famous contemporaries, and, more recently, from doing investigative work to prove that it was a woman who wrote all his plays. To some, he is a great humanist and stellar reader of human character, while to others, he is a racist and imperialist.

Even in the prudish Victorian age, Thomas Bowdler failed in his attempt to tamper with the plays for moral reasons. The pendulum keeps swinging, but Shakespeare lives on, a tourist industry all by himself.

Another example is Charlotte Brontë's *Jane Eyre*, published in 1847. More than a hundred years later, Jean Rhys wrote a feminist and post-colonial prequel, *Wide Sargasso Sea*, set in the Caribbean, in which the protagonist had been shut away by Brontë in the attic as a madwoman. Critics have interpreted Rhys's book as a feminist and post-colonial critique of Brontë's book.

Then in 1970, the book *Sexual Politics* by Kate Millett called out the sexist stances and patriarchal premises of canonical male writers such as D H Lawrence, Henry Miller and Norman Mailer. Conversely, Elaine Showalter's *A Literature of Their Own* brought to light the long but neglected tradition of women writers in England.

Casebooks in Criticism, a set of books on

major texts and films, exemplifies the extent to which readers' and viewers' responses to these works change over time. Each Casebook explores a seminal work and traces its critical reception through the ages — from reactions at the time the works came into being to the present, highlighting how historical context, changing social mores and cultural trends play a role in this evolution. By adding new interpretations of texts, however critical of older ones, we enrich our understanding, while banning or censoring texts and their interpretations stunt our imagination and intellect. The ability to engage and live with contradictory interpretations of texts and history is a sign of maturity.

In direct contrast, the NCERT has pandered to a majoritarian ideology that seeks to crush out of our consciousness parts of history that have shaped the nation and influenced its ethos. Today, many still remember this history, and therefore resist these distortions. But such deletions attempt to shape and impoverish future knowledge. As the regime tries to "Indianise" knowledge and filter Western impurities, a time may come when Indians who value scholarship and nuance have to look to the West to recover their own history.

The writer is a Mumbai-based academic and social commentator

# Why the pre-draft NCF recommends a diverse curriculum in school education

## Why the pre-draft NCF recommends a diverse curriculum in school education

The boundaries among 'curricular', 'extracurricular', or 'co-curricular' will be blurred, encouraging schools to integrate learning across various streams

Rajkeshvi Ghosh  
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The pre-draft National Curriculum Framework (NCF) on school education has made some key recommendations about the choice of subjects and classes in grades IX-XII. Over two years, in class IX and X, the students will have to study 16 courses categorised under eight curricular areas. The proposed curricular areas include Humanities (that includes languages), Mathematics & Computing, Vocational Education, Physical Education, Arts, Social Science, Science, and Inter-disciplinary Areas. The Secondary Stage – which is for four years and includes Grades IX, X, XI and XII – will comprise four years of multidisciplinary study where students can design their own study paths and itineraries.

### Flexibility holds key

Prof Dinesh Prasad Saklani, director, NCERT, says that the 'flexibility in the policy is intended to help students learn both the breadth and depth of the areas they select, rather than limiting themselves to specific streams. "While engaging in disciplines, students will receive greater attention to their personal and career aspirations as they prepare for work or higher education. The curricular goals and competencies approach provides scope for students to develop their pre-occupational skills for pursuing professional courses such as Medicine, Engineering, Architecture, etc., in the future, by assisting subjects of their



**The NCERT will tie up with NCTE and CBSE to implement NCF-SE recommendations in teacher education**

### NEP 2020 as the base

On the pre-draft being developed as per NEP 2020, Saklani says, "The National Curriculum Framework for School Education (NCF-SE) is being

developed as a follow-up of the NEP 2020. It provides a broad guideline for the implementation of NEP 2020 perspectives in school education, taking care of curriculum, pedagogy and assessment. In the past, three NCFs were based on NPE 1966 NCF (1986), NCF (2005) and NCF (2009). All of these NCFs refer to NPE 1986. The NCF in its current form is a pre-draft put on the public domain for feedback, fol-

lowing which it will be finalised." Emphasising on how teachers can adopt to the NCF, Saklani says "NCERT will initiate teacher training

based on the NISHTHA model once the NCF-SE is released in its final form. The NCERT will also prepare syllabus and textbooks for the

entire school stage and collaborate with NCTE and CBSE to implement NCF-SE recommendations in teacher education and assessment."

own choice for undertaking specific courses," he adds.

### Courses in grade IX, X

The students will have to complete two Essential Courses from each of the eight Curricular Areas to complete grade X. In other words, they will have to complete a total of 16 Essential Courses across two years of Grade IX and X. Students will have to clear eight Board exams at the end of grade X which will assess each of the two Essential Courses in each Curricular Area learnt during grades IX and X.

### Disciplines and courses in grade XI, XII

Grades XI and XII will have the same set of eight Curricular Areas, but choice-based courses will be designed based on the Disciplines within the Curricular Areas for a more intense engagement. Students will have to complete 16 choice-based courses to complete grade XII. They will have to choose Disciplines

from at least three Curricular Areas. When they select a Discipline, they have to complete four choice-based courses in that Discipline.

### Wide choice

As per the classification, the Humanities Curricular area will include Languages, Literature, Philosophy as disciplines while Social Science will comprise History, Geography, Political Science, Psychology, Economics and Sociology. In Science, the Disciplines will include Physics, Chemistry and Biology while Mathematics and Computing will comprise Mathematics, Computer Science and Business Mathematics. The Interdisciplinary Area will cover a wide spectrum involving Disciplines such as Commerce, Sustainability and Climate Change (Environmental Education), Media and Journalism, etc though the list may be continually increased.

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## Draft NCF bats for multiple board exams, stresses self-assessment

# Draft NCF bats for multiple board exams, stresses self-assessment

Manash.Gohain  
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**New Delhi:** The draft National Curriculum Framework (NCF) for School Education 2023 has recommended major changes in assessment across different levels of schooling, with the national steering committee's document suggesting Board exams be conducted at least twice a year.

Highlighting that class X and XII final exams largely test rote memory and a very narrow range of competencies, and there's no provision for a second chance if any student misses the examination, the NCF said that these exams should provide a reliable picture of student performance.

Suggesting offering the exams multiple times to ensure that students get time and opportunity to do well, the new curriculum, coming af-

### 'GIVE STUDENTS TIME, SPACE TO DO WELL'


> Board exams should be held at least **twice a year** to give students **enough time & opportunity to do well**, says National Curriculum Framework for school education

> **Not clear** yet if this'll give students option to **take a paper more than once** or enable them to **stagger the exam**, taking a

few papers at a time

> The new curriculum, on which textbooks will be based, was **presented to govt** recently for feedback and finalisation

> Stress on **self-learning** at secondary stage to enable kids to **monitor what they are learning** and use feedback to adjust and decide strategies

 The aim of assessment...will shift from one that is summative and primarily tests rote memorisation skills to one that is more regular and formative, is more competency-based, promotes learning and development, and tests higher-order skills... —National Curriculum Framework 2023

ter 18 years and presented to government recently for feedback and finalisation, also said boards should ensure that all test developers, reviewers and evaluators go through formal university-certified courses on test development before they begin this work.

The steering committee

felt that "self-assessment will play a key role in student learning," at the secondary level, proposing that students should be facilitated to monitor what they are learning and use feedback to adjust and decide their learning strategies.

► **Related report, P 15**

**Bhartiya curriculum: teach natyashastra, panini in school, says draft NCF**

## ‘Bharatiya curriculum’: Teach Natyashastra, Panini in school, says draft NCF

**Manash.Gohain**  
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**New Delhi:** The draft NCF-2023 recommends a ‘Bharatiya’ curriculum, including study of ancient Indian texts like Natyashastra, Abhinaya Darpanam and Vastushastra besides the works of mathematicians like Baudhayana, Panini and

**► TOEFL to be shortened by an hour from July, P 26**

Pingala and exploring India’s major scientific discoveries. It also stresses on learning in Indian languages and integrating ‘knowledge of India’ in the school curriculum.

“Learning about India and situating learning in the child’s context, both local and national, is an integral part of this document across all scho-

### **Inclusiveness part of NCF proposals**

The draft NCF recommends inclusion of ‘thought of the day’ of “lesser-known individuals belonging to different communities” and doing away with symbolic representation of hierarchy like separate sitting of boys and girls and separate set of cutlery for the principal. **P 18**

ol stages,” says the NCF as it illustrates how to make “Rootedness in India” a priority across all stages of school education. Taking cue from the NEP- 2020, the draft NCF claims the new curriculum is “strongly rooted in India’s context and Indian thought”.

**► Related report, P 18**

# NCF: Board exams prevent truly holistic development

## NCF: Board exams prevent truly holistic development

### NATIONAL CURRICULUM FRAMEWORK FOR SCHOOL EDUCATION 2023

**ASSESSMENT**  
NCF 2023 suggested three approaches to assessments – assessment of learning, for learning and as learning



#### Types of Assessment

Formative assessments are continuous and ongoing

Summative assessments evaluate student learning at the end of a lesson or a logical period of teaching

#### Assessment across stages

<b>Foundational Stage</b>	Assessment via observations of the child & analysing artefacts that the child has produced
<b>Preparatory Stage</b>	A comprehensive assessment at the end of the preparatory stage to measure the readiness to enter the middle school
<b>Middle Stage</b>	By the end of the middle stage, there should be a comprehensive summative assessment of student achievement of competencies in each curricular area
	Assessments should also be able to indicate special interest or inclination in specific curricular areas students may have demonstrated
<b>Secondary Stage</b>	Self-assessment where students to monitor what they are learning & use the feedback to adjust, adapt, and decide their own strategies
	Summative assessments using case-based questions, simulations, & essay-type questions

#### CHANGES IN BOARD EXAMINATIONS

- > Board exams should provide a valid & reliable picture of student performance
- > Education Boards should have no role in the design of the curriculum or the articulation of competencies
- > Board examinations should be offered at least twice a year
- > Students can then appear for a board examination in courses they have completed and feel ready for
- > Boards should ensure that all test developers, reviewers & evaluators go through formal university-certified courses on test development
- > Vocational/ Arts/ Physical education are an integral part of the curriculum. Boards of examination will need to design high-quality test instruments for these & need to be assessed differently from what is normally done

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**New Delhi:** The new curriculum framework for school education, based on which the new school textbooks will be designed, has suggested different formats of assessment and certification of vocational education, arts education and physical education, which have been made an integral part of school curricula.

Suggesting that good assessment should be constructive, developmental and learning focused, stage-appropriate and accommodate student diversity, NCF 2023 stated, "The fact that the life-determining board examinations are available only on two occasions, in grade 10 and 12, the pressure on students and families would naturally be high. Also, the current structure of board examinations forces students to concentrate only on a few subjects at the expense of others, preventing truly holistic development," as it

recommends that examinations be also seen as learning experiences, from which one can learn and improve in future, adding, "the current board examination system does not lend itself to this."

Presenting the changes in assessment in schooling system, the draft cited the National Education Policy 2020 and quoted, "The aim of assessment in the culture of our schooling system will shift from one that is summative and primarily tests rote memorisation skills to one that is more regular and formative, is more competency-based, promotes learning and development for our students, and tests higher-order skills, such as analysis, critical thinking, and conceptual clarity...."

As per the draft NCF, "Assessment has two purposes — measuring achievement of student learning and gauging effectiveness of classroom processes and teaching materials in teaching and learning."

It suggested three approaches to assessments —

assessment 'of learning' (measurement of achievement of student learning), 'for learning' (evidence of student learning gathered by the teacher that provides inputs to guide the teaching-learning processes) and 'as learning' (when assessments are introduced as non-threatening tools for self-reflection and introspection).

Particularly critical of the current assessment systems, the document stated the stress of board examinations at class X and XII has repeatedly led to deep anxiety among students and families. They place an enormous amount of pressure on students over just a few days of their lives. For the foundational stage, the draft recommended assessment based on observations of the child and analysing artefacts that the child has produced as part of their learning experience, while for preparatory stage, it asked for "a comprehensive summative assessment of the student's readiness to enter the middle stage".

## In a first, academic credit accumulation from class 5

# In a first, academic credit accumulation from Class 5

Manash Gohain  
@timesgroup.com

**New Delhi:** Learning acquired out of Puranas, Vedas and other components of Indian Knowledge System, every academic assessment right from elementary school to higher education besides vocational training and skill development courses now can be creditised and accumulated in the Academic Bank of Credit (ABC).

The Centre on Monday had notified the National Credit Framework (NCrF) to integrate learning at multiple axis: academics, vocational skills, and even experiential learning, including relevant experiences and proficiency/ professional levels acquired. As per the framework, even online, digital and blended learning could now be creditised and accumulated. As a "broad enabling framework", the NCrF is envisaged as a meta credit transfer and accumulation system for school, higher and vocational education.

The framework has been jointly developed by the high



Till Class 12, each subject is assigned 240 hours for self-study at the school level

level committee comprising members from the UGC, AICTE, National Council for Vocational Education and Training, NCERT, CBSE, NIOE, and other departments from ministries for education and skill development.

The basic principle is to creditise all types of learning, assignment of one single credit level applicable across all qualifications, equivalence of academic and vocational/ skilling programmes, breaking the hard separation between different areas of learning, empowering students with flexibility in

choice of courses and imaginative and flexible curricular structures with creative combination of disciplines.

Notifying the framework, the UGC instructed all the higher education institutions to take steps to implement it. Encompassing school education under a credit framework for the first time, the NCrF has divided the learning ecosystem into eight levels, assigning credits based on learning hours from Class 5 all the way up to PhD level.

Till Class 12, each subject is assigned 240 hours for self-study at the school level. In higher education, it covers all undergraduate and postgraduate degrees as well as doctorates. Vocational education and skill training from level one to eight are part of the framework. Earning of credits will be based on total learning hours and assessments.

Nothing is left unmeasured, as outside of classroom learning, sports and games, yoga, physical activities, performing arts, handicrafts, bagless days will also be part of the evaluation framework.

## New curriculum rooted in Indian thought: Draft NCF

Manash Gohain  
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**New Delhi:** Taking cue from NEP-2020, which said "instilling knowledge of India and its varied social, cultural, and technological needs, its inimitable artistic, language and knowledge traditions is considered critical for national pride, self-confidence", the draft NCF claims the new school curriculum is "strongly rooted in India's context and Indian thought".

"India is home to deep knowledge in a variety of fields from literature to mathematics, philosophy to arts, grammar to astronomy, ecology to medicine, architecture to agriculture, psychology to politics to education. Contemporary India is equally vibrant, taking its place in the

**The approach to art education in NCF draws from texts like Natyashastra and Vaastushastra which have structured aesthetic principles of the arts, it says**

modern world," it says.

At the foundational stage, it proposes letting children learn from the stories of Panchatantra, Jataka, Hitopadesha and other fun fables and inspiring tales from the Indian tradition. "The approach to art education in NCF draws from ancient texts like Natyashastra, Abhinaya Darpanam, Shilpashastra, Vaastushastra and Chitra-

tra which have codified and structured the elements, methods and aesthetic principles of the arts," it says.

For mathematics, it suggests introducing students to Indian mathematicians and their work from foundation stage, progressing to secondary level where learners will explore contribution of mathematicians to advanced mathematical ideas.

For each subject curriculum, the draft NCF has defined curricular groups according to which a learner is expected to demonstrate a certain level of learning outcomes. It says in social science, "one of the key curricular goals is for students to appreciate the importance of being an Indian (Bhartiya) by understanding India's glorious past and rich diversity."

NEP reflects academic thoughts of Tagore

# 'NEP reflects academic thoughts of Tagore'

SNS & AGENCIES  
KOLKATA, 28 MARCH

President Droupadi Murmu said on Tuesday that the National Education Policy (NEP) of the Union government reflects the academic thoughts of Rabindranath Tagore.

"Gurudev Rabindranath Tagore's academic thoughts showed the way of introducing modern thoughts in the higher education system of the country. The reflections of the academic thoughts of that great son of the soil are there in the National Education Policy 2022," Murmu said while addressing the annual convocation ceremony of Visva Bharati University, which was founded by Tagore, at Santiniketan in Birbhum district.

The President also expressed her satisfaction over the balanced proportion of male and female stu-



dents at Visva Bharati University.

"I am really happy over this balanced ratio of male and

female students. Almost 50 per cent of the population in India are women. There is an urgent requirement for

women's empowerment through improvement in education standards for women in order to achieve the goal of self-reliant India. Hence, additional emphasis should be given to women's education throughout the country," the President said.

To mark the occasion, the university authority handed over to a portrait of Tagore to Murmu.

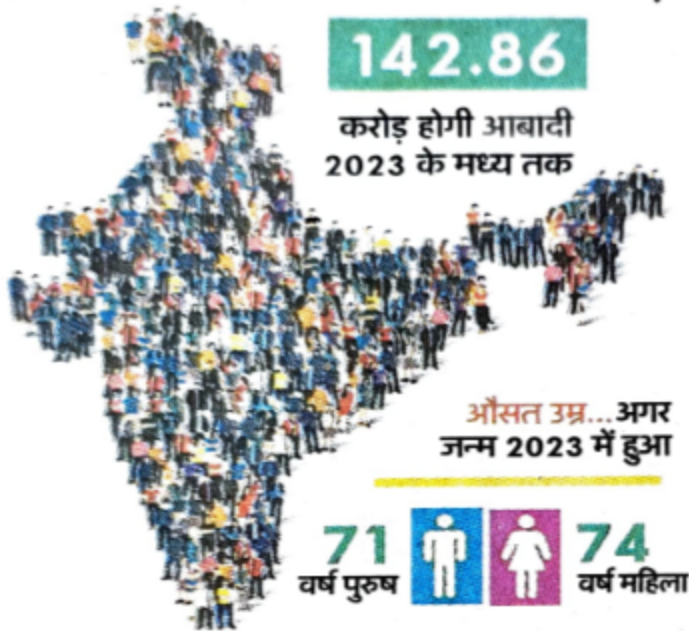
After reaching Santiniketan on Tuesday afternoon, the President first paid a visit to the museum at Rabindra Bhavan located within the university campus, where she paid floral tributes to the statue of Tagore. Thereafter, she paid a visit to the Kala Bhavan within the campus and appreciated the sculptures displayed there.

West Bengal Governor C.V. Ananda Bose, who is the rector of the university by virtue of his chair, was also present on the occasion.

## संयुक्त राष्ट्र की रिपोर्ट का दावा

### संयुक्त राष्ट्र की रिपोर्ट का दावा

सर्वाधिक आबादी वाला देश बना भारत, चीन को पीछे छोड़ा



नई दिल्ली। भारत अब सर्वाधिक आबादी वाला देश बन गया है। संयुक्त राष्ट्र जनसंख्या कोष (यूएनएफपीए) की स्टेट ऑफ वर्ल्ड पोपुलेशन रिपोर्ट के अनुसार भारतीयों की आबादी 142.86 करोड़ और चीन की आबादी 142.57 करोड़ हो गई है।

रिपोर्ट के अनुसार भारत की 25 फीसदी जनसंख्या शून्य से 14 वर्ष आयु वर्ग की है। 18 फीसदी आबादी 10 से 19 आयु वर्ग, 26 फीसदी आबादी 10 से 24 आयु वर्ग की है। 15 से 64 आयु वर्ग की आबादी 68 फीसदी है।

सर्वाधिक जनसंख्या वाले देश की हैसियत गंवाने के बाद चीन ने कहा-जनसंख्या के फायदे संख्या नहीं, गुणवत्ता पर निर्भर करते हैं। जैसे आबादी अहम है, वैसे ही

प्रतिभा भी। व्यूरो >> काम करने वालों की बढ़ी आबादी, अर्थव्यवस्था के लिए अच्छे संकेत : पेज 20/>> बढ़ती आबादी, बढ़ती संभावनाएं : संपादकीय

#### मायने क्या...

भारत की आबादी में युवाओं की संख्या ज्यादा है। यानी बड़ा कामकाजी वर्ग व बड़ा उपभोगकर्ता भी। यानी स्थानीय उपभोग बढ़ने की उम्मीद है।



# भारत ने बच्चों के टीकाकरण में किया अच्छा काम: यूनिसेफ़

सराहना

शीर्ष तीन देशों में भारत शामिल, 55 देशों में किए गए सर्वे की रिपोर्ट में आया सामने

## भारत ने बच्चों के टीकाकरण में किया अच्छा काम : यूनिसेफ़

अमर उजाला ब्यूरो

नई दिल्ली। टीकाकरण पर भरोसा जताने वाले देशों में अब भारत भी शामिल हुआ है। कोरोना महामारी के चलते माता और शिशुओं के टीकाकरण में काफी गिरावट दर्ज की गई, लेकिन बीते दो वर्ष में भारत ने इसमें सुधार करते हुए बाल टीकाकरण में काफी सुधार किया है।

यह जानकारी यूनिसेफ इंडिया की वैश्विक फ्लैगशिप रिपोर्ट 'द स्टेट ऑफ द वर्ल्ड्स चिल्ड्रन 2023: फॉर एवरी चिल्ड्रन, वैकसीनेशन में सामने आई है। बृहस्पतिवार को जारी इस रिपोर्ट में बताया गया कि टीकाकरण को लेकर दुनिया के 55 देशों में सर्वे किया गया, जिसमें शीर्ष तीन देशों में टीकाकरण के प्रति सबसे अधिक भरोसा देखा गया। इसमें भारत भी शामिल है। लंदन स्कूल ऑफ हाइजीन और ट्रॉपिकल



मेंडिसिन के अलावा यूनिसेफ की इस संयुक्त रिपोर्ट में बताया कि भारत, चीन और मेक्सिको में बाल टीकाकरण को लेकर लोगों में गंभीरता बनी हुई है। महामारी के चलते इस पर दुनियाभर में प्रभाव पड़ा, लेकिन इन देशों में जागरूकता के चलते समय रहते सुधार कर लिया गया।

इन देशों में कम हुआ विश्वास : रिपोर्ट के मुताबिक, कोरिया, पापुआ न्यू गिनी, घाना, सेनेगल और जापान के लोगों में कोरोना महामारी के बाद से टीकों के प्रति विश्वास में कमी आई है।

### 6.70 करोड़ बच्चे टीकाकरण से रहे दूर

रिपोर्ट के अनुसार, कोरोना की वजह से बीते 30 साल में बाल टीकाकरण में सबसे बड़ी गिरावट दर्ज की गई थी। महामारी ने लगभग हर जगह बाल टीकाकरण को प्रभावित किया। 2019 और 2021 के बीच दुनिया में 6.70 करोड़ बच्चे टीकाकरण से दूर रहे। इसका असर यह रहा कि खसरा के मामलों में बीते वर्ष की तुलना में दो गुना बढ़ोतरी हुई। पोलियो से पीड़ित बच्चों की संख्या में 16 फीसदी की वृद्धि हुई। पोलियो से लकवाग्रस्त बच्चों की संख्या में आठ गुना वृद्धि हुई है।

### सरकार की सामाजिक प्रतिबद्धता की पहचान

यूनिसेफ इंडिया की प्रतिनिधि सिंधिया मेककेफरी ने कहा, रिपोर्ट में भारत को विश्व के उन देशों में शामिल किया गया जहां टीके के प्रति सबसे अधिक भरोसा है। यह सरकार की राजनीतिक व सामाजिक प्रतिबद्धता की पहचान है। इससे यह भी पता चलता है कि महामारी के दौरान सबसे बड़ा टीकाकरण अभियान लोगों में भरोसा और बच्चों के नियमित टीकाकरण को व्यवस्थित करने में सफल रहा।

# The most populous nation

## EXPLAINER

# THE MOST POPULOUS NATION

The United Nations Population Fund's *State of the World Population 2023* report says India has overtaken China as the most populous nation. How did the country get here? What does this mean for the country's economy? Are population control policies advisable in the current scenario? **Sarthak Ray** takes a look



### Young India

AS PER the SOWP report, 15-64-year-olds (the working age population) account for 68% of the country's population. And 10-24-year-olds account for 26%, making India one of the most youthful nations in the world. At the same time, those aged 65 years or above—considered out of the workforce and dependent on social security/income of the younger population—account for just 7%, lower than the 10% share in the global population.

For many years now, economists and other experts have called this India's demographic dividend. Though for the dividend to meaningfully materialise and not get squandered, or worse, become demographic deadweight, the working age population has to be adequately skilled and healthy, with enough opportunities for sustainable and robust livelihoods. With the falling fertility rate, in the coming decades this youth bulge is going to deflate significantly.

### Beating China

INDIA HAD BEEN projected to overtake China on population by the mid-2020s—this was first expected to happen by 2027, and then 2025. But the World Population Prospects report last year said this would happen by 2023. Now, the UNFPA's *State of the World Population* report estimates India's population at 1.428 billion, slightly above China's 1.425 billion.

Whether this is the actual headcount in the country or not, only a Census exercise can tell. India's last Census—a decadal exercise—enumerated the population in 2011. The next round was scheduled for 2021, but was interrupted by Covid, and has since been postponed to 2024. India's census exercise, though, is far from perfect, failing to count up to 23 people in every 1,000 in 2011.

**1.428 bn**  
UN ESTIMATE OF  
INDIA'S POPULATION  
AT PRESENT

**1.425 bn**  
ESTIMATED  
POPULATION OF  
CHINA AT PRESENT

**2.0**  
TOTAL FERTILITY RATE  
AS PER STATE OF THE  
WORLD POPULATION

**16.949**  
LIVE BIRTHS PER 1,000  
PEOPLE IN INDIA

### Behind the rising population

INDIA'S CURRENT birth rate is estimated at 16.949 live births per 1,000 people—the birth rate in 1950 stood at 44.175. The country's fertility rate, at 2.0, is now below the replacement rate of 2.1—and much below the 5.907 recorded in 1950. Modern contraception, better levels of education among women, age of marriage increasing, etc, have helped.

So, why is the population still increasing? There is a momentum from the share of the reproductive age population in the overall headcount. "India continues to add significant numbers due to its young age structure and the decline in mortality/improved life expectancy," says Chetan Choithani, assistant professor at the National Institute of Advanced Studies, Bengaluru. Even with a low fertility rate, a significant share of youth within a large population will make large additions for some time.

### Policy imperatives for India

WITH THE TOTAL fertility rate coming down, though not uniformly across the country, population control policies that a few states have been talking about make little sense, since they are not going to yield a significant delta for the decline. In any case, a large chunk of respondents from India in a

SWOP survey believe both the country's population and its fertility rate to be quite high. Against such backdrop, adopting population control policies could do more damage than good—especially in terms of skewing the sex ratio at birth given India's pronounced

The need right now, experts say, is to plan for improving health and education outcomes for the younger segments of the population, provide skilling opportunities and create sustainable and robust livelihood opportunities. Against the decline in fertility rate and the implications for the age distribution of the

populations in the coming decades, India also needs to put in place the right social security structures as foster a robust care economy. The expert consensus is universal healthcare, gender justice, long-term plans for reskilling and upskilling, along with a focus on sustainable consumption will be key.

# Women in the workforce and the underlying stress

## Women in the workforce and the underlying stress

By Rahul Menon and Paarth Nath

A big gender gap in labour force participation rates (LFPR) – the share of population working, looking for a job – has been the cause of major concern in India. However, the recently released Periodic Labour Force Survey (PLFS) for 2021-22 shows that LFPR for women has been consistently increasing since 2017-18.

While rising LFPR for women is indeed a welcome trend, a careful analysis of PLFS unit-level data shows that this could be the result of some sort of underlying distress in India's labour markets, especially in urban areas. Here are five charts which explain this in detail.

### 1 The larger trend in LFPR for women



# Unpacking inflation in India, Its recent history

## Unpacking inflation in India, its recent history

By Roshan Kishore

The National Statistical Office (NSO) released the retail inflation number, as measured by the Consumer Price Index (CPI), for March 2023 on April 12. The monthly inflation number has fallen from 6.4% in February to 5.7% in March. This is exactly what a Bloomberg forecast of economists had projected.

Most forecasts, including the RBI's expect inflation to fall significantly going forward. To a large extent, this is just favourable base effect.

However, the annual CPI number for 2022-23 stands at 6.7%, the highest since 2013-14, when it was 9.3%. Here are three charts which explain the history and context of inflation in India in the last decade.

### 1 Inflation fell under the first Modi gov't, has been rising since then and is expected to fall again

The annual CPI series starts from 2011-12 which means we have inflation numbers from 2012-13 onwards. Annual inflation in 2012-13 was 9.3%, which is the highest of inflation in the current series. In the year, if one looks at other inflation numbers, 2012-13 is not the peak inflation in 2012. The CPI Inflation Numbers series from 2011-12 onwards shows that inflation in 2011-12 (9.4%) was lower than 2009-10 (11.2%) and the number was higher in past years.

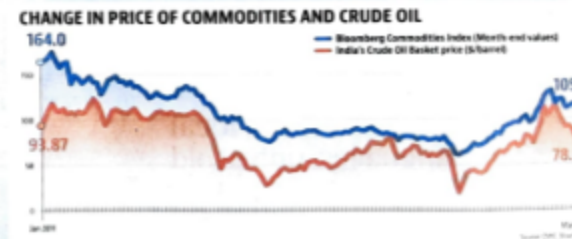
While inflation started declining from 2013-14 onwards, it had already under the first Narendra Modi government which assumed office in May 2014. By 2016-17 CPI had fallen to just 3.4%, after which it reversed course. Even if RBI's forecast of 2023-24 inflation coming at 5.7% seems low, the current government will face the 2014 general elections with a much higher inflation than when the 2014 path were laid.



### 2 This is in keeping with the international commodity price cycle

While CPI is used to capture price movements in consumption basket of the average Indian household and is very different in composition from the Wholesale Price Index (WPI), which is a price for wholesale prices in India and includes no services at all, its long term movement seems to be in sync with the international commodity price cycle. This becomes clear if one looks at indicators such as the Bloomberg Commodity Index (B-COM) and the price of India's crude oil basket (IOB). B-COM is a weighted index of commodity prices which includes energy, grains, industrial and

precious metals and agricultural raw materials. Both B-COM and IOB were at much higher levels when India's CPI inflation was in double digits. They were on a declining trajectory during the term of the first Modi government and reversed course in the period after, barring a sharp fall in the immediate aftermath of the Covid-19 pandemic. While the pace of increase was sharply after the Russia-Ukraine war, prices have started coming down again. This underlines the primacy of international prices in driving India's domestic inflation.



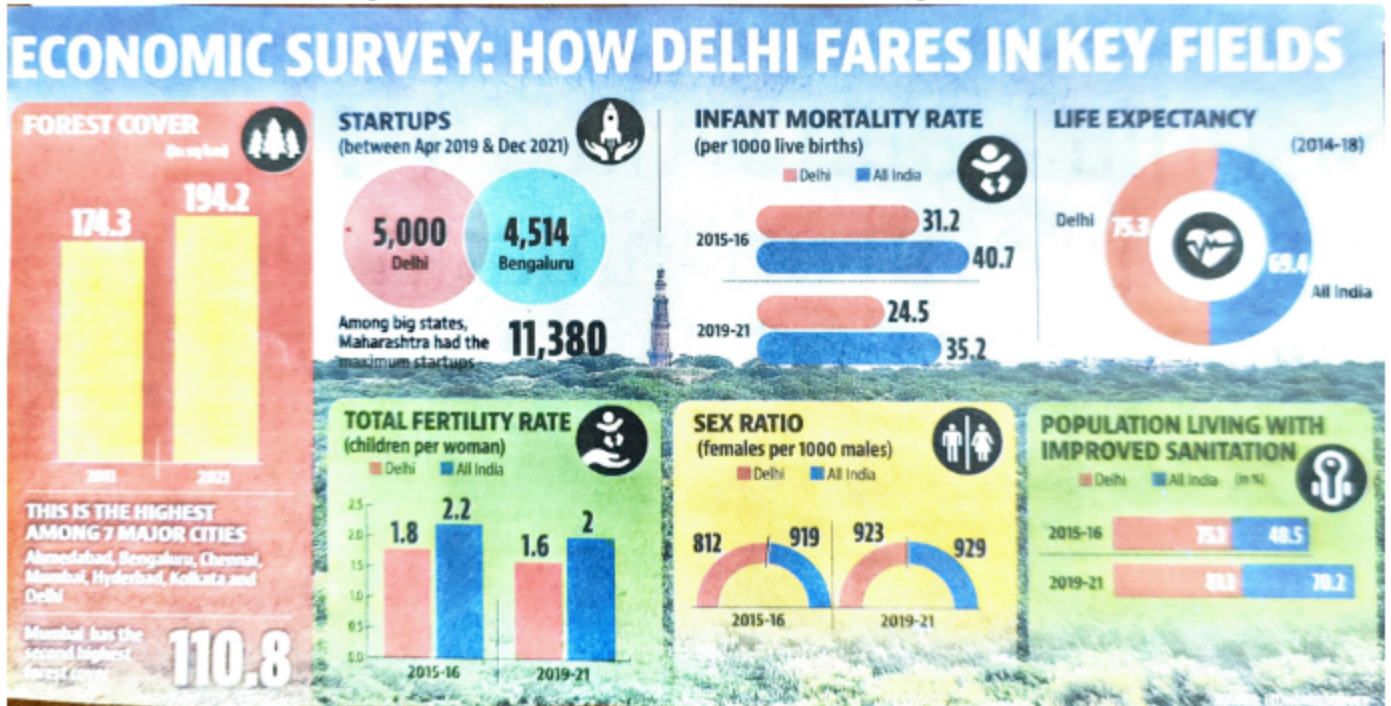
### 3 Although ironical, the blue-collared workforce was better off during the peak inflation period

One of the biggest arguments advanced against high inflation is that it erodes the income of the workers by bringing down real wages. In a country like India, where an overwhelming share of workers are in the unorganised sector and do not have industrial production against inflation, this argument is believed to be stronger. While there is no high frequency data on wages for the Indian economy, monthly rural wage data is often believed to be a good proxy for blue-collar workers' earnings in the economy. An analysis of real rural wages (adjusted using CPI) reveals that real wages were growing at a faster rate in the first half of the last decade including when inflation was significantly higher

than what they are now. This raises a question whether the recent spike in inflation could have been worse if the working class had a higher bargaining power to index wages to inflation like in the first half of the last decade. What is noteworthy is the fact that the weakness of real wages precedes the current phase of monetary tightening which began in May 2022. This means that it is not monetary policy but something else which has lowered the bargaining power of low-income workers in the recent period. This should be a more interesting question than the trajectory of headline inflation numbers in India.



# Economic survey: How Delhi fares in key fields



# मिलिट्री रोबोटिक्स शुरू हुई रोबोट वॉर

## मिलिट्री रोबोटिक्स शुरू हुई रोबोट वॉर

दुनिया भर में सैनिकों की जगह रोबॉट शामिल करने की होड़ बढ़ रही है। 2023 की मिलिट्री रोबॉट्स ग्लोबल मार्केट रिपोर्ट के मुताबिक इस साल इसका कारोबार \$20 बिलियन से भी ज्यादा का होगा। LAC पर टेंशन के बाद भारत ने भी इस मार्केट को बढ़ा ऑर्डर दिया है, तो खबर है कि चीन ने वहां ऑलरेडी रोबॉट सोल्यूज लगा रखे हैं। देखते हैं, क्या है दुनिया भर की मिलिट्री में रोबॉट आर्मी का हाल।

### कमर कसता इंडिया

- DRDO बना रहा समान छेने वाले और हथियारबंद रोबॉट।
- J&K में बरफटी सुरंगें नष्ट करने में इस्तेमाल हो रहे स्वदेशी रोबॉट।
- राइफल धारी 'रोबोट सॉलज' बना रहा DRDO।
- पैट्रोलिंग कर रहा रोबॉट- साइलेंट स्तरी।
- खुद चार्जिंग पॉइंट तक जाकर खुद को कर लेता है चार्ज।

3D फिटेड रोबॉट है साइलेंट स्तरी, 5-6 रोबॉट की है फैमिली।



**100** रोबोटिक खपार की निविदा जारी।

**194** भारतीय स्टार्ट-अप कर रहे AI डिजिटलिंग।

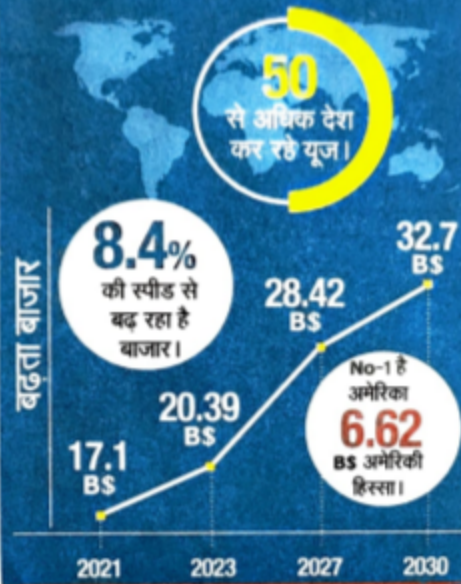
### महाबलशाली

नाम	देरा	स्पेशलिस्ट
सेंटर	US	खोजी रोबॉट, सैलमन का फल लगाना, डिपयूज, एक्सप्लोसिव फिट करना
मह	US	भारवाहक, Up To 544KG, 96KM सिगल चार्जिंग
अपवर्-3	US	रिस्कॉरिटी रोबॉट, लॉन्ग रेंज रॉकिंग
सकपस	US	हूमनॉइड रोबॉट, डैमेज इन्स्पेक्टर
डोने	इजराइल	9mm की पिस्टल, सहायक कमांड

**66** मिलिट्री अपेयर्स में जो क्रांति आ रही है, उसके केंद्र में इन्जीनिंग टेक्नॉलजी है जिसमें रोबोटिक्स बहुत बड़ा रोल प्ले कर रहा है। भारत को भी इसे काफी गंभीरता से लेना होगा।  
- हर्ष वी. पंत, डिपेंस एक्सपर्ट



### मिलिट्री रोबोटिक्स रिपोर्ट 2023



- #### हार्ड डिमांड रोबोटिक्स
- माइन क्लीयरेंस
  - सर्च एंड रेस्क्यू
  - अटैकिंग रोबोटिक्स
  - सविलांस
  - बम डिस्पोजल
  - फायर फाइटिंग
  - ट्रांसपोर्ट



### LAC पर चीन

- 2017 से LAC पर रोबोटिक्स की नई AI योजना शुरू।
  - 2022 में बनाया सबसे बड़ा मिलिट्री भारवाहक रोबोट।
  - बड़ी संख्या में AI आधारित UAV लगी LAC पर।
  - वॉइस कमांड और चेहरा पहचान कर काम करते हैं रोबोट।
- लड़ाकू वाले हिस्से में **88** जगह मशीन गन से लैस क्राइल रोबोट्स।
- 200 Kg** भार उठाने वाले 200 रोबोट खपार फैला।

### युद्ध में रोबोटिक्स

किरी भी हथियार की असली टेस्टिंग युद्ध में ही होती है। रूस-यूक्रेन युद्ध में मिलिट्री रोबोटिक्स भी टेस्ट किए जा रहे हैं-



- रूस के दो युद्धक रोबोट्स उतर पूर्व फ्रंट में देखे गए हैं, खारकीव में स्वतंत्र दिख।
- रूस का बैटल टैक रोबोट मार्कर UGV अमेरिका के अब्राहम और जर्मनी के लेपर्ड का जवान है।
- मार्कर का अपग्रेडेड वर्जन बना रहा है रूस, होगा सबसे खतरनाक।
- नेटो के पास भी हैं किलर रोबोट्स।
- सीरिया और अरुगनिस्तान में भी किलर रोबोट्स का इस्तेमाल।
- 2030 तक ब्रिटेन भी मार्केट में लागू किलर रोबोट्स।

### बड़ी कंपनियां

लॉकहीड मार्टिन, नोर्थ्रप ग्रुमैन, जनरल डायनामिक्स, बीएई सिस्टम्स, एवरोविरोन्मेंट, आईरोबोट, बोस्टन डायनामिक्स, वेल्स युप।

### बड़े खिलाड़ी

अमेरिका, चीन, रूस, ऑस्ट्रेलिया, फ्रांस, जर्मनी, जपान, इंडोनेशिया, साउथ कोरिया, ब्रिटेन, भारत।

कॉटे: अरुणेश पतनिया  
एडिटर: राजीव विरवर्मा

क्या चीन की ओर से रोबोट सभलोगे युद्ध का मोर्चा? इस पर लेख पढ़ने के लिए यहां क्लिक करें और [navbharatgold.com](http://navbharatgold.com) पर जाएं

India remains a 'bright spot', to contribute 15% of global growth in 2023: IMF

# India remains a 'bright spot', to contribute 15% of global growth in 2023: IMF

**Press Trust of India**  
WASHINGTON

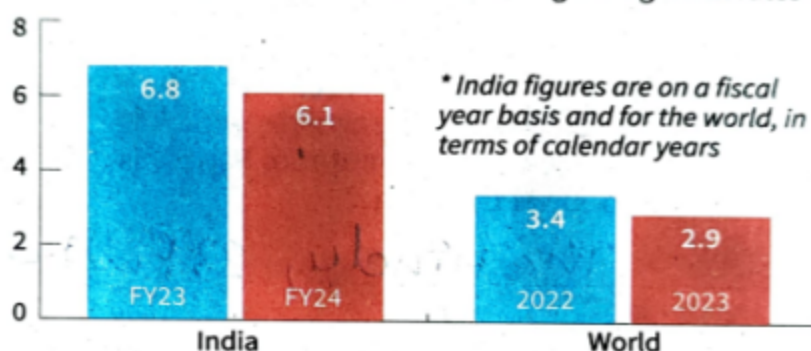
India continues to remain a relative "bright spot" in the world economy, and will alone contribute 15% of the global growth in 2023, International Monetary Fund (IMF) Managing Director Kristalina Georgieva said.

While digitisation pulled out the world's fifth-largest economy from pandemic lows, prudent fiscal policy and significant financing for capital investments provided in the next year's Budget will help sustain the growth momentum.

"India's performance has been quite impressive. For this year, we expect India to retain a high growth rate, 6.8% for the year that ends in March. For FY 2023/24, (April 2023 to March 2024) we project 6.1%, a bit of slowdown like

## Outpacing global growth

According to IMF, India is expected to grow at 6.8% in FY23 and at 6.1% in FY24, well above the estimated global growth rates



the rest of the world economy, but way above the global average. And in that way, India is providing about 15% of global growth in 2023," Ms. Georgieva said in an interview.

That is the fastest growth rate among major economies.

India remains a bright spot at a time when the IMF is projecting 2023 to be difficult with global growth slowing down from

3.4% last year to 2.9% in 2023, she observed.

"Why is India a bright spot? Because one, it has done really well to turn the digitalisation that has been already moving quite well into a major driver of overcoming the impact of the pandemic and creating opportunities for growth and jobs," she noted.

**CONTINUED ON**  
**» PAGE 10**

# Private tuitions helped blunt learning loss in many states

## *Private tuitions helped blunt learning loss in many States*

States which recorded a drastic decrease in maths and reading skills also saw a decline in private tuition-takers post-pandemic

### DATA POINT

**Swethavimala M. & Vignesh Radhakrishnan**

The data points published on January 23 and February 1 showed that the maths skills and reading skills of rural school students in the southern and western States were impacted the most due to COVID-19. Further reading of the Annual Status of Education Report (2022) shows that in many southern and western States, the share of children taking paid private tuition classes reduced after the COVID-19 outbreak, while it increased in all other regions.

Notably, Gujarat, where reading ability was the poorest among all the States in 2022, recorded the biggest decrease in students taking tuition classes post-pandemic. Similarly, the share of students who took tuition classes also decreased in the southern States of Tamil Nadu, Kerala and Karnataka – all of which recorded drastic declines in maths and reading skills. Interestingly, Andhra Pradesh, the only southern State which recorded an increase in the share of students who could do division problems post-pandemic, was also the only southern State which saw a significant increase in tuition-going children. Telangana and Rajasthan recorded only meagre increases.

None of the States in the central, eastern, northern and north-eastern regions, except Tripura, recorded a decrease in private tuition-going children in 2022 compared to 2018. Many States in these regions recorded an increase in the share of Class VIII children who could carry out division sums and read Standard II-level text post-pandemic. Even in those States where the share declined, the decrease was not as steep as their southern counterparts.

However, it is also important to note that the share of students who took private coaching was al-

ready relatively high in many eastern, north-eastern and northern States and only further increased during the pandemic. On the other hand, the share was relatively low in western and southern States and further declined after the pandemic in many of them. This data suggests that while the pandemic-forced school closures led to a drastic fall in learning outcomes, private tuitions helped fill the void or at least helped blunt the impact that COVID-19 had on education.

**Chart 1** shows the share of Class I-VIII rural school students who took paid private tuition classes in 2022. The share in the southern, western and central States was low compared to other regions.

**Chart 2** shows the change in the share of Class I-VIII rural school students who took paid private tuition classes in 2022 compared to 2018. Only Andhra Pradesh and Maharashtra recorded significant increases among the southern and western States.

**Chart 3** shows the share of Class I rural school students who took paid private tuition classes in 2022. It shows that the private coaching culture starts at a very young age in the eastern, north-eastern and northern States.

In States where the coaching culture was already prevalent and in regions where children began attending private classes from an early age, the increase in the share of students who took tuitions was much sharper post-pandemic.

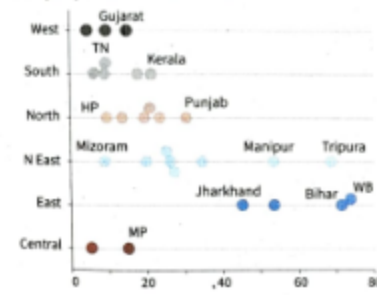
**Chart 4** shows the difference between the share of Class I-VIII private students and government students who took paid tuition classes in 2022. The higher the number, the more the share of private school students. A negative figure indicates the opposite. The graph shows that in all States (except Kerala and West Bengal), the share of private school students who took paid tuitions was higher, showing that the richer classes were able to manage the pandemic-forced learning losses better compared to poorer households.

## Taking another route

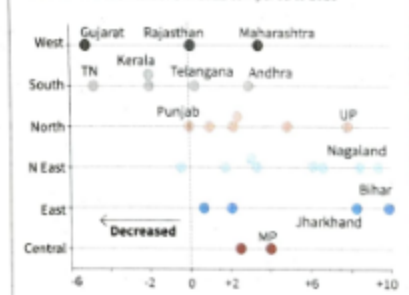
The graphs are based on data collated from the Annual Status of Education Report - 2022 (Rural), based on a survey conducted between September and November 2022



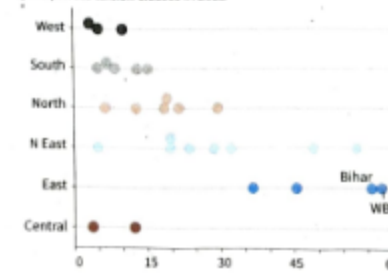
**Chart 1:** The share of Class I-VIII rural school students who took paid private tuition classes in 2022



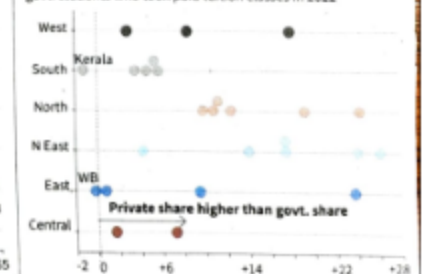
**Chart 2:** The change in the share of Class I-VIII rural school students who took tuitions in 2022 compared to 2018



**Chart 3:** The share of Class I rural school students who took paid private tuition classes in 2022



**Chart 4:** The difference between the share of private and govt. students who took paid tuition classes in 2022



Swethavimala M. is a student of Asian College of Journalism

# Education, more than wealth, determines women's marital age

## Education, more than wealth, determines women's marital age

For decades now, better-educated women have had more control over when they should get married

### DATA POINT

Rebecca Rose Varghese & Vignesh Radhakrishnan

The Assam government is cracking down on child marriage and has registered over 4,000 cases just this year alone. While some people have supported this approach, social activists point out that the root of the problem – limited access to education among women – is still not being addressed.

Data from NFHS-5 show that the more educated a woman, the higher her negotiating power about when she wants to get married. Interestingly, this is not a recent phenomenon. Data suggest that for decades now, better-educated women have had more of a say on when they should get married.

Table 1 shows the median age of women when they first got married by current age, across various wealth quintiles, and years of school education completed, in 2019-21. In the survey, women who completed over 11 years of schooling (row K) and currently aged 25-29 (column I) and 45-49 (column V) were asked their age when they were first married. The median marriage age in the 25-29 age-group was 23 and in the 45-49 age-group was 22.5. The negligible difference (column I-V) shows that education has long been a controlling factor in deciding a woman's marital age.

However, the same is not true when it comes to the wealth of a household. Women who belonged to the richest 20% households (row E) and currently aged 25-29 (column I) and 45-49 (column V), were asked their age when they were first married. The median age at first marriage in the 25-29 age group was 22.8 and in the 45-49 age group was 19.7. The difference (column I-V) shows that wealth has only recently gained relevance as a controlling factor in deciding a woman's marital age.

Among older generations, even wealthier families married women at a younger age.

Though wealth has recently gained relevance, education continues to be the dominant controlling factor of the two. The median marriage age of women from the wealthiest households was still lower than that of women who completed over 11 years of schooling (E-K). Also, the median marriage age of women from the poorest households was still higher than that of women who have had no schooling (A-F).

Caste and location also play a major role (Table 2). Women from SC (row A), ST (row B), OBC (row C) and other (row D) communities and currently aged 25-29 (column I) and 45-49 (column V) were asked their age when they were first married. The median marriage age among SC/ST/OBC women was below 20 even among younger generations, while that of non-SC/ST/OBC women crossed 20. Women from urban (row F) and rural (row G) areas and currently aged 25-29 (column I) and 45-49 (column V) were asked their age when they were first married. The difference (row F-G) in the median age between rural and urban women was wider among younger generations. So, the negotiating power of urban women has improved at a higher pace than that of rural women.

A similar analysis for men (Tables 3 and 4) shows that education was not as dominant a factor in pushing up their median marriage age as it was in the case of women. Also, the median age of marriage among men, was above the legal age of 21 across all background characteristics, whereas the median marriage age was below 18 among women across categories.

There were other interesting patterns among men. In recent times, men belonging to poorer households and with fewer years of schooling have been marrying at an earlier age than before.



### An age-old issue

The charts are based on data sourced from the National Family Health Survey-5 (NFHS) conducted between 2019 and 2021. The tables on the left show data for women and the tables on the right show data for men. Figures in rows A-K in tables 1 and 3 and rows A-G in tables 2 and 4 depict the median age of first marriage across categories

rebecca.varghese@thehindu.co.in, vignesh.r@thehindu.co.in

Table 1

A-E: wealth quintiles; F-K: schooling years	Women					
	Age-groups					
	Col. I 25-29	Col. II 30-34	III 35-39	IV 40-44	V 45-49	Col. I-V
A Lowest	17.9	17.3	17.2	17.3	17.5	0.4
B Second	18.6	17.9	17.4	17.3	17.6	1
C Middle	19.4	18.6	18.1	17.7	17.9	2.5
D Fourth	20.5	19.9	18.9	18.5	18.4	2.1
E Highest	22.8	21.8	20.8	20.2	19.7	3.1
F 0 years	17.5	17	16.9	16.9	17.3	0.2
G <5 years	17.6	17.3	17.2	17.4	17.6	0
H 5-7	18.1	17.8	17.8	17.7	18	0.2
I 8-9	18.9	18.9	18.6	18.6	18.8	0.1
J 10-11	19.4	19.6	19.6	19.7	20	-0.6
K >11	23	22.8	22.7	22.3	22.5	0.5
E-K	-0.2	-1	-1.9	-2.1	-2.8	
A-F	0.4	0.3	0.3	0.4	0.2	

Table 2

A-D: caste; F-G: location	Women					
	Age-groups					
	Col. I 25-29	Col. II 30-34	III 35-39	IV 40-44	V 45-49	I-V
A SC	19.4	18.7	17.9	17.6	17.7	1.7
B ST	19.3	18.7	18.2	18.1	18.4	0.9
C OBC	19.6	18.9	18.3	18.1	18.2	1.4
D NOA*	20.5	19.9	19.3	19	18.9	1.6
F Urban	21.3	20.5	19.8	19.5	19.3	2
G Rural	19.1	18.4	17.9	17.6	17.8	1.3
D-A	1.1	1.2	1.4	1.4	1.2	
D-B	1.2	1.2	1.1	0.9	0.5	
F-G	2.2	2.1	1.9	1.9	1.5	

\*none of the above | Col. = Column

Table 3

	Men					
	Age-groups					
	Col. I 30-34	Col. II 35-39	III 40-44	IV 45-49	V 50-54	Col. I-V
Lowest	22	21.7	22.1	22.3	23.3	-1.3
Second	23.7	22.8	22.9	23.3	23.6	0.1
Middle	24.8	24.1	23.9	23.7	24.3	0.5
Fourth	26.6	25.8	25.5	24.9	24.6	2
Highest	27.7	27	26.7	26.1	26.3	1.4
0 years	21.7	21.2	21.6	22.4	23.1	-1.4
<5 years	22.3	22.1	22.7	22.5	23.3	-1
5-7 years	23.2	23	23.1	23.5	24	-0.8
8-9 years	24.5	24.3	23.9	24.1	24.8	-0.3
10-11 years	25.6	25.5	25.3	25	25.2	0.4
>11 years	28	27.6	27.6	27	26.8	1.2
	-0.3	-0.6	-0.9	-0.9	-0.5	
	0.3	0.5	0.5	-0.1	0.2	

Table 4

	Men					
	Age-groups					
	Col. I 30-34	Col. II 35-39	III 40-44	IV 45-49	V 50-54	I-V
A SC	24.7	23.4	23.8	23.2	23.1	1.6
B ST	23.8	23.1	22.7	23.5	23.9	-0.1
C OBC	25.5	24.5	24.1	24.3	24.4	1.1
D NOA*	26.2	25.7	25.4	25.2	25.5	0.7
F Urban	27	26.1	25.9	25.8	26	1
G Rural	24.4	23.5	23.5	23.3	23.8	0.6
D-A	1.5	2.3	1.6	2	2.4	
D-B	2.4	2.6	2.7	1.7	1.6	
F-G	2.6	2.6	2.4	2.5	2.2	

# The threat of rising sea levels

## NEWS IN NUMBERS

**Fresh judge appointments made in four High Courts**

**13** Eleven judicial officers and two advocates were elevated as additional judges and judges, respectively, in High Courts of New Delhi, Chandigarh, Madhya Pradesh and Uttaranchal, according to Law Minister Kiren Rijju. Additional judges are appointed for a period of two years. PTI

**Boosting FM radio connectivity with new radio transmitters**

**91** Transmitters, Prime Minister Narendra Modi is expected to inaugurate 91 transmitters in 84 districts spread across 18 States and two Union Territories. The expansion takes place two days before the landmark 100th episode of 'Mano Ki Baat', the Prime Minister's monthly radio programme. PTI

**Farmers seek proper land acquisition compensation**

**15,000** Farmers, Under the aegis of the All India Kisan Sabha (AIKS), farmers set out on a fast march from Ahmednagar to press for their demands, like adequate compensation for land acquisition and remunerative prices for milk and crops. PTI

**Drastic fall in COVID-related deaths, says WHO**

**95** In percentage, The World Health Organization (WHO) warned that through the fatalities due to the disease have seen a drop, COVID-19 was hard to manage its ongoing non-emergency effects, including post-COVID-19 condition. AFP

**Combat vehicles sent to Ukraine by the NATO countries**

**1,550** NATO allies have delivered more than 1,550 of the combat vehicles promised to Ukraine, Jens Stoltenberg, Secretary General, NATO, said that the allies have also loaned more than nine new Ukrainian brigades. AP

COMPILED BY THE HINDU DATA TEAM

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# The threat of rising sea levels

What is the rate at which sea levels are rising? What are the reasons behind the accelerated sea-level rise? What does the report by the World Meteorological Organisation show? What problems can be caused by rising sea levels?

## EXPLAINER

### Keypoint Data

The World Meteorological Organisation (WMO) has found in a new report that the world's sea level is rising at an unprecedented rate, portending potentially disastrous consequences for the weather, agriculture, the coast, groundwater crisis, and social disparities. The report, entitled 'State of the Global Climate 2022', was published last week. Along with accelerating sea-level rise, it focused on a consistent rise in global temperatures, record-breaking increases in the concentration of greenhouse gases as well as glacier loss, sustained drought-like conditions in East Africa, record rainfall in Pakistan, and unprecedented heatwaves that struck Europe and China in 2022. A release said "droughts, floods and heatwaves affected communities on every continent and cost many billions of dollars. Antarctic sea ice fell to its lowest extent on record and the melting of some European glaciers was, literally, off the charts."

While the sea-level rise is one of several compounding disasters, it also merits individual attention for the unique crises it can precipitate, especially for coastal areas, the communities there that depend on life in the sea, and its ability to render the loss of land.

**How much is the sea rising?** The press release said "The rate of global mean sea level (GMSL) rise has doubled between the first decade of the satellite record and the last."

Since the 1990s, scientists have been measuring sea-level rise using satellite altimeters. These instruments send radar pulses to the sea surface and measure the time they take to get back and the change in their trajectory. The higher the sea level, the faster and stronger the return signal.

Researchers are able to determine GMSL by collecting this data from different points on earth and calculating the average. To calculate the rate of change in the GMSL - i.e. how fast or slow the sea level is changing - we can calculate the difference in the GMSL across a few years, usually a decade, and then divide the difference by the number of years. This provides an estimate of the rate of sea-level change.

According to the WMO report, the sea level has been rising in the three decades for which satellite altimeter data is available (1993-2022). But, while the rate of sea-level rise was 2.27 mm/year in 1993-2002, it shot up to 4.62 mm/year in 2013-2022.

**What causes accelerated sea level rise?**

The WMO report points to the following factors as being responsible for a rising GMSL: "Ocean warming, ice loss from glaciers and ice sheets, and changes in land water storage". The report also quantifies the individual contribution of these factors to yield, what researchers call the "GMSL budget".

According to the report, in 2005-2020, loss of glaciers and ice sheets contributed 36% to the GMSL rise. Ocean warming the phenomenon of rising mean ocean temperatures contributed 55%, and changes in the storage of land water contributed less than 10%.

An increasing concentration of carbon dioxide and other greenhouse gases drive global warming, 90% of the "extra" heat is stored in the oceans. This leads to ocean

warming. And as the ocean heats up, it undergoes thermal expansion, which in turn leads to a rise in the GMSL. One measure of ocean warming is the ocean heat content (OHC).

As per the report, OHC measures in 2022 touched a new record. The report also says that the earth's ice cover, known as the cryosphere, has thinned. The cryosphere includes the Arctic and Antarctic regions (called "sea ice"), glaciers, the ice sheets of Greenland and Antarctica (area of ice on land covering more than 50,000 km<sup>2</sup>), seasonal snow cover, and permanent (mass of land that remains below 0 degree Celsius for at least two straight years).

**What do the report's findings mean?**

Nehru Prabhakaran, a scientist at the WMO Institute of India (WII), Dehradun, who works on the effect of sea-level change on coastal ecosystems, told The Hindu that the WMO report confirms trends that are already well known. "They have used more or less the best possible data," he said.

Raj Bhagat Palankhany, a senior programme manager with WII India and an expert on the use of geomatics for urban development and transport, added that "the findings of the report are consistent with observations made by others and predictions from climate models."

Both Dr. Prabhakaran and Mr. Palankhany told The Hindu that given the GMSL is expected to continue rising, the accelerating pace is particularly worrisome.

**What problems will sea-level rise cause?**

One, Mr. Palankhany said, is that the accelerated pace will cause changes in land cover, i.e., "what will be land and what will be sea", in the future. Dr. Prabhakaran added that as rising sea level erodes more of the land cover, particularly in coastal areas, coastal communities will face an "acute shortage of land for human use".

This land crunch, according to Dr. Prabhakaran, will mean that those who are better off will be able to cope better than marginalised groups, leading to an increase in social disparities between people living in coastal areas.

Second, weather formations such as cyclones are known to typically originate in the open sea. As the GMSL continues to rise, along with a rise in ocean temperatures, the chances of cyclones could increase, affecting coastal communities and leading to large economic liabilities for tropical countries such as India and South Africa, which have high population densities.

Besides this, the WMO report says that South Africa is over two months in 2022, leading to the displacement of "hundreds of thousands of people".

Third, Mr. Palankhany said that as the GMSL continues to rise, more sea water could seep into the ground, leading to the groundwater - which is usually freshwater - turning salty and more saline.

This, in turn, can exacerbate water crises in coastal areas as well as agriculture in adjacent regions.

**How will sea level rise affect agriculture?**

Dr. Prabhakaran said that coastal ecosystems could be "completely changed".

For example, he said that in the Sunderbans delta in West Bengal, the



Rising sea level causing land erosion on Moulana Island in West Bengal. (SUNAM/REUTERS/ALAMY)

## THE GIST

The WMO has found in a new report that the world's sea level is rising at an unprecedented rate, portending potentially disastrous consequences for the weather, agriculture, the coast, groundwater crisis, and social disparities.

The sea level has been rising in the three decades for which satellite altimeter data is available (1993-2022). But, while the rate of sea-level rise was 2.27 mm/year in 1993-2002, it shot up to 4.62 mm/year in 2013-2022.

Given the loss of coastal communities, including their economic activities, is tied intimately with the coastal ecosystem, changes in the coastal ecosystem as a result of GMSL rise will further erode the socio-economic stability of these communities.

## Sea level rise could hit two metres by 2100

Global sea levels could rise by more than two metres by the end of the century - resulting in the displacement of almost 200 million people - if global warming continues at its current rate, new research suggests

POPULATION DISPLACED BY 2100 Assuming two metre rise in sea level (IM) numbers approximated



### WHAT THE RESEARCH SAYS

If global temperature increase stays below 2 degree Celsius (target set by Paris Climate Agreement) On average, melting ice sheets would contribute between 24 cm to sea level rise by 2100.

Worst-case scenario: 1% chance that contribution could be as much as 68 cm. This could exceed 1 m if other factors - melting glaciers and expansion of ocean water in 1990s - are taken into account.

If global temperature increase by 2 degree Celsius (above current trajectory for economic growth continues) On average, melting ice sheets would contribute between 51 cm to sea level rise by 2100.

Worst-case scenario: 1% chance that global sea level rise could exceed 2.2m - flooding up to 1.8 billion sq km (0.7% of global land area) and displacing as many as 187 million people.

Source: The Conversation, The Royal Society

© GEMRI, WMO

world's largest mangrove area, rising sea levels and coastal erosion, due to loss of land and sediment from coastal areas, has left more islands submerged under water, and that, in turn, has forced members of local communities to migrate. Since the loss of coastal communities, including their economic activities, is tied intricately with the coastal ecosystem, changes in the coastal ecosystem as a result of GMSL rise - especially when it happens faster than rehabilitative policies and laws can catch up - will further erode the socio-economic stability of these communities.

Indeed, a combination of these factors having increased child trafficking in the Sunderbans area has already been documented.

Thus, for Dr. Prabhakaran, it is crucial that reports such as the WMO's 'State of the Global Climate 2022' continue to generate and accumulate data on climate change.

"I hope it paves for global and local policy-level changes related to climate change," he told The Hindu. Sasmita Dasgupta works with the feminist multimedia centre collective, TheGlobeScience.com

## Economic survey takeaways

# Economic Survey takeaways

The central thrust of this year's Economic Survey is that India's economy has recovered from the Covid disruption and is poised to grow like it did post 2003. However, there are several challenges

UDIT MISRA

NEW DELHI, JANUARY 31

ON TUESDAY, the government tabled the Economic Survey 2022-23. The Survey laid out the outlook for India's growth, inflation, and unemployment in the coming years.

### First, what is the Economic Survey?

For any year, the Survey provides a detailed report of the national economy. It is prepared by the Economic Division of the Department of Economic Affairs (DEA) under the guidance of the Chief Economic Advisor (CEA).

It has chapters on everything from agriculture to government finances, and from unemployment to the state of infrastructure in the economy.

Apart from detailing the events of the year, the Economic Survey also looks at future scenarios, and provides an outlook in every chapter.

The comments or policy solutions contained in the Survey are not binding on the government or the Union Budget. Still, the Survey provides a comprehensive and official account of the Indian economy.

### What are the main takeaways of the Economic Survey this year?

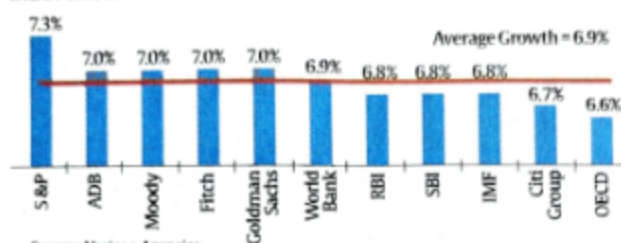
**GDP GROWTH:** The Survey states that India's growth estimate for FY23 is higher than for almost all major economies. In fact, the Survey pointed out that India's growth is "even slightly above the average growth of the Indian economy in the decade leading up to the pandemic".

"Despite strong global headwinds and tighter domestic monetary policy, if India is still expected to grow between 6.5 and 7.0 per cent, and that too without the advantage of a base effect, it is a reflection of India's underlying economic resilience; of its ability to recoup, renew and re-energise the growth drivers of the economy," the Economic Survey says.

**INFLATION:** The RBI has projected headline inflation at 6.8% in FY23, outside its comfort zone of 2% to 6%. High inflation is seen as a big factor holding back demand among consumers. However, the Survey sounds optimistic about the inflation levels and trajectory, saying "it is not high enough to deter private consumption and also not so low as to weaken the inducement to invest."

**UNEMPLOYMENT:** The Survey says employment levels have risen in the cur-

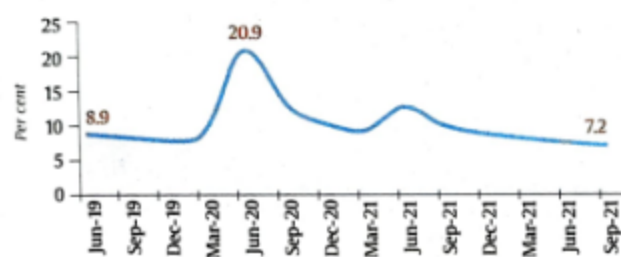
### INDIA GROWTH PROJECTION BY VARIOUS AGENCIES FOR FY23



Source: Various Agencies

Note: ADB stands for Asian Development Bank, IMF is International Monetary Fund

### URBAN UNEMPLOYMENT RATE AT FOUR-YEAR LOW



Source: NSO, MoSPI

rent financial year", and that "job creation appears to have moved into a higher orbit with the initial surge in exports, a strong release of the "pent-up" demand, and a swift rollout of the capex."

It points to the Periodic Labour Force Survey (PLFS), which showed that urban unemployment rate for people aged 15 years and older declined from 9.8% in the quarter ended September 2021 to 7.2% one year later. The Survey also underlines that the fall in unemployment rate is accompanied by an improvement in the labour force participation rate.

### What is the outlook for 2023-24?

The Survey projects a baseline GDP growth of 6.5% in real terms in FY24.

However, it has detailed some downside risks to this projection. For instance, low demand for Indian exports, thanks to poor global growth, may widen India's trade deficit and make the rupee depreciate. Similarly, sustained monetary tightening (higher interest rates) may drag down economic activity in FY24.

### What does this mean for the future of India's economy?

The central thrust of this year's Survey is that India's economy has completely recovered from the Covid disruption and, at long last, is poised to see sustained robust growth in the rest of the decade.

Explaining this contention, CEA V Anantha Nageswaran has said that the phase between 2014 and 2022 – that is, the time when the BJP has been in power – has witnessed "wide-ranging structural and governance reforms that strengthened the economy's fundamentals by enhancing its overall efficiency".

He clarified that these reforms had not yielded the desired results so far because banks were getting rid of their non-performing assets (NPAs) and business firms were deleveraging. Shocks such as the Covid pandemic and the Ukraine war made matters worse.

"As the health and economic shocks of the pandemic and the spike in commodity prices in 2022 wear off, the Indian economy is thus well placed to grow at its potential

in the coming decade, similar to the growth experience of the economy after 2003. This is the primary reason for expecting India's growth outlook to be better than it was in the pre-pandemic years," said the Survey.

### Why is there a reference to 2003?

The Survey has argued that the situation in 2023 is similar to how the economy was poised in 2003.

It says the period between 2014 and 2022 is analogous to 1998-2002, when despite transformative reforms by the government (also led by the BJP), the Indian economy lagged growth returns. This was due to temporary shocks such as the US sanctions after India's nuclear test, two successive droughts, the collapse of the tech boom, etc. But once these shocks faded, the structural reforms paid growth dividends from 2003. The Survey claims the same story is set to be repeated from 2023.

### How likely is this?

The first thing to note is that even before Covid, India's potential growth rate – the rate at which it can grow without inflation becoming a problem – had fallen to just 6%. In the 2003-2008 period it was 8%. Between 2009 and 2015, it was 7%. In the next few years, it is unlikely to rise much above 6%.

Secondly, during the 2003-2008 phase, the global economy was booming – exactly opposite of the situation now.

Thirdly, in India, unemployment rates underestimate the alarming stress in the labour market, because labour force participation rate (or the proportion of people demanding jobs) is itself quite low. Moreover, over the past two decades, India's growth has become increasingly capital-intensive (using relatively less labour). This trend is likely to worsen as automation eats into routine jobs.

Widespread joblessness translates to lower incomes and lower consumer demand. That, in turn, dissuades private sector investments and eventually acts as a drag on economic growth.

India is the world's most populous country with a growing youth bulge. It has the world's largest pool of poor people and the largest pool of malnourished children. Given the low levels of per capita income, it requires much faster growth than many developed countries. A growth rate of 4% in India can feel like a recession and even though a 6% growth should be achievable, it may not create enough jobs to satisfy a growing population.

Anti-Hindu hatred, bullying in UK schools, reveals report

# Anti-Hindu hatred, bullying in UK schools, reveals report

'Education About Hinduism Is Pretty Much A Mockery Of The Religion'

Naomi Canton

A new report by the Henry Jackson Society has uncovered what it claims are details of anti-Hindu hatred in British schools with Hindu children mocked for worshipping multiple deities and the sacrality of the cow, called "kaffir" by Muslim pupils and blamed for the caste system and social ills in India.

Hindu kids are also being held responsible for events in India in the same way Jews face prejudice for the actions of Israel, the report titled "Anti-Hindu Hate in Schools" claims. It is authored by Charlotte Littlewood and based on interviews with 998 Hindu parents.

Parents complained of very poor quality teaching of Hinduism in British schools where Hinduism is often still taught through an Abrahamic lens with a focus on the caste system, which was directly leading to bullying of Hindu students, the report said.

One parent said "religious education regarding Hinduism is pretty much a



Getty Images

One girl had beef thrown at her while another child was told that if they converted to Islam 'the bullying will stop', said the report, the first study of its kind looking into anti-Hindu hate in the UK

mockery of the religion".

"Despite the British rule in India for over 400 years, their lack of knowledge of Hinduism... is overwhelming. They do not understand our deities and this causes our children to suffer," a parent said.

Hindu children were mocked for being vegetarian and for their religious practices. One girl had beef thrown at her because she was Hindu. A Muslim told a Hindu child if they converted to Islam "the bullying will stop", it said.

The report quotes one parent as saying: "My child has

faced bullying from other children on many occasions specifically after PM Modi's rise in India and after Article 370 was revoked." One baffled child was asked: "Why you people break our mosque?"

"Some told my children to watch videos of Zakir Naik and convert because Hinduism makes no sense," one parent said. A Christian child said to a Hindu kid: "Jesus will send your gods to hell." Some children refused to attend school because of the bullying.

Of the Hindu parents surveyed, 51% said their child

has experienced anti-Hindu hate in schools and only 19% of parents thought their schools could identify it.

In one case, a teacher said "sati pratha" was part of Hinduism, which led to the child being alienated, the report said. A Hindu child was accused of being a Nazi because of the use of swastika in Hindu symbolism.

One teacher told the class that Hitler was inspired by the Indian caste system. Children are taught that Hindu worship "330 million gods", "elephants and monkeys" or "idols".

This is the first study of its kind looking into anti-Hindu hate in the UK and follows reports into the Leicester unrest last year which found that a fake narrative about Hinduism triggered much of the violence. A group of 25 Christian inmates are planning legal action against the Prison Service for failing to protect them from Islamist gangs. Lawyers for the prisoners say wardens have allowed the groups to take control because they fear being accused of racism.

## Women form less than 12% of India's police force: centre

### Women form less than 12% of India's police force: Centre

**New Delhi:** Women constitute 11.7% of India's police forces, with Ladakh Police leading the states/UTs with a 28.3% women component even as J&K figures at the bottom of the table with just 3.3% women in its police organisation.

Sharing this information in a written reply to a question in Rajya Sabha on Wednesday, junior minister Nityanand Rai said according to data compiled by the Bureau for Police Research and Development, as on January 1, 2022, Andhra Pradesh had the second-highest percentage of women in its police force (21.7%), followed by Chandigarh (21.6%), Bihar (21.2%) and Tamil Nadu (19.1%). States with least share of women in police are J&K (3.2%), Tripura (5.3%) and Meghalaya (5.9%). Rai said the home ministry has been impressing upon the states and UTs to increase the representation of women in their police forces to 33%. TNN

India world's most populous country

# India world's most populous country

Youth power: 50% population below 25 years, says UN data

PNS ■ NEW DELHI

India has surpassed China (142.57 crore) to become the world's most populous nation with 142.86 crore people, according to United Nations Population Fund (UNFPA), but the news has come with demographic dividend—about 50 per cent of India's population is below the age of 25 years.

According to the UNFPA's State of World Population (SWP) Report 2023, about 25 per cent of India's population is in the age group of 0-14 years, 18 per cent in the 10 to 19 age group, 26 per cent in the age bracket of 10 to 24 years, 68 per cent in 15 to 64 years age group, and 7 per cent above 65 years, said United Nations Population Fund (UNFPA) India representative Andrea Wojnar.

The UN projections estimate that the country's population is expected to grow for the next three decades after which it will begin declining.

The population demographics of India vary from state to state. Kerala and Punjab have an ageing population, while Bihar and Uttar Pradesh have a young population, UN analysis has revealed.

This is the first time that India has topped the UN list of most populous countries since it started collecting population

data in 1950. According to the United Nations' World Population Prospects-2022, India's population was 86.1 crore while China's population was 114.4 crore in 1950.

The report further states that by 2050, India's population is expected to rise to 166.8 crore while China's population would dip to 131.7 crore.

The report also stated that the global population is growing at its slowest rate since 1950, having fallen under one per cent in 2020.

According to the World Population Prospects-2022, India's population last year was 141.2 crore while China's population was 142.6 crore. The report said the global population was projected to reach eight billion on November 15.

According to the UNFPA, the life expectancy at birth for male in India is 71 while for female it is 74 years. The contraceptive prevalence rate of women aged 15-49 as of 2023 is 51 per cent.

UN projections estimate that the country's population is expected to grow for the next three decades after which it will begin declining.

India has achieved the replacement level of fertility but the population will grow due to momentum phenomenon. Replacement level fertility is the level of fertility at which a pop-



ulation exactly replaces itself from one generation to the next, as per experts.

According to the UNFPA, the size of elderly population will nearly double to touch 192 million by 2030, largely in southern and western states.

"By 2050, every fifth Indian will be an elderly person, hence planning for this segment also deserves equal attention. The health and economic security of the elderly will need to gain primacy," the UNFPA said.

Wojnar, the UNFPA India representative and the country director for Bhutan, said, "India's 1.4 billion people must be seen as 1.4 billion opportunities."

Wojnar said population anxieties have seeped into large portions of the general public in India but population numbers should not trigger anxiety or create alarm. "Instead, they should be seen as a symbol of progress, development, and aspirations if individual rights and choices are being upheld," she said.

Continued on Page 2

## China discounts India's massive new workforce

PTI ■ BEIJING

China on Wednesday sought to downplay India overtaking it as the world's most populous nation, saying that it still has a "quality" workforce of close to 900 million people to provide a strong impetus for development.

Asked for his reaction to the report, Chinese Foreign Ministry spokesman Wang Wenbin told a media briefing here "when assessing a country's demographic dividend, we need to look at not just the size but also the quality of its population."

"Size matters, but what matters more is talent resource. Nearly 900 million out of the 1.4 billion Chinese are of working age and on average have received 10.9 years of education," he said.

Continued on Page 2

# India world's...

From Page 1

"As the country with the largest youth cohort — its 254 million youth (15-24 years) — can be a source of innovation, new thinking and lasting solutions.

"The trajectory can leapfrog forward if women and girls, in particular, are equipped with equal educational and skill building opportunities, access to technology and digital innovations, and most importantly with information and power to fully exercise their reproductive rights and choices," she said.

Wojnar said that ensuring gender equality, empowerment and advancing greater bodily autonomy for women and girls are the key determinants for a sustainable future. Individual rights and choices should be respected, and all should be able to decide when to have children, if any, and how many, she said.

Wojnar said global experience has shown that family planning targets can lead to

gender-based discrimination and other harmful practices.

Deleterious effects of such targets include prenatal sex determination leading to sex selective abortion and imbalanced sex ratios, preferential health and nutrition for male children, denial of the paternity of female children, violence against women for giving birth to girl children, and coercion of women to have fewer or greater numbers of children, she said.

With close to 50 per cent of its population below the age of 25, India has a time-bound opportunity to benefit from the demographic dividend, she added.

As the national fertility rate falls below 2.1 (the replacement level), India is at a unique historical opportunity, witnessing a great demographic transition as youthful nation, with a notable demographic diversity across states to convert the potential demographic dividend into economic benefits through additional investments in health, education,

and quality jobs for young people, including targeted investments in women and girls," Wojnar said.

India's demographic dividend can be further secured by incorporating the impact of mega trends such as climate change, urbanization, migration and ageing into policy initiatives, she said.

Poonam Muttreja, Executive Director, Population Foundation of India, said women cannot be the subjects of population targets.

"Whether they wish to have children or not, when to have them, and how many are really their right - nobody else's. Families, governments, and policy-makers or society have no right to take decisions on their behalf. Women's autonomy over their bodies cannot be determined by policies driven by population trends - incentivising women to have more children if the population is declining, or controlling their fertility if the population is rising," she said.

# अब कम लागत में जैविका झिल्ली जल से दूर करेगी अशुद्धियां

**जागरण विशेष**

## अब कम लागत में जैविक झिल्ली जल से दूर करेगी अशुद्धियां

अंजली राय • नोएडा

भारतीय विज्ञान शिक्षा और अनुसंधान संस्थान (आइसर) के विज्ञानियों ने जल को शुद्ध करने के लिए ऐसी नई छिद्रयुक्त जैविक झिल्ली तैयार की है, जो पानी में मौजूद सूक्ष्म से सूक्ष्म प्रदूषकों को हटाने में भी कारगर है। यह झिल्ली पानी से घुलनशील रसायन, उर्वरक आदि के कणों को भी पृथक कर देगी। विज्ञानियों के अनुसार इसके उपयोग का क्षेत्र बढ़ा है। घर से उद्योगों तक यह प्रयोग की जा सकती है। तैलवीय पदार्थों और रसायनों को साफ करने में भी इसके प्रयोग पर परीक्षण जारी है।

**पिंजर जैवी संरचना:** यह शोध आइसर के रसायन विज्ञान विभाग के सह प्राध्यापक डा. अभिजीत

आइसर, भोपाल के विज्ञानियों ने की तैयार, उद्योगों में भी प्रयोग होगा संभव

यह शोध बहुत ही कारगर साबित होगा। इस झिल्ली का उपयोग घरेलू से लेकर औद्योगिक क्षेत्र तक किया जा सकता है। डा. अभिजीत पात्रा, सह प्राध्यापक, रसायन विभाग, आइसर



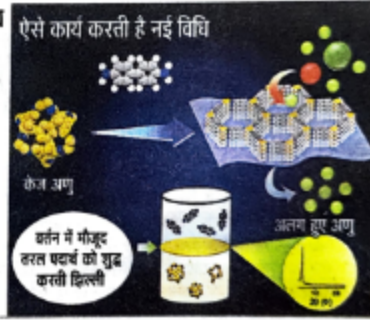
शोध का परिणाम समर्थित और आवश्यकता के अनुसार है। अब हम अगले चरण में इस नई विधि को आमजन तक पहुंचाने के लिए काम करेंगे।



प्रो. शिखा उमावधि, निरन्तर, आइसर



**दो वर्ष में विकसित की झिल्ली:** लगभग दो वर्ष के शोध के बाद यह झिल्ली विकसित की गई है। फटेटे कच आरंभित किया जा चुका है। बाजार में आने में एक वर्ष का समय लग सकता है। नैनो-फिल्ट्रेशन तकनीक से विषाक्त आर्गनिक सूक्ष्म प्रदूषकों को अलग करने में भी यह सफल रही है।



ऐसे कार्य करती है नई विधि

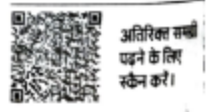
इसका उपयोग भी सरल है। जिस से जैसे-जैसे तरल पदार्थ गुजरता है, तुरंत साफ होत जाया। फिल्ट्रेशन में इसके उपयोग पर कम लागत पानी शुद्ध होगा। डा. पात्रा बतते हैं कि अभी तक पानी शुद्ध करने के लिए जो झिल्लियां विकसित की गई हैं, उनको उच्च तापमान बनाना पड़ता है। अधिक तापमान और समय लगता है। यह झिल्ली कमरे के तापमान पर कम समय में विकसित की जाती है। इस झिल्ली लागत कम होगी और बढ़े पैमाने पर उत्पादन भी आसान होगा।

पात्रा के नेतृत्व में छात्र अर्कप्रभ गिरि, जी श्रीराम और तापस कुमार दत्ता ने किया है। शोध को जर्मनी के एंजेलेड केम्पी जर्नल ने भी प्रकाशित किया गया है। झिल्ली बनाने में केज

मालिकवूल का उपयोग किया गया है। इन अणुओं को संरचना पिंजर के समान होती है, इसलिए इन्हें यह नम दिया गया है। केज मालिकवूल से अन्य अणुओं या आयनों को

अलग करने से बेहतर झिल्ली बनानी जा सकेगी। विज्ञानियों के अनुसार, इस झिल्ली के छिद्र को मोटाई मनुष्य के बाल की मोटाई के एक लाखवें भाग से भी कम है।

**बनाने की सरल प्रक्रिया:** डा. अभिजीत पात्रा बताते हैं कि पानी को शुद्ध करने के लिए पहले कई विधियां विकसित की गई हैं, लेकिन यह तकनीक अधिक व्यावहारिक है।



अतिरिक्त सभी पढ़ने के लिए स्कैन करें।

## नए तकनीकी युग की शुरुआत

राष्ट्रीय क्वांटम मिशन की घोषणा के साथ ही भारत क्वांटम पीछोपिछी में शोधरत दुनिया के शीर्ष सात देशों में शामिल हो गया है। अनेक क्षेत्रों में आमूलचूल परिवर्तन लाने में समर्थ इस तकनीक को देश को बहुत उम्मीदें हैं...

नेशनल क्वांटम मिशन

## नए तकनीकी युग की शुरुआत

**सै** ज्ञानिक तौर पर तो क्वांटम का विचार बोलें एक सदी से मौजूद है, लेकिन बीने एक दशक से यह तर्जो से व्यावहारिकता में बदलने लगा है। मेडिकल से लेकर जिला तक, अतिशय विज्ञानेक्षण से लेकर याददाहर सुरक्षा तक के इसके उपयोग अनुप्रयोग हैं। यही कारण है कि दुनियाभर में इसे लेकर खासा उन्माद देखा जा रहा है। नेशनल क्वांटम मिशन के तहत देश में अगले आठ वर्ष में क्वांटम कंप्यूटर और क्वांटम प्रौद्योगिकी में शोध कार्य को गति प्रदान की जाएगी।

**यहां है क्वांटम कंप्यूटिंग:** यह भौतिकी के एक मूल सिद्धांत-क्वांटम मैकेनिक्स पर आधारित तकनीक है, जो एटॉमिक और सब-एटॉमिक कणों के स्तर पर कार्य करती है यानी

**6003** करोड़ रुपये आवंटित है राष्ट्रीय क्वांटम मिशन के लिए

पूरकाहोगी साइबर सुरक्षा बदलेगी संचार व्यवस्था

**06** देश अमेरिका, फ्रांस, कनाडा, चीन, फिनलैंड व आस्ट्रिया कर रहे हैं क्वांटम पर शोध

सामाजी और बेहतर होमा स्वास्थ्य देखभाल क्षेत्र

ऊर्जा क्षेत्र में अग्रगण्य बड़ा बदलाव अंतरिक्ष प्रौद्योगिकी में नूतनें आयात

**50-1000** कृत्रिमकल कम्प्यूटि वाले कंप्यूटर विकसित किये जायेंगे अगले आठ वर्षों में

वित और बैंकिंग में आरपी केजी

क्वांटम मिशन से तैयार होगी अनेक स्तरों पर नई व्यवस्था मिशन के तहत सुपरकंडक्टिंग और फोटोनिक तकनीक जैसे प्लेटफार्मों पर अगले आठ वर्षों में 50-1000 कृत्रिमकल कम्प्यूटि वाले कंप्यूटरों का विकास किया जाएगा। देश के भीतर 2000 किमी के दायरे में हाइड्रोजन स्टेशन के बीच उपास्य आधारित सुरक्षित क्वांटम संचार की व्यवस्था बनेगी। राष्ट्रीय समर्थ, संचार व नेविगेशन के लिए एटॉमिक सिस्टम में उच्च संचालन वाले मैग्नेटोमीटर विकसित किए जायेंगे। सुपरकंडक्टर, रोमीकंडक्टर व क्वांटम डिवाइस विकसित करने का लक्ष्य भी रखा गया है।

### क्वांटम कंप्यूटिंग का भविष्य और चुनौतियां

क्वांटम प्रौद्योगिकी से रक्षा, खुरफिया और सामरिक क्षमता में वृद्धि होगी। मौसम पूर्वानुमान, नदी दबावों की खोज, वित्तीय और कच्चा विश्लेषण, लाजिस्टिक क्षेत्र में बड़ा बदलाव आयेगा। यह तकनीक आर्टिफिशियल इंटेलिजेंस और मशीन लर्निंग की ताकत में वृद्धि कर सकती है। इसके विकास में दो प्रमुख चुनौतियां हैं, पहला, क्वांटम कंप्यूटर के लिए हाईवेयर और दूसरा, क्वांटम कम्प्यूटिंग इंडस्ट्री के लिए कौशलयुक्त लोगों की कमी को दूर करना।

यह प्रत्य और ऊर्जा के बर्ताव को माइक्रोस्कोपिक लेवल पर विश्लेषित करने की विधा है। क्वांटम कंप्यूटर उन जटिलताओं का भी समाधान कुछ ही सेकंडों में कर सकता है, जिसके लिए पारंपरिक कंप्यूटर को वर्षों लग सकते हैं। ये कंप्यूटर क्वांटम बिट यानी क्ब्यूटि आधारित होते हैं। कंप्यूटर में जहां पारंपरिक बिट (0 या 1) होते हैं, वहीं क्ब्यूटि में 0 या 1 के साथ-साथ 0 और 1 की सुपर-

पोजिशन का भी सेट हो सकता है। क्ब्यूटि से सूचनाओं को प्रोसेसिंग बेहद कम समय में होती है।

**क्वांटम तकनीक का विकास:** देश में शीर्ष अकादमिक और शोध संस्थानों में क्वांटम तकनीक के विकास के लिए मुख्य रूप से चार विषयों पर फोकस किया जाएगा। क्वांटम कंप्यूटिंग के साथ-साथ क्वांटम कम्प्युनिकेशन, क्वांटम सेंसिंग व मेट्रोलाजी और क्वांटम मैटेरियल व डिवाइसेज के

विकास पर जोर दिया जाएगा। इनके जरिये अलग-अलग क्षेत्रों में इसके अनुप्रयोगों को बढ़ावा दिया जाएगा।

**संचार और सुरक्षा में व्यापक परिवर्तन:** क्वांटम कम्प्युनिकेशन संचार को एक व्यापक व्यवस्था तैयार करेगा। यह काफी सुरक्षित भी होगा। उच्चस्तरीय कोड और क्वांटम क्रिप्टोग्राफी की सहायता से दो स्थानों के बीच संचार अधिक सुरक्षित होगा, किसी बाहरी तत्व द्वारा इसे जैक या डि-क्रिप्ट करना आसान नहीं होगा। क्वांटम मैकेनिक्स आधारित न्यू सेंसर की क्षमता और सटीकता बेहतर होगी। ये मुख्यतः तरंगी, चुंबकीय क्षेत्र, तापमान समेत अन्य भौतिकी मापनों को कहीं बेहतर करते नजर आएंगे। इससे अंतरिक्ष प्रौद्योगिकी परिवर्तन संभव हो सकेगा।

-ब्रह्मानंद मिश्र

Cabinet clears Rs 6k-cr plan to scale up quantum research

# Cabinet clears ₹6k-cr plan to scale up quantum research

Soumya Pillai

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**NEW DELHI:** The Union Cabinet on Wednesday approved the National Quantum Mission (NQM) with a target to scale up scientific and industrial research and development for quantum technologies, at an estimated cost of over ₹6,000 crore in the next eight years.

The mission aims to place India in an elite club of nations that has developed quantum computing, senior officials of the ministry of science and technology said. Currently, only six other countries — the United States, Finland, Austria, China, Canada and France — are working in the field of developing quantum computing, the officials said.

Union minister of state science and technology Jitendra Singh on Wednesday said that the launch of the National Quantum Mission will give India a "quantum leap in the field".

"In most technology develop-

**Set for a quantum leap**

**₹6,000 cr**  
in the next eight years

To ramp up R&D for quantum technologies

The first step in the mission will be to form a governing body to overlook progress and act as a link between the govt, industry partners, research bodies and start-ups

**What is quantum technology?**  
Quantum technology is based on the principles of quantum mechanics developed in the early 20th century to describe nature at the scale of atoms and elementary particles

**In elite company:** Only six other countries - the United States, Finland, Austria, China, Canada and France - are working in the field of developing quantum computing

ments, India has been a follower. But with the approval of the mission, India will be among the first few countries in the world to take charge in developing quantum technology," he said.

The minister said the Cabinet has approved ₹6,003.65 crore for the mission in the next eight years, and that the process will be advanced in phases.

Singh said the first step in the mission will be to form a governing body, which will oversee progress and act as a primary link between the government, industry partners, research bodies and start-ups in the field.

Quantum technology (QT) is based on the principles of quantum mechanics developed in the

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## PROVISION TO LET CBFC REVIEW FILMS ALREADY CERTIFIED WILL BE DROPPED

Deeksha Bhardwaj

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**NEW DELHI:** The Union government has decided to drop a controversial provision that gave it the power to recommend to the Central Board of Film Certification (CBFC) that it review a movie that has already received certification from the body, officials familiar with the matter said on Wednesday.

Announcing plans for introduction of the revised Cinematograph Bill, 2023 on Wednesday, Union minister for information and broadcasting Anurag Thakur said, "The Cinematograph Act, 2023 will be introduced in the upcoming session of Parliament... It will satisfy everyone without creating any controversy."

→P8

# Quantum Tech

## QUANTUM TECH

early 20th century to describe nature at the scale of atoms and elementary particles. QT also includes quantum sensors, which use the sensitivity of quantum systems to measure things like gravity, magnetic fields, and temperature with unprecedented accuracy. This technology can be manifested through practical applications in secure communication, disaster management through better prediction, computing, simulation, chemistry, health care, cryptography, imaging, among others.

Quantum computing, meanwhile, uses the principles of quantum mechanics to process information much faster than classical computers. In classical computing, information is processed using bits (represented with a 0 or a 1). In quantum computing, however, information is processed using quantum bits, or qubits, which can exist in a state of superposition – which have the ability to represent both the 0 and 1 at the same time. Using this superposition, quantum computers are able to mimic several classical computers working in parallel.

This ability makes quantum computers extremely powerful when solving certain kinds of problems like finding prime factors of large numbers and searching large databases. The

prime factorisation quantum algorithm has important implications for security as it can be used to break RSA encryption, which is a public-key cryptosystem that is widely used for secure data transmission.

“There are nearly 20 institutes in India currently that are preparing for a deep dive into the quantum world that holds the secrets for developing exciting technologies for computing, communication, cryptography and many more,” the minister said.

The Centre, in the 2020 Union Budget, had announced a National Mission on Quantum Technologies and Applications (NM-QTA) with a total budget outlay of ₹8,000 crore for a period of five years to be implemented by the department of science and technology (DST).

India has set a target of developing intermediate scale quantum computers with 20-50 physical qubits within three years, 50-100 qubits in five years and 50-1,000 qubits in eight years, in various platforms like superconducting and photonic technology, explained Akhilesh Gupta, senior advisor at DST and secretary, Science and Engineering Research Board (SERB).

In November 2022, IBM unveiled its latest quantum computer Osprey, which has a 433-qubit processor that is three

times more powerful than its predecessor. Several other private players including Google, Microsoft and Amazon, along with some nation states, are also investing heavily in quantum technologies.

“India will also be developing satellite-based secure quantum communications between two ground stations over a range of 2,000km within India, as well as long distance secure quantum communications with other countries,” said Gupta. Experts say a secured quantum communication network will help India get a strategic advantage over data infiltrators and ensure state documents and data are safe.

Dr M Vidyasagar, fellow of The Royal Society, SERB National Science Chair and professor at the Indian Institute of Technology, Hyderabad, said that India's entry into the field of quantum technologies, is a welcome step.

“Quantum computing is a futuristic technology, and if we wait to observe its benefits from the work of other countries, we will have to play catch up. So, this is the right time to get into the field. India currently has the expertise for developing ‘post-quantum’ cryptographic algorithms to create designs that are invulnerable to quantum computers, but large investment is required in the field of developing the hardware,” he said.

# पहली बार महिला भी लगाएगी चाँद का चक्कर

## पहली बार महिला भी लगाएगी चाँद का चक्कर



जेरेमी

विक्टर

रीड

क्रिस्टीना

### दमदार 4

#### ■ एनबीटी न्यूज डेस्क

अमेरिकी अंतरिक्ष एजेंसी नासा 50 साल बाद चार अंतरिक्ष यानियों को चाँद पर भेजने जा रही है। अपोलो मिशन के 50 साल से ज्यादा समय के बाद कोई इंसान चंद्रमा के करीब जाएगा। यह मून मिशन इस लिहाज से भी बेहद खास है कि पहली बार एक महिला और एक अस्पेस अंतरिक्ष यान मून मिशन पर जाएंगे। अभी तक नासा और दूसरी एजेंसियों की तरफ से जितने भी अंतरिक्ष यान गए, वे स्पेस थे। नासा का यह आर्टेमिस-2 नाम का मून मिशन साल 2024 के अंत में या फिर साल 2025 की शुरुआत में लॉन्च होने की उम्मीद है। बता दें कि नासा ने पहली बार 1972 में अपोलो मिशन चंद्रमा पर भेजा था।

**क्रिस्टीना कोच** : मून मिशन के लिए चुनी गई पहली महिला। 44 साल की क्रिस्टीना 328 दिनों तक अंतरिक्ष में रह चुकी हैं। अक्टूबर 2019 में उन्होंने पहली ऑल-फीमेल स्पेसवॉक में भाग लिया था।

**विक्टर ग्लोवर** : 46 साल के विक्टर यूएस नेवी में टेनी पायलट हैं। वह छह माह अंतरिक्ष स्टेशन पर रहने वाले पहले अफ्रीकी अमेरिकी हैं।

**जेरेमी हैन्सन** : 47 साल के जेरेमी कन्वर्जर हैं। वह कैनेडियन एयरफोर्स में फाइटर पायलट थे। वह उनका पहला अंतरिक्ष मिशन होगा।

**रीड विस्मैन** : 47 साल के रीड यूएस नेवी में पायलट हैं। 2015 में वह अंतरराष्ट्रीय अंतरिक्ष स्टेशन जा चुके हैं।

### चाँद पर उतरने का रास्ता बनाएंगे

■ नासा ने पिछले साल आर्टेमिस-1 मिशन भेजा जिसने छोटे रोबोटिक यान छोड़े और चाँद के जरूरी फोटो, विडियो बनाए

■ अब आर्टेमिस-2 मिशन जाएगा, जिसमें अंतरिक्ष यात्री चाँद का घक्कर लगाकर चाँद पर लैंडिंग का रास्ता तलाशेंगे

■ आर्टेमिस-2 के बाद 2025 में आर्टेमिस-3 भेजा जाएगा, जिसमें जाने वाले एस्ट्रोनॉट्स चाँद पर उतरेंगे



#### 10 दिन का मिशन आर्टेमिस-2

इस दौरान करीब 22 लाख किलोमीटर की यात्रा करेंगे

धरती पर लौटने से पहले चंद्रमा के सुबुर भाग से 10,300 किमी दूर तक जाएंगे

# Vigyanika, signifying the role of literature in propagating science

## Vigyanika, signifying the role of literature in propagating science

BIJU DHARMAPALAN

Scientific temper is a buzz word scientific community and policymakers often use to highlight one of the specialities of our constitution and nation. Even before our constitution came into existence, we had a rich tradition of following scientific principles in our daily life. be it in our architecture, health care, agriculture and music. Of course, this knowledge kept in the hands of a few elite sections of society. After independence, our policymakers realised that this scientific knowledge and new scientific advances from the western world should be adopted in our new nation. Accordingly, they envisioned world-class institutions in the country and the fruits of which we are harvesting today through research and innovation. But even today, science is managed by the scientific and academic community. The science spoken by these elite communities is not digestible to the ordinary person, even though they are reaping the benefits in their daily life. Myths and superstitions that affect human development are prevalent even in this Amrit Kal when we are marching towards a global leader. Many educated people have an aversion to taking vaccines or believing in evolution. Only when all our citizens are scientifically literate, our country will progress in every aspect of human development. This is a challenging task in a country with diverse cultures and traditions.

Many science popularisation programmes have been carried out in the country under the aegis of great institutions like Vigyan Prasar, CSIR-NIS-CPR (earlier CSIR-NIS-CAIR) and others. But still, achieving 100 per cent scientific temper seems to be a dream, the problem is that these institutions have their own limitation in reaching every nook and corner of the country. Moreover, most of the science popularisation programmes are led

by scientists who are from a science background. There are hardly any scientific institutions in the public sector where people from literature or fine arts backgrounds are recruited as scientists. This is one of the major drawbacks of our science communication activities. We need more science communication institutions having human resources trained in science, literature and fine arts, in different regions of the country. Based on the local cultural differences, we need to design different science communication strategies to develop scientific temper in the society.

It is here literature comes to the rescue. Every literate person will read story books, novels, fiction and poems at some point in life, even if they don't read scientific books or journals. Literature is one area that we have missed in our science popularisation activities. Even children who are not interested in science in the classroom would like to read sci-fiction books like the Star Trek series and similar. Many ordinary people without any scientific background, have shown interest in reading biographies of scientists like "Wings of Fire" by our former President Dr APJ Abdul Kalam. Similarly, there are many takers for the sci-fiction books written by Fred Hoyle, Gregory Benford, Carl Sagan, Isaac Asimov, Robert A Heinlein, Arthur

Clarke, Michael Crichton and others.

Even in our classroom, instead of text books, if science-based popular science books or literary works are included, we can generate interest in students. Studies have shown that creating connections with literary works will help engage students in science classes. Students reported that they were immediately able to see and emotionally engage with the narrative. They might start to appreciate science for its creative potential. Students' self-assurance in science improves when they see the relevance of scientific concepts to interests they already have. It encourages kids to broaden their horizons and think beyond the box when it comes to their science coursework. Integrating readings about accountability in science is one way to help students grasp the material. They gain self-assurance as they learn that science encompasses more than one narrow field. Students with a passion for science will find that the sessions push them to develop their critical thinking skills and open their minds to new ideas. They have also inspired many kids to pursue learning on their own time.

Innovative ideas and technological advances in science and technology have been reflected by numerous well-known and representative literary works. The important interactions between science and the cultural sphere (with architecture, religion, the philosophy of the Enlightenment, or literature) throughout history demonstrate that science is a fundamental component of culture. Science is present in literature in the form of topics, characters, and even authors, which as we will see, allows literature to be used as a means to spread knowledge about science and its social context. Thus, Jonathan Swift, in his work Gulliver's Travels (1726), depicts an island, Laputa, which is held up magnetically in the air, and inhabited by men who are totally dedicated to mathematics and music. Similarly, Jules Verne, in his novel The Mysterious Island (1874) explains the notion of man's controlling nature thanks to science and technology. Science also influences the work of Arthur Conan Doyle. The investigation methods used by his literary creation, the detective Sherlock Holmes, are based on the positivist scientific methods taught to the author as a medical student. In recent times books by Prof. Yuval

Noah Harari, like 'Sapiens' and 'Homo Deus', which were the best-sellers lucidly explain science, even though the author is not a scientist per se. He recently came out with another book Sapiens: A Graphic History, a radical graphical adaptation of his best-selling book Sapiens, targeting children and the layman.

Realising the importance of literature in science communication, the government has included 'Vigyanika' (Science literature festival) as one of the main events at the mega science event, India International Science Festival (IISF), the eighth edition of it will happen from 21st to 24th January in Bhopal. The event will bring scientists, literary and fine arts personnel to a common platform. This is a welcome step in taking science communication and science education to the next level. Our science students should be taught to read novels, poems, biographies etc, to improve their creative skills. The beauty of storytelling and poems is that even an illiterate person who listens to them will enjoy and understand scientific concepts.

In this world of trans-disciplinary learning, policymakers should open the doors of scientific institutions to people from a literature background. A good literary work, be it a novel or fiction, or poem, is a mirror of society. It can reflect problems the community faces, virtues of good values and teach people to dream higher. It can even help us document certain traditional knowledge that prevailed during the period. These values are essential for effectively bringing science to the masses. Even today, our policymakers give impetus to scientist-centric science communication. This should change to a collective teamwork of scientists, literary and fine arts persons. We must envision a nation where scientific temper is imparted to every citizen. For this, we must train our young minds, our school-going children. We need to design materials that would digest every child, story books, comic books, novels, fiction, poems, etc, that have science components in different languages. This will make even students not interested in science learn scientific concepts indirectly. If scientists and literary figures come together, we can expedite our mission of developing scientific temper in every part of the country and make India a scientific superpower in the Amrit Kaal.

The author is a science communicator and academic



## A new ring system discovered in our solar system

# A new ring system discovered in our Solar System

Scientists have discovered a new ring system around a dwarf planet on the edge of the Solar System. The ring system orbits much further out than is typical for other ring systems, calling into question current theories of how ring systems are formed.

The ring system is around a dwarf planet, named Quaoar, which is approximately half the size of Pluto and orbits the Sun beyond Neptune.

The discovery, published in *Nature*, was made by an international team of astronomers using HiPERCAM - an extremely sensitive high-speed camera developed by scientists at the University of Sheffield which is mounted on the world's largest optical telescope, the 10.4-metre diameter Gran Telescopio Canarias (GTC) on La Palma.

The rings are too small and faint to see directly in an image. Instead, the researchers made their discovery by observing an occultation, when the light from a background star was blocked by Quaoar as it orbits the Sun. The event lasted less than a minute,

but was unexpectedly preceded and followed by two dips in light, indicative of a ring system around Quaoar.

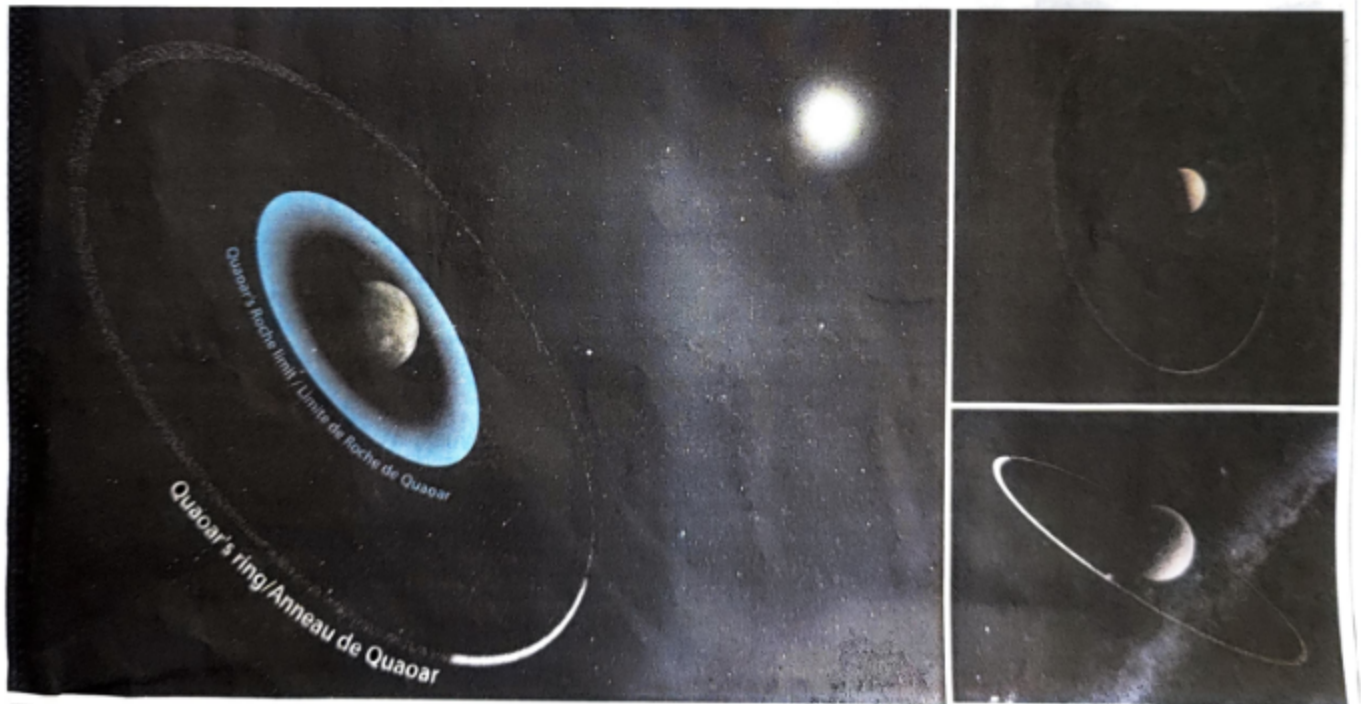
Ring systems are relatively rare in the Solar System - as well as the well-known rings around the giant planets Saturn, Jupiter, Uranus and Neptune, only two other minor planets possess rings - Chariklo and Haumea. All of the previously-known ring systems are able to survive because they orbit close to the parent body, so that tidal forces prevent the ring material from accreting and forming moons.

What makes the ring system around Quaoar remarkable is that it lies at a distance of over seven planetary radii - twice as far out as what was previously thought to be the maximum radius according to the so-called 'Roche limit', which is the outer limit of where ring systems were thought to be able to survive. For comparison, the main rings around Saturn lie within three planetary radii. This discovery has therefore forced a rethink on theories of ring formation.

Professor Vik Dhillon, co-author of the study from the University of Sheffield's department of physics and astronomy, said: "It was unexpected to discover this new ring system in our Solar System, and it was doubly unexpected to find the rings so far out from Quaoar, challenging our previous notions of how such rings form. The use of our high-speed camera - HiPERCAM - was key to this discovery as the event lasted less than one minute and the rings are too small and faint to see in a direct image.

"Everyone learns about Saturn's magnificent rings when they're a child, so hopefully this new finding will provide further insight into how they came to be."

The study involved 59 academics from all over the world, led by the Federal University of Rio de Janeiro in Brazil. The research was partly funded by the Science and Technology Facilities Council (STFC), part of UK Research and Innovation (UKRI), and included six UK universities - Sheffield, Edinburgh, St Andrews, Warwick, Birmingham, and the Open University.



# Need to restructure science PhD programmes in India

## Campus & Career

The Statesman  
NEW DELHI, TUESDAY 07 MARCH 2023

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# Need to restructure science PhD programmes in India

BIJU DHARMAPALAN

Scientific research in India is often the same research problem done by different people in different universities. If we look at the database of submitted PhD theses we can see that many thesis titles submitted in various universities have even similar titles. As of now, there is no rule that prohibits a scholar from carrying out similar work carried out in other universities. Of course in research even if the title rhymes similarly people can argue that the content may be different. But what is the use of repeating the same work, if it's done using public money? If we go through the profile of PhD supervisors we can see that the majority of them simply work on the topics that their supervisors taught them decades earlier. Scientific research should be dynamic, and every supervisor and scholar should work on new challenging topics that are relevant to today's society.

There is also the question of publications that come out of the research. Is publication a must for awarding a PhD degree? Do publications define the quality of research?

The recent suggestion from UGC regarding scrapping the rule regarding compulsory publication for the award of a PhD degree has met with skepticism from the academic community. This decision vertically splits the academic and research community in the country. Even though many prominent scientists and professors support this suggestion, many are apprehensive about it. The current regulation of UGC states that to award a doctoral degree, the student should have at least one publication in a UGC care-listed journal. Various universities have their mandatory requirements.

Some universities need to have two publications in SCOPUS, Web of Science Indexed, or UGC care-listed journals. In some national institutions, there is no requirement for publication. The reasons cited by UGC regarding a proposal for scrapping the publication rule are the undue pressure on students to publish and the proliferation of 'predatory' journals in due course. It's true that most of the time students' focus is only on how to get publication faster than on research. Good scientific research cannot be designed to focus on the requirements of journals. In most of our labs, researchers try to incorporate

new techniques, and analysis software that suit specific journals, even at the experiment designing stage. This leads to prejudice and bias in the research. Ground-breaking discoveries and innovations will emerge only if one works with a prejudice-free mind and creativity. Even though there has been an exponential rise in scientific publications in the last ten years, our researchers failed to produce a Nobel Prize after Sir CV Raman. So it is evident that the increase in the number of publications alone cannot be considered a parameter for quality research.

In certain domains of science, the review process of certain journals takes more than a year, causing undue delay in completing a PhD in India. It's not uncommon to see students spending more than five years getting a PhD degree, whereas their counterparts in western Universities complete it within 2 or 3 years. In most cases, the students are forced to work in the lab to get a publication. Is it worth it for a student to spend 6 or 8 years for a doctoral degree? There should be a strong regulation for making research supervisors accountable for any

delay in submitting a thesis within a stipulated period of 3 to 4 years. It's the duty of supervisors to see that students submit their thesis on time, if there is any lacuna from the student it should be reported to the concerned authority. Most researchers in science suppress their grievances from a lab fearing the omission of their name from the paper and other repercussions from the supervisors. Few research supervisors take advantage of this situation and make scholars work in their labs without any remuneration even after the PhD degree is awarded to the student. The main aim of most researchers is to secure a post-doctoral position in some foreign universities. Unfortu-

nately, this is a prerequisite to getting a good job in India. For most post-doctoral positions, publication in high-impact journals is the main criterion for selection. Because of compulsion, our scholars publish at least a couple of papers in good journals. No one will ever try to write a scientific article if it's not a compulsory writing in an essential skill that scholars should impart during their PhD period. Only if our scholars are trained in scientific communication can we achieve the objectives mentioned in the recently published Scientific Social Responsibility (SSR) guidelines for promoting science communication.

It's true that many so-called 'predatory' journals or low-quality journals have evolved in recent times. UGC should highlight the list of such 'predatory' journals on their website so that scholars won't fall

into the publishers' trap. The term 'predatory' journal itself is a misnomer. Many people have defined a predatory journal as one that takes processing charges. In that case, many high-impact journals should also be classified as predatory, as they charge authors lakhs of rupees. An average middle-class student may not be able to afford such an immense amount. Ultimately they have to depend on their supervisor's hands. Many supervisors misuse stu-

dents, making them work for extended periods in their labs. This dependency is the cause of major problems affecting Indian science. Today, a PhD student's concern is not publication but a lack of employment opportunities. Even students who passed out from prestigious institutions like IITs and IISERs find it challenging to get a good position even after the post-doctoral experience. Scholars with good publications and academic profiles are forced to work in contractual jobs or private institutions for a low salary. There are even cases where many PhD fellows are working for wages below Rs 25,000 per month. A student who has lesser education with a higher secondary or degree qualification gets more salary than a PhD fellow. In that case, what's the use of spending long years and qualifying for all the national-level competitive examinations?

Over the past 20 years, we can see that there has been a steady decline in quality associated with education; whether it's in schools or colleges, instruction is modified to suit the convenience of students. No academic bodies in our state universities are interested in making our students competent in the global scenario. We have simplified the process at every stage of education, and nowadays, getting a PhD degree has become easier than qualifying for the higher secondary course. The mushrooming of private higher education centres has worsened the situation. More than the issues associated with publication, one major issue that has erupted in the last decade is the emergence of institutions that do outsourcing work. Each part of the research problem can be outsourced and compiled into a thesis by these agencies. If one has money, a PhD degree can be obtained without doing any work. Based on the nature of the work involved, these agencies charge 1 to 4 lakh. Interestingly these agencies get the details of students registered for PhD in an academic year from universities and make calls

to scholars. We can see many PhD holders who have never done any research work in our midst. There are no measures available to identify a person who did genuine research through their hard work and those who received a degree by manipulation. Both get degree certificates from the same university. And often, in the job market, these manipulators get the upper hand, and genuine students get affected. This culture ultimately forces many good researchers to leave the country and settle in a foreign land. This is a bad sign for the future of Indian science. Regulatory agencies should seriously look into this matter.

If we need to improve the quality of Indian science, we need stringent regulations for the award of PhD degrees. There should be a minimum guarantee from the government that PhD holders will get a job, at least for those passing out from national institutions, as they are admitted after a rigorous selection process. The PhD positions in specific areas can be notified based on the need. The various fellowships provided by CSIR, UGC, ICAR, ICMR, DBT in a year can be modified based on the availability of job positions. This will help authorities select the best people suited for a particular area of research. While filling out the application, the student should be allowed to make research area preferences. This can be in line with a trans-disciplinary outlook. Instead of conducting the CSIR-UGC JRF examination on broad topics like Life sciences, Physical sciences and Chemical sciences, students should be allowed to take tests based on specific research topics, irrespective of their basic degree. Even an engineering student interested in studying plant physiology should be allowed to take the exam and vice versa. The students qualifying in these tests should be allotted to work in an institution where there is an existing position. This practice will make students understand the institution's mandate properly and work for its betterment.

The students recruited in this way should not be allowed to leave the job for at least ten years. There is no meaning in training scholars to better another country through our public money. The country's scientific strength will improve only if our researchers produce good publications, innovations, and patents. We need to build a robust scientific workforce, which can be created only through quality research scholars. Any dilution in the quality of scientific research will badly affect our vision to transform into a developed nation. This is a science communicator and columnist.

### PLUS POINTS

## Free reskilling training

Realising the importance of the urgent need for 190 basic courses, ed-tech startup OLL is offering 1 lakh students who register on its platform. The courses offered are the pre-requisite to more than 50 job roles defined the national occupation standards. We are offering 4 courses - public speaking, personality development, basic maths, resume building, python coding to underprivileged for a duration of 2 months. The classes will be conducted online through the ed-tech portal. The educational system has not yet been improved to assist masses in developing their occupational abilities. OLL is bringing technical skills to students all throughout the nation in an effort to close the gap. OLL offers engaging live courses that are STEM and Unesco accredited for new age trending skills. OLL has connected with 36,000 students across India by using technology as an integrator. To assist students with skills in technology, finances, robotics, fitness, coding, public speaking, and courses in various languages, more than 2000 teachers have jumped on the OLL bandwagon. The ed-tech startup has secured an amount of Rs 30 lakh post this round of funding, bringing its total funding to Rs 1.23 crore since inception. The company was earlier seed funded by successful angel investors and leaders including Garav VK Singhi, Neena (Tyagi), Bhawna Bhargava, Sandeep Baisi, Monica Gupta and eight more angels.

## MSc in antimicrobial resistance

The University of Sheffield, UK is inviting applications for its MSc Antimicrobial Resistance Course starting in September 2023.

This course gives you a real-world insight into the approaches used to tackle the global threat of antimicrobial resistance and prepares you for an exciting career in this area. You'll receive hands-on training from scientists, clinicians and biotechnology industry experts. Designed in collaboration with the NHS, throughout your course, you'll learn about the latest clinical practice in the fast-moving area of antimicrobial resistance (AMR) ready for an exciting career in public health, policy making, or academia.

You'll receive training in the main aspects of AMR, including: microbe pathogenesis and resistance mechanisms; treatment regulations; national and international policies; public health, agricultural and environmental factors and potential new therapies and treatments.

To broaden your knowledge and gain an understanding of AMR, you'll be taught by a wide range of academics at the forefront of the subject, from social science, engineering, clinical academics, microbiologists and other scientists. Guest lectures from experts in the biotechnology and pharmaceutical industry, including GSK, and public health policy from the UK Health Security Agency will also introduce you to the different approaches that are being used to overcome this global threat.



# डिजिटल युग में किताबों की लोकप्रियता कायम



## क्यों बढ़ हैं वनगिन की घटनाएं

# क्यों बढ़ रही हैं वनाग्नि की घटनाएं

पहले जब भी वनों में आग लगती थी, गांव के गांव आग बुझाने के लिए जुटते थे। लेकिन हमने जन भागीदारी खत्म कर दी है। वनों की नमी बरकरार रखना और वन प्रबंधन में जन भागीदारी को जगह देकर ही हम पहाड़ों में लगने वाली वनाग्नि पर अंकुश लगा सकते हैं।

**पा**

परिस्थितियों के बदलते इलाक़ा आने वाले समय में प्रचंड गर्मी का संकेत दे रहे हैं, क्योंकि फरवरी से ही धरती तपने लगी। जाहिर है, गर्मी की यह मार वनों को फिर से घुल्लासाएगी। इस बार मामला इसलिए भी गंभीर है, क्योंकि शीतकालीन वर्षा ने मुंह मोड़ लिया था, जो वनों की मिट्टी में नमी बनाए रखती है और सतही तापक्रम को कम रखकर सतहसे फायर को बढ़ने नहीं देती। आने वाले समय में मात्र जल संकट ही नहीं बढ़ेगा, बल्कि इसका बड़ा असर वनों की आग से होते हुए गाड़-गंधेरी के पानी पर भी पड़ने वाला है। बढ़ती गर्मी के कारण पहाड़ों में पत्ते ज्यादा झरते हैं, जो आग का बड़ा कारण बन जाते हैं।

एक संकेत मात्र अपने देश के लिए ही नहीं है, बल्कि अंतरराष्ट्रीय स्तर पर भी इसका असर दिखाई देना शुरू हो चुका है। अब तक फिलीपींस में 14,000 हेक्टेयर भूमि में लगी आग ने आतंक मचा रखा है। करीब 151 स्थानों पर यह घटना घटी है और इसके कारण 140 मील प्रति घंटे की रफ्तार से हवाएं भी चलने लगीं, जो सतहसे फायर को केनोपी फायर में बदल देती हैं और इससे बहुत बड़ा इलाका आग की चपेट में आ जा रहा है। वहां 13 लोगों की मौत हुई और आग बुझाने वाले एक हेलीकॉप्टर को भी वनगिन ने लीन लिया।



**अनिल प्रकाश जोरारी**  
परिस्थिति

उत्तराखण्ड में अभी तक करीब 61 जगहों से आग लगने की खबरें आ चुकी हैं। अभी तक करीब 62 हेक्टेयर भूमि आग की चपेट में आ गई है। पिछले वर्ष 3,416 हेक्टेयर वन भूमि में आग लगी थी। ये शुरुआती संकेत हैं, जो जाहिर है कि आगामी प्रचंड गर्मी में ऐसी घटनाएं और बढ़ सकती हैं। दुनिया में तापक्रम के कारण होने वाले बढ़े परिस्थितियों की बदलाव ही ऐसी घटनाओं को बढ़ा रहे हैं।

वनों के लिए सुरक्षित माने जाने वाले निम्बल पर भी आने वाले समय में अमजब वनों के विनाश का आसार पड़ने वाला है। अमेजन के वन निम्बल से करीब 15,000 किलोमीटर दूर हैं, लेकिन देश व वन चले



अलग हों, लेकिन अगर किसी एक देश की परिस्थितियों डाटाबेस हो गईं, तो उसका असर दूसरे देशों पर पर पड़ना ही है। पिछले एक दशक में दुनिया की सांस का आधार माने जाने वाले अमेजन वन का वनाग्नि के कारण बड़ा नुकसान हुआ है। वनाग्नि से बढ़ने के लिए सामूहिक रूप से कई कदम उठाने की जरूरत है। किसी भी वनाग्नि के पीछे सबसे बड़ा कारण वनों में पट्टी नमी होती है।

हमने 1980 में वन प्रबंधन की शुरुआत की थी और एक वन नीति बनाई थी, जिसका मूल उद्देश्य वनों की रक्षा करने के साथ, उन्हें वनाग्नि से भी बचाना था, लेकिन पूरे पांच दशकों में ऐसा कुछ नहीं हुआ कि हम गर्व से कह सकें कि हमने वन नीति के बाद वन संरक्षण के बड़े कदम उठाए हैं। उसका बहुत बड़ा कारण यह है कि हमने वनों में जनभागीदारी शुरू कर दी है। पहले जब भी वनों में आग लगती थी, तब गांव के गांव आग बुझाने के लिए जुटते थे। एक गांव का दायित्व यदि आग बुझाना होता था, तो दूसरे गांव के लोग उनके लिए धोखे-धानी की व्यवस्था करते थे। लेकिन हमने जन भागीदारी वाली वन प्रबंधन की नीति खत्म कर दी।

वनों की प्रजातियों आज एक दूसरे संकट से भी जूझ रही हैं। परिस्थितिकीय सुष्टिकोण से वन की परिभाषा में उन प्रजातियों का बेहतर स्थान होना है, जो संश्लेषित वातावरण के अनुकूल हों। जो मिट्टी-पानी को जेठ सकें और वहां की जलवायु के प्रति अनुकूल हों। आज सब बदल गया है। हमने अपनी पूरी वन नीति में वनों की परिभाषा में जो सबसे बड़ी चुक की है, वह यह कि हमने स्थान विरोध के लिए वृक्षों को परिभाषित नहीं किया। उन्हीं वृक्षों के संरक्षण और उनको लगाने की बात जरूरी है,

जो वहां की परिस्थितियों के अनुकूल हों।

इसमें प्रजातियों के सर्वोच्च प्राथमिकता का ज्यादा मान नहीं होना चाहिए। आसल में इसे ज्यादा महत्व देकर प्रजातियों को योग्य को कक्षागत वे प्रबंधन तंत्र को संकट में डाल दिया। पिछले तीन-चार दशकों में स्थानीय के वन ने पूरे हिमालय के तराई क्षेत्र को घेर लिया, जो वहां की स्थानीय प्रजाति नहीं थी। उत्तराखण्ड में अकेले आठ लाख हेक्टेयर भूमि में चीड़ के वन हैं, जिनमें बार-बार आग लग जाती है, जिसे रोकना किसी के बलबूते की बात नहीं है। वनों में लगी आग से वन पशु-पक्षी का तो नुकसान होता ही है, वन भूमि भी खल मिट्टी में बदल जाती है, जो वनस्पति की स्थानीय प्रजातियों को पनपने नहीं देती। एक चीड़ की औसत ऊंचाई 15 मी से 18 मी मीटर से ऊपर नहीं होनी चाहिए। लेकिन आज उसकी ऊंचाई 2,500 मीटर तक पहुंच गई है। साथ ही इसे एक हजार मीटर से नीचे नहीं होना चाहिए, लेकिन आज उसने पिछले इलाकों में शाल के वनों को लीन लिया है। इसकी अक्षमकता आग का एक बड़ा कारण बन जाती है।

हमें सबसे पहले इन वनों में नमी को बरकरार रखने की कोशिश करनी चाहिए। वनों के बीच में जल रिज, ट्रेंच आदि से इन नमी को बरकरार रखा जा सकता है। शीतकालीन वर्षा लंबे समय तक सतही नमी को बनाकर रखती है, तो इसका सीधा असर उस आग पर भी पड़ेगा, जो विनाश रोक-टोक आगे बढ़ती चली जाती है। इसके अलावा वन परिवर्षों की स्थानीय और आर्थिक उपयोग में लाने के लिए काम होना चाहिए। अगर यह स्थानीय लोगों की भागीदारी से होगा, तो शायद हम कभी हर एक आग पर अंकुश लगा सकेंगे।

हैस्को ने वर्ष 2009-10 में एक प्रयोग किया था, जिसमें करीब 44 हेक्टेयर वन भूमि में जल रिजों की कल्पना की गई थी। इस प्रयोग से प्राकृतिक वनों की वापसी तो हुई ही, साथ ही, तदी के पानी की वापसी भी हुई। इसमें नमी के कारण वनों में आग नहीं पकड़ती। आज इस बात की बड़ी आवश्यकता है कि ऐसे प्रयोगों को बड़े आंदोलनों के रूप में बड़ा क्षेत्रों में फैलाना चाहिए। जहां वह एक तरफ वनों संभेदन के रूप में बड़ा कार्य बनेगा, वहीं दूसरी तरफ जलवायु को भी बचाएगा।

हमें नहीं भूलना चाहिए कि वनाग्नि की घटनाएं पिछले तीन दशक से ज्यादा बढ़ी हैं। इसके बहुत बड़े कारण में एक हमारी प्रबंधन नीतियों का कमजोर होना भी है, क्योंकि मात्र वन विभाग से यह अपेक्षा नहीं की जा सकती कि वह इस वनाग्नि से निपट पाएगा। स्थानीय लोगों की भागीदारी बढ़ाना ही शायद हमारी सही वन नीति का हिस्सा होना चाहिए।

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किताबों के संसार को युवा पाठकों ने किया गुलजार

# किताबों के संसार को युवा पाठकों ने किया गुलज़ार

दिल्ली वर्ल्ड बुक फेयर से युवा बैग भर-भर कर ले जा रहे किताबें

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■ नई दिल्ली : किताबों के मेले में साहित्य का जश्न हर उम्र को छू रहा है। वर्ल्ड बुक फेयर में मशहूर लेखकों को सुनने और उनकी नई किताब उनके ऑटोग्राफ के साथ लेने के लिए उनके कदमों बेताब हैं। स्टॉल्स में किताबों के

पन्ने टोलते, ऑथर्स कॉर्नर में लेखकों को सुनते, मेले के गलियारों में घूमते लोग

'स्मार्टफोन जेनरेशन' कही जाने वाली युवा पीढ़ी से मिले रिस्पॉन्स से गदगद हैं लेखक-प्रकाशक

किताबों से भरे बैग के साथ नजर आ रहे हैं। खासतौर पर स्कूली स्टूडेंट्स और युवाओं का जोश दिख रहा है।

मेले में एक स्टॉल में किताबें टोलती हर्षिता माथुर ने बताया, मैंने ऑफिस से छुट्टी ली है, इत्मीनान से सभी स्टॉल घूमना है। बचपन से साहित्य पढ़ना मेरा शौक रहा है मुझे लगता है यंग जनरेशन लिटरेचर से दूर नहीं है, फेयर में भीड़ देखिए, शौक है... इसलिए सब यहां हैं।

राजकमल प्रकाशन के प्रबंध निदेशक अशोक महेश्वरी कहते हैं, कोविड से पहले युवा लेखक और पाठक दोनों कम दिखाई



पुस्तक मेले में हर उम्र के लोगों को उनकी पसंद की किताबें मिल रही हैं

देते थे, मगर इस बार साहित्य की दुनिया में युवा ही युवा हैं। जो लोग दो साल किताबों से कुछ दूर थे, वे भी यहां आकर किताबें ले जा रहे हैं। हमारे स्टॉल में रिस्पॉन्स बहुत बढ़िया है, हर वक्त भीड़ है। प्रभात प्रकाशन के डायरेक्टर प्रभात कुमार ने कहा कि पुस्तक मेले में इस बार कई नए लेखकों की पुस्तकें हम लेकर आए हैं और युवा पाठक भी पहुंच रहे हैं। लीक से अलग हटकर विषयों वाली पुस्तकों के प्रति ज्यादा रुझान देखने को मिल रहा है, मसलन-उर्वशी अग्रवाल, पीयूष पांडे की बेस्टसेलर किताबें। हमारे पास धर्म से लेकर साइंस,

लगभग हर विषय पर किताबें हैं, इसलिए बिना किताब खरीदे कोई जा नहीं रहा है।

मेले में पहुंचे डीयू स्टूडेंट शोभित सिंह कहते हैं, मैं ऑनलाइन किताबें खरीदता हूँ, ई-बुक्स भी पढ़ता हूँ, मगर बुक फेयर की बात ही अलग है। यहां हर ओर किताबें हैं, लेखक हैं, उनके बोलने का अंदाज, मेले का माहौल यह सब आपके अंदर पढ़ने का जोश भरता है। कल मैंने पीयूष मिश्रा को सुना, अब उनकी किताब पढ़कर मुझे और मजा आएगा। फ्रेंच पब्लिशियन में किताबों के साथ कॉफी का मजा लिया, लंच भी मिला किया, यह मेरे लिए पिकनिक डे है।

आपका पर्सनल डेटा महफूज रखने के लिए कानून जल्द

# आपका पर्सनल डेटा महफूज रखने के लिए कानून जल्द

सुप्रीम कोर्ट में केंद्र सरकार ने कहा, डेटा प्रोटेक्शन बिल मॉनसून सत्र में पेश होगा

■ विशेष संवाददाता, नई दिल्ली

सुप्रीम कोर्ट में मंगलवार को केंद्र सरकार को ओर से कहा गया है कि डेटा प्रोटेक्शन बिल तैयार है और संसद के मॉनसून सत्र के दौरान उसे पेश किया जाएगा। सुप्रीम कोर्ट में दाखिल याचिका में कहा गया है कि वट्सऐप और फेसबुक के बीच करार के तहत उनके फोन कॉल्स, मेसेज और फोटोग्राफ आदि शेयर किए जा रहे हैं और यह उनकी गोपनीयता और विचार अभिव्यक्ति के अधिकार का उल्लंघन है। इस मामले में सुप्रीम कोर्ट ने केंद्र सरकार से जवाब देने को कहा था।

**नए जज कर सकते हैं सुनवाई :** सुप्रीम कोर्ट में भारत सरकार के अर्जी नंबरल आर वेक्टरमणी ने जस्टिस केएम जोसेफ की अगुआई वाली बेंच को बताया कि विधेयक तैयार है और उसे मॉनसून सेशन में पेश किया जाएगा। सुप्रीम कोर्ट के पांच जजों की बेंच ने कहा कि मामले को अब चोफ जस्टिस डीवाई चंद्रचूड़ के सामने पेश किया जाए ताकि नई बेंच का गठन हो क्योंकि जस्टिस जोसेफ 16 जून को रिटायर हो रहे हैं। सुप्रीम कोर्ट ने मामले की सुनवाई के लिए इसे अगस्त के पहले हफ्ते के लिए लिस्ट करने को कहा है।

**शेयरिंग पर उठे थे सवाल :** मामले की सुनवाई के दौरान याचिका के वकील म्याम टोकान ने कहा कि मामले की सुनवाई को विधायक प्रक्रिया से नहीं जोड़कर देखा जाना चाहिए। विधायक प्रक्रिया जटिल है और विधेयक को समितियों के पास भी भेजा जा सकता है। 31 जनवरी को सुप्रीम कोर्ट ने कहा था कि वह इस बात का परीक्षण करेगा कि क्या उसे उस याचिका पर विचार करना चाहिए जिसमें डेटा शेयर की वट्सऐप पॉलिसी को चुनौती दी गई है।

**'संसद में बिल आने से हर्ज नहीं' :** सुप्रीम कोर्ट ने कहा था कि केंद्र सरकार

## क्यों अहम है आपके लिए डेटा प्रोटेक्शन बिल

- यह बिल तय करेगा कि भारत के भीतर सक्रिय कंपनियां या संगठन देश के नागरिकों के डेटा को किस तरह इस्तेमाल कर सकते हैं।
- यह बिल पर्सनल डेटा के मामले में यूजर की डिजिटल प्राइवैसी को भी सुनिश्चित करेगा।
- एक तरह से यह यूजर और उसका डेटा इस्तेमाल करने वाली संस्था के बीच आपसी भरोसे को भी मजबूत करेगा।
- डेटा प्राइवैसी या प्रोटेक्शन बिल सबसे पहले साल 2019 में प्रस्तावित किया गया था मगर तब इसमें कई संशोधन सुझाए गए थे।
- वहीं अब सरकार का कहना है कि यह संसद के आगामी मॉनसून सत्र में पेश किया जाएगा।
- 2019 में जब डेटा प्रोटेक्शन बिल का ड्राफ्ट सामने आया था तो उसमें डेटा प्रोटेक्शन अथॉरिटी बनाने की भी बात थी जो सोशल मीडिया कंपनियों की ओर से यूजर के पर्सनल डेटा के इस्तेमाल के नियम कायदे तय करती।
- यह यूरोपीय जनरल डेटा प्राइवैसी रेगुलेशन की तरह होगा जिससे देश में कार्यरत बड़ी टेक कंपनियों के लिए नियम कायदे तय होंगे। (न्यूजडैस्क)

का कहना है कि वह बजट सेशन में डेटा प्रोटेक्शन बिल लाने जा रही है। ऐसे में क्या यह याचिका सिर्फ अकादमिक कसरत नहीं रह जाएगी? पिछली सुनवाई में सुप्रीम कोर्ट के पांच जजों की संवैधानिक बेंच को सॉलिसिटर जनरल तुषार मेहता ने बताया था कि डेटा प्रोटेक्शन बिल संसद



## कोर्ट में क्यों पहुंचा वट्सऐप का मामला

याचिकाकर्ता ने वट्सऐप पॉलिसी को चुनौती दी है, जिसमें वट्सऐप की ओर से यूजर का डेटा अपनी पैरट कंपनी फेसबुक के साथ शेयर किया जाता है। फरवरी को याचिका के वकील ने कहा था कि मेसेजिंग ऐप ने भारतीयों के लिए निचले स्तर की प्राइवैसी पॉलिसी बनाई है। उन्हें डेटा शेयरिंग से रोका जाना चाहिए। वट्सऐप की ओर से कपिल सिबल ने कहा था कि यूरोप में स्पेशल लॉ है और ऐसे में अगर संसद कानून बनाती है तो वट्सऐप उसका पालन करेगी। फरवरी के आदेश में सुप्रीम कोर्ट ने कहा था कि वट्सऐप सरकार को दिए हलफनामे की जानकारी आम जन में प्रसारित करे। हलफनामे में कहा गया था कि जो यूजर 2021 की इसकी प्राइवैसी पॉलिसी पर सहमत नहीं, उनके लिए ऐप पर फंक्शन कम नहीं होंगे।

के मौजूदा सेशन में पेश किया जाना है। जस्टिस केएम जोसेफ की अगुआई वाली बेंच ने कहा था कि इस बात में हर्ज नहीं है कि बिल को संसद में पेश होने दिया जाए। याचिका के वकील ने कहा था कि बिल पेश किए जाने भर से केस टालना नहीं चाहिए।

# SHIRT

## विशेषज्ञता उत्कृष्टता का समर्पित

# ایک اور اسکول آف اسپیشلائزڈ ایلیسی لینس وقف

ہندوستان کی تاریخ میں آج تک اتنا بڑا اسکول نہیں بنایا گیا، دہلی کے سرکاری اسکول ملک کے لیے معیار بن رہے ہیں: اروند کجریوال

ہیں، لیکن اُنس موقع ملنا چاہیے، اگر صحیح موقع دیا جائے تو پچھلے آج سے آج تک اسکول میں آ کر بہت خوش ہوں۔ وزیر اعلیٰ نے کہا اب دہلی ہائی کورٹ کی نئی عمارت تعمیر ہو چکی ہے، یہ ایک شاندار عمارت ہے۔ دہلی ہائی کورٹ کی شاندار عمارت کو ڈیزائن کرنے، اسلٹ آرکائیوٹ نے اس اسکول کو بھی ڈیزائن کیا۔ وہ دہلی کے سب سے بڑے معمار ہیں۔ اس کا نام کریمت چمپان ہے، جو سب سے بڑے معمار ہیں اور ملک کی بڑی عمارتیں بناتے ہیں، آج وہ دہلی میں ہمارے سرکاری اسکول کو ڈیزائن کر رہے ہیں۔ اس اسکول کی ایب کلاس روم اور اسٹاف روم بہترین ہیں۔ تمام بچوں نے بہت تعلیم حاصل کی، بہت آگے بڑھے اور ملک کا ہم وطن کیا۔ میری خواہ ہے یہی دعا ہے۔ اس موقع پر نائب وزیر اعلیٰ اروند کجریوال کی قیادت میں اسکول میں وزیر اعلیٰ کے وفد کے ساتھ ساتھ ایک اسکول کھول رہے ہیں، بلکہ ہمارے سرکاری اسکول قائم کر رہے ہیں۔ اس اسکول کو بنانے کے پیچھے بہت جدوجہد کی گئی ہے۔ یہاں طاقتور لوگ اسکول کی اس اراضی کو لینڈ ریفرم سے لے کر آزاد کر لیا گیا اور اس بات کو یقینی بنایا گیا کہ اسکول کی زمین پر ہی اسکول بنایا جائے گا۔

نائب وزیر اعلیٰ منیش سوسویا نے کہا کہ یہاں ڈاکٹر بی آر میڈیکل اسکول آف اسپیشلائزڈ ایلیسی لینس بنایا جائے گا اور یہاں سے تقریباً 1600 بچے پرائیویٹ اسکولوں کے مقابلے میں، اس اسکول میں، بچوں کو STEM، بیو ٹیکنالوجی اور 21 ویں صدی کی اعلیٰ عمارتوں میں چھوڑ دینے اور عالمی معیار کی تعلیم حاصل ہوگی۔



اسکول آف اسپیشلائزڈ ایلیسی لینس کے آغاز کے موقع پر وزیر اعلیٰ اروند کجریوال اور نائب وزیر اعلیٰ منیش سوسویا (تصویر: ہین کے اس رائٹس این بی)

ملا جیتوں کو اجاگر کرنا مختلف مضافیوں پر خصوصی اسکول قائم کیے جا رہے ہیں۔ اس اسکول میں انجینئرنگ، میڈیکل، بیو ٹیکنالوجی اور 21 ویں صدی کی اعلیٰ عمارتیں (معنوی ذہانت، IET، کمپیوٹر) پڑھائی جائیں گی۔ جو بچے ان شعبوں میں دلچسپی رکھتے ہیں، ان بچوں کو یہاں داخلہ مل جائے گا۔ آٹھویں کلاس کے بعد یعنی نویں میں داخلہ دیا جائے گا۔ نویں، دسویں، گیارہویں اور بارہویں کی کلاس میں پھیلے گی۔ دہلی بھر میں 30 سے زائد اسکول آف اسپیشلائزڈ ایلیسی لینس کے اسکول ہیں۔ اس موقع پر وزیر اعلیٰ اروند کجریوال نے کہا کہ ہمارے فریوں کے بچوں نے بھی دکھا دیا ہے کہ وہ کسی سے کم نہیں ہیں۔ اس موقع ملنے کی بات ہے، اگر موقع دیا جائے تو ہمارے ملک کے تمام بچے اچھے

کہا کہ آج اس اسکول میں آ کر بہت اچھا لگا۔ اسکول بہت شاندار ہے۔ مجھے نہیں لگتا کہ ہندوستان کی تاریخ میں اس سے پہلے ہمارے ملک میں ایسا شاندار سرکاری اسکول کبھی بنایا گیا ہو۔ شاید 75 سالوں میں پہلی بار کسی سرکاری اسکول کو اتنا شاندار بنایا گیا ہے۔ دہلی جس طرح سے سرکاری اسکولوں کو سسر سے سنبھالا جا رہا ہے، وہ پورے ملک کے لیے ایک معیار بننا چاہیے۔ وزیر اعلیٰ اروند کجریوال نے کہا کہ یہ اسکول ایک خصوصی اسکول آف ایلیسی لینس ہے۔ دہلی میں ایک نیا تصور شروع کیا گیا ہے، جہاں خصوصی موضوعات کا مطالعہ کیا جائے گا۔ خدائے برہمنے کو کچھ خاص بنایا ہے۔ کچھ ریاضی میں اچھے ہیں، کچھ کیمسٹری میں، اور کچھ فزکس میں۔ مختلف بچوں کی

تحت سے بنائے گئے اسپیشلائزڈ ایلیسی لینس اسکول کا افتتاح کیا۔ این بی سی بی بیڈ نے اسکول کے گیٹ پر وزیر اعلیٰ کا استقبال کیا۔ وزیر اعلیٰ اروند کجریوال نے نام کی فتح کی قلاب کشائی کی اور گراؤڈ فور پر سنے گئے کلاس روم اور لائبریری کو دیکھا۔ وزیر اعلیٰ نے ایک ایک کلاس کے اندر گئے اور وہاں موجود کھیل کھانا کو دیکھا۔ اس کے بعد وزیر اعلیٰ نے کھلی منزل پر نئی لپ کو دیکھا، پھر دوسری منزل پر پہنچ کر وہاں بنے اسٹاف روم اور آڈیٹوریم کو دیکھا۔ اس موقع پر نائب وزیر اعلیٰ اور وزیر تعلیم منیش سوسویا، مقامی ایم ایل اے، راجیش رتی، سکرٹری (تعلیم) اشوک کمار، ڈائریکٹر (تعلیم) ہاشو گپتا اور دیگر اعلیٰ افسران موجود تھے۔

اسکول کے افتتاح کے موقع پر وزیر اعلیٰ نے

### اظہار التحسن

نئی دہلی (ایس این بی)

وزیر اعلیٰ اروند کجریوال نے دہلی کے بچوں کی صلاحیتوں کو سامنے لانے کے لیے آج ایک اور اسکول آف اسپیشلائزڈ ایلیسی لینس دہلی کے لوگوں کو دکھایا۔ یہ اسکول جنگ پوری کی ڈیو کالونی میں بنایا گیا ہے، جہاں طلباء اساتذہ ہی داخلے نہیں کتیں گے۔ وزیر اعلیٰ نے ایلیسی لینس اسکول کا افتتاح کرتے ہوئے کہا کہ بچوں کی صلاحیتوں کو نکھارنے کے لیے پیچھے خصوصی اسکول آف ایلیسی لینس قائم کیے جا رہے ہیں۔ اس اسکول میں انجینئرنگ، میڈیکل، آئی ٹی اور معنوی ذہانت کی تعلیم دی جائے گی۔ ہندوستان کی تاریخ میں آج تک ایسا شاندار اسکول نہیں بنایا گیا۔ آج دہلی کے سرکاری اسکول ملک کے لیے معیار بن رہے ہیں۔ پرائیویٹ اسکولوں کی عمارت بھی اتنی اچھی نہیں ہوتی، جتنی دہلی کے سرکاری اسکولوں کی عمارت ہے۔ ہمارے ایلیسی لینس اسکولوں میں 4400 سیٹوں پر داخلے کے لیے 96 ڈیڑھ گز عمارتیں موصول ہوئی ہیں۔ اتنی زیادہ ڈیڑھ گز عمارتیں آئی ٹی میڈیکل کے لیے بھی نہیں آتی ہیں۔ مجھے خوشی ہے کہ وہ تعلیم جو مجھے اور میرے بچوں کو دیتی ہے، آج دہلی کے بچوں کو بہتر تعلیم فراہم کرنے کے قابل ہیں۔

اس موقع پر نائب وزیر اعلیٰ منیش سوسویا نے کہا کہ یہاں ڈاکٹر بی آر میڈیکل اسکول آف اسپیشلائزڈ ایلیسی لینس بنایا جائے گا اور پرائیویٹ اسکولوں سے بھی 1600 بچے اچھی تعلیم حاصل کریں گے۔ وزیر اعلیٰ اروند کجریوال نے آج ڈیو کالونی، جنگ پوری میں قرع اندازی کی۔ بی آر میڈیکل اسکول آف اسپیشلائزڈ ایلیسی لینس کے

# Shaping a more disabled-friendly digital ecosystem

## Shaping a more disabled-friendly digital ecosystem

**T**he estimation in Census 2011, that 2.21% of India's population is disabled is a gross underestimation. According to the World Health Organization, about 16% of the global population is disabled. If that figure is extrapolated to the Indian context, it would mean at least 192 million disabled people. While technology has enormous potential to level the playing field for the disabled, it can, at the same time, reinforce the barriers that the disabled otherwise face if it is not designed with their needs in mind. Here is another point. India, it is reported, had 750 million Internet/smartphone users in 2020. Applying the 16% figure here, this works out to be roughly 120 million (12 crore) Internet/smartphone users with disabilities.

### Apps and an evaluation

There is no denying the fact that our lives are increasingly being led digitally, especially in the aftermath of the COVID-19 pandemic. We use apps to order groceries, food, medicines, in dating, socialising, entertainment and education. Being blind ourselves, we know that there is a long way to go when it comes to making apps disabled friendly. To provide evidence-based assessment of the problem and spur conversations and reforms, we co-authored (with like-minded colleagues) a report that evaluates the accessibility of 10 of the most widely used apps in India, across five sectors. These sectors were chosen based on broad stakeholder consultation with people with disabilities, and the 10 apps, based on the amount of online traffic. The apps were Zomato, Swiggy, PayTM, PhonePe, Amazon, Flipkart, Uber, Ola, WhatsApp and Telegram.

We used the Web Content Accessibility



**Rahul Bajaj**

is the co-founder of Mission Accessibility, a practising lawyer in Delhi, and a senior associate fellow on disability rights at the Vidhi Centre for legal policy



**Kartik Sawhney**

is a disability advocate and technologist. He is the co-founder of I-Stem

Incorporating the principles of accessibility and inclusive design into every digital offering must begin from inception

Guidelines (a set of globally recognised parameters to determine how disabled friendly an app or website is) to evaluate these apps. Based on the number of violations, we categorised the level of accessibility of the apps as "high", "medium" and "low". Our report found that four out of the 10 apps ranked low, while five were in the medium category. The report was launched on January 13, by Rajesh Aggarwal, Secretary, Department of Empowerment for Persons with Disabilities, Government of India.

We invited representatives of all 10 apps to attend our event. We think that it is no mere coincidence that the only app which sent a representative was the one ranked high in the index, i.e., WhatsApp. This is a pointer to the need to work with intentionality in creating disabled-friendly infrastructure, either physical or digital.

Our goal for launching this report and rating index was not to call out apps that were inaccessible, but, instead, to start discussions on digital accessibility, product design and the development process. In fact, this project has two phases. The launch of the report was the culmination of the first phase where we objectively assessed the digital accessibility of the apps.

The second phase is to work with these service providers and help them design practices and processes that will not only improve app accessibility but also educate their stakeholders about accessibility and people with disabilities. This will hopefully improve design and development practices so that the apps are accessible right from the inception and we do not have to remediate for accessibility. We think that this will also help change attitudes around

disability in the country, especially within the business community – moving them away from a charity approach to a rights-based and investment outlook.

### Use of AI and algorithms

As with other sectors, we are excited by the role technology can play in our efforts. We currently use technology to automate a large number of accessibility tests, and combine that with in-depth manual testing to provide comprehensive accessibility feedback to developers. AI can help to further automate the accessibility testing process, and feedback from users with disabilities can now be analysed at scale to provide actionable insights to developers and companies. All of this is core to this project and our initiative, and we look forward to making these tools available broadly. While our hope is that this know how combined with our advocacy will encourage companies to do the right thing by incorporating accessibility, we will not shy away from legal recourse as the last resort either. There have been positive developments from the courts lately on the need for accessibility across sectors, and we hope to use it to push for more accessibility should the need arise.

Core to the project of securing a more disabled friendly digital ecosystem must be the conviction that, "everything digital must be accessible to everyone" (as Mr. Aggarwal put it in his keynote address). This starts with incorporating the principles of accessibility and inclusive design into every digital offering, right from inception. India needs to be truly accessible for all people with disabilities. Organisations, companies, civil society, the government and the courts must make this happen.

## Slow progress to creating a safe workplace for women

# Slow progress to creating a safe workplace for women

**T**he recent case of allegations of sexual harassment that some of India's sportswomen (wrestling) are said to have faced have shocked us. Those affected had to sit in protest in the capital to make themselves heard. This shows that any internal complaints committee (if there is one) does not function. Or, the wrestlers were not aware about it. The Vishaka guidelines on reporting harassment are meant to be followed by government and private institutions equally. In view of the sensitivity of the issue, the Union Sports Minister constituted an 'oversight committee' headed by a lady Olympic medal holder to investigate the charges levelled against the president of the Wrestling Federation of India.

Earlier, in February 2021, a leading woman journalist celebrated her victory – not because the accused person who has harassed her sexually was convicted, but because she was acquitted of accusations of defamation that have been levelled against her by the accused. The 'truth' of victimisation prevailed and it was held that a woman cannot be punished for raising her voice against abuse. She had raised her voice against her employer and a powerful politician. Though a specific offence relating to 'sexual harassment' (under Section 354-A) was inserted in the Indian Penal Code (IPC) in 2013, the allegations largely fell under Section 509 (i.e., to insult the modesty of a woman) of the IPC. The victim chose not to report the matter to the police, and there was no internal mechanism in place for the redress of complaints of sexual harassment as the Vishaka guidelines were framed by the Supreme Court of India in 1997. But this did not give the employer any liberty to violate the fundamental rights of a woman at the workplace.

**Structural violence, data on workforce**  
Violence, in the form of sexual harassment at the workplace, is both direct and structural. While an enabling environment for reporting direct violence has shown a gradual improvement, indirect violence remains poorly addressed because it is embedded deep in our social and economic structures. It is more visible in the employment imbalance prevalent between men and women, in the organised and unorganised sectors. With more men at the workplace, they



**R.K. Vij**  
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Unless society works incessantly to change the prevalent socio-cultural and economic structures, it could well be status quo

feel entitled and empowered to take undue advantage of the historical fact that the society is still patriarchal and women are not only in a minority but also occupy a few of the higher positions.

The numbers matter when it comes to power emanating from the majority. One musters courage to voice one's grievance when there are sufficient numbers in support of the affected person. Also, much would depend on the tooth-to-tail ratio of any organisation. When the number of women in leadership positions are not enough to generate confidence in subordinates, women in lower positions feel reluctant to air their grievances.

The Periodic Labour Force Survey (PLFS) annual report available for 2020-21 shows that though the participation of women in the total labour force grew, i.e., Labour Force Participation Rate (LFPR) has gradually increased from 17.5% in 2017-18 to 25.1% in 2020-21, and the Worker Population Ratio (WPR) from 16.5% in 2017-18 to 24.2% in 2020-21, it is still much less when compared to men. The LFPR and WPR data published in the latest *Quarterly Bulletin* (April-June 2022) are not encouraging either. While LFPR is defined as the percentage of persons in the labour force among the persons in population (i.e., both employed and unemployed or seeking employment), WPR is the percentage of persons employed among the persons in population.

### Start early, and at home

The absence of an enabling and safe working environment is one of the factors for the poor participation of women in the labour force. It is generally believed that most women do not complain of sexual harassment and the current redress mechanism is either non-existent or ineffective. They are more vulnerable to exploitation by their employer as they can be easily threatened with their job continuity for indigent favours.

Unless the mindset of treating men and women as equals is developed at an early stage of character formation during childhood, the stereotyped power relation between the two would be difficult to change later.

It would not be out of context to mention here a theory of criminology known as 'nature versus nurture'. It says that both genetics and the

environment affect an individual's development. While genes may decide certain features of one's personality at birth, it is social conditioning and the environment of the family and early schooling which matter the most during the growth of children. Unless both parents respect each other and treat their girl and boy child on a par in all respects, they grow up learning this inequality as a normal phenomenon, which may even lead to the development of criminal tendencies in men. Therefore, the beginning has to be made at home.

### Fixing goals

Similarly, providing a safe work environment is the responsibility of the employer. The employer needs to ensure that the working environment is safe and women friendly. However, it has been observed that whenever allegations of sexual harassment are levelled against superior authorities, instead of getting the complaint inquired into expeditiously under the law, i.e., the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, the accused either resorts to multiple attempts at litigation to stall the due process or attempts to bring disrepute to the victim on flimsy grounds. The situation becomes more complex when the accused himself is at the helm of affairs, as in the examples given above.

Therefore, it is essential to fix goals to improve the workplace environment for women. The short-term goals may include providing the requisite women-friendly infrastructure, the constitution of internal complaint committees, and the spreading of awareness about the law and procedure of grievance redress.

Medium-term goals may include the increase of female participation in the labour force, improvement of tooth-to-tail ratio, and providing incentives to prevent drop-outs such as paid maternity leave. However, in the long-run, it is essential to address the deep-rooted structural and cultural violence which puts women in a disadvantageous position. Unless society as a whole works incessantly to bring about the required changes in the existing socio-cultural and economic structures to eliminate indirect violence, root and branch, the status quo may not change.

*The views expressed are personal.*

## The petitions around same sex marriage

# The petitions around same sex marriage

While a five-judge Supreme Court Bench is set to hear a series of petitions on the legal right to same sex unions, a barrage of affidavits and applications have been received from organisations across religious, social and political lines, weighing in on the issue

### BACKGROUND

#### Krishnadev Rajgopal

**I**n April 18, a five-judge Supreme Court Bench, headed by the Chief Justice of India D.Y. Chandrachud, is scheduled to hear a series of petitions seeking legal recognition of same sex marriage even as a host of statutory organisations, religious bodies and NGOs have rushed to court seeking an opportunity to be heard. Their submissions touch upon various issues from the definition of "marriage" to the "psychological impact" growing up with two men or two women as parents would have on children. While some have cautioned judges that Indian society is not ready to accept same sex marriage others have linked it to sexual liberation movements in western countries.

#### The various petitions

Main petitioners Supriyo and Abhay Dang, represented by senior advocate Menaka Guruswamy, advocate Arundhati Kapu and Govind Manoharan, argue that the non-recognition of same sex marriage amounted to discrimination that struck at the root of dignity and self-fulfilment of LGBTQIA+ couples. They reminded the court that LGBTQIA+ citizens form 7 to 8% of the population of the country. The petitioners point out that the legal protection available in about 15 legislations guaranteeing the right of wages, gratuity, adoption, surrogacy, etc, were not available to LGBTQIA+ citizens.

In a related vein, the Delhi Commission for Protection of Child Rights (DCPCR) said that same sex couples would make equally good parents as heterosexual parents. By depriving legal status to homosexual marriages, the state is denying the legal security of dual parenthood and guardianship to the child.

Since the Netherlands' legalisation of same-sex marriages in 2000, over 34 countries have legalised same-sex marriages either through legislation or through court decisions. At present more



ISTOCKPHOTO

than 50 countries allow same-sex couples to legally adopt children. A 2020 study by the American Sociological Review show that academic results of children raised by same-sex parents from birth outperformed children with heterosexual parents.

#### The stand of the government

The Union government has said that the idea of same sex marriage is merely an "urban elitist view". The judicial creation of a "new social institution" like same sex marriage cannot be claimed as a matter of right. It is the Parliament and not the courts that have to decide on same sex marriages, which is a threat to the "holy union" of marriage between a biological man and woman in India.

The State of Madhya Pradesh has also sought to intervene in the case, saying it was a "necessary stakeholder". It said the legal recognition of same sex marriage

would "seriously affect" the interests of the residents of Madhya Pradesh.

Additionally, the National Commission for Protection of Child Rights (NCPCR), unlike its Delhi counterpart, argued that same sex marriage would violate the provisions of the Juvenile Justice Act. The Juvenile Justice Act of 2015 prohibits a single man, let alone two men, from adopting a girl child. The NCPCR highlighted a study by the Catholic University of America which said that the emotional problems suffered by children of same sex couples were twice more than of children living with heterosexual parents.

It said a "proper legislative system needs to be adopted regarding same sex couples".

#### Religious bodies and NGOs

The Shri Saranam Dharm Pratishtha Sabha opined that the concept of

same-sex marriages is "catastrophic" and that it would have a "pernicious effect" on Indian culture and society. The Hindu body quotes the Vedas, saying "those who have wives truly have a family life; those who have wives can be happy; those who have wives can't have a full life". It refers to stanzas from the Manusmriti that state "to be mothers were women created, and to be fathers, men".

The Jamiat Ulama-i-Hind also opposed same-sex marriage by stating that marriage between opposite sexes is like the "basic feature" of marriage. "Islam's prohibition of homosexuality has been categorical from the dawn of the religion of Islam itself. LGBTQIA+ movement dates back to the western sexual liberation movement," the Jamiat said.

Similarly the Telangana Markazi Shia Ulema Council also claimed that persons raised by same-sex couples were "much more likely" to suffer from depression, low academic achievement, unemployment and are more likely to smoke marijuana etc. It said that in the "West/Global North", religion has largely ceased to be a source of law and plays very little role in public life. On the other hand, religion plays an instrumental role in shaping personal law, along with social norms and family ties in India.

Additionally, the Akhil Bharatiya Sant Samiti said to "keep husband and wife together is the law of nature. 'Kanyadan' and 'Saptapadi' have basic importance in Hindu marriages." The reiterated that same sex marriage is "totally unnatural".

Bringing in a different angle, the Kanchan Foundation has submitted that deep-seated stereotypes and mental barriers that have been constructed over centuries cannot be dismantled by a mere judicial ruling. It says that Indian society requires more time to be sensitised in order to accept same sex unions and understand their impact on society.

The Call for Justice NGO argues that "marriage flows from natural law" and the "millennia-old institution" of marriage between a man and a woman is recognised across the world. Any amendments in the institution of marriage "must flow from popular will as expressed through the legislature".

### THE GIST

On April 18, a five-judge Supreme Court Bench, headed by the Chief Justice of India D.Y. Chandrachud, is scheduled to hear a series of petitions seeking legal recognition of same sex marriage.

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## The microbiome link to autism disorders

# The microbiome link to autism disorders

Autism spectrum disorder (ASD) is the term for a group of neurodevelopmental disorders. Researchers are yet to fully understand the causes of ASD. However, they are beginning to find that a disorder in the gut-brain axis could have a prominent role

### PULSE-CHECK

Tony Grace  
Joby Pulikkan

**F**ix your gut, fix your brain' used to be an underrated idea, but it is gaining in relevance today as more and more research throws light on the role of the community of bacteria living in your gut, that is, the gut microbiome. A healthy gut microbiome is not a panacea but it may be able to help improve the quality of life of individuals with various diseases that lack other proven interventions. Differences in gut microbiome composition have been implicated in several diseases, including Crohn's disease, celiac disease and particularly, autism.

#### Autism spectrum disorder

Autism spectrum disorder (ASD) is the term for a group of neurodevelopmental disorders. Researchers are yet to fully understand the aetiology of ASD. (Aetiology is the study of factors that cause a condition or disease.) However, they are beginning to find that a disorder in the gut-brain axis could have a prominent role.

According to the WHO, ASD affects one in 100 children. Children with ASD have impaired social interactions, lack verbal and nonverbal communication skills, and display restricted and repetitive behaviours. These characteristics can adversely affect one's cognitive abilities and, over time, diminish one's quality of life. A relatively under-researched aspect of ASD is the gastrointestinal problems associated with a subset of children with ASD. Limited research findings as well as anecdotal evidence indicate the presence of various gastrointestinal problems, like constipation, diarrhoea, flatulence, and bloating, among others, in children with ASD. But even as researchers have proposed several theories to explain the aetiology of ASD, the pathophysiology of the disorder remains largely unknown. (Pathophysiology is the study of a condition's impact on biological processes.) At present, there are no known cures and therapeutic interventions available to treat or reverse ASD.

#### Studying the link

Increasingly profound exploration of the



human microbiome by researchers, aided by advances in gene-sequencing technologies and high-end bioinformatic analysis, is dramatically reshaping our understanding of the connections between human health, diseases, and microbiomes.

The gut microbiome is believed to have a big impact on immune modulation and metabolic activities in the human body. Immune modulation refers, among other things, to the efforts of the immune system to ensure its response is proportionate to a threat. Investigations of the dynamic cross-talk between the gut microbiome and the host environment have revealed potential connections to ASD symptoms. For example, aberrant antigen trafficking through an impaired intestinal barrier could allow these antigens to eventually pass through the barrier surrounding the brain, triggering a chain of events that worsen ASD symptoms.

Some scientists have disputed the significance of the gut microbiome by contending that the microbiome can't cause ASD and therefore its role in the pathophysiol-

ogy of ASD is limited. But research has shown that even if the gut microbiome doesn't play a causative role, abnormalities in it can challenge a person with toxic metabolites and keep the person from synthesising the metabolites required to produce neurotransmitters involved in cognition, behaviour, mood, and sleep. As a result, 'fixing' the gut in ASD can reduce the toxic burden – including that which moves through the blood-brain barrier – and/or help complete the necessary neurotransmitter synthesis pathways.

#### Ongoing research

In our own research, we have explored the gut microbiome in children with and without ASD, and have reported several interesting microbial biomarkers in children with ASD. We observed dysbiosis – an imbalance – in the gut microbiome of children with ASD. They had a higher abundance of Lactobacillaceae, Bifidobacteriaceae, and Veillonellaceae bacteria. The fraction of bacteria of the phylum Bacteriota was found to be signifi-

cantly higher in the guts of children with ASD.

We also found an underrepresentation of certain microbes that produce short-chain fatty acids (SCFA), such as faecalibacterium and roseburia, in children with ASD. This supports the hypothesis that a lower level of SCFAs in ASD could lead to an imbalance in brain function and behaviour. This is the source of proposals to introduce these strains of bacteria as a probiotic for children with ASD, to help alleviate common gastrointestinal problems and in turn positively influence cognitive and behavioural functions.

However, since these are emerging areas of study, there are pockets of agreement as well as disagreement in the community; consensus lies in the future.

#### What can you do?

Reinstating a balance in the gut microbiome and reversing gut dysbiosis among children with ASD could alleviate many problems they face and improve their quality of life. One promising approach to reverse gut dysbiosis is faecal microbial transplantation (FMT), where stool samples from healthy individuals are transplanted into the large intestines of affected children. A small study conducted by Ohio State University in 2017 reported that FMT improved both gastrointestinal and ASD-related symptoms. Since FMT is a cost-effective strategy with low risk, we need to build consensus among all stakeholders – including parents, clinicians, and educators – and create incentives to adopt it. There is also some evidence that gluten-free and casein-free diets can help children with ASD. This could be because some of these children have been found to lack the bacteria that helps break down casein and gluten into metabolites.

In all, the role of diet, prebiotics, probiotics, synbiotics (which combine the benefits of probiotics and prebiotics), and FMT for the efficient management of ASD can be said to be encouraging.

(No part of this article should be construed as medical advice. Please act only in consultation with your physician.)

Tony Grace is assistant professor at the Central University of Kerala and adjunct assistant professor at Kansas State University; Joby Pulikkan is postdoctoral research associate at the University of Virginia.

### THE GIST

According to the WHO, autism spectrum disorder affects one in 100 children. Children with ASD have impaired social interactions, lack verbal and nonverbal communication skills, and display restricted and repetitive behaviours.

The gut microbiome is believed to have a big impact on immune modulation and metabolic activities in the human body. Immune modulation refers, among other things, to the efforts of the immune system to ensure its response is proportionate to a threat. Investigations of the dynamic cross-talk between the gut microbiome and the host environment have revealed potential connections to ASD symptoms.

Reinstating a balance in the gut microbiome and reversing gut dysbiosis among children with ASD could alleviate many problems they face and improve their quality of life.

## Teachers in film: Never too cool for school

# Teachers in film: Never too cool for school

Whether in Hollywood or Hindi cinema, teachers, irrespective of the subject they are meant to teach, are more often than not life coaches showing troubled teens the way, with a mix of tough love, innovative practices and humour

Mini Anthikad Chhibber

**A** person accepts a temporary teaching position in a school in a tough neighbourhood filled with sullen, rebellious teenagers. The students give the teacher a harrowing time, who reciprocates with innovative methods and understanding, breaking through their resentment and disadvantages, turning them into bright, sparkling diamonds.

If you recognise this as the plot of *To Sir, With Love* (1967), or *Dangerous Minds* (1995), or *Hichki* (2018), you get an A++ and a golden star. *To Sir, With Love*, based on E.R. Braithwaite's 1959 autobiographical novel, features Sidney Poitier as the engineer from British Guyana, who takes up a teaching job at an East End Secondary School after an unsuccessful 18-month job hunt. Braithwaite apparently loathed the film and Poitier's character has come in for some flak for the Magical Negro trope, but the British film has always been popular for its predictable sentimentality.

### Dangerous paradise

The awfully contrived *Dangerous Minds* is best remembered for Michelle Pfeiffer as retired U.S. Marine LouAnne Johnson turning up to teach in a leather jacket and Coolio's Grammy-award winning 'Gangsta's Paradise'. Based on Johnson's autobiography, *My Posse Don't Do Homework*, *Dangerous Minds* was stuffed with too many stereotypes, and talked to a mainly white audience, to be an effective thesis on education, race or privilege. It was rescued in part by

Pfeiffer's all-in performance.

Rani Mukherjee as Naina Mathur in *Hichki* again gets a tough teaching assignment after a fruitless job hunt. Like Poitier's character who takes his students out of the class on field trips and Johnson who teaches literature through Bob Dylan songs (unfortunately not rap), Naina uses examples from real life to illustrate scientific principles.

### Carpe Diem

Everyone remembers Robin Williams as the eccentric English teacher, John Keating, in Peter Weir's *Dead Poets Society* (1989). Set in 1959, in an elite boys' boarding school in Vermont, *Dead Poets Society* tells the story of the newly joined Keating showing the boys it is alright to follow their hearts, seize the day and make their lives extraordinary. Ethan Hawke, incidentally, plays one of Keating's students, Todd Anderson.

Shah Rukh Khan, with designer glasses, soft sweaters, and a violin was Keating's counterpart in Aditya Chopra's 2000 film, *Mohabbatein*. Amitabh Bachchan, as the stern headmaster, was the counterfoil to King Khan in this saccharine sweet movie abounding in plastic love stories.

### Laugh a little

There are times when teachers provide comic relief. Boman Irani as Ashana in Rajkumar Hirani's *Munna Bhai M.B.B.S.* (2003) and Irani again as Viru Sahastrabudhe in Hirani's 2009 blockbuster, *3 Idiots*, got quite a lot of laughs as did Archana Puran Singh as Ms. Braganza in Karan Johar's *Kuch Kuch Hota*

*Hai* (1998).

Back in the day there was Hrishikesh Mukherjee's charming *Chupke Chupke* (1975) where Big B, an English professor, changes places with a botany professor, Parimal Tripathi, played by Dharmendra resulting in the famous *karela/corolla* mix-up. Gulzar's *Parichay* (1972), finds Jeetendra hired to teach the grandchildren of a strict colonel, played by Pran. The film, inspired by *The Sound of Music*, featured a killer sound track by R.D. Burman ('Musafir hoon Yaaron'

**Hollywood films have a preponderance of English teachers dispensing life lessons. Brendan Fraser as Charlie in 'The Whale' being the most recent example**

among others).

Some teachers use kindness and understanding to bring out the best in their wards like Aamir Khan in *Taare Zameen Par* (2007), and others who use tough love for the good of their students. Amitabh Bachchan in Sanjay Leela Bhansali's 2005 film, *Black*, is one such. His character, Debraj Sahai, uses harsh and unconventional methods to mould Michelle McNally (Rani Mukerji) into a better person.

There is also the terrifying J.K. Simmons goading and manipulating the young jazz drummer played by Miles Teller in Damien Chazelle's *Whiplash* (2014). And what about the horrid teacher who scoffs at Pink's poems in Alan Parker's *Pink Floyd - The Wall* (1982)?

Who can blame the children for falling into the meat grinder of the education system with such teachers?

Hollywood films have a preponderance of English teachers dispensing life lessons. Brendan Fraser's Oscar-nominated turn as the morbidly obese Charlie in *The Whale* being the most recent example. In Gus Van Sant's *Finding Forrester* (2000), Sean Connery's Salinger-ish author, William Forrester, while not being a teacher in the formal sense, does help a Black teenager played by Rob Brown hone his talent.

Connery, incidentally, played a professor of Medieval Literature in *Indiana Jones and the Last Crusade* (1989) while his archaeologist-professor son, played by Harrison Ford was happier fighting Nazis than dealing with pretty co-eds who wrote naughty messages on their eyelids.

In Hindi films, apart from music, it is mainly the sciences with the rockstar teachers, the latest in the line being Hrithik Roshan in Vikas Bahl's *Super 30* (2019). There is no place for humanities in the present climate, even though one would not mind being in a classroom where Hrithik is holding forth on complex mathematics.

Whether exhorting one to be honest – as Charlie does to his students online, learning from Walt Whitman, or figuring out the chemistry of cooking, whether it is a story of the teacher or the students, in a classroom, a piano recital or a sports field (*Chak De! India* anyone?), a coming together of the teacher and the taught guarantees heart-breaking drama, with a dash of humour and adventure.

## At least 10% women officers to be inducted into Army's artillery units

POSTING AREAS WILL INCLUDE BORDER WITH PAK, CHINA

# At least 10% women officers to be inducted into Army's artillery units

AMRITA NAYAK DUTTA  
NEW DELHI, APRIL 9

AT LEAST 10 per cent women officers of every batch commissioned into the Army this year onwards will be inducted into the Regiment of Artillery beginning with the batch of women officers joining the force this month, *The Indian Express* has learnt.

In a major development, the Army earlier this year had decided to open its artillery regiments to women Army officers. Army Chief General Manoj Pande had announced the move in January this year, and subsequently the government gave its nod to the proposal last month.

Designated as a combat support arm, artillery regiments comprise a range of guns of different calibres, mortars, rocket



Around 40 women officers get commissioned into the Army from Officers Training Academy, Chennai, every batch. File

systems, missiles, remotely piloted aircraft, weapon locating radars, medium range battle-field surveillance radars, long-range surveillance systems, and is in the process of procuring a range of loitering munitions

and other platforms as part of a modernisation plan. It is among the largest arms of the Army after the Infantry. Artillery firepower is also known to have caused major damages to both sides in the ongoing Russia-

Ukraine war.

Around 40 women officers get commissioned into the Army from the Officers Training Academy, Chennai, every batch and two batches get commissioned into the Army every year.

The Passing out Parade will be held this month in OTA, Chennai, and the first of the women officers to join the Regiment of Artillery will be from this batch.

A senior officer told *The Indian Express* that as far as their training is concerned, the officers—along with their male counterparts—will be training for a few months in any of the artillery field regiments or medium regiments post commissioning.

"After spending a few months at the units, they will undergo the young officers' course where

they will be imparted specialised technical training on gunnery," the officer said, adding that they are training only in basics such as section or platoon level tactics prior to the course.

"The duration of the course is less than six months. There will be no separate course or syllabus for the women Artillery officers and they will undergo the same course as their male counterparts," the officer added.

After they complete the young officers' course, they will be deployed to units including along the borders with China and Pakistan.

A second officer said it is likely they will get deployed as gun position officers once they are posted to units, which is a critical position as accurate and effective delivery of firepower depends on the officer.

# Hindi in the World



VINAY SAHASRABUDDHE

# HINDI IN THE WORLD

In the era of cultural-flattening, India must strengthen its linguistic traditions

SUVA, THE CAPITAL of Fiji, is hosting the 12th World Hindi Conference between February 15 and 17. According to the Ministry of External Affairs' officials, India has achieved limited progress at the United Nations regarding Hindi. The UN has now made a provision to provide all the important messages and press releases in Hindi, just as in languages such as Urdu and Bangla. However, the government is making all efforts to ensure a rightful place for Hindi at the UN. Hindi is India's outreach to the world, especially in places that received Indian indentured labourers during the 19th century.

Though Hindi is not officially the national language of India, it is the strongest link language besides being one of the two official languages. According to the 2011 census, 528 million Indians speak Hindi as against Bengali (97.2 million), Marathi (83 million), Telugu (81 million) and Tamil (69 million) speakers.

In this backdrop, it would be pertinent to appreciate the importance of India's efforts to make Hindi a UN-recognised language. For any Indian language to go global, the first and foremost need is to recognise and respect all of them. When it comes to politics, many recklessly indulge in linguistic chauvinism. But as observed often, the next-generation family members of such politicians are schooled in English medium. Unlike in France, Germany or Spain, speaking in Hindi or regional languages is considered inferior in India, thanks to the burden of colonialism. Sadly, the ability to converse in English has become a status symbol. For Indian languages

Unlike in France, Germany or Spain, speaking in Hindi or regional languages is considered inferior in India, thanks to the burden of colonialism. Sadly, the ability to converse in English has become a status symbol. For Indian languages to go global, they need to be first respected in their motherland.

to go global, they need to be first respected in their motherland.

Languages are vehicles of culture. Language is also a living organism and every language keeps evolving. No language can continue to grow without accommodating some more meaningful terms from sister languages. However, this should not be seen as licence to accept all kinds of mindless adulterations. Languages that are considered prestigious and powerful have a tendency to encroach on other languages. Without being extremely puritanical, Hindi needs to be saved from the onslaught of English and other Indian languages from English and Hindi. Hindi-speaking people should ensure that the respect and recognition often denied to them by the English-speaking elite, is generously offered to all other Indian languages. Usage is the lifeblood of any language. If we stop using Hindi or any other Indian language for English, their very existence will be under threat.

Here comes the importance of hand-holding between Indian languages. Acclaimed literary works in Indian languages are likely to be translated into English, but not Hindi. For all Indian languages to grow together, quality translations from Indian languages to other Indian and world languages are a must. It is high time we evolve a mechanism for translating award-winning literary works in Indian languages into all UN languages.

The emphasis in New Education Policy on education in the mother tongue is significant in this respect. Engineering and medical education in Hindi is now a reality, thanks to this

policy push. If other Indian languages follow suit, they could effectively evolve as languages of the knowledge era. New concepts, new technologies and new knowledge-creation demand new coinages and new terms.

In the pre-independence era, English befriended Hindi. But in a globalised world, Hindi also needs to engage with other foreign languages, especially in the neighbourhood. From Sinhala to Uzbek and Bhutani to Khmer, Hindi and other Indian languages have to build more linguistic bridges. Hindi (and also all those who speak Hindi) has to endear itself, create space for itself and grow naturally.

An individual relates to a language if s/he is able to know or appreciate the ethos around the respective language and its ornamental proverbs and sayings. To understand the meaning of "Lady protests too much", one has to be familiar with Shakespeare and Hamlet. This is true for all languages. Hence, understanding our very own cultural moorings, taking legitimate pride in our history and our heritage is the prerequisite of our efforts for the sustenance of languages.

In that sense, Hindi and other Indian languages have to further strengthen their roots and then expand their horizons. And this needs to be undertaken simultaneously and not one after the other. The path of saving the world from cultural-flattening goes via strengthening our linguistic traditions that are "ever ageing but never old".

The writer is president, Indian Council for Cultural Relations

# Key SC verdicts that moved the needle on LGBTQ rights



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# Key SC verdicts that moved the needle on LGBTQ rights

## EXPRESS NEWS SERVICE NEW DELHI, APRIL 19

THE SUPREME COURT on Wednesday continued to hear a batch of plea seeking legal recognition for same-sex marriages. On the second day of the hearing, the court heard arguments on the changing legal landscape on LGBTQ rights and the evolution of the right to choose one's partner. Here are some of the key cases that trace the shift in the law over the years.

### NALSA V UNION OF INDIA

Months after a two-judge Bench of the Supreme Court in *Suresh Kumar Koushal v Union of India* upheld the constitutional validity of Section 377 of the Indian Penal Code, another Bench in April 2014 affirmed the constitutional rights of transgender persons under Article 14, 15, 19 and 21 of the Constitution. As NALSA the Court agreed with virtually all same-sex partners it rejected in *Suresh*

*Koushal*. The court upheld the right of transgender persons to decide their gender and directed the Centre and state governments to grant legal recognition to their gender identity, such as male, female or the third gender.

### KS PUTASWAMY V UNION OF INDIA

In 2017, a nine-judge Bench of the Supreme Court unanimously recognised the right to privacy as a fundamental right under the Constitution. In doing so, the verdict overruled a "discordant note which directly bears upon the evolution of the constitutional jurisprudence on the right to privacy" — the 2013 *Suresh Koushal* ruling.

The view in *Koushal* that the High Court had erroneously relied upon international precedents "in its anxiety to protect the so-called rights of LGBTQ persons" is, in our view, unsustainable. The expression "so-called" seems to suggest the exercise of a liberty in the garb of a right which is illusory. This is an appropriate construction of the privacy based

claims of the LGBTQ population. Their rights are not "so-called" but are real rights founded on sound constitutional doctrine. They reside in the right to life. They dwell in privacy and dignity. They constitute the essence of liberty and freedom. Sexual orientation is an essential component of identity. Equal protection demands protection of the identity of every individual without discrimination, "a convincing opinion by Justice DY Chandrachud stated.

### SHAPIN JAHAN V UNION OF INDIA

The SC in March 2018 set aside a Kerala High Court judgment that annulled the marriage of a 24-year-old woman who converted to Islam and married a man of her choice. The ruling recognised the right to choose one's partner as a facet of the fundamental right to liberty and dignity.

"...The choice of a partner whether within or outside marriage lies within the

exclusive domain of each individual. Intimacy of marriage is within core zone of privacy, which is inviolable. The absolute right of an individual to choose a life partner is not in the least affected by matters of faith...Social approval for intimate personal decisions is not the basis for recognising them," the court had held.

### SHAKTI VAKHIN V UNION OF INDIA

A three-judge Bench on the SC in March 2018 issued directives to prevent honour killings at the behest of *Shapin Jahan* and protect persons who marry without the approval of the parents. In the ruling, the Court recognised the right to choose a life partner as a fundamental right.

"...When two adults consensually choose each other as life partners, it is a manifestation of their choice which is recognized under Articles 19 and 21 of the Constitution.

Such a right has the sanction of the constitutional law and since that is recognized, the said right needs to be protected and it cannot succumb to the conception of class honour or group thinking which is conceived of on some notion that remotely does not have any legitimacy," the court had held.

### NAVTEJ KHAR V UNION OF INDIA

In August 2018, the SC heard a curative petition against the *Koushal* ruling. A five-judge Constitution Bench struck down IPC Section 377 to the extent that it criminalised homosexuality. The *Navtej* ruling essentially said that the LGBTQ community are equal citizens and underlined that there cannot be discrimination in law based on sexual orientation and gender.

### DEEPIKA SINGH VS CENTRAL ADMINISTRATIVE TRIBUNAL

The SC in August last year decided in favour of a woman who was denied maternity leave for her first biological child on the

ground that she had already availed the benefits for her two non-biological children. The ruling recognised "atypical" families, including queer marriages, which could not be confined in the traditional parenting roles.

"...Many families do not conform to this expectation to begin with. Familial relationships may take the form of domestic, unmarried partnerships or queer relationships. A household may be a single parent household for any number of reasons, including the death of a spouse, separation, or divorce. Similarly, the guardians and caretakers (who traditionally occupy the roles of the "mother" and the "father") of children may change with remarriage, adoption, or fostering. These manifestations of love and of families may not be typical but they are as real as their traditional counterparts. Such atypical manifestations of the family unit are equally deserving not only of protection under law but also of the benefits available under social welfare legislation," Justice Chandrachud stated.

# Cabinet clears bill seeking new age-based classification of films

## Cabinet clears bill seeking new age-based classification of films

Swati.Mathur@timesgroup.com

**New Delhi:** The Union Cabinet on Wednesday cleared the Cinematograph (Amendment) Bill, 2021, paving the way for it to be introduced in the monsoon session of Parliament and providing for harsher punishments for film piracy and introducing new age group categories for classifying films.

The Bill, ostensibly aimed at curbing film piracy, is expected to impose stricter penalties for the offence. It will also curb the release of pirated versions which cause losses to the film industry.

Though the draft of the legislation is not available in public domain, government sources said it aims to comprehensively address the issues relating to film certification, improve the procedure for certification of films for public exhibition by the Central Board of Film Certification, and introduce new age-based categorisations of certifications of films, dividing the existing UA category into three age-based categories



The bill is aimed at curbing film piracy, and is expected to put stricter penalties for the offence. The proposed amendments to the bill also include provisions to check unauthorised recording and exhibition of films

of seven years (UA 7+), 13 years (UA 13+), and 16 years (UA 16+), in place of the previous 12 years.

The proposed amendments also include provisions to check unauthorised recording and exhibition of films, stricter penal provisions, and an enabling provision for the government to block websites from transmitting unauthorised copies of films.

The Cinematograph (Amendment) Bill, 2019 was introduced in the Rajya Sabha in 2019, and was referred to the standing committee

on information technology which presented its report on March 16, 2020.

In its recommendations, the House committee recommended that the Bill not only tackle the piracy issue more comprehensively but also improve the effectiveness of the certification process.

Accordingly, a revised Cinematograph (Amendment) Bill, 2021 was prepared and reintroduced in RS in 2021, to "make the process of sanctioning of films for exhibition more effective, in tune with the changed times and curb the menace of piracy". Sources said the provision of the earlier bill that limited the validity of CBFC certificates for 10 years will now be granted perpetual validity.

In its previous avatar, the bill had proposed several changes, including empowering the central government to override the film certification board and direct it to re-examine a film it has already cleared. This part of the proposed legislation, however, had been met with considerable backlash from the industry.

## ₹6k cr quantum mission to put India in elite club of 6 nations

TIMES NEWS NETWORK

**New Delhi:** The Cabinet on Wednesday approved the National Quantum Mission to accelerate quantum technology-led economic growth and leverage India into a leading nation in the development of quantum technologies & applications (QTA).

The Mission on which the government will spend Rs 6,000 crore in eight years (2023-24 to 2030-31), will catapult India into an elite club of six countries that are already working in this field. The first six in this league are the US, China, France, Canada, Finland and Austria. The Mission in India targets developing intermediate scale quantum computers with 50-1000 physical qubits in eight years in various platforms like superconducting and photonic technology.

Satellite based secure quantum communications be-

**The mission targets developing intermediate scale quantum computers in eight years in various platforms like superconducting & photonic technology**

tween ground stations over a range of 2,000 km within India, long distance secure quantum communications with other countries, inter-city quantum key distribution over 2,000 km as well as multi-node quantum network with quantum memories are also some of the deliverables of the Mission. The quantum technology (QT) will also be used in metrological applications, making the weather forecast system more precise.

"The National Quantum Mission will give India a quantum jump in the technology sector," said science & techno-

logy minister Jitendra Singh.

Noting that quantum technology is essentially related to information processing, Singh said, "Our classical computer was based on a transistor system but quantum computing will be based on atoms. So, it has more speed... Quantum technology will greatly benefit us in different sectors like communication, IT, pharmaceuticals, health, financial and energy sectors as well as drug design, space applications, and also give a boost to the government's Aatmanirbhar Bharat."

I&B minister Anurag Thakur said, "One Mission director post will be created. A Mission secretariat will also be set up. A governing body will be set up and its chairman will be an eminent scientist either from the industry or an entrepreneur." The Mission will work under the overall supervision of the principal scientific adviser of the government.

# The 4 pillars holding up India's expanding middle

## The 4 Pillars Holding Up India's Expanding Middle

Niti Aayog CEO argues the middle class has benefited hugely from Modi govt's less known initiatives

**Parameswaran Iyer**



India has seen a booming middle-class emerge onto the national stage. This was enabled by a sharp decline in poverty levels – now down to about 16% of the population. In terms of absolute numbers, about one-third of the population is estimated to have entered the middle-class.

While financial pundits acknowledge the reduction in direct tax rates proposed in the Union Budget as much-needed relief for the middle-class, the story of the Narendra Modi government's systematic approach to increase middle-class wellbeing over the last eight years is less known.

These successful efforts can be articulated through the 4S framework: Sampannata, Surakshit Bhavishya, Shreshtha Jeevan and Saralta.

### **Sampannata: Enrichment through inflation control**

In the eight years between 2014 and 2022, annual inflation was 4.6%, compared to 8.7% during the preceding eight-year time frame. Despite multiple global crises, the CPI was at 5.7% in December 2022, which was much lower than many G20 countries.

Greater liquidity for the aspirational middle-class demography has also come in the form of lower EMIs. For example, while student loan rates were priced at 14% in May 2014, they fell to about 8% by December 2022. The result of the overall decline in loan rates was that middle-class families found it easier to purchase more houses, cars and also take more loans for the higher education of their children.

The pioneering one-nation one-tax initiative of GST has led to gross savings of an estimated Rs 18 lakh crore, which works out to an annual household saving of Rs 12,000.

120 million of 380 million beneficiaries of the PM Mudra Yojana were middle-class individuals who

received Rs 7 trillion as collateral-free loans. Sound monetary policies and strengthening of the banking system enabled gross NPAs to reduce from 11.1% in 2017-18 to 5.8% in 2022-23.

### **Surakshit Bhavishya: Securing a healthy future**

Affordable healthcare and quality education are especially important. On both counts, GoI has moved the needle towards better outcomes. On the higher education front, India has witnessed:



The image is for representational purposes.

- 353 new universities in the last nine years.
- Opening of 15 new AIIMS and 261 new medical colleges that have assured 77,386 new medical seats at the undergraduate and postgraduate levels.
- 41 Indian universities featured in global rankings in 2023 compared to just nine in 2014.

High out-of-pocket medical expenditure can also push a middle-class household back into poverty. Targeted government initiatives in this regard have led to savings of Rs 20,000 crore to the public – whether through 50-90% cheaper generic medicines available at 9,000 Jan Aushadhi Kendras or 87 crore free screenings done at 1.5 lakh Ayushman

Bharat Centres.

### **Shreshtha Jeevan: A better life**

By 2022, India built 1.65 lakh kms of national highways and had the second largest road network in the world, after the US, due to a tenfold increase in capital expenditure on roads and bridges, amounting to Rs 15.6 trillion.

India now has metro connectivity in 20 cities. We are a year away from having the third largest metro network globally. Despite being a late entrant, India has the highest per capita mobile data consumption rate and among the lowest cost of data per GB in the world. Nearly 80% of our 120 crore mobile phone users and 80 crore internet users are expected to receive 5G connectivity within a year, in what will be the world's fastest 5G roll-out. This will provide tremendous benefits through online education, telemedicine and effective delivery of government services.

Over Rs 18 trillion has been invested in urban schemes that have seen visible improvements in housing, transportation, tap water connections, and waste management. On an average, power is now available for 22 hours against 12.5 hours in 2015.

### **Saralta: Hassle-free existence**

India's cashless digital payment ecosystem is hailed as among the best in the world. UPI accounted for 65% of the 7,245 crore digital transactions in 2021-22. Whether it is 140 million users of the DigiLocker facility for paperless certificate authentication, or 70 million users of presence-less digital life certificates, digitalisation has been facilitated by the government and embraced by the middle-class in equal measure.

India's rising global profile in a multitude of areas has inculcated a new sense of pride among our middle-class. While India's delivery of basic services to the poor and vulnerable is widely acknowledged, GoI remains equally committed to boosting prosperity for the middle-class through the 4S framework, providing an alternative development model to the world.

# In Assam, the answer is schools, not jails

## In Assam, The Answer Is Schools, Not Jails

Crackdown on child marriage doesn't address real causes: girls' education & women's jobs

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Thousands are being arrested in Assam as part of a crackdown on child marriage even though studies from across the world and in India have shown that educational attainment and socio-economic status of a household are the most significant correlates of child marriage. Assam, where almost 86% of the population is rural, has among the largest proportion of rural women who haven't completed 10 or more years of schooling, roughly 74%.

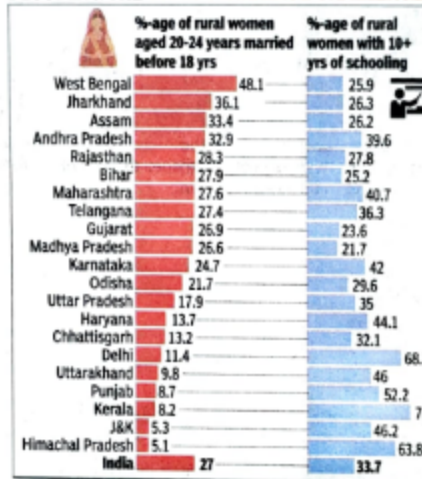
### The real challenge: girls skipping school

"Among individual characteristics, the level of education of females has the most profound impact on the age they marry, irrespective of household wealth, locality and other characteristics," stated a Unicef study on child marriages in India. According to the latest National Family Health Survey (2019-21), about one-third of rural women in the 20-24 age group in Assam were married before the age of 18. There are only two states - West Bengal (48%) and Jharkhand (36%) - with a higher proportion of rural women in this age group who were married before 18 and they have roughly the same proportion of women who did not complete more than 10 years of schooling as Assam, about 74%.

Instead of doubling down on improving schooling for girls by investing in more schools and improving the condition of existing schools, in September last year, the Assam government announced that over 1,700 government-run elementary schools were being shut down and merged with neighbouring schools in keeping with the school 'rationalisation' recommended by Niti Aayog. Such mergers usually hurt girl students the most as they often have to travel longer distances to go to school. This results in girls being pulled out of school citing safety concerns. Parents' fear about the safety of girls in public spaces is another reason for pushing girls into early marriages.

Limited paid work opportunities for women and girls is another factor that contributes to early marriage.

### DECODING THE CHILD MARRIAGE CHALLENGE



Above statistics clearly show that the more years girls stay in school, the less likely they are to marry early.

Assam happens to be the state with the second lowest female worker population ratio of just 14.2%. According to Niti Aayog's multidimensional poverty estimates, the proportion of the population recognised as vulnerable vis-à-vis food and nutrition security under National Food Security Act as priority households is the third highest in Assam, 71.2%.

### Missing development quotient

The chief minister tweeted on February 6 that the "drive against child marriage is for public health and public welfare" as teenage pregnancy ratio in Assam was as high as 16.8%. He gave a list of districts with their proportion of teenage pregnancy. Incidentally, some of the districts with the highest proportion of teenage pregnancy also happen to be those with a high

proportion of marriages before 18 years. Many of these are also the ones in which a large number of elementary schools were shut down or merged. Poor quality and inaccessibility of facilities and services, whether in health or education, would contribute to teenage pregnancies as poorly educated women are the most vulnerable.

There have been charges that the crackdown was meant to target Muslims, which the government has denied. Though a Muslim girl can marry on completing 15 years or when she attains puberty according to Muslim personal law - a provision being challenged before the Supreme Court - child marriage is not exclusive to the community. According to the 2011 Census, 84% of the 12 million children (7.8 million girls) who married before 10 years in India were Hindus and mostly from rural India.

### No community factors here

Moreover, Jammu and Kashmir, with 68% Muslim population, has the second lowest proportion of marriages before 18 years of age (5.3%). Its proportion was low even in the NFHS survey of 2005-06, just 14.4%, an indication of the influence of socio-cultural norms on the marital age of women.

More than 46% of rural women in J&K have 10 or more years of schooling. Similarly, in Kerala with almost 27% Muslim population, the proportion of rural women in the 20-24 age group who were married before 18 was just 8.2%. The proportion of women with 10 or more years of schooling in rural Kerala was over 75%. At the same time, in Jharkhand where Muslims constitute barely 15% of the population, the proportion of marriages before 18 in the same age group is as high as 36%.

While for each individual factor contributing to child marriage there might be states doing worse than Assam, in Assam several of these factors coexist, contributing to a high proportion of marriages before 18 years of age among women. In effect, people, mostly the poorest, are being punished through the much-publicised arrests, for the state's failure to provide good quality schooling and health facilities and its inability to empower its women.

# Monitoring of health is vital for women over 30

## Monitoring of health is vital for women over 30

Women above 30 must consider these health tests to monitor their health as these tests could detect and even predict the diseases

We have all heard that age doesn't matter if your heart is full of life, while it may be true in some sense, one needs to be attentive about their age and address the complexities it brings into life. As women move into their 30s, the body instantly starts experiencing the turbulence of hormonal changes. They become more susceptible to a multitude of diseases waiting at this stretch of the age group. To stay healthy and avoid the varied forms of diseases, women above 30 years of age must undergo the following tests:

● **Heart screening through blood tests:** Your heart can skip a beat and you might not even get to know it. Many times women tend to experience racing heartbeats,



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chronic fatigue and high levels of anxiety but ignore all the symptoms of cardiovascular problems very easily. Most of the time they assume that a heavy workload is causing this trouble. Little do they know that these can be the warning signs about their heart condition. What to do then? Simple. Start with the basics. Book your blood tests either via online diagnostic platforms or simply from the one near you. These tests must include a hs-CRP (high-sensitivity C-reactive protein) test along with blood pressure, cholesterol tests, blood glucose tests, and BMI measurements to check obesity. The hs-CRP tests indicate the risk of heart attack.

● **Regular Diabetes Screening:** Diabetes is a major

concern for populations worldwide. Since diabetes can cause major health complications among women such as kidney issues, cardiovascular problems and other diseases, women above 30 must keep a thorough and regular check on their blood glucose levels. Diabetes can be screened through a variety of tests such as fasting plasma glucose test (FPG), HbA1C test (determine average blood glucose), random plasma glucose test and oral glucose tolerance test.

● **Thyroid Function Test:** Regular thyroid testing is very essential for women above 30 as with age, the risk of developing thyroid disorders increases. Doing the thyroid function test can help women take control of their health and ensure they receive the care

they need to maintain optimal thyroid function. Many bodily functions including metabolism and energy production are regulated by hormones produced by the thyroid gland. And, when the thyroid gland stops functioning normally, a wide range of symptoms can start occurring in the body including sudden weight gain or loss, mood swings, fatigue and many more. To counteract this, women above the age of 30 must get their thyroid levels checked regularly. A simple thyroid profile test through blood samples can measure the levels of thyroid-stimulating hormone (TSH) in the blood and determine whether the thyroid gland is functioning normally.

● **Check your breasts via**

**Mammography:** As you reach your 30s don't shy away from knowing your breasts in and out. Having an in-depth evaluation of your breasts via mammography tests can ease your life. Doing so will not only minimize the chances of complexities ahead but also will uncover your 'might have fear'. Mammography is one of the most crucial aspects that women above 30 should highly consider. This test compels screening of your breasts through an X-ray image to investigate symptoms or unusual findings like lumps in them. It is an important tool to rule out whether a woman suffers from breast cancer or not. In India, clinical examination is suggested to women of age 30-40 years every 6 months by an oncologist as

per the general guidelines followed in the country. For women of age between 41-55 years, clinicians advise annual mammography tests along with examinations by the oncologist. And women who have crossed the age of 55 are suggested to go for a mammogram once in 2 years. Present times are very vulnerable for women to develop breast cancer. However, critical issues can be avoided with attentive and preventive measures.

● **Cervical Cancer evaluation via Pap smear test:** As the incidence of cervical cancer in women is increasing rapidly, it has become all the more important for women above 30 to take significant measures about it. One of the vital tools that helps in evaluating cervical

cancer in women is a Pap smear test, which detects abnormal cells in the cervix before they turn cancerous. The rule of thumb says that women above 30 should undergo a Pap smear test minimum of once every 3 years. The bottom line is that women shouldn't neglect the warning signs and adopt more preventive care in their lifestyle. With continuous monitoring and evaluation by specialized doctors, many critical illnesses can be detected early, treated and even prevented. One credible diagnostic service-providing App on your phone is enough to keep your health in check. Remember, women age can be just a number if you are taking up regular essential tests.

# Centre asks CAG for spl audit of PM poshan scheme in Bengal

## Centre asks CAG for spl audit of PM Poshan Scheme in Bengal

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The Centre has asked the Comptroller and Auditor General (CAG) for a special audit of the implementation of the PM Poshan Scheme in West Bengal for the last three financial years. The audit will encompass compliance, performance and financial audit.

This comes after the Ministry of Education received reports about the alleged misuse of funds in the state under the scheme. Instances of deviations in the implementation of the scheme have also been reported in the media.

An official Press note said the CAG is empowered to conduct this audit under the Regulations on Audit and Accounts (Amendment) 2020 framed in pursuance of section 23 of the Comptroller and Auditor Generals (Duties, Powers and Conditions of



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Service) Act, 1971, (Act No 56 of 1971). Necessary corrective action will be taken by the Department based on the Audit Report by the CAG,

said the statement.

The Department of School Education and Literacy administers the PM Poshan Scheme vide which funds are provided to states, based on proposals received from them, for one hot cooked meal to eligible children in Classes I to VIII and Balvatika. The scheme benefits about 11.80 crore children in the country studying in 11.20 lakh government/government-aided schools.

# How internet of behaviour is emerging as a major tool for digital transformation

## How Internet of Behaviour is emerging as a major tool for digital transformation

PIYARAJI ARJOL

In the modern era of digitalisation where more and more firms are embracing digital transformation, user-generated data remains the cornerstone of business strategies and marketing campaigns for new-age businesses. Today, at the behest of technological advancements, companies are procuring customer data to gain valuable insights into their behaviour as they interact with the Internet of Things (IoT). With an effective and efficient analysis of data, firms can not only understand the ever-changing tastes and preferences of the customers but also cater to their specific needs with tailored products and services. A NASSCOM report suggests that a staggering 30 billion IoT devices will exist by 2025 globally. This, in turn, appears to be a valid indicator of all the priceless information pertaining to users' online activities, ranging from purchasing preferences to demographic information, modern-day trends can leverage to enhance their products and services.

Now, this quantity of data naturally piqued the interest of researchers, marketers, and product designers and it led to the advent of the Internet of Behaviour (IoB). IoB makes an effort to tap into this digital footprint trail in order to learn more about customer behavior, interests, and preferences. According to a Gartner report, by 2023, individual activities will be tracked digitally with IoT to influence 40 per cent of the global population. Therefore, the significance of IoT as well as the Internet of Behaviour (IoB) cannot be overlooked especially when they tend to generate useful insights for brands. However, as customers' demand for personalisation continues to grow, the need for enterprise businesses to curate customised IoB experiences and produce high-impact solutions has become imperative.

**IOB: UNDERSTANDING WHY IT NEEDS PERSONALISATION**

IoB is technically straightforward but psychologically challenging for businesses to implement because it necessitates conducting statistical studies that map the routine behaviors and habits of a consumer. In the

course of the process, user-controlled data is analysed from the perspective of behavioural psychology, and the analysis is used to design a user experience (UX), optimise the search experience (SXO), and determine how to market the final goods and services provided by businesses.

Information can be accessed using a behavioural Internet approach from various points of contact to investigate CX throughout the purchasing process. As a result, it is possible to comprehend the client and develop additional touch points for positive, individualised engagement. The effectiveness of a service depends on personalisation, which encourages user interaction and may even cause them to change their behaviour in order to make a purchase. In addition, McKinsey discovered in a study that companies that excel at personalisation generate 40 per cent more revenue than those who don't. Therefore, personalisation directly affects the value chain and is therefore necessary to reach the ultimate goal of improving efficiency and quality. So, how does IoB really benefit an organisation?

Let's unravel all its possibilities below:

**GAINING OPPORTUNITIES FOR MARKETING RESEARCH**

Prior to recent technological advancements, the success of a campaign was determined by metrics such as clicks, visits, sales, impressions, and so on. Companies today can use detailed consumption and behavioural data from IoT to determine the success of their campaigns. Furthermore, data obtained through IoT collection and processing can be converted into useful insights and relatively marketable strategies. Moreover, companies will be able to divide their target audience into even smaller niches for personalisation with IoB, allowing them to develop tailored offerings for their target audience.

**PROCURING ACCURATE CONSUMER INSIGHTS AND DELIVERING RICH EXPERIENCES**

IoB can be used to visualise prospective consumer interaction patterns and points of contact. Further-

more, consumer lifestyles can be studied, and rich experiences can be provided through a continuous development process that maintains a unified and coherent application interface while making navigation simple, intuitive, and valuable. IoB can also promote and motivate customers to stick to the desired behavior. This can be accomplished by enabling multi-channel personalisation via centralised replication of messages, alert transmission, and social media integration.

**IMPROVING SEO PRACTICES**

Search engines work by recognising keywords entered by users and directing them to the appropriate website. These keywords will usually increase the quality and quantity of traffic to your website. With smart IoT and AI-powered bots, search engine algorithms are focusing on intent as well as keywords. As a result, it is mapping user data with the natural language used on the website in order to create customised solutions for them. This means that in order to attract traffic, the site pages will require not only

SEO-based content but also the assistance of IoB.

**WAY FORWARD**

As we move forward, customer behaviour will continue to be heavily influenced by the digital ecosystem as the concept of "phygital" becomes increasingly popular. According to Gartner, more than 50 per cent of the world's population will be exposed to at least one IoB programme, whether commercial or governmental, by 2025. Having said that, organisations must strike a balance when using IoB to prevent personalisation from becoming provocative. For that, they will need to ensure that adequate security measures are in place when dealing with sensitive customer data. IoB, when used wisely, will have the ability to completely change how goods are marketed. As it develops more use cases and becomes an important marketing strategy for businesses, the technology will grow at an exponential rate.

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